CHAPTER 3: Contextual Analysis

3.1 Introduction
The Tshwane Inner City Development and Regeneration Strategy of 2006 recognises Pretoria’s Inner City as greatly important, both nationally and internationally. The goal of this strategy for Pretoria is, “to become the leading international African capital city of excellence that empowers the community to prosper in a safe and healthy environment” (TICP 2006:2). The Inner City, as recognized by the local municipality, is currently not functioning optimally, hence the reason a plan has been devised to enable the TICP’s goal to be reached.

3.2 The Development of Pretoria
Pretoria is located in Northern Gauteng, within the greater metropolitan area of Tshwane. It is one of the three capital cities of South Africa and is therefore considered to be a cultural and economical flagship (TICP 2006:2). It is located around 60 kilometres North of Johannesburg and the OR Tambo International Airport.

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Pretoria was established on the 16th of November 1855 on the farm called Elandspoort (Heydenrych 1999:10). Church Square is the historical centre of Pretoria and forms the heart of the Inner City. It was from this point that the grid-iron pattern, still evident today, was set out. This was done by magistrate AF Du Toit in 1860 (Heydenrych 1999:12). The layout of Pretoria is based on the traditional Roman *cardo* (running North–South) and *decumanus* (running East–West) axes concept, with Church Square at the centre.
Topography

Natural topography traditionally formed the boundaries of the city which sits between two mountain ridges to the North and South and two rivers to the East and West. Due to the presence of the ridges, when Pretoria began to grow, the expansion occurred mainly in an East-West direction, giving rise to urban sprawl. This sprawl has also extended over the Northern ridge towards the Magaliesburg.
3.3 The Development of the Pretoria Station Precinct

1855
Pretoria is proclaimed capital of the Transvaal

1864
The first post coach begins.

1875
A need for more effective trading with the East becomes important. Fund-raising by President Burger for a railway to Delagoa Bay is unsuccessful.

1877
Pretoria is now controlled by the British.

1880
A system is established by JA Vogel to signal the arrival and delivery of mail from a hill north of Elandspoort.

THE FIRST ANGLO BOER WAR TAKE PLACE.

1883
President Paul Kruger obtains funds from the Netherlands and permission from Portugal to construct a railway to Delagoa Bay.

1886
NZASM is established.

1894
The station buildings are completed, including workshops, sheds, houses for white employees to the south of the station and a compound to the west for black workers.

1896
Printing store completed (formerly a national heritage site).

J Joffe’s Hollandia Hotel is completed (now known as the Victoria Hotel).
1902
NZASM, PPSM and the Free State Rail Network become the CSAR (Central South African Railways).

1910
CSAR, Cape and Natal railway organisations merge to form SAR & H (South African Railways and Harbours).

1914
Sir Herbert Baker’s Station Building replaces NZASM station buildings.

1946
The Sunken Garden in front of the Station Building is constructed in preparation for the Royal visit in 1947.

1958
The old NZASM Head Office and Director’s House are demolished to make way for the new SAR & H headquarters (named the NZASM Hof).

SALVOKOP continues to expand.

1980
The NZASM Hof is renovated.

1981
The administrative organisation of railways nation-wide become known as SATS (South African Transport Services).

1990
TRANSNET is established a public company and begins managing the railways, ports, roads and pipelines of the country.
The Pretoria Station Precinct is richly layered in history that dates back to the founding of the City of Pretoria. It is evident that the area not only possesses an abundance of architectural history, but also economic, social and political history.

These aspects should not be considered lightly when developing within this area. The context, both physical and metaphysical should be taken into consideration when designing.

Studying the history of the Pretoria Station Precinct will encourage a design solution that is richly layered and multi-faceted and therefore responsive to its surrounding context.
3.4 The Pretoria Station Precinct Today

Pretoria Station lies directly to the south of Church Square at the point where Paul Kruger Street culminates. This transport node functions as the southern gateway to the CBD. Paul Kruger Street forms both a physical and visual axis, acting as the primary spine from which secondary activities stem (Fig 3.17).
3.5 Impact of the Gautrain Project

3.5.1 Background
The Gautrain project involves the creation of a rapid rail link between the OR Tambo International Airport, Johannesburg and Pretoria (Fig a). The aim of this first-class transportation system is to decrease the number of vehicles currently using the free-ways along the routes in question. Some 150,000 cars use these free-way routes each and every day as people travel between the various destinations (www.gautrain.co.za 2009). Many of these commuters travel from Pretoria to Johannesburg and back everyday for work purposes. The Gautrain will be particularly beneficial for those that travelling long distances, as it will reduce traveling time, therefore improving the quality of life of these people.

The aim of the Gautrain initiative is to:

- Create a sense of place around each new station,
- To promote African culture through the use of archetypal images (such as the Acacia tree),
- To encourage craft and retail and
- To formulate themes for various areas of the province.

From the above objectives, it is clear to see that the introduction of Gautrain Stations to Gauteng cities, intends to create catalytic areas of extensive development in and around their vicinity. The Pretoria Station Precinct will be influence positively, as the land in this area will increase in value, buildings will be renovated and renewal of this ‘gateway’ into the CBD is bound to occur.

This node will therefore be emphasized as an area from which many pedestrians enter and leave the city. These pedestrians will be made up of daily commuters, occasional visitors and first-time tourist/commuters. Facilities therefore need to cater for the needs of the above users efficiently.

The GAUTRAIN - An Urban Catalyst

The new Gautrain Pretoria Station is seen as a catalyst that will promote urban rejuvenation throughout the Pretoria Station Precinct and beyond. It is predicted that the Station Precinct will become an important commercial and economical node on the edge of the city center. It will also form the point of departure from which tourists will be able to explore many attractions in and around the city.
3.5.2 Location
The Gautrain Pretoria Station is located to the East of the existing Sir Herbert Baker Building, next to the existing metro-rail platforms and parallel to the Old Coach-Washing Shed (See Fig. 3.20 above). Below are a few images of how the Gautrain Pretoria Station is intended to function within the existing Pretoria Station Fabric.

![Fig 3.21 VIEW OF THE GAUTRAIN STATION IN CONTEXT.](www.gautrain.co.za)

![Fig 3.22 VIEW OF THE GAUTRAIN STATION IN RELATION TO THE ADJACENT STRUCTURES.](www.gautrain.co.za)

![Fig 3.23 INTERIOR PERSPECTIVE OF THE NEW STATION BUILDING LEADING TO THE GAUTRAIN PLATFORMS.](www.gautrain.co.za)
3.5.3 Physical Impacts
The Pretoria Gautrain Station will bring people who previously used their own vehicles or a number of different modes of transport successively in order to get to the CBD each day. It has been predicted that some 55,000 people will be using the station on a daily basis. The already busy Pretoria Station will need to cater for a new transportation culture and will therefore have to adapt to be able to absorb the changes. An integration of existing transportation services will have to take place at the Pretoria Station for this node to function optimally. A plan, which is part of the existing Inner City Development Framework, has already been put in place, aims to provide a shuttle service between the Gautrain Station and particular points throughout the city. A limited parking facility will be provided at the Gautrain Pretoria Station, as well as a drop-off area.

Other than a massive influx of people to the Station Precinct, the actual construction of the Gautrain Pretoria Station line will have a particular impact on the rich heritage of this area. A Heritage Impact Assessment (HIA) had been conducted. This assessment focused on heritage issues, both tangible and intangible. The HIA concluded that although the structural integrity of historical buildings would not be directly affected, the 'spirit of place', or 'genus loci', would be greatly disturbed, specifically in Salvokop, the area to the South of the existing railway lines.

3.6 Impact of the Bus Rapid Transport (BRT) System

The Bus Rapid Transport System is a system that aims to eradicate the legacy of the apartheid spatial planning system by providing fast and efficient bus transport to previously disadvantage communities, forced to live far from their places of work. People living on the fringes of the city, earning less than R1600 a month, spend an average of R186 a month (Vorster 2009), on public transport. It also takes these people between 37 and 78 minutes to travel to work, in the inner city, via various transport means. According to Hilton Vorster, the municipal representative leading the Tshwane BRT project, 63% of previously disadvantaged households do not own a private motor vehicle. The majority of people needing to get to the inner city from the townships use minibus-taxi services. These services are expensive and often unsafe. Minibus-taxi do not cater for individuals with disabilities, who often find themselves isolated, unable to get into the city and therefore unable to find work.

The Tshwane BRT system will run from the East (Mamelodi) to Pretoria Station, from the North-West (Mabopane) to Belle Ombre Station and between the two Stations themselves (see Fig 3.24 adjacent). The vision for the BRT Pretoria Station Terminal is included below (Fig 3.25 and 3.26) and will be taken into consideration when proposing a Spatial Development Framework for the area.

Fig 3.24 THE PROPOSED TSHWANE BRT LINES. (Vorster 2009)

The BRT Vision

Fig 3.25 PRETORIA STATION PLAN. (Vorster 2009)

Fig 3.26 AN ARTISTS INTERPRETATION OF THE PROPOSED PRETORIA STATION BRT TERMINAL. (Vorster 2009)
3.6 Transport Palimpsest

All of the modes of transport and possible future development has been overlaid in Fig 3.27 above.

It is clear to see from the image above that the Pretoria Station is an area where many different modes of transport converge. It is for this reason that the spatial planning, on an urban scale is so vital in ensuring the optimal functioning of the Pretoria Station.
Existing framework proposals have been considered and incorporated in the development of a Station Precinct Framework Proposal. These include:

3.7.1) The Tshwane Inner City Development and Regeneration Strategy (TISP),
3.7.2) Re Kgabisa Tshwane Proposal,
3.7.3) Paul Kruger Street Framework and
3.7.4) The Salvokop Development Framework.

3.7 Influences & Considerations

Existing Framework 1

3.7.1 Tshwane Inner City Development and Regeneration Strategy

This Development Framework lays the foundation for the regeneration of Pretoria’s Inner City. This strategy envisions the CBD as “the functional and symbolic heart of the capital city” (TISP 2006:2), as well as a place “where all aspects of being [South] African can be celebrated” (TISP 2006:2).

The challenges set aside by the TISP which are relevant to this scheme include:

- A clear Inner City identity needs to be established.
- High profile developments should be attracted.
- Provision for tourism, entertainment and recreational facilities must be made.
- A dedicated and efficient public transport system is to be put into operation.
- The Inner City Environment is to be made pedestrian friendly, with safety as a priority.

The approach to achieving these challenges is one of “catalytic intervention” (TISP 2006:3), meaning that specific and purposeful projects are proposed to address certain short-comings.

A number of building blocks were defined in order to divide what seems to be a huge task into smaller more manageable goals. The Pretoria Station Precinct falls under Building Block 7: Movement. This building block concentrates on the management and development of transportation nodes and system within the Inner City. It aims at making public transport as convenient as possible by creating links between major destinations.
3.7.2 Re Kgabisa Tshwane Proposal

This is a project driven by the Department of Public Works (DPW). The main objective of this initiative is to ensure a good standard of accommodation for private investors and governmental agencies throughout the city (www.rekgabisa.tshwane.gov.za).

In order to accomplish this, the Re Kgabisa Tshwane Project has set up a city-wide framework of structuring elements that has the following vision:

**Existing Framework 2**

- **Fig 3.28 - 1. Linking the Union Buildings, Church Square and Freedom Park through the establishment of characteristic corridors.** (www.rekgabisa.tshwane.gov.za)

- **Fig 3.29 - 2. Defining 7 precincts within the Inner City.** Pretoria Station falls within the proposed Museum Park Precinct. (www.rekgabisa.tshwane.gov.za)

- **Fig 3.30 - 3. Improving public and private transport systems.** (www.rekgabisa.tshwane.gov.za)

- **Fig 3.31 - 4. Creating a network of linked public spaces.** (www.rekgabisa.tshwane.gov.za)

This project aims also at consolidating the image of the city as an African capital, by focusing on sustainability, accessibility and growth. The Re Kgabisa Tshwane Project hopes to draw young professionals into the city, therefore promoting gentrification.
3.7.3 Paul Kruger Street Framework

This Spatial Development Framework (SDF) was compiled by the University of Pretoria by request from the City Council. Paul Kruger Street terminates in the South at the Pretoria Station.

These are outlined below:

1. The Paul Kruger Street Extension is to be closed. This road extension was built in 1967 and served, for a time, as an interim measure to link the Inner City to Fountains Circle, prior to the development of Nelson Mandela Drive in (then Edward Street) in 1997 (UP 2000). Today, the presence of Nelson Mandela Drive provides the necessary accessibility into the city’s CBD, therefore eliminating the need for the Paul Kruger Street Extension to remain. This is justified by the drastic decrease in vehicles since Nelson Mandela Drive’s construction (UP 2000).

2. Buildings of historical importance should be retained.

3. The historical sunken garden/public square is to be re-instated and then maintained.

4. The area is to be made pedestrian friendly, including the intersection between Paul Kruger Street, Scheiding Street and the Station Forecourt.

5. New buildings are to front onto the square with active facades that related to the character of the existing fabric.

6. Parking is to be removed from the Station’s forecourt and provided at an unobtrusive location. A drop-off and pick-up facility is to be accommodated here instead.

This framework identifies the Pretoria Station area as one of the most important in the city, due to its location and historical significance (UP 2000). It is therefore necessary to study the guidelines that this framework puts forward with regard to the relevant area.
3.7.4 Salvokop Framework

This framework was developed in 2003 by GAPP Architects, in conjunction with mma architects. It focuses primarily on the re-integration of the Salvokop and Freedom Park area into the city’s fabric, while optimizing land value for investors and respecting buildings of historical value. There are three concepts that guide development within this framework.

Existing Framework 4

These include:

1. Integrating the area into its surroundings by optimizing existing access points and creating new ones where necessary. This will aid in promoting movement and increasing legibility. These points will further be emphasised by the strategic positioning of ‘gateways’ into the site.

2. A series of ‘special places’ will be created. These places will have a heritage focus and so form a ‘ceremonial route’ between the Inner City, Salvokop and the Freedom Park Development.

3. Functions, that are able to capitalize from the existing railway works, will be integrated by land uses that complement both the environment and the heritage value of the site.

Fig 3.33 Diagram summarising the key concepts of the Salvokop Development Framework. (GAPP 2004)

An analysis of the study area will be conducted in the pages that follow. This analysis will aid in determining weak points within the Pretoria Station’s urban fabric, and will help to identify possible opportunities for future development.
The proposed group Spatial Development Framework seeks to re-establish the Pretoria Station Precinct as one of the major entrance and transport nodes of the edge of the Inner City. This being the ultimate goal, it is first necessary to conduct an analysis of the area so as to understand its present downsides.

It is evident from the figure ground study that the city’s existing urban fabric degrades towards the south of the CBD around the station. This is due to a decrease in density to the south of Scheiding Street, the presence of the railway line to the South-West and Nelson Mandela Drive to the East. The station site sits at the point where the city grid shifts substantially. The railway line forms a physical barrier between the developments of Salvokop, Freedom Park and the inner city. Due to this separation, much of the land adjacent to the railway line is classified as ‘lost space’ and is not being used optimally. Nelson Mandela Drive forms a barrier between the Pretoria Station Precinct and the educational facilities of UNISA just opposite. A similar situation occurs here, as the historical Bureau Sports Ground is currently under-utilised (Fig 3.34).
The land use in the station area is diverse. It is important to note however, the large amount of land that has been set aside for transportation functions. The current Bureau Sports Ground is currently zoned as educational. This area is however highly underutilised. It is also interesting to note the dramatic changes in mass and density on either side of Scheiding Street, as well as South of the railway line (Fig 3.35).
Pedestrian safety should be carefully considered when designing in an area dominated by vehicular traffic.

It becomes evident from this diagram, the degree to which the railway line forms a physical barrier between the North and South. It is also clearly visible the pedestrian and vehicle circulation clashes resulting in a public safety concern. Also, most informal traders have located their stalls where there is a great amount of pedestrian movement (Fig 3.36).
Observations

There are both strong physical and visual axes present. The physical axes occur as a result of the grid layout. The Station area is linked directly from North to South by the Paul Kruger Street spine. The East-West link of Scheiding Street is however less defined. It terminates and becomes Bosman Street to the West. The visual axes increase the character and legibility. Currently, they allow the user to orientate themselves within the urban fabric. Views from the Station include the main UNISA complex to the South East, Selvokop and Freedom Park to the South and South West, as well as Church Square up the North-South axis (Fig 3.37).

Contextual Analysis
Describing Burger's Park, Heinie Heydenrych, author of Discover Pretoria, states that "this park, a few street locks from the city centre; a tranquil haven almost in the heart of the city...it is a beautiful park worth a visit." (Heydenrych 1999)

This diagram reflects the existing open green spaces, but shows also that these are not well linked to one another. Some of these existing open spaces, particularly the historical sunken garden at the Station's forecourt, are in a state of disrepair. Much open space around the Station is derelict and under-developed (Fig 3.38).

Also noted on the above diagram, is the 'genius loci' for each of the different areas making up the Pretoria Station Precinct being studied. It is clear to see that the study area offers a wide range of characteristics within the Pretoria Station context. This gives rise to interesting opportunities as a range of vastly varying experiences is possible within a relatively small area (Fig 3.38).
A number of problems are evident following this study:

- The Station environment is not legible and it is difficult to orientate oneself in and around the Station.
- There is complete congestion (vehicles overpowering pedestrian movement) in this area.
- Many amenities in the station’s vicinity arose out of need (Bosman Street Taxi Rank) and were not planned so as to fit into the existing urban fabric of the city.
- The public garden serves more as a barrier, is not used optimally, and is poorly maintained and dangerous.
- Transportation amenities are found all over the site and do not form part of a ‘coherent whole’.
- The railway line forms a conspicuous barrier between the North and South.
- The connection to the Salvokop residences & Freedom Park remains uncelebrated.
- There is currently no pedestrian link to the UNISA Sunnyside campus.

Fig 3.39 reflects the various different layers of the analysis that have been conducted. This layering exercise allows one to observe all of the aspects that have been studied in relation to one another. The problems that have been identified above form a point from which to start when proposing a Spatial Development Framework for the precinct.
3.9 Proposed Group Spatial Development Framework

3.9.1 Approach

This framework proposes to densify the area surrounding the station by developing new building masses, while respecting the identity of existing, prominent and historically relevant buildings. Due to the introduction of the GAUTRIAN Station, the land surrounding the Pretoria Station will become incredibly valuable and sought after by investors. It is for this reason that land usage needs to be optimised.

"Implode growth onto strategically structured vacant sites within the city" (Dewar & Uitenboorgardt 1991)

**a) The Continuation of the Urban Fabric**

This concept involves the development of new structures around Station Square (re-instanting its historical significance), between the currently under-utilized Bureau Sports Fields and the Aries River, as well as to the South where the car dealerships are currently located. (Fig 3.40)

**b) Districts - Three Zoning Belts**

The new built fabric has been zoned into areas that are to support transport functions (shown in orange), those that are to include hotel, residential and Offices functions, becoming primarily mixed-use developments (shown in yellow) and those that are to be geared towards educational services (shown in pink). (Fig 3.40)

**c) A ‘gateway’ building is proposed at the Southern tip of the precinct.** This is to be somewhat of an iconic structure, capturing the essence of the area’s character. An urban ‘foyer’ building is proposed adjacent to the existing Sir Herbert Baker Building. This building will serve as an entry and departure for pedestrians, walking point to and from Salvokop and Freedom Park. Its objective will be to bridge the physical divide created by the railway line and celebrate the link From North to South. (Fig 3.40)
d) The Creation of Links with Other Precincts

The North–South link between Pretoria Station and Church Square is already prominent. This street however, needs to be developed into a pedestrian-friendly environment. The proposals for this link can be found in the Paul Kruger Street Framework, developed by the University of Pretoria in 2000. It is proposed that the East-West Scheiding Street link be pedestrianised and extended prominently over Nelson Mandela Drive so as to link the two sides of the educational district. A vehicle free boulevard is proposed from Burger’s Park in the North to the ‘gateway’ building at the Southern tip of the precinct. This boulevard aims to create a vibrant café culture through the use of arcades and squares of different characters. The inclusion of this link will consolidate this part of the precinct and offer opportunities for social interaction. A new vehicle link and prominent pedestrian links are to provide access over the railway lines, each terminating in a public square or public service building. (Fig 3.41)
To alleviate congestion, it is important that the pick-up and drop-off of commuters occurs quickly and efficiently. Spaces must be provided that allow for this and promote a constant flow of traffic in and out of the Station at peak times.

e) Circulation
A proposal has been made to close the Paul Kruger Street Extension so as to re-instate the historical Station site in its entirety. Parking has been moved away from the Station Forecourt (which will now be a ‘drop-off’ and ‘pick-up’ zone only). The circulation system now operates as a combination of ring roads. A primary ring road is formed when entering and exiting the new GAUTRAIN Station. The exit of this ring road is located just to the East of the old Audit building. Buses, taxis and other vehicles not wishing to park, will be entitled to make use of the secondary ring road that passes this way. Traffic calming is proposed at major intersections to ensure pedestrian safety. This will be done by means of raising the road surface and articulating the use of different surface materials. (Fig 3.42)
f) Inclusion of a Public Space Network

This network incorporated the already existing public open spaces. Although many of these are currently not optimised, it is believed that with good design, they can be. These existing spaces have been tied into the proposed space network of the Salvokop Development Framework compiled by GAPP and mma Architects in 2003. New spaces have been proposed in the area of the café culture boulevard and the green of East-West links, along pedestrian friendly streets in order to link major public spaces has been proposed. This network allows areas for people to move (along street spines) and areas for people to pause and rest (within a larger public space). (Fig 3.43)
“Urban environments should promote the maximum positive freedom for individuals to act...the creation of urban structure should be so judged as to release the energies and talents of many people...it is the complexity of environment in turn which reflects and contributes to the richness of human experience” (Dewar and Uyttebogaart 1991:19).

As was done when the analysis was performed, the figure above shows the various separate proposals made on one diagram so as to understand the proposal in its totality (Fig 3.44).

It is believed that the application of this framework addresses the problems that were identified in the analysis and will promote the creation of a multi-layered, diverse environment that offers its users and visitors many different opportunities and exciting choices.
3.9.2 Framework Summary
The key points are summarised below:

• Continuation and densification of the urban fabric to the South of Scheiding Street.

• Defining of the historical square in front of the Old Station building, through the articulation of built fabric along its edges.

• The zoning of the precinct into 3 different belts (transport, residential–hotel–offices and educational).

• Pronouncing entry point through the use of iconic design.

• Removal of the Paul Kruger Street Extension.

• The creation of a more prominent link to the East over Nelson Mandela Drive

• Improvement of both vehicle and pedestrian links to Salvokop and Freedom Park.

• The inclusion of a North–South café boulevard in the residential–hotel–office belt.

• Developing ring road systems as a means of vehicular circulation through the area.

• Optimising and defining a public open space system.

The Way Forward

Having performed an analysis and compiled a Spatial Development Framework proposal for the Pretoria Station Area, a thorough understanding of the context in which the proposed building will be situated has been achieved. It is now possible to make decisions with regards to the programme of the building, as well as its location and orientation within the proposed Spatial Development Framework. The presence of a Spatial Development Framework proposal allows one to continually check whether the development of the design is on the correct path and contributing to the goals of the Pretoria Station Precinct.