

CHAPTER

4

*Healing is a matter of time, but it is sometimes also
a matter of opportunity.*

(Hippocrates, c. 400BC)



INTRODUCTION

The Pretoria Inner City (PIC) and its Central Business District (CBD) are recognized as important centres in South Africa, both nationally and internationally. As the capital city of South Africa, housing the Union Buildings, Urban Design Proposals have been designed to highlight a vision of creating an “international African capital city of excellence that empowers the community to prosper in a safe and healthy environment” (TICP 2006,1). As it presently stands, the Pretoria CBD does not provide this, however with the ideas of the Tshwane Inner City Plan (TICP) in mind, proposals have been made that will optimize the visions set for the capital city.

In this chapter, various layers of the context are investigated: Country wide - South Africa, Provincial - Gauteng, Municipal - Tshwane, City - Pretoria, Study area and site - Minnaar Street. Previously laid out Urban Design Frameworks as well as the surrounding area and site will be analysed and investigated to provide possible solutions to the problems that the Pretoria CBD currently faces.

The above-mentioned investigation will highlight the strengths, weaknesses, opportunities as well as the threats that face the dissertation proposal and the surrounding area that the design will form a part of. Finally, possible solutions will be synthesized into a Group Urban Design Framework that provides for the highlighted problems.

SOUTH AFRICA

Located in the southern most region of Africa, South Africa is a unique African country with 3 capital cities (Cape Town - legislative capital, Pretoria - Administrative capital & Bloemfontein - judicial capital) each of which have equal cultural and economic importance.

Originally inhabited by various tribal communities, European populations have slowly been inhabiting the country since 1487 creating a strong cultural diversity within the country which plays host to an integrated, democratic government and 11 official languages.

GAUTENG

Situated in the heart of the Highveld, Gauteng is the smallest yet most densely populated of the 9 provinces in South Africa. It is considered the economic hub of South Africa contributing heavily to the financial, manufacturing, transport, technology and telecommunication sectors.

Playing host to the administrative capital city of Pretoria, this high altitude, grassland/savannah province is also the only landlocked province in South Africa that is not bordered by another country.



fig. 4.2 Original map of the Pretoria CBD designed according to the Roman Cardu Decomanus

TSHWANE

Located in Northern Gauteng, Tshwane is the metropolitan area in which 13 former city and town municipalities synthesized to form a municipality under one mayoral system. The Pretoria CBD forms the central, main node of the municipality and is surrounded by various competing nodes which include; Atteridgeville, Mamelodi, Menlyn and Centurion, amongst others.

“Tshwane” derives from the Setswana name for the Apies River, which flows through the city of Pretoria forming a barrier to the east of the CBD (See fig. 4.2).

PRETORIA CBD

Within the heart of the metropolitan area of Tshwane, and located about 60km north of Johannesburg and the OR Tambo International Airport, the Pretoria CBD is the area where all roads, railway lines and other transport routes from Tshwane and the surrounding areas diverge, highlighting this portion as an important and vibrant cultural and economic node.

Designed according to the Roman Cardu Decomanus by A.F Du Toit, Pretoria was based on the Graaff Reinet urban design with Church Square at the centre.

THE SITE

The site chosen for the dissertation (Erf 1/3279) is a vacant erf within the Pretoria CBD in an area commonly called the Burgers Park District. The site is surrounded by buildings on three sides and by Minnaar Street (Plot number 238) to the south.

Although the surrounding area is rich in historic fabric, the site itself is weak in historical context; to the west is City Hall and the Traansvaal Museum, to the east is Burgers Park, to the North is Church Square, and to the south is Melrose House and the Pretoria Train Station.

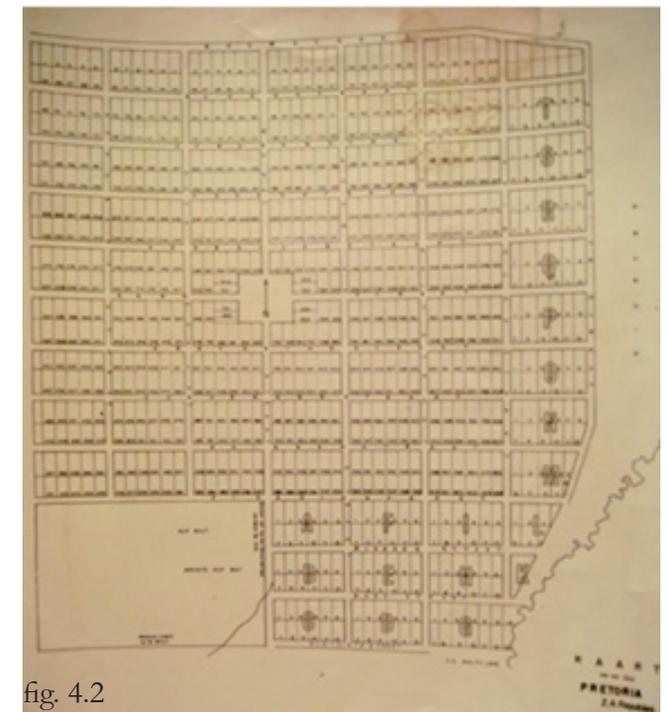
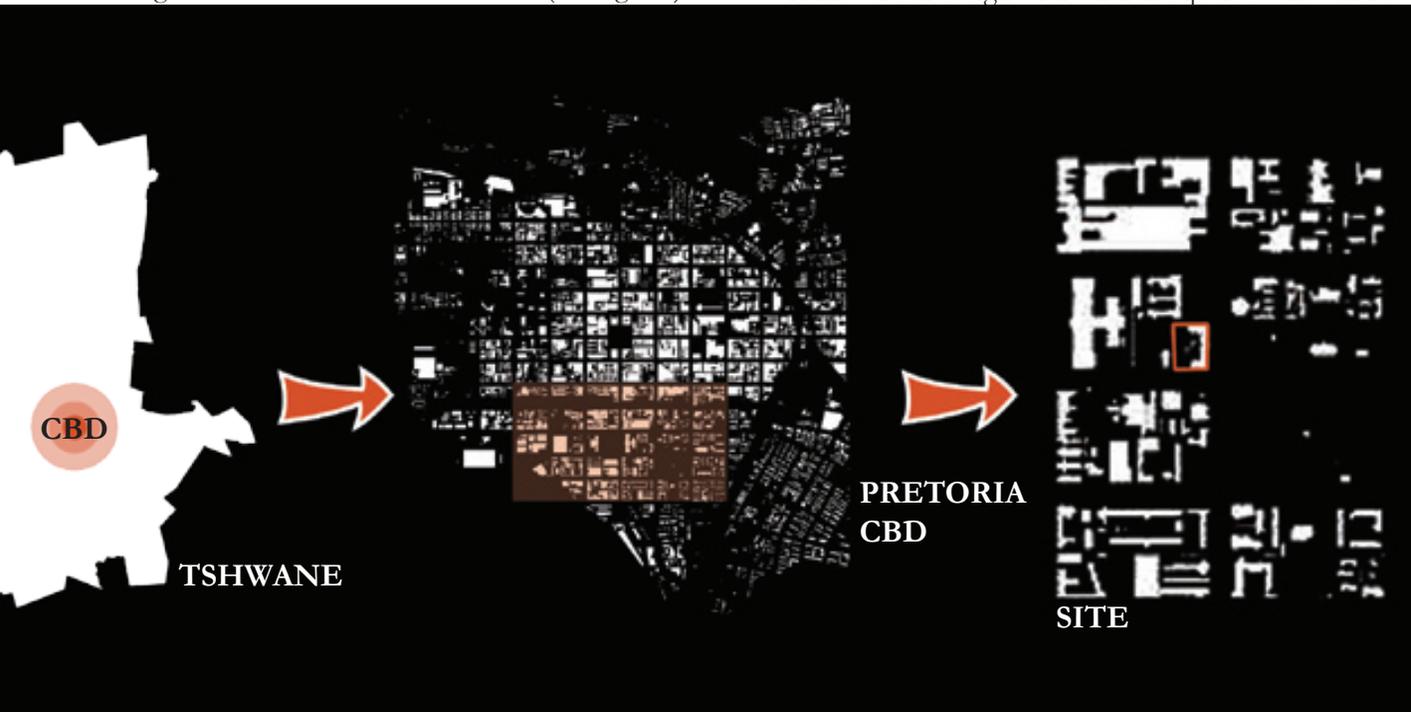


fig. 4.2

fig. 4.3 Table of facts and figures
 fig. 4.4 Competing nodes, mountains and roads of the Tshwane District

CONTEXTUAL ANALYSIS - TSHWANE

TSHWANE - GENERAL

The Pretoria CBD forms the central main node of the municipality of Tshwane and is surrounded by various competing nodes such as; Atteridgeville, Mamelodi, Menly and Centurion (See fig. 4.4).

Main roads, energy and resources come from outer parts of Tshwane and converge on Central Tshwane in the Pretoria CBD (See fig. 4.5)

FACTS & FIGURES	City	Pretoria
	Status	Administrative Capital RSA
	Founding date	16 November 1855
	Location (city centre)	25°45'12"S 28°11'13"E
	Altitude	1350m above sea level
	Population (2007)	2,345,908
	Municipality	City of Tshwane
	Municipal Area	1,644km ²
	Average annual rainfall	674 mm
	Average temperatures	Summer - 15-28° Winter - 6-23°
	Travelling distances	OR Tambo Int. Airport - 48km
		Johannesburg - 63km
		Durban - 618km
Cape Town - 1464km		
Bloemfontein - 456km Nelspruit - 322km		

fig. 4.3

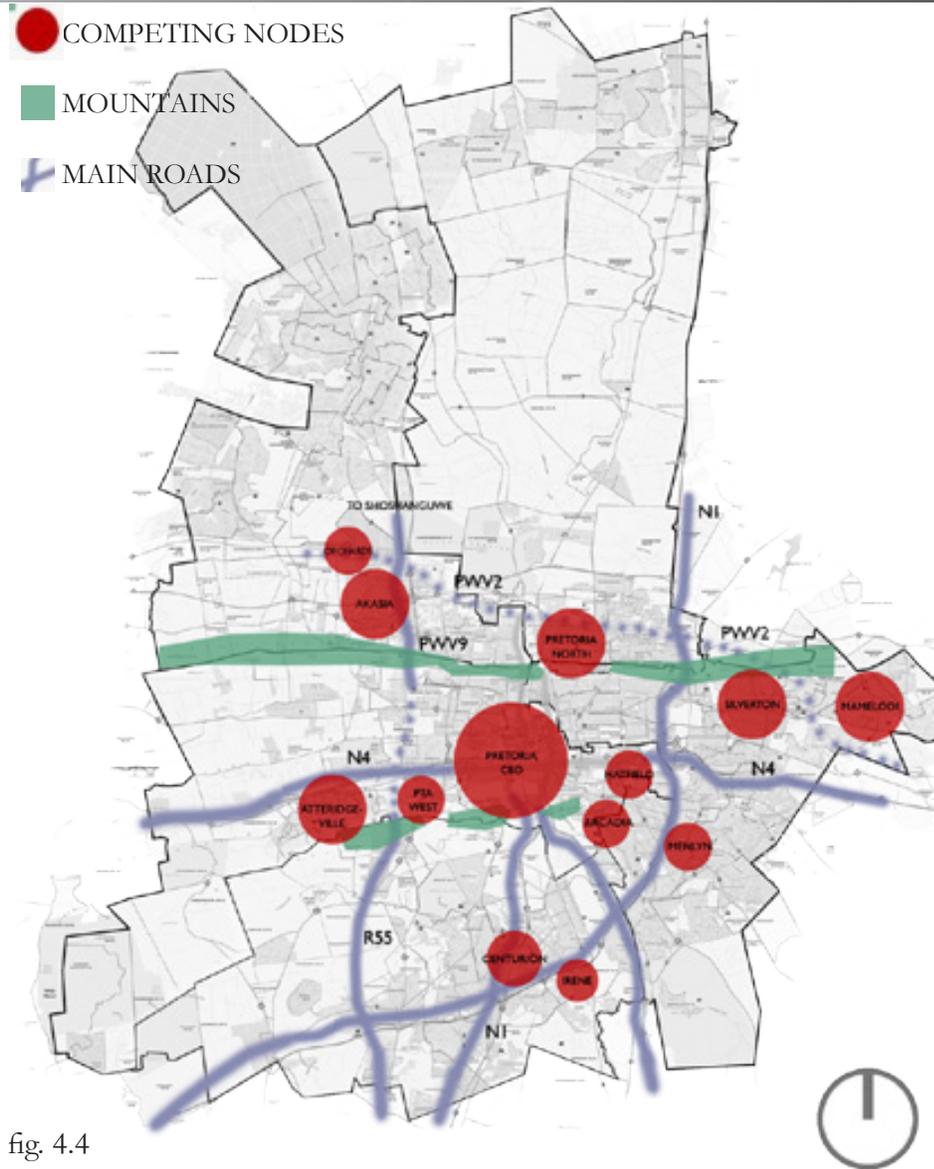


fig. 4.4



fig. 4.5

fig. 4.5 Converging of all transport routes in the Pretoria CBD

fig. 4.6 Nollie map of the Pretoria CBD



fig. 4.6

fig. 4.7 Partial map of Tshwane showing the urban sprawl of the Pretoria CBD

CONTEXTUAL ANALYSIS - PRETORIA CBD

PRETORIA CBD - GENERAL

The first homestead, established in 1840, in the area of Pretoria was the home of J.G.S. Bronkhorst. In 1854, the Boer family residents of Elandspoord proclaimed the village the 'kerkplaas' for central Transvaal, making it the focal point for nagmaals, baptisms and weddings.

On 16 November 1855, the town of Pretoria Philadelphia (the brotherhood of Pretoria) was established, named after Andries Pretorius, victor of the Battle of Blood River. At the time it had a population of about 300 people.

In 1860, Pretoria was declared the official capital of the independent Voortrekker republic of the Transvaal and in 1888 J.D. Cilliers, a resident and avid gardener, imported Jacaranda trees from Rio de Janeiro to plant in his *Myrtle Grove Garden*. The Jacaranda trees flourished in the city and as a result the city is to this day known as the 'Jacaranda City', with about 50 000 Jacarandas.

Historically, Church Square has always been the central hub of Pretoria, being the place where the first church was built, markets were held and where the grid-iron pattern that the city blocks follow was set out from by magistrate A.F DuToit by following the Roman Cardu Decomanus design of the city in 1860.

Pretoria is now established as the administrative capital of South Africa and houses the central government in the Union Buildings, created to match the need of a central political city.

fig. 4.7

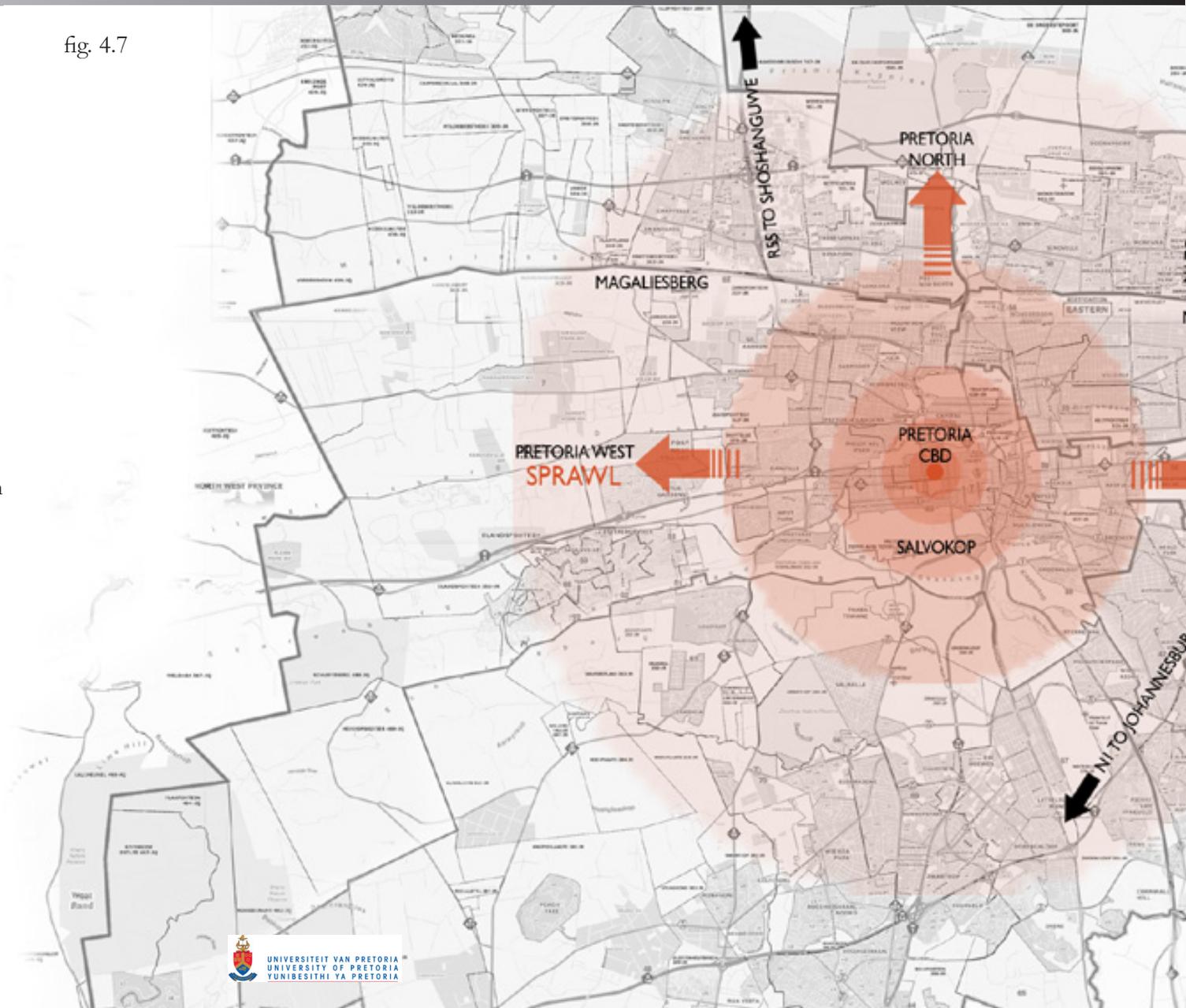
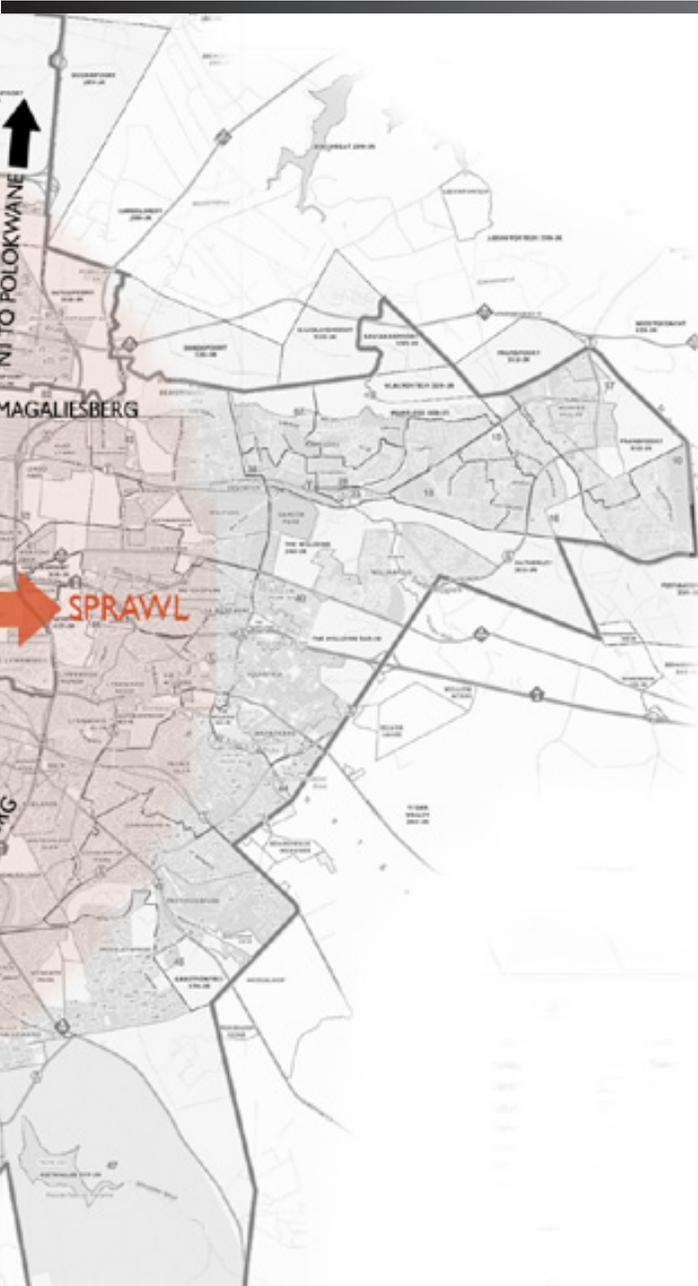


fig. 4.8 Skyline of the Pretoria CBD between the power station and Salvokop

fig. 4.9 Skyline of the Pretoria CBD between Salvokop and Groenkloof



PRETORIA CBD - TOPOGRAPHY

Historically, Pretoria fell within the natural boundaries of the landscape; to the north and south by the mountain ridges (Magaliesberg and Salvokop), and to the east by the Apies River. Due to the two mountain ridges to the north and south of the CBD, when Pretoria grew in size, expansion occurred mainly on the east-west axis.

The development to the west of the CBD is mainly industrial, with the majority of the eastern side being residential. This has created urban sprawl throughout the city (See fig. 4.7) and has seen the creation of smaller competing commercial nodes in areas that surround the CBD, for example Menlyn and Atteridgeville (See fig. 4.4).



fig. 4.8

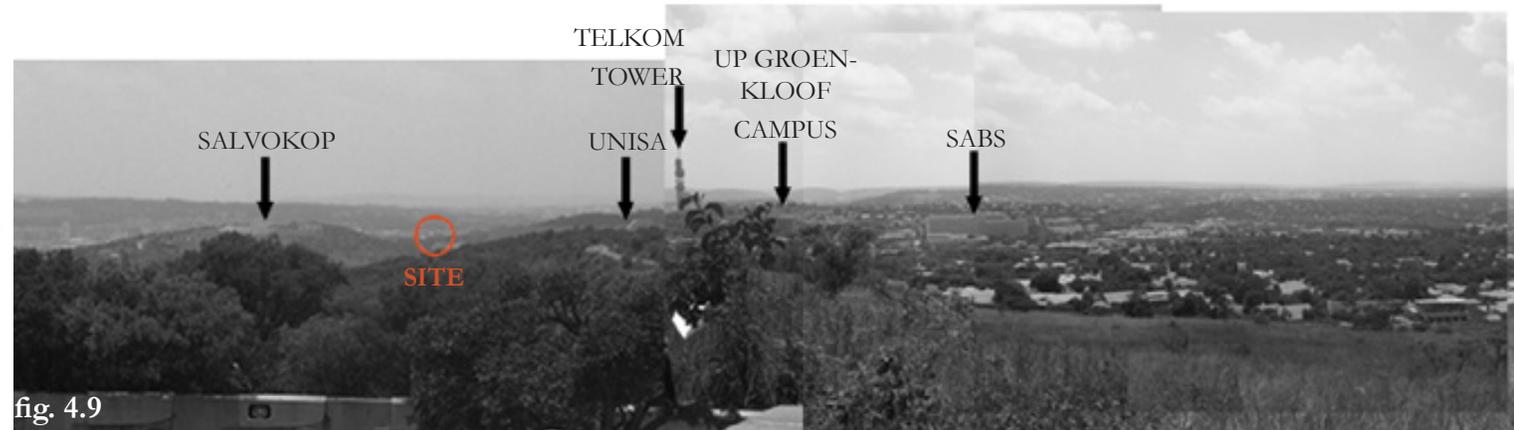


fig. 4.9

fig. 4.10 View of main entrance to Burgers Park from Andries St.

fig. 4.11 The Burgers Park District (study area) with 100m walking circles from the park

CONTEXTUAL ANALYSIS - STUDY AREA

STUDY AREA - THE BURGERS PARK DISTRICT

The study area for the framework lies two blocks south of Church Square and ends one block north of the Pretoria Train Station. The study area does not include these two historic elements, however, with Paul Kruger Street running through the middle of the study area; the historic and current link between these two spaces is highlighted. To the east, the study area reaches one block east of Burgers Park and on the west the border lies one block west of Potgieter Road.

FUTURE DEVELOPMENT - BURGERS PARK DISTRICT

The Burgers Park District of Pretoria has a rich, layered history which dates back to before the city was officially established. The area has an abundance of architectural, military, social and political history.

When developing in this area, these features (physical and metaphysical context) should all be taken into consideration and new layers should be added to this rich history that has encompassed the area in the past 150 years. A design which takes these into account would result in a multi-layered, rich environment which truly responds and reacts to the context on all levels.



fig. 4.10

fig. 4.11

- fig. 4.12 Church Square
- fig. 4.13 Portrait of President Thomas Francois Burgers
- fig. 4.14 Concentration camp during the First Anglo Boer War
- fig. 4.15 Melrose House

- fig. 4.16 The NZASM Pretoria Station buildings
- fig. 4.17 Guards outside Melrose House
- fig. 4.18 The Treaty of Vereeniging
- fig. 4.19 Sir Herbert Baker's Station building
- fig. 4.20 Pretoria City Hall

- fig. 4.21 Entrance to Burgers Park from Andries Street
- fig. 4.22 In 2001, the Pretoria Station building was burnt down by angry commuters
- fig. 4.23 Freedom Park
- fig. 4.24 The Transvaal Museum

THE DEVELOPMENT OF THE BURGERS PARK DISTRICT Pre-1855

The site on which Burgers Park currently stands was used as a camping area by the Voortrekkers before the city was established

1855
Pretoria is proclaimed capital of the Transvaal

1874
President Thomas Francois Burgers selects land to establish a Botanical Garden.

1877
Pretoria controlled by British rule

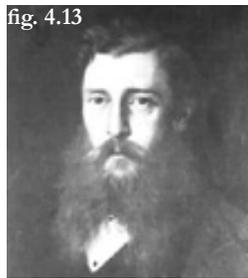
1880
First Anglo Boer War

1886
Gold Rush
Melrose House, a Victorian mansion on the southern side of Burger's Park, is built by George Heys.

1892
George Heys and botanist James Hunter design and complete the layout of Burgers Park, commissioned with money made in the Gold Rush. The Transvaal Museum is established as the "Staatsmuseum".

1894
Pretoria Station buildings are completed

1900
Melrose house used as headquarters for the British Forces in the 2nd Boer War.



1902
Treaty of Vereeniging signed at Melrose House, ending the Second Boer War

1904
Original caretakers house at Burgers Park is replaced with a small Art Nouveau house.

1910
Kiosk building at Burgers Park is designed by Vivian Sydney Rees-Poole built to coincide with a visit from the Prince of Wales.

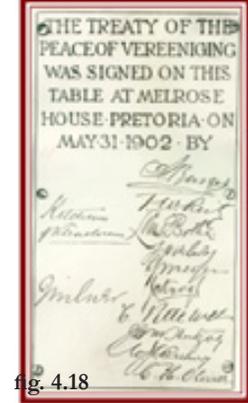
1914
Sir Herbert Baker's Station building replaces NZASM station buildings

1931
Pretoria City Hall is built (designed by FG McIntosh) with Pretorius Square in the front to celebrate the achievement of Pretoria's city status.

1946
The sunken garden in front of Pretoria Station is constructed.

1947
Bandstand erected and used by the 24th Regiment of Robert's Heights and for official receptions for Prime Minister General Louis Botha.

1950
Statue of President Burgers created by Moses Kottler, commissioned by the city council, and sponsored by one of his daughters Mrs. Mary Adelene Jorissen.



1969
Scottish Monument on the western side of the park is commissioned to commemorate the South African Scottish Regiment who died in WWI.

1970
Burgers Park Proclaimed a national monument.

1999
Burgers Park is the national winner of the larger parks category in the Townscape Millennium Open Spaces competition.

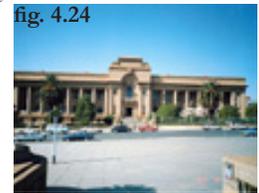
Transvaal Museum is amalgamated with the Pretoria-based National Cultural History Museum (African Window) and the South African National Museum for Military History (situated in Johannesburg) on 1 April 1999 to form the Northern Flagship Institution.

2001
Paul Kruger Street Development Framework is established. Freedom Park Development Framework created.

Pretoria Station building burnt down by angry commuters.

2002
Pretoria Station re-built. Development of Freedom Park is underway.

2004
Freedom Park reaches completion.



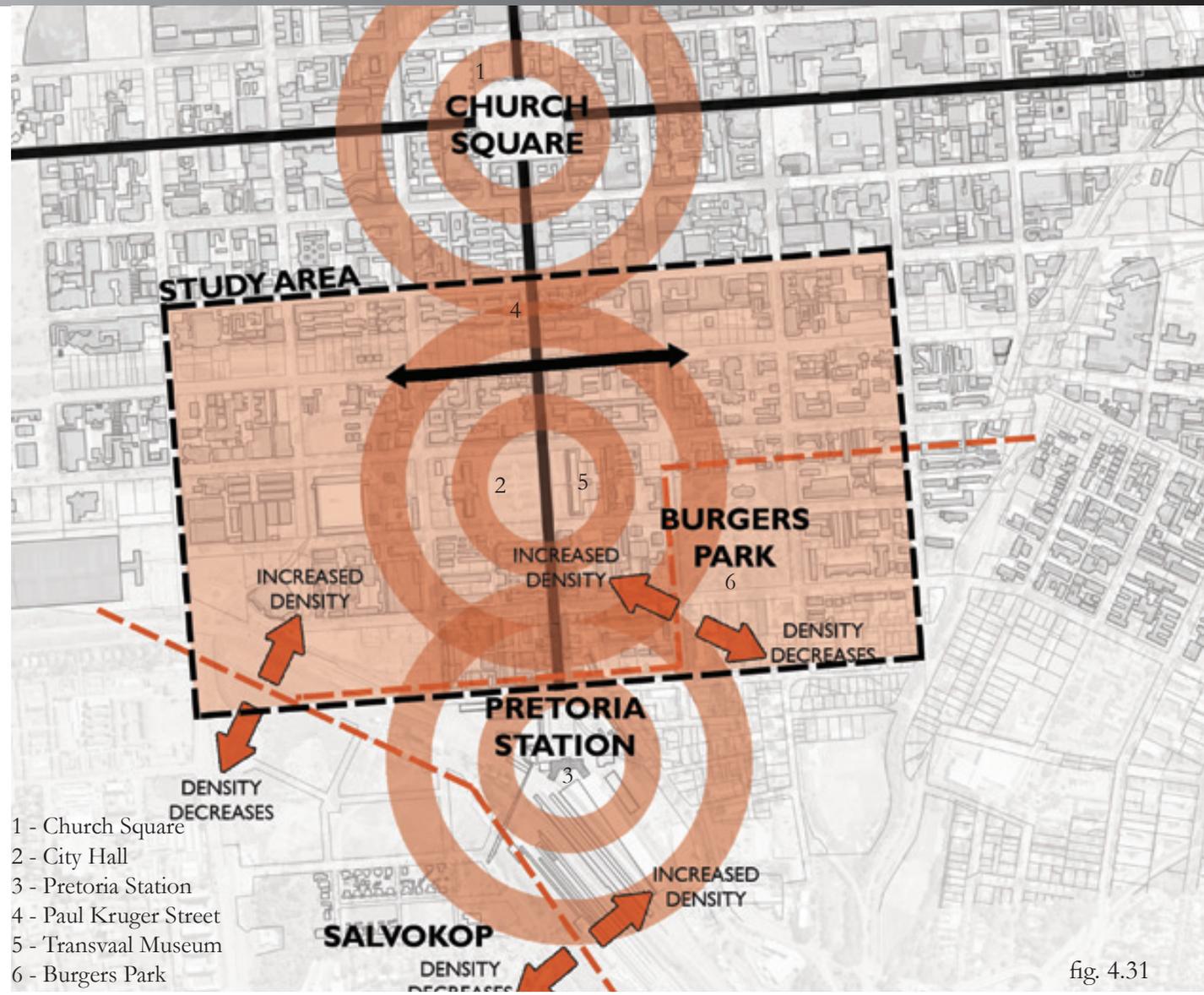
- fig. 4.25 Church Square
- fig. 4.26 City Hall
- fig. 4.27 Pretoria Station
- fig. 4.28 Paul Kruger Street
- fig. 4.29 Transvaal Museum

- fig. 4.30 Burgers Park
- fig. 4.31 Figureground study of the study area showing 100m walking circles from various points down Paul Kruger Street

STUDY AREA - FIGUREGROUND STUDY

As seen in the figureground alongside, it is clear to see how the urban fabric of the Pretoria CBD ‘sprawls’ as you move further south and west of Church Square. This has resulted in a decrease in density within the western and southern areas of the CBD with physical barriers and low diversity of land use appearing to be a cause of concern.

The diagram also highlights Paul Kruger Street in the centre of the study area and shows 100m walking circles from various points down the street. The centre of each circle is located at each of the three major public spaces along the route and perhaps more importantly, the locations of the BRT stations.



- 1 - Church Square
- 2 - City Hall
- 3 - Pretoria Station
- 4 - Paul Kruger Street
- 5 - Transvaal Museum
- 6 - Burgers Park

fig. 4.31

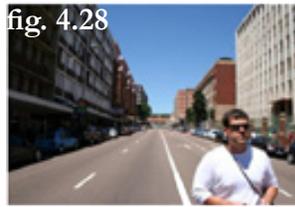


fig. 4.32 Land use and density within the study area

STUDY AREA - LAND USE & DENSITY

A diverse array of land-use is evident in the Burgers Park District. Paul Kruger Street is rich in commercial activity with much industrial development to the west. Burgers Park is a well utilized and maintained social green space with rich residential development on the outskirts. This variety attracts an assortment of people, creating a rich diversity of individuals in the area, which matches the rich diversity country-wide.

There are however, little/no mixed use buildings and cross-programmed developments within the area, creating spaces that do not function on a 24 hour cycle, resulting in many unsafe and under utilized spaces. There is also a lack of activity on ground floor level with many buildings not responding to their immediate environment, including the streets they open on to and to the pedestrian movement that passes.

Skinner Street is a problem as it creates a barrier within the CBD, splitting it in two. This needs to be addressed to allow more efficient pedestrian movement within the city and encourage development along this busy street.

The railway line to the south of the Burgers Park District creates a physical barrier between the CBD and the developments on Salvokop and Freedom Park, and Nelson Mandela Drive creates a barrier between the CBD and development to the east. These physical barriers result in 'lost space' being created along them with little development happening here and the land therefore not being utilized to its full potential.

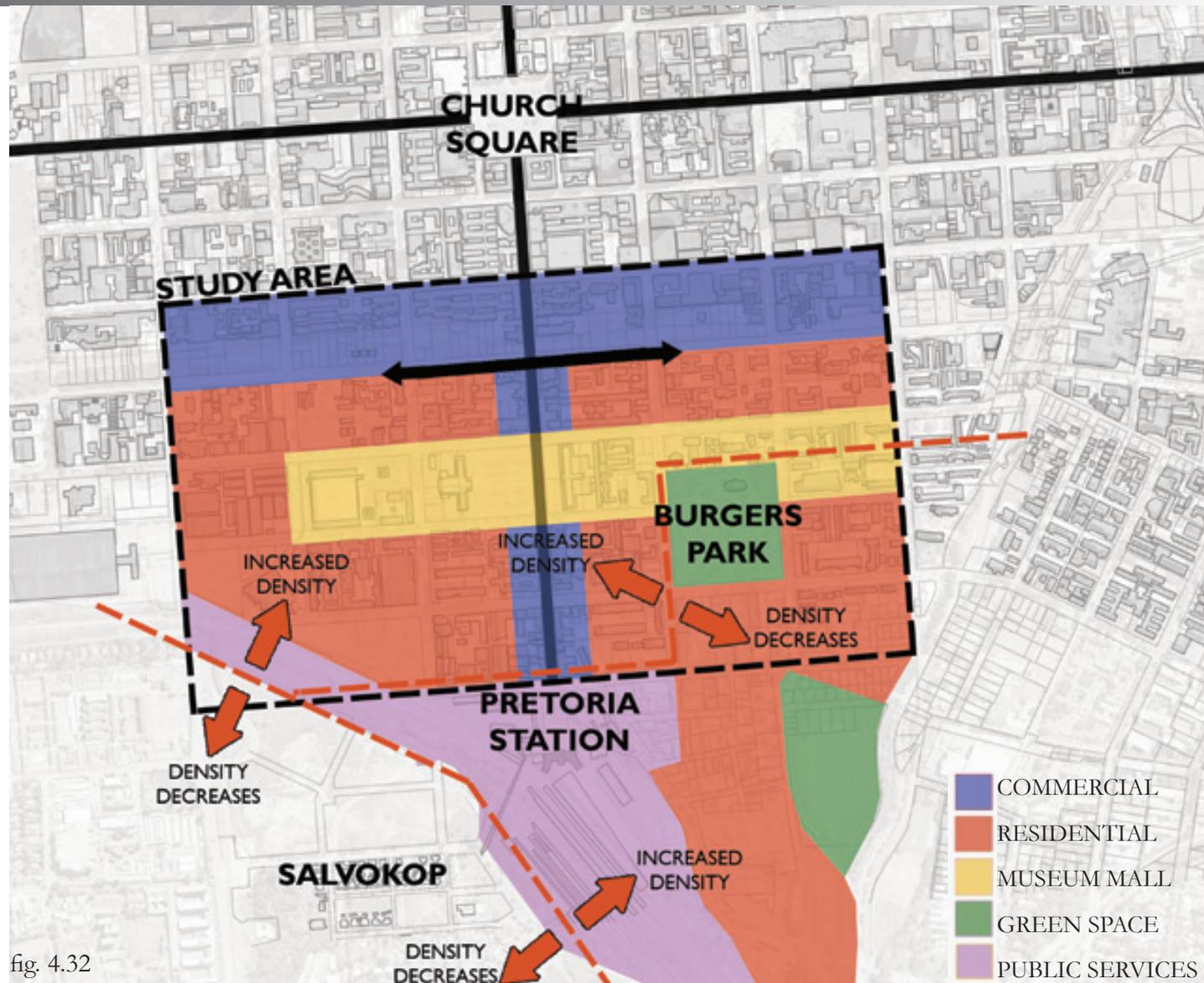


fig. 4.32

STUDY AREA - CIRCULATION

The Burgers Park District is an area easy to access within the Pretoria CBD and is close to all public and private transport nodes and routes to, from and through the city. The Station lies just to the south of the study area where Metro trains, the Gautrain and the BRT routes will coincide. The proposed BRT Route flows along Paul Kruger Street which will allow more pedestrian activity along this street, however it may create a safety concern.

The majority of city streets are unfriendly to pedestrian movement and are predominantly designed for vehicular access/movement.

The flat topography of the CBD allows for easy pedestrian and cyclist movement within the city, and the streets should be designed primarily to accommodate the influx of such pedestrian movement. Minnaar, Visagie and Bosman Streets currently incorporate physical strengths within their design for pedestrian movement, however they are under utilized due to the low density and diversity of activities within the area. It should be noted that informal trading within the city coincides with the major pedestrian paths.

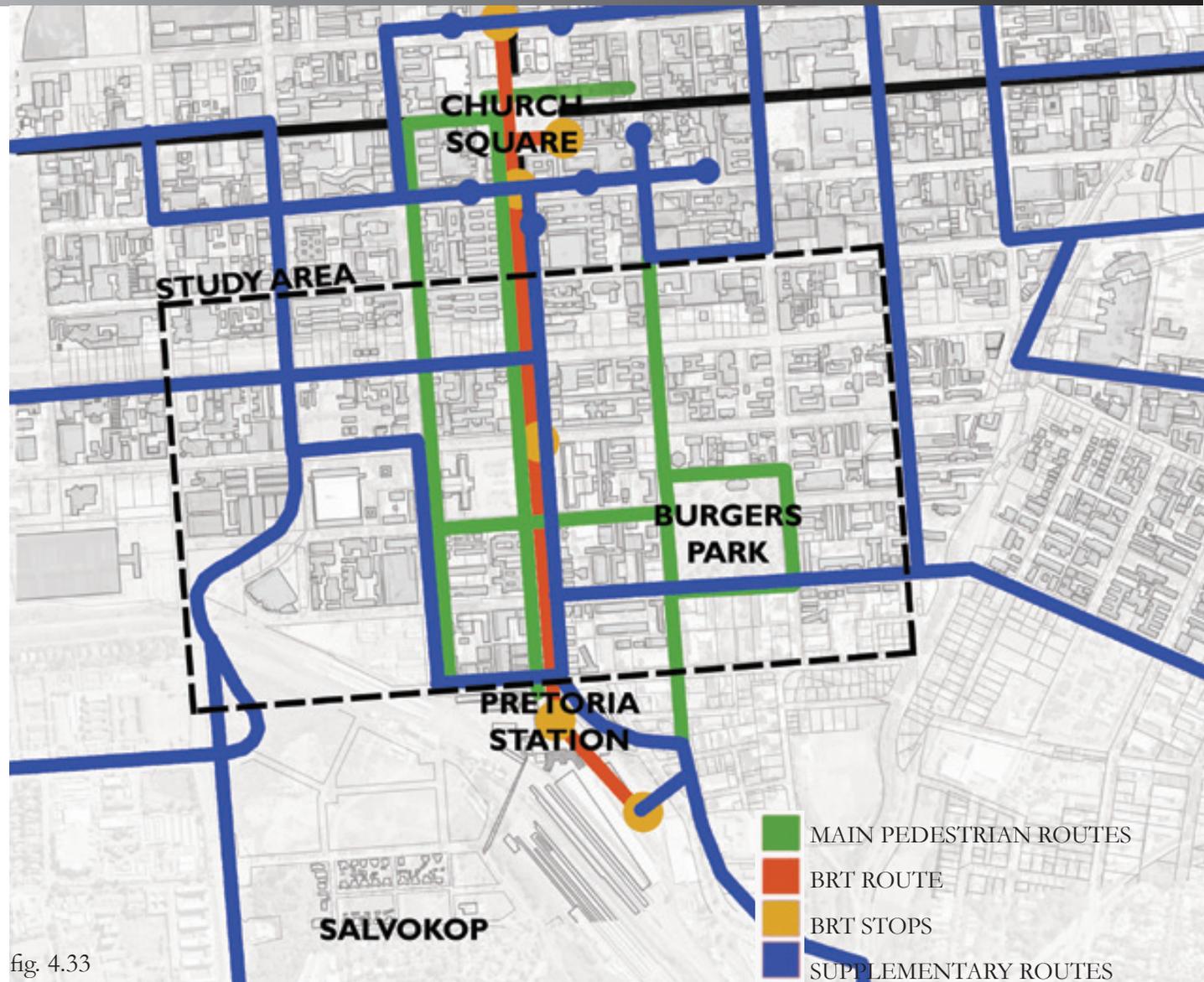


fig. 4.33

fig. 4.34 Visual and physical links within the study area and the surrounds

STUDY AREA - VISUAL AND PHYSICAL LINKS

There are strong visual as well as physical links within the Burgers Park District.

Visual axes allow for clearly identifying and creating character and legibility within the city. They allow the user to orientate oneself within the city as well as creating a sense of direction and clarity.

Strong visual links within the study area are the links created along Paul Kruger Street (Government Walk) between Church Square and the Pretoria Station as well as views of Salvokop, Freedom Park and Unisa from this point. However, a large signboard has been placed in front of the station which hinders the views.

Historically, clearly defined physical links were created within the Pretoria CBD through the use of the Cardo Decomanus city design of a clearly defined grid iron layout.

Church Square is clearly linked to the Station by the commercial hub of Paul Kruger Street; however there are streets like Scheiding Street which pose an unclear link from east to west. Skinner Street (also an east-west link) poses a clearly defined vehicular route through the city, however it shows problems on a pedestrian level as it is a barrier and unfriendly street for pedestrians to cross.

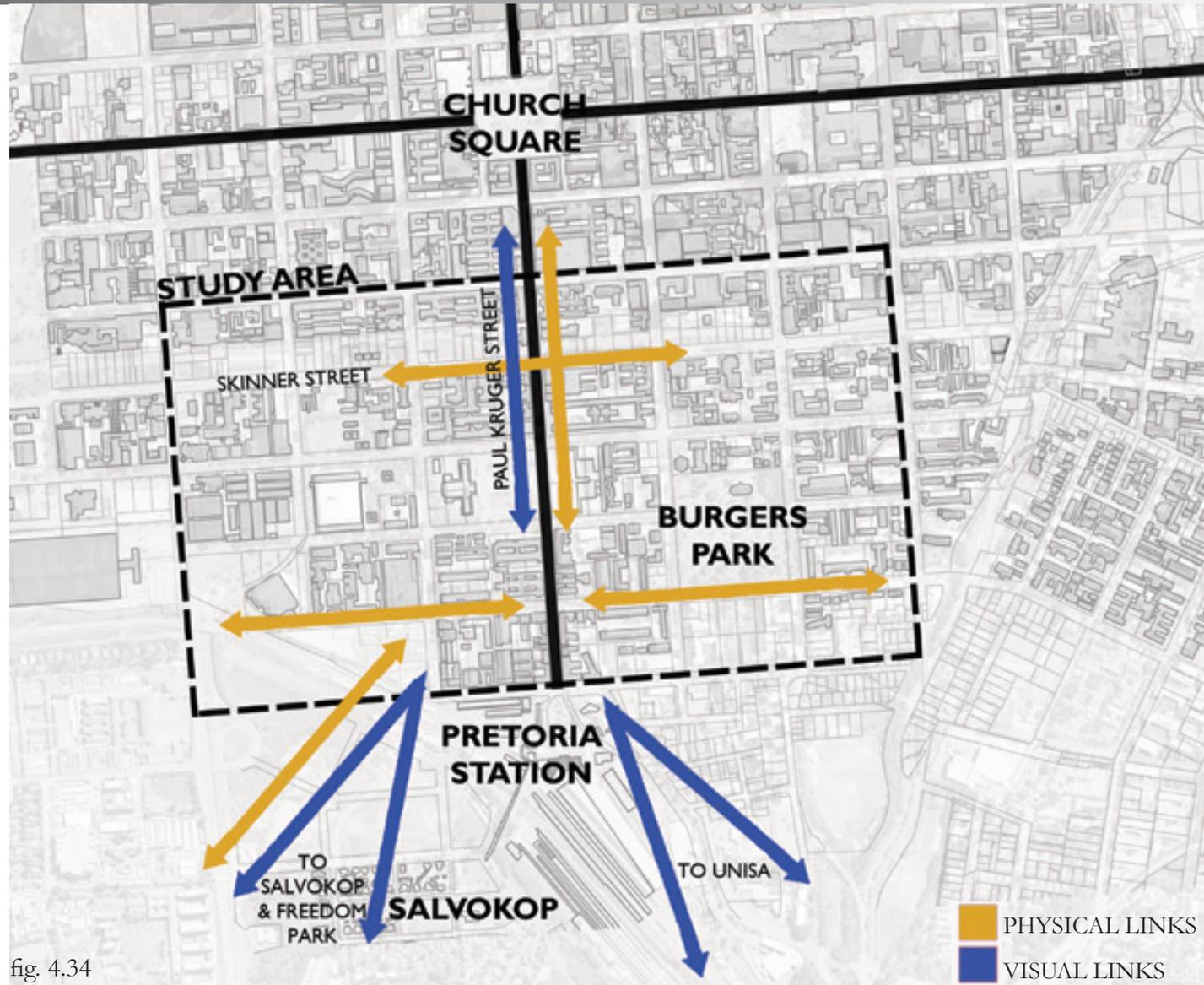


fig. 4.34

fig. 4.35 Features of significance within and around the study area

STUDY AREA - FEATURES OF SIGNIFICANCE

There are a variety of features of significance within the area, ranging from open public spaces to places of historical significance and even places of lush greenery (oases) within the city.

On a social level, there is a rich diversity in interactive and cultural activities with locations that encourage local and tourist activity within the area. “*Museum Mall*” is such an area within the Burgers Park District which most notably houses the Cultural Museum, City Hall and The Transvaal Museum, which attracts a variety of people.

Burgers Park is one of the few well utilized and maintained gardens/green spaces within the CBD allowing a lush, calm and therapeutic experience.

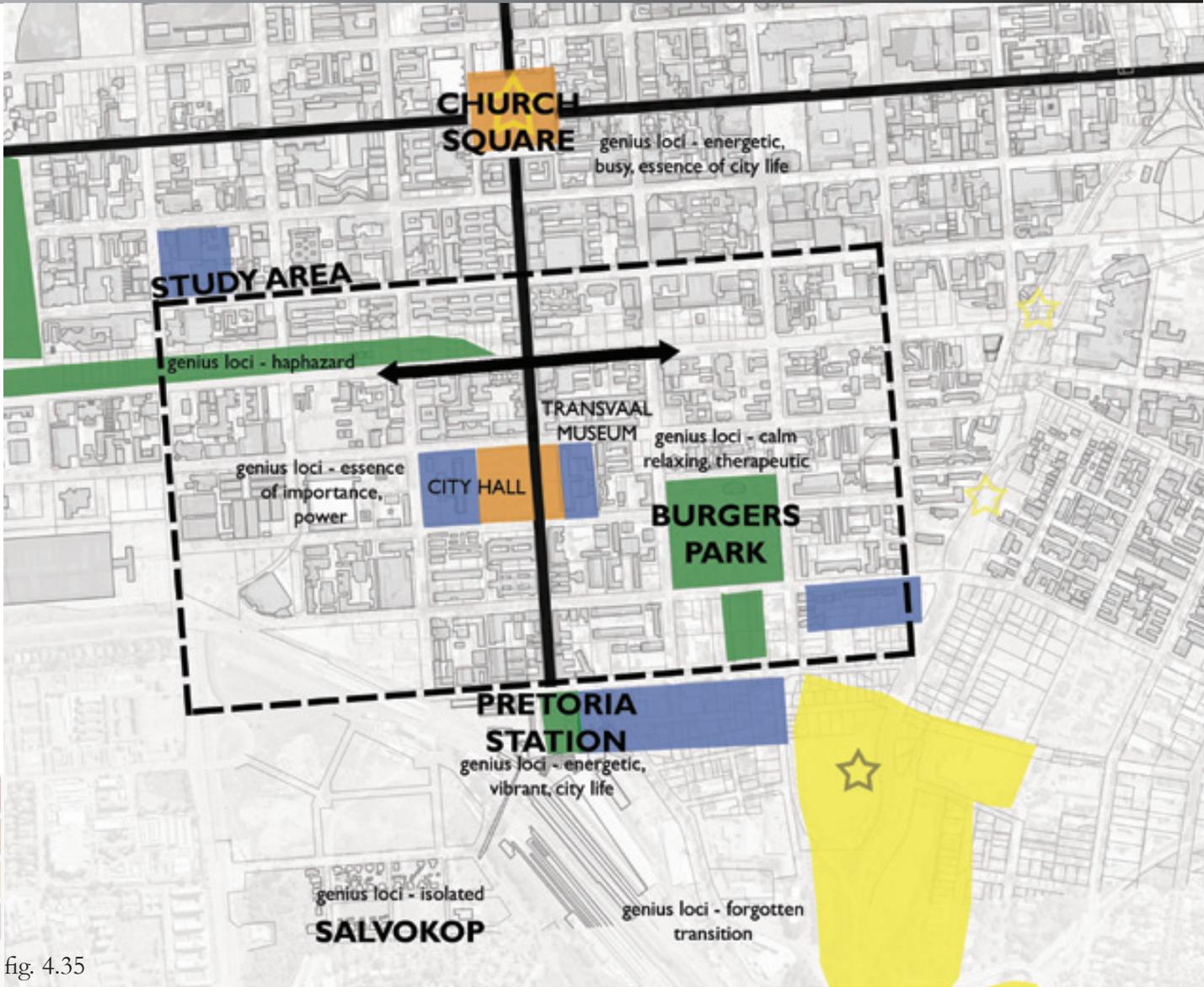


fig. 4.36 Historic buildings and uses within and around the study area

STUDY AREA - HISTORIC BUILDINGS & USES

There is a strong heritage component mixed with a diverse range of more current buildings within the area, however, many of the heritage protected buildings in this area are dilapidated and are in need of some attention. These buildings not only cause problems for the overall look and feel of the city, they also cause problems with regards to increasing the density within the CBD. They are often buildings of a lower coverage and height to the density required within the city causing a break in the city fabric and commercial activity of busy streets.

Unfortunately, there is a lack of interest in developing within the Burgers Park District and to the west of the CBD. A lack of money within the city council restricts upgrading or development of the buildings that they currently occupy or own. This is a problem as they own/occupy many buildings in this area.

Some of the well maintained and architecturally rich tourist destinations found in this area are: City Hall, the Transvaal Museum, Pretoria Station, Melrose House, Burgers Park (Pretoria's first botanical gardens housing various historical buildings and monuments).

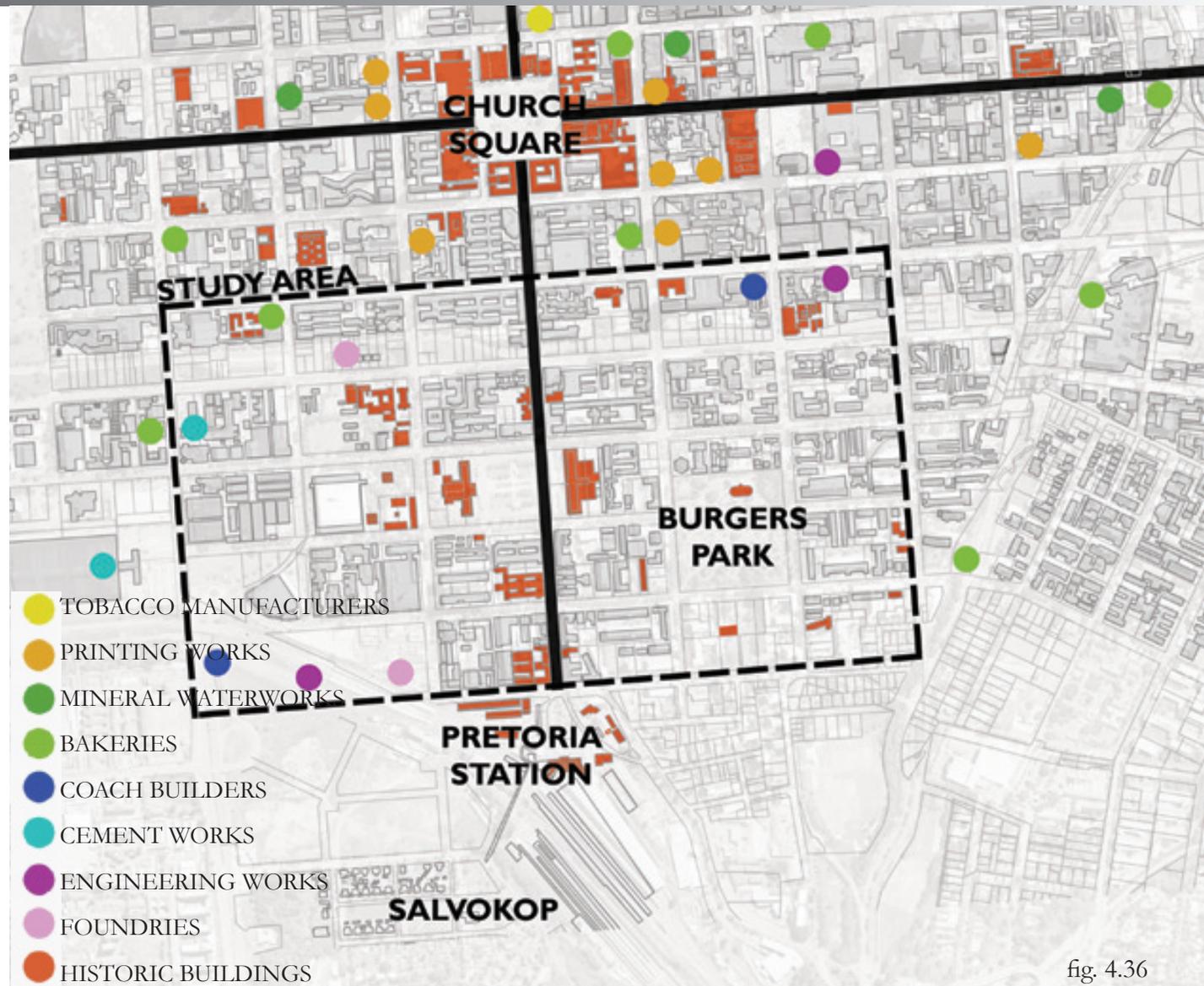


fig. 4.36

fig. 4.37 Various buildings within the Pretoria CBD highlighting the varying rhythm of scale and form in window and door openings

fig. 4.38 The consistent facade demarcations in the study area - 1

**STUDY AREA - SCALE & FORM
WINDOWS AND DOORS**

There is a variety of scale and form found within the Pretoria CBD. This allows for a multi-layered rich environment that shows and celebrates the various levels of the city.



fig. 4.37

fig. 4.39 The consistent facade demarcations in the study area - 2

fig. 4.40 Existing street section through Paul Kruger Street

fig. 4.41 Existing street section through Minnaar Street

**STUDY AREA - SCALE & FORM
FACADE DEMARCATIONS**

Although there is a variety of scale and form throughout the city, the facades of the Pretoria CBD allow for a level of consistency with facade demarcations and proportions. As is seen below, floor to floor heights are similar and familiar between the different buildings in the city.



fig. 4.38

fig. 4.39

fig. 4.42 Existing Street section through Skinner Street

**STUDY AREA - SITING
EXISTING STREET SECTIONS**

At present, the road interface is a harsh environment and is designed mainly for vehicular use. Attention needs to be paid to making the street environment pedestrian friendly and an enjoyable environment to be walking in. Fences around buildings need to be removed to create an interactive street environment with active ground floor interfaces. More green pockets will also have to be created within walking distance of each other along these pedestrian routes.

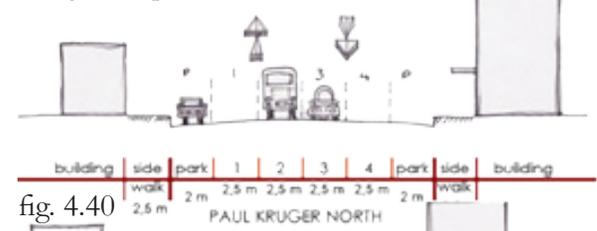


fig. 4.40

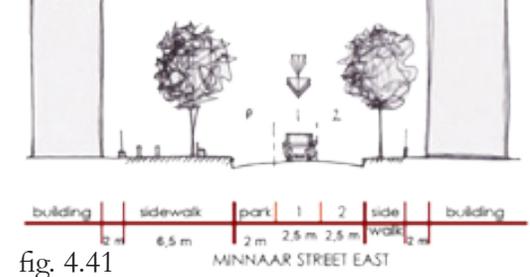


fig. 4.41

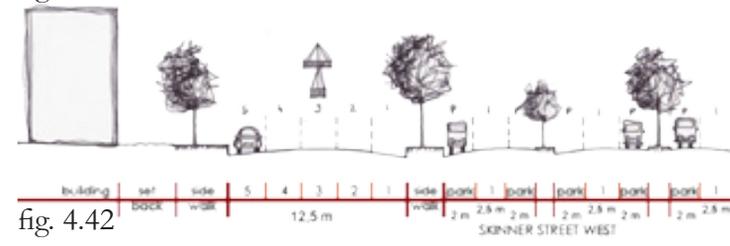


fig. 4.42

- fig. 4.43 Existing section through a typical 4 storey building
- fig. 4.44 Existing section through a typical 1 storey building
- fig. 4.45 Existing section through a 3 storey building

- fig. 4.46 Existing section through a typical 9 storey building
- fig. 4.47 Existing section through a high rise building
- fig. 4.48 There is a variety of paving materials through out the Pretoria CBD

- fig. 4.49 There is a variety of materials, colours and textures through the built fabric of the CBD

STUDY AREA - SITING

EXISTING BUILDING SECTIONS

Currently, there is a diverse range of building sections and scales in the study area ranging from single storey to multi-storey buildings. This creates an under utilized density factor within the city that needs to be overcome.

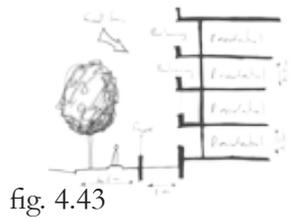


fig. 4.43

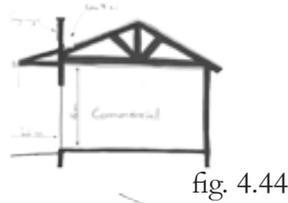


fig. 4.44



fig. 4.46



fig. 4.45

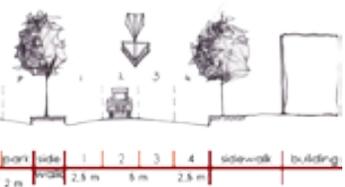


fig. 4.47

STUDY AREA - SITING

PAVING

The sidewalk surfaces in the study area range in types and texture. The continuous level changes in the sidewalk makes it an unfriendly environment for pedestrian traffic, however the different paving materials creates a rich tapestry in the city. Minnaar, Visagie and Bosman Streets have physical strengths towards this goal.



fig. 4.48

STUDY AREA - SITING

MATERIALS, COLOURS & TEXTURES

There are a variety of textures, materials and colours within the Pretoria CBD, highlighting the multi-layered, culturally diverse history of Pretoria and South Africa. These materials, textures and colours need to be considered in adding another layer to the city fabric.

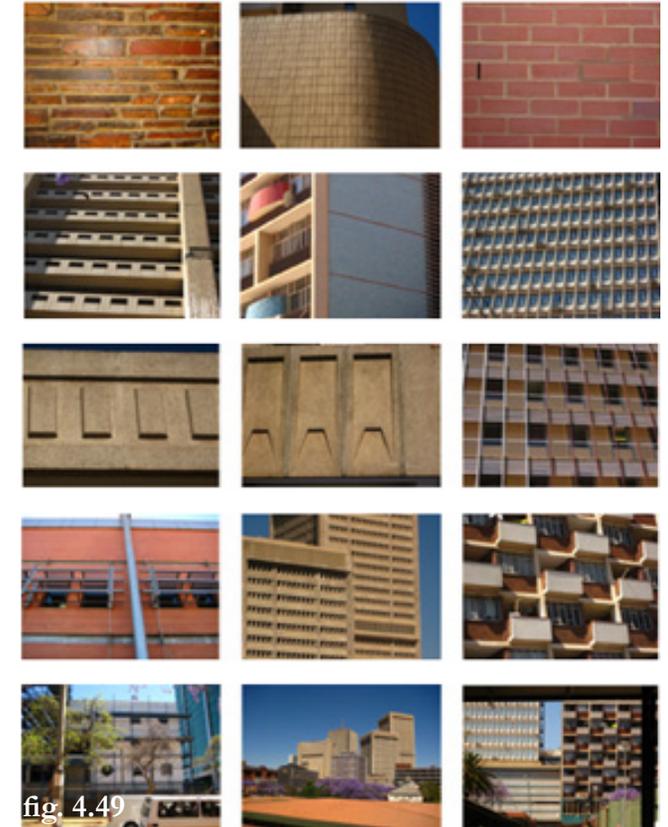


fig. 4.49