

## **04\_SITE + BUILDING:**

## 4.1 INTRODUCTION

This chapter is divided into the site analysis and the existing building analysis. Location and background on the site and the surrounding buildings are discussed, as well as the Old Fire Station. Problems of both the site and the building will be identified. The building analysis will end with the statement of significance. The chapter concludes with the identification of the opportunities for both the site as a whole, and the building.

## 4.2 THE SITE

### 4.2.1 LOCATION

- North-western corner of Bosman and Minnaar Street (figure 4.1).
- Part of Museum precinct and historical heritage of Pretoria, and has potential to become an important cultural node.

- Conveniently located on major movement routes.
- Close proximity to transport nodes; Pretoria Metro station, Pretoria Gautrain Station, Bus station, Bosman Metro station, Jacob Mare street taxi rank, Skinner street taxi rank, the new Metro Mall on the corner of Bosman and Jacob Mare street.
- Located in a Gautrain station precinct, within a five minute walking radius.
- •New station will act as catalyst for upgrading and renewal of Pretoria CBD, making new development financially viable.
- More users will move through area.
- Integrated with the need to improve pedestrian walkways, proper links, clean environments, develop underutilised spaces (counteract urban decay).
- Will lead to improved living and working environments for local users.



- 1 Old Fire Station: **SITE**
- 2 African Window
- 3 Minnaar Street house
- 4 Mint House
- 5 Amphitheatre
- 6 City Hall with Pretorius square
- 7 Parking for government buildings
- 8 New Fire Station Headquarters
- 9 Government printers
- 10 Loreto Convent School
- 11 Catholic offices
- 12 Petrol station

Figure 4.1: Aerial photograph with the surrounding buildings in the context area and site indicated. (Source: Google Earth)

## 4.2.2 SURROUNDING BUILDINGS

**(a) Loreto Convent**

- 105 Skinner street
- A convent school for girls
- Established in 1878
- Parts of the original building still exist
- Big sports ground can be possible overflow parking for events

**(b) Catholic offices part of Loreto Convent**

- Circa 1962
- Four storeys
- Flat roof
- Plastered finish

**(c) Petrol Station**

- Two storeys
- Flat roof
- Plastered finish

**(d) City Hall with Pretorius Square**

- Paul Kruger Street, between Minnaar and Visagie Street
- The City Hall was built to celebrate Pretoria's city status obtained in 1931.
- A competition scheme won by FG McIntosh in 1926, during the Great Depression. Inaugurated in 1935.
- Pretorius Square named after the two statues in front of the building depicting Voortrekker leaders Marthinus Pretorius and Andries Pretorius, his father, after whom Pretoria was named when it was established in 1855.
- Main tourist attractions in area together with the Transvaal Museum (National Museum of Natural History) across the road.
- Landmarks
- City Hall set back from street with square in front – gives prominence.
- Three storeys high with clock tower in centre.
- Sandstone facades.
- Neoclassical style, with Neo-Cape-Dutch and Art Deco influences.
- Central point of Museum Park, aptly located for the head office for Museum Park.
- Western facade does not define street edge, nor respond to old fire station building.
- Due to its existing accommodation City Hall can be the main events and conference facilities building in Museum Park.

**(e) Parking lot for government buildings**

- Parking lot on south eastern corner of Bosman and Minnaar Street intersection.
- High wall around parking area, with entrance in Minnaar Street.
- Street corner and street edge need development to improve street quality.

**(f) Head quarters of Fire Station**

- 499 Bosman Street, between Minnaar and Jacob Mare Street.
- Built in 1969 to replace the old fire station.
- Three storey building with flat roof.
- Offices, housing, training facilities and training tower.
- Set back from street edge, with grass berm between building and street.
- Palisade fence with pedestrian entrance in Minnaar Street.





**(g) Government printers**

- 87-95 Visagie Street, between Schubart and Potgieter Street
- Previous uses include Staats Garage, SABS, CSIR
- Double volume high warehouses and storage with three story offices
- Face brick or steel buildings with corrugated steel roofs
- Surrounding high brick wall
- Entrances in Visagie and Minnaar Street

can Window adaptation by KWP Architects.

- The largest collection of artefacts of all the cultural history museums in South Africa (mp 2006)
- Approximately 16 000m<sup>2</sup> storage space
- Two storeys above ground level, with a triple volume high entrance corridor.
- Ceramic tile facade



**(d) Minnaar Street House with summerhouse**

- 130 Minnaar Street
- Originally the Director of Work's house
- Currently vacant
- One storey house with slate pitch roof
- Vacant, storage
- Face brick facades
- New proposal for a restaurant in Minnaar street



**(b) Open-air Amphitheatre and formal garden**

- Located between African Window and Mint House
- Treats from grass with granite and brick edges, with a stage area
- Five seats high

**4.2.3 BUILDINGS ON CITY BLOCK**



**(a) African Window / National Museum of Cultural History**

- 105 Visagie Street, corner of Schubart Street
- Site originally known as the Convent Redoubt
- The Royal Mint built in 1921
- The subsequent Suid-Afrikaanse Munt was designed by Interplan Architects in 1968 and finished in 1976
- Relocation of National Cultural History and Open-Air Museum in 1991 from Boom Street due to flooding.



**(c) Mint House**

- 139 Visagie Street
- Originally the Director of the Mint's house
- With the African Window conversion it was proposed as a restaurant
- Currently offices
- One storey house with slate pitch roof
- Office space
- Face brick facades



**(e) On-site Parking**

- Currently four parking areas on site;
- 54 x Parking on north of African Window
  - 25 x Parking at west of African Window (underutilised)
  - 27 x Parking at Mint House (underutilised)
  - Parking in courtyard of Old Fire Station building for current tenants only.

Total 105 parking bays, excluding the courtyard parking.

## 4.2.4 STREET CONDITIONS



Figure 4.2: View of Minnaar Street towards east (Burger's Park); lined with trees with pedestrian walkways, but high wall at parking lot



Figure 4.5: Paving design of pedestrian walkway and benches in Minnaar Street



Figure 4.8: Minnaar Street at African Window; note palisade fence and paving design



Figure 4.3: View of Minnaar Street towards west (cul de sac); lined with trees with pedestrian walkways but palisade fences on both sides of the road



Figure 4.6: Minnaar Street pedestrian walkway in front of new Fire Station; note palisade fence and walkway can be widened



Figure 4.9: Bosman Street; palisade fence and pedestrian walkway uneven and broken



Figure 4.4: Intersection of Bosman and Minnaar Street; note the cobbles in the intersection and the palisade fence around the block



Figure 4.7: Palisade fence in front of Minnaar house in Minnaar Street, house set back from the road



Figure 4.10: Pedestrian walkway and palisade fence in Visagie Street at African Window and Mint house





#### 4.2.5 PROBLEMS IDENTIFIED

- The city block is not unified and all the buildings are not interconnected. The Old Fire Station is isolated from the rest of the block by subsequent additions on the western edge and a high boundary wall.
- Main entrance to African Window is located in Visagie Street, with a pedestrian entrance in Minnaar Street. This entrance is always locked. Improving this entrance will enhance pedestrian activity in Minnaar Street.
- Palisade fence around whole block
- Entrances, except African Window in Visagie Street, are permanently locked, badly defined and closed off by palisade fence.
- Minnaar Street house is vacant.
- Old fire station building is underutilised.

Figure 4.11: Diagram identifying current problems on site. (Author)

## 4.3 THE BUILDING



Figure 4.12: The Old Fire Station building today (Source: Author)



Figure 4.13: The Old Fire Station building in use (Source: Archive of Department of Architecture, UP)



Figure 4.14: The Old Fire Station building with the original clay tile roof (Source: Archive of Department of Architecture, UP)

### 4.3.1 PROJECT INFORMATION

Name:	Old Pretoria Fire Station
Also known as:	Old Pretoria Central Fire Station Fire Brigade
Date:	1912
Location:	449 Bosman Street, corner of Minnaar Street Pretoria CBD Erven 913 + 914 Between African Window and City Hall
GPS Coordinates:	25 S 45' 12.99" and 28 E 11' 8.61"
Architects:	Cowin & Powers Architects
Commissioning owner:	City council of Pretoria
Current owner:	Municipality
Current occupant:	Museum Park Bennington Guesthouse
Previous uses:	Fire Brigade Ambulance Centre
Current uses:	Tourist information Offices Housing

### 4.3.2 BACKGROUND

The fire department moved from the corner of Schubart and Minnaar Street into the old fire station, at the north western corner of Bosman and Minnaar, and thereafter to the building across the road from the old fire station (south western corner) during 1969. According to the University of Pretoria's Ablewiki website this location change was due to the modern view of the city during those periods (University of Pretoria, 2010).

The old fire station was thereafter utilised as an ambulance centre. At the time of the African Window conversion, done by KWP Architects, the ambulance services refused the City Council's proposal to develop the building and subsequently the Old Fire Station was not incorporated into the new landscape design.

A proposal for a discovery museum for children was made by Museum Park for the building. However it seems more viable for the Transvaal Museum to develop a more interactive function, and in doing so increase the density of functions and combat current underutilisation and low visitor numbers.

### 4.3.3 DESCRIPTION OF BUILDING

- One of few buildings in precinct that defines the street edge, both in Bosman Street and Minnaar Street.
- Two storeys high with pitch roofs, and interacts well with surrounding buildings
- U-shape building
- Inner courtyard
- Brick training tower in centre of courtyard, six storeys high
- Main building located east of tower, in Bosman Street.
- White plaster finished building
- Building designed to look symmetrical.
- Main entrance located in centre of building and defined by a tower on the roof.
- Fire truck parking on ground floor
- Conference or training hall on first floor
- Rest of the rooms cater for housing and offices
- Original clay tile roof replaced by corrugated iron sheeting
- Original wooden doors of vehicle entrance have been replaced by rolling steel doors.
- Wood-framed windows and doors, timber flooring and ceilings and fireplaces can be recognised as original.





Figure 4.15: A scanned portion of Plate 37: Fire Brigade Station - a composite photograph circa 1913. (Source: Artefacts, 2011)

- Inside the paint is peeling, damp spots are visible and some floor finishes have been replaced.
- Two identical buildings to north and south of tower were apartment housing for married firemen
- Brick walls painted white
- Buildings to west are storage space and parking
- Training tower with unpainted bricks
- Structurally sound and relies on external and internal load bearing walls
- Overall in good condition, but no sign of maintenance on the site



Figure 4.16: An old aerial photograph of Museum Park, with the old Fire Brigade, City Hall, Transvaal Museum, Burger's Park and Melrose House, date unknown.

4.3.4 ADDITIONS AND EXPANSIONS OVER TIME

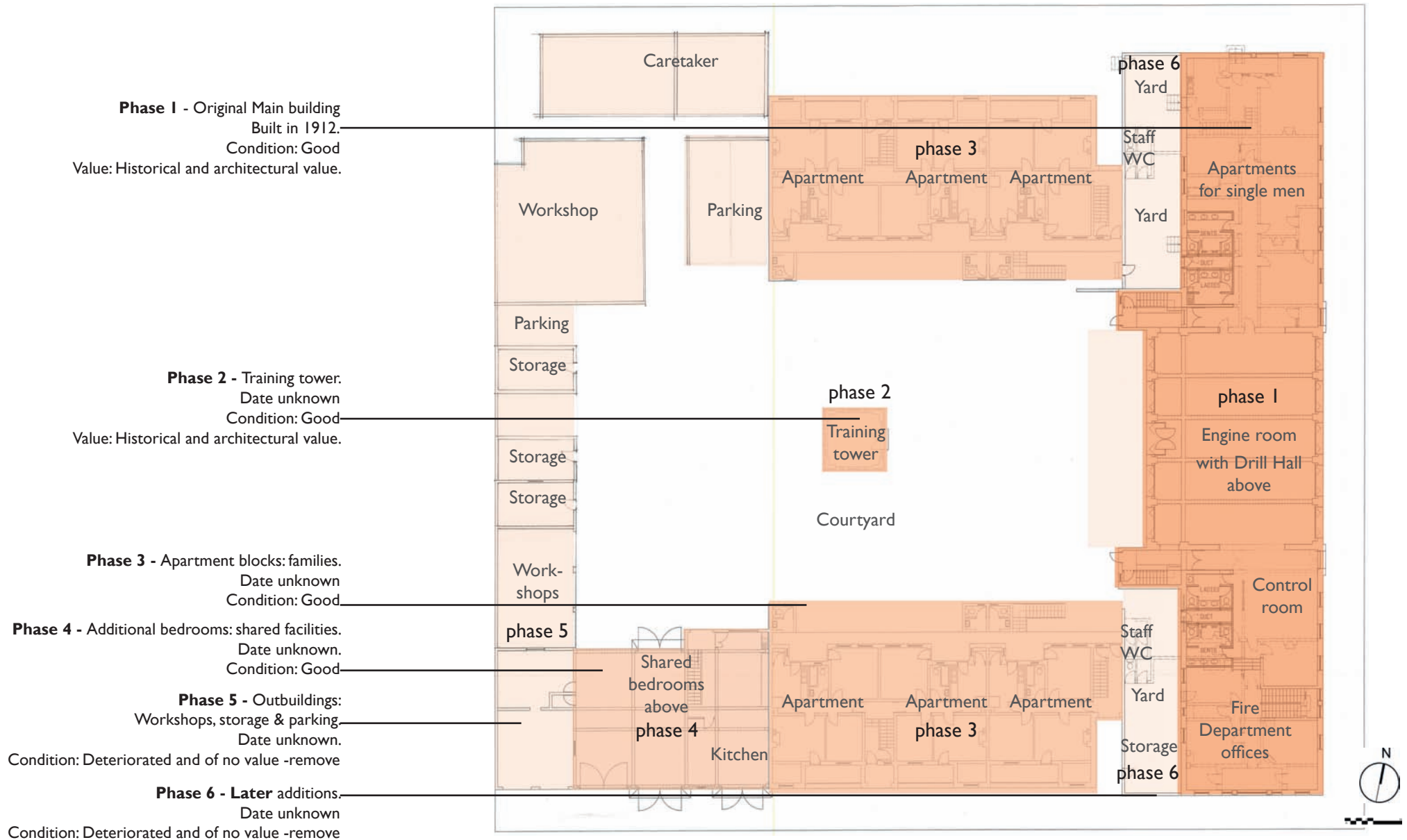
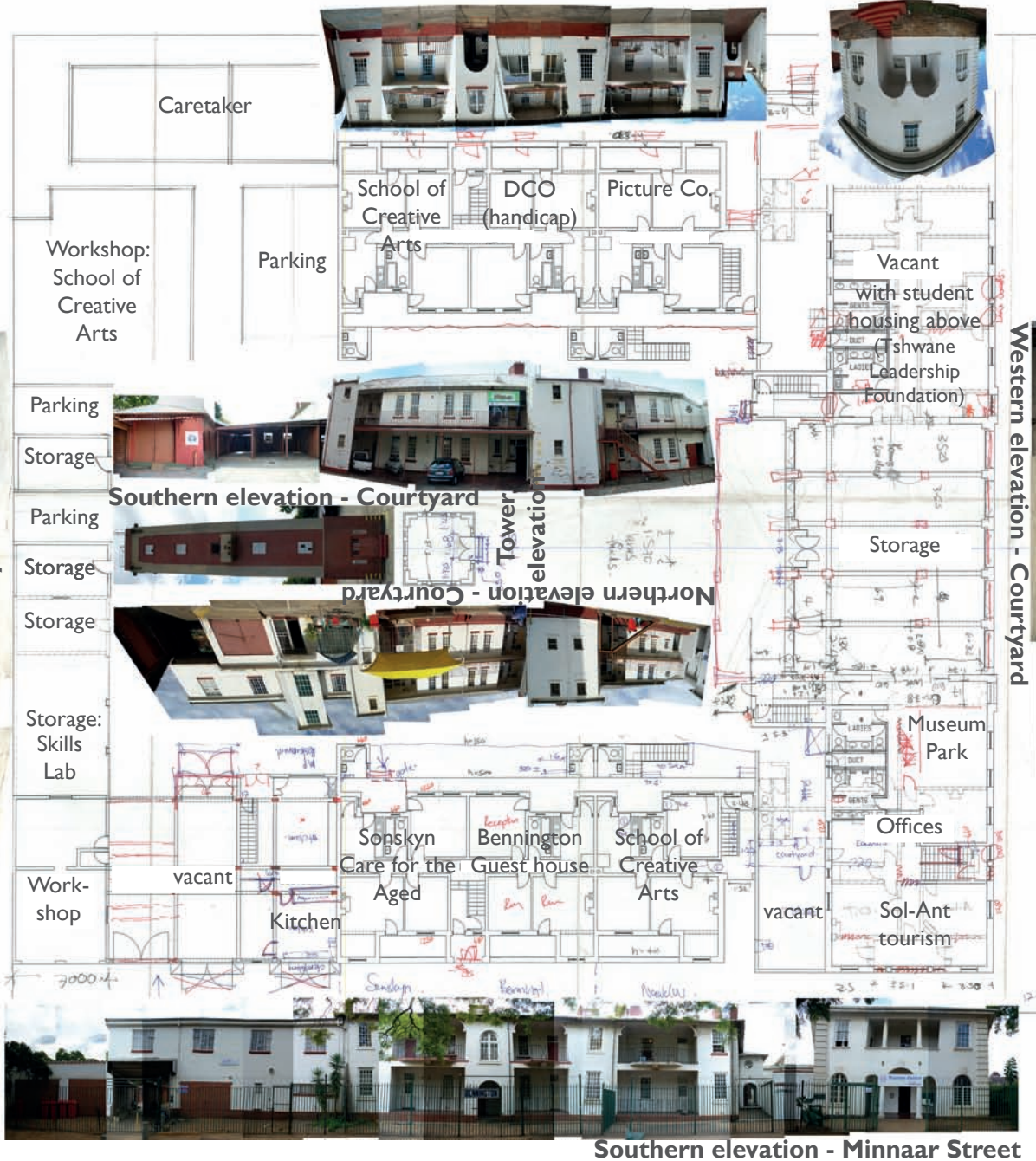


Figure 4.17: Additions to the Old Fire Station building over time with the original functions. (Author)



Northern elevation



Eastern elevation - Bosman Street

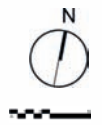


Figure 4.18: The existing Old Fire Station building with current uses. (Author)

### 4.3.5 STRUCTURAL ANALYSIS

The structural elements of the existing main building;

- 1 Load bearing masonry walls - exterior (light grey)
- 2 Load bearing masonry walls - interior (yellow)
- 3 Concrete slabs (grey)
- 4 Concrete columns (dark grey)
- 5 Concrete beams (dark grey)
- 6 Timber roof structure

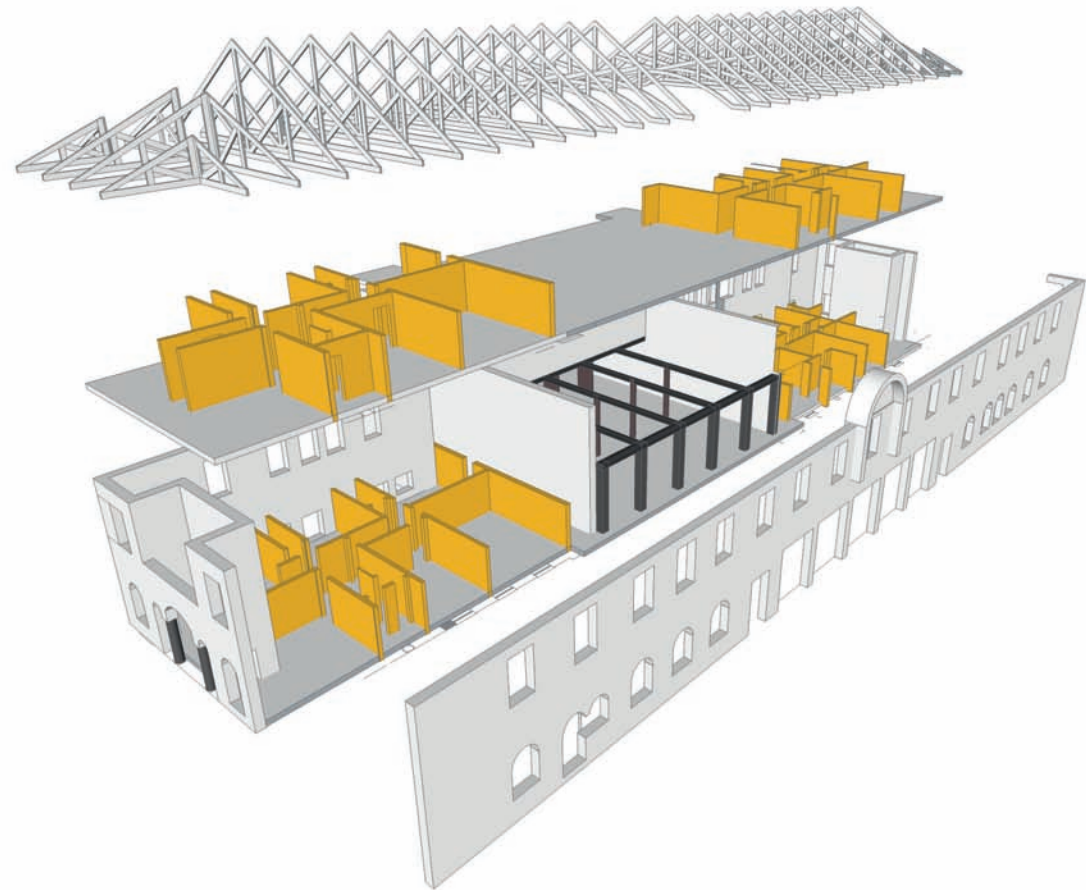
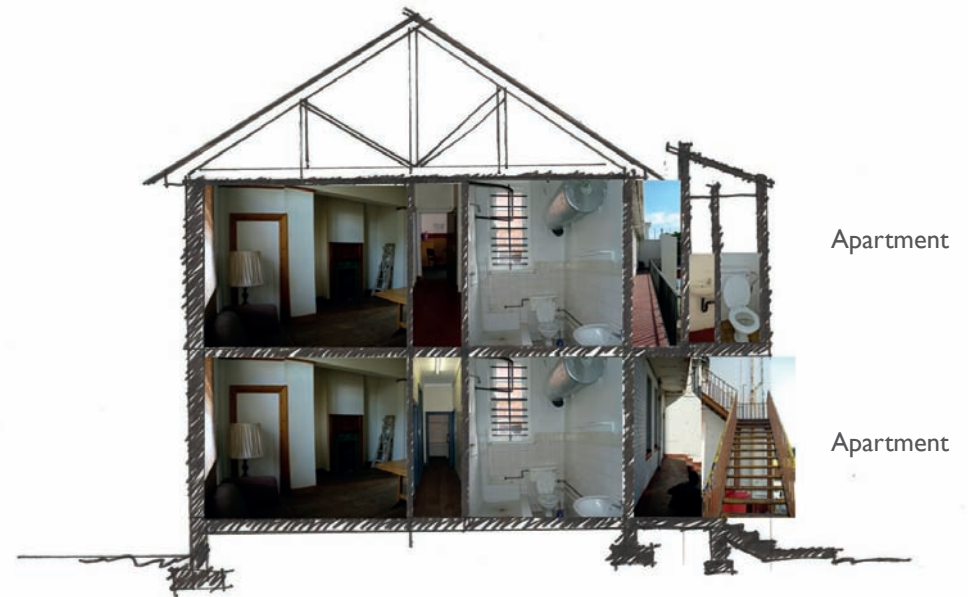


Figure 4.19: 3D model diagram illustrating the structural elements of the main building. (Author)





East-West section through main building



North-South section through apartment building

Figure 4.20: Sectional drawing and photo collage through existing main building illustrating the internal spatial qualities. (Author)

Figure 4.21: Sectional drawing and photo collage through existing apartment building illustrating the internal spatial qualities. (Author)



#### 4.3.7 PROBLEMS IDENTIFIED

- Building underutilised
- Fire Station building not linked to other buildings on block
- Fire Station building, including the main entrance in Bosman Street, is closed off by a palisade fence
- Existing entrance in Minnaar Street not well defined
- No cohesion between individual Fire Station buildings.
- Building inward driven and is not perceived as a building with a public nature
- No interaction between public and building
- The site is missing a node
- No recreation areas for public
- No landmark or image
- No view of courtyard, thus the passerby is unaware of the courtyard space
- No legibility of what is happening in the building

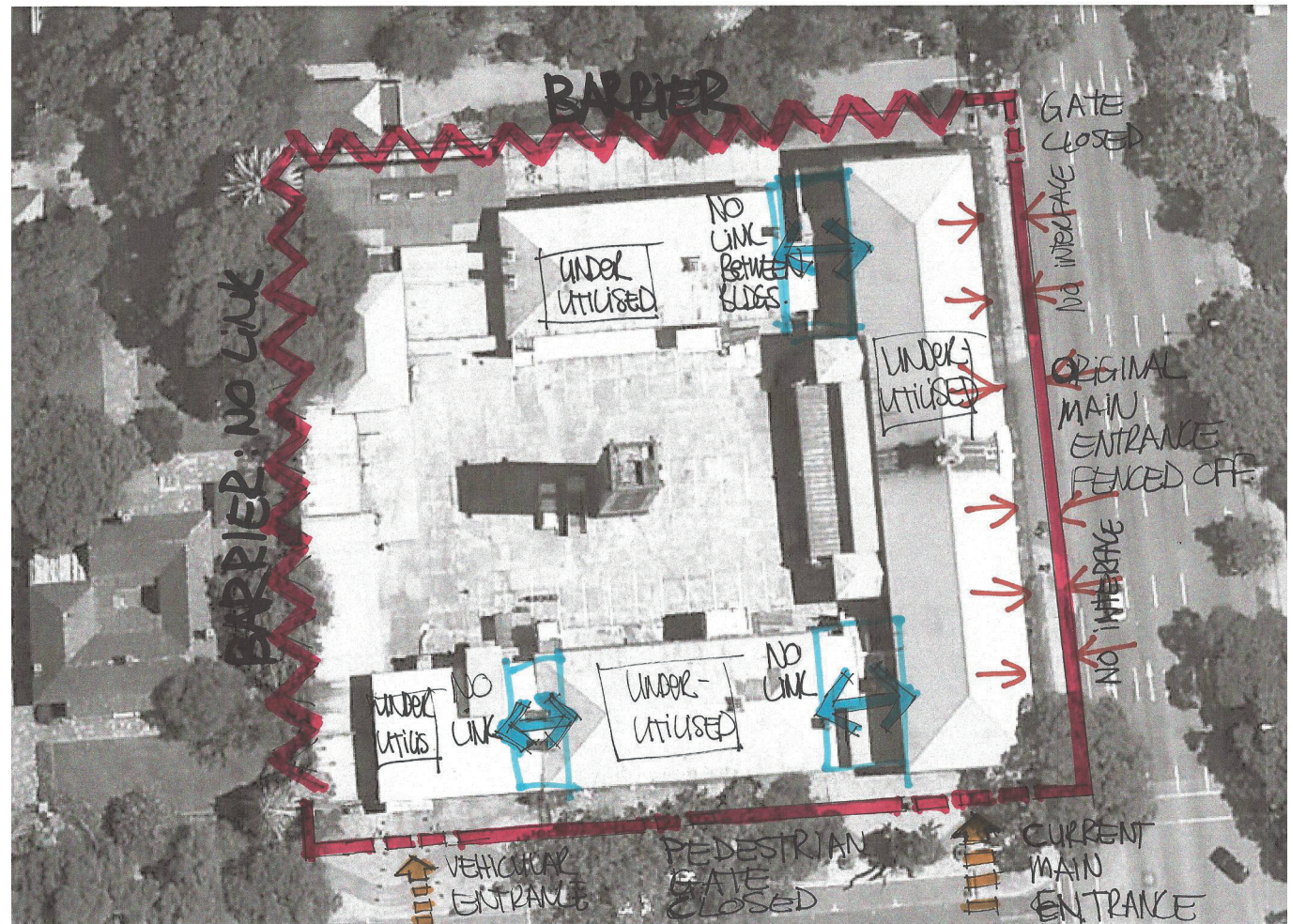


Figure 4.22: Diagram identifying current problems of the building

### 4.3.8 STATEMENT OF SIGNIFICANCE

The old Fire Station was built in 1912, therefore it qualifies as a heritage building under the 60 year rule.

It was however not the first fire station built in Pretoria, and no fire equipment is left in the building. The only traces that are left of the original function of the building are the training tower in the courtyard, the fire truck engine entrance with the parking area and the emblems on the down pipes of the main building. These should be retained. If a museum for the Fire Brigade is considered, the site of the first fire station, corner of Schubart and Minnaar Street, will be more appropriate. This site is also located in Museum Park and can easily be linked to the new active fire station on the same block.

Architecturally the courtyard typology should be retained together with the spatial experience of the symmetrical facade and plan.

Other valuable features that must be retained are the ceiling of the hall on the first floor and some of the original fireplaces.

The roof and some of the interior finishes are not original and can be altered. The addition to the parking area into the courtyard can be removed and the building footprint restored to its original state.

## 4.4 CONCLUSION

The chapter will be concluded by identifying the potential and opportunities on site and in the building. This will be done by using Lynch's five principles; path, district, edge, node and landmark as discussed in Chapter 2;

### (a) Path

- Easily accessible
- High pedestrian activity exists
- Within walking distance of transport nodes
- This decreases the number of parking needed
- Improve the Minnaar Street pedestrian entrance to the site.
- Although it is not practically possible to remove the pali-

sade fence completely for security reasons, provision has to be made for openings and entrances must be defined properly.

- Link Old Fire Station to the rest of the block and subsequently improve movement through the site and integration of all the existing.
- Interaction between two houses and the Old Fire Station
- Visual corridor between Bosman Street and courtyard and into the rest of the site beyond the courtyard
- Visual corridor from Minnaar Street entrance into site
- Visual corridor from Bosman street entrance, between fire station building and Mint House, into site
- Thus visual connection can also bring cohesion, as well as open up the site.

### (b) District

- The development of the Museum Park proposal already forms a district with an identifiable character.
- These guidelines should subsequently be applied to any further development to improve the legibility of the Museum Park precinct in urban context.
- Thus the site must be developed within the Museum Park

identity.

### (c) Edge

- Fence at main building to be removed, this way the building facades are reinstated as the edge, and not the palisade fence.
- Open up the building's main entrance and implement a visual link into the courtyard
- Define a secondary entrance to the building in Minnaar street
- New proposed links between the existing buildings of the Old Fire Station will enforce the street edge, whilst connecting the buildings as a unit
- The set back in front of the Minnaar house indicates a possible location for the new entrance to the city block. A new pedestrian entrance from Minnaar Street will be implemented here, connecting all the buildings on the block to Minnaar Street, and thus the Museum Park precinct.
- A new entrance as well as a visual link between this proposed pedestrian link and the courtyard must be implemented.
- Edge at west facade of building – boundary wall to be

removed and a new facade will be the edge of the Fire Station building.

- Edge at northern facade of building – boundary wall to be removed, a new pedestrian link from Bosman Street to be implemented, as well as a new entrance in the northern facade into the Fire Station building. Connect northern edge of building to other buildings (Mint House and African Window) by way of pedestrian links.

### (d) Node

- Nodes are defined as an important focal point or areas where paths meet or cross. In the precinct the nodes are the Pretoria station, Burger's Park and Pretorius Square.
- The Old Fire Station courtyard has the potential to be a node on a smaller scale, that of the city block. An area where paths meet or cross and activities take place.
- African Window is an already existing node on the city block.
- A new restaurant can be introduced at the Minnaar street house that is currently vacant.

### (e) Landmark

- The entrance to the African Window acts as a landmark on the city block
- The Old Fire Station's training tower has the potential to be a landmark and provide orientation. However the tower can easily be missed, therefore the visibility of the tower must be improved. This can be done by adding an addition to the top of the tower that acts as signage, and can be lit up at night by incorporating lighting.

Figure 4.23: Diagram identifying current opportunities on site. (Author)



