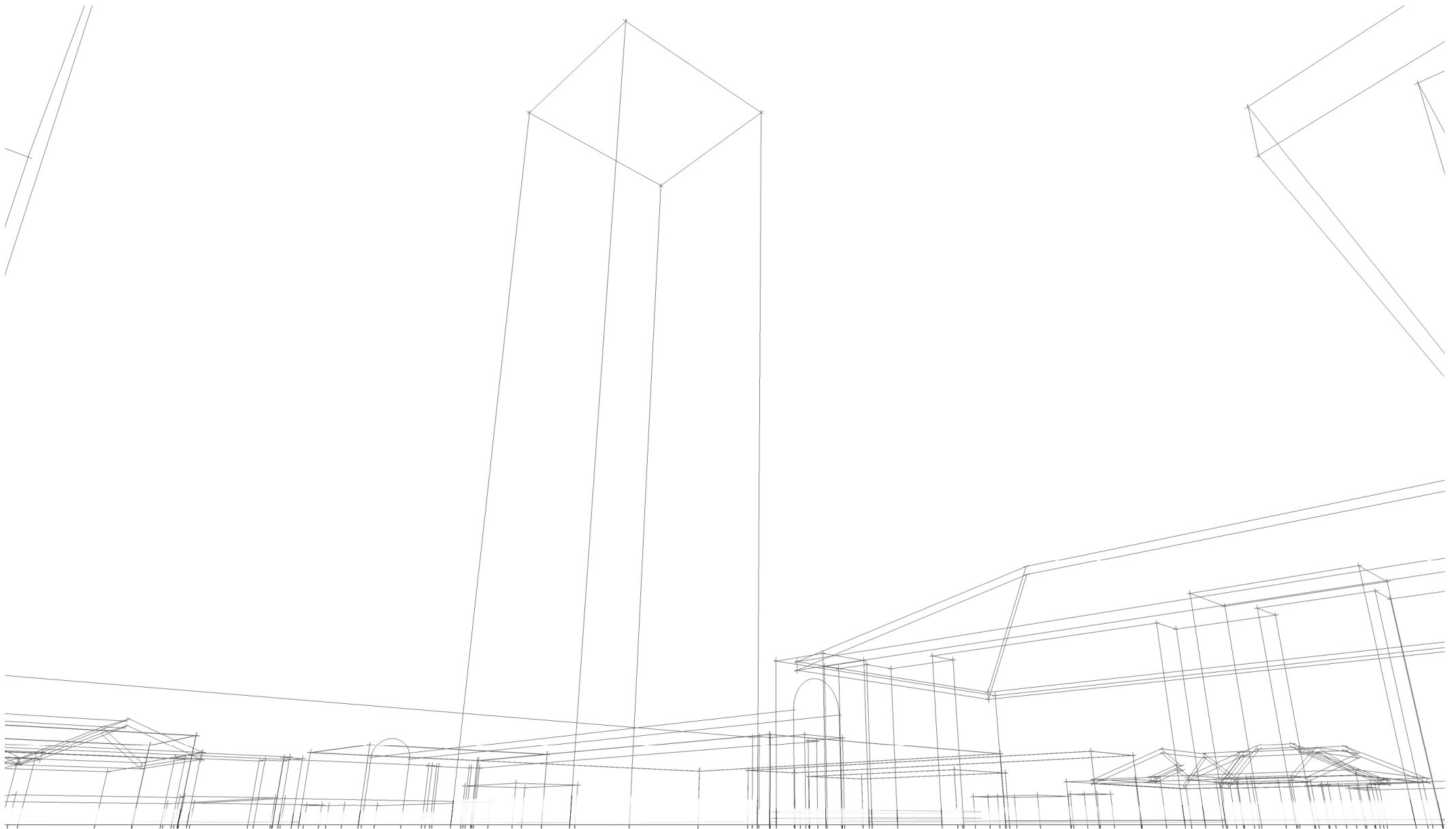


information node: converting Pretoria's Old Fire Station into public space





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SUBMITTED IN FULFILLMENT OF PART OF THE REQUIREMENTS FOR THE  
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2007



by

SUREEN UYS  
2 2 0 2 4 6 8 0



## in · for · ma · tion node

*n.*

1. Knowledge derived from study, experience, or instruction.
2. Knowledge of specific events or situations that has been gathered or received by communication – intelligence or news.
3. A collection of facts or data
4. The act of informing or the condition of being informed
5. *Computer Science*: Processed, stored, or transmitted data.<sup>1</sup>

*n.*

1. *Physics*: A point or region of virtually zero amplitude in a periodic system.
3. *Mathematics*: The point at which a continuous curve crosses itself.
4. *Computer Science*: A terminal in a computer network.<sup>1</sup>
5. *Architecture*: Points in the city where paths meet or cross, experienced as points to which the observer can enter. the node as a place that creates a space of activity.<sup>2</sup>

<sup>1</sup> Houghton Mifflin Company (2003)

<sup>2</sup> Lynch (1960:72)



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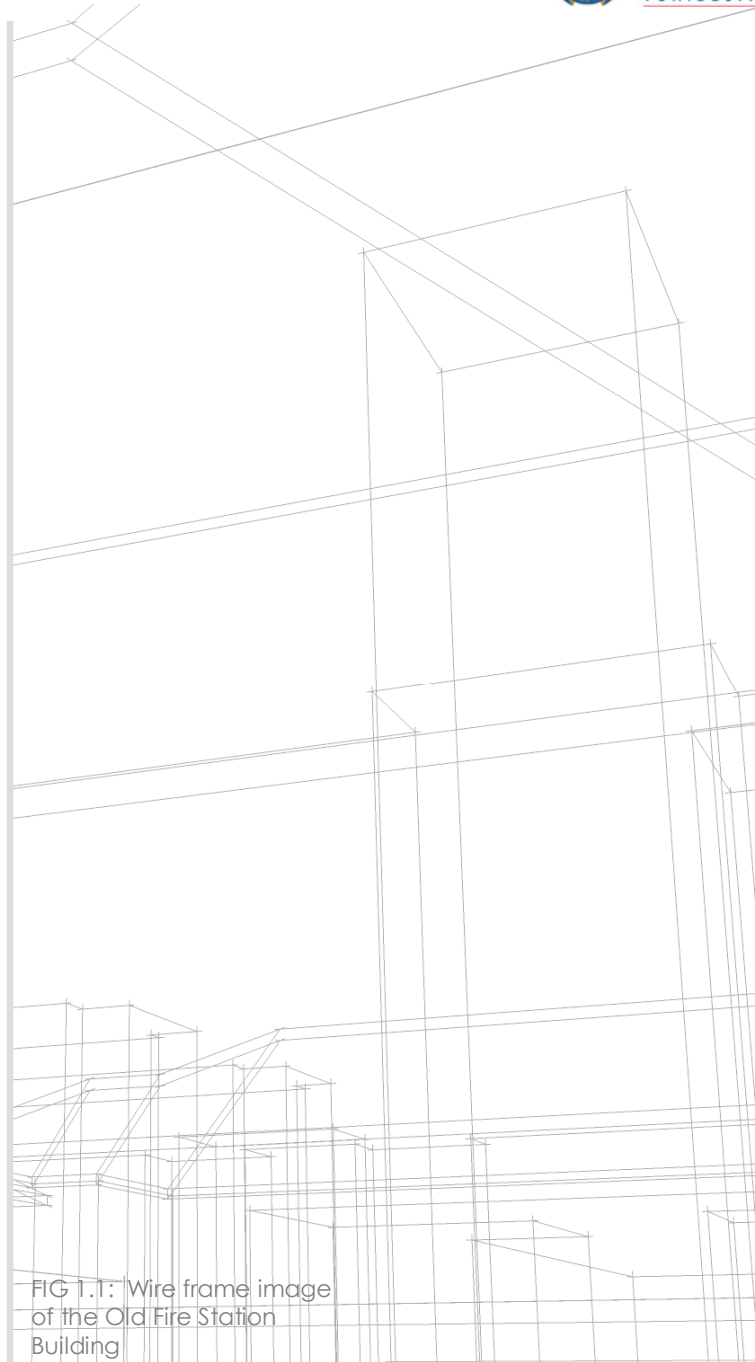


FIG 1.1: Wire frame image  
of the Old Fire Station  
Building

In an urban context, architecture and landscape architecture co-exist as part of the structure of the city. In the same manner, interior architecture exists as part of an architectural envelope, and product design as an integral part of the interior. This study explores the relationship between these design disciplines and their interdependence; none of them can be practiced optimally in isolation. As this thesis deals with interior architecture, the influence of and the response to other fields of design are considered and investigated, setting the parameters for the resolution of the design framework.

The objective of the thesis is to design a tourism and information centre for Tshwane. The shortcomings of the tourism industry in the city are identified in Chapter Two, and the tourism field studied in depth in Chapter Three. The conclusions from these chapters serve as generators for the functional design process.

The site of the Old Fire Station Building was chosen for both its potential and its inadequacies. Its physical attributes, historical importance and its critical role in the urban context of the CBD and the Museum Park District are discussed in Chapter Four. Chapter Five deals with the design philosophy and approach to creating a successful public space. Precedents are analytically examined in Chapter Six and alternatives are explored, setting up requirements and guidelines for the design intervention.



In Chapter Seven, design strategies are defined and consequently employed. The progression of the design from general concept to specific end product is illustrated visually. Attention is focused on two parts of the building: the information area (Portion A) and the café (Portion B). In Chapter Eight, Portion A is further developed on a technical and tectonic level, zooming in on the construction of the information reception box. The study concludes with the technical documentation contained in Chapter Nine.

The study relies throughout on the application of the concepts of placemaking through the layering, defining and containing of space, and contrast the existing with the proposed intervention.

“Pretoria is currently in a position of reformulation and rediscovery. Tourism wise Pretoria has the product, the people and the ideal location. Pretoria has what it takes to be an outstanding tourist destination. All that needs to be done now is to bring it all together.”<sup>1</sup>

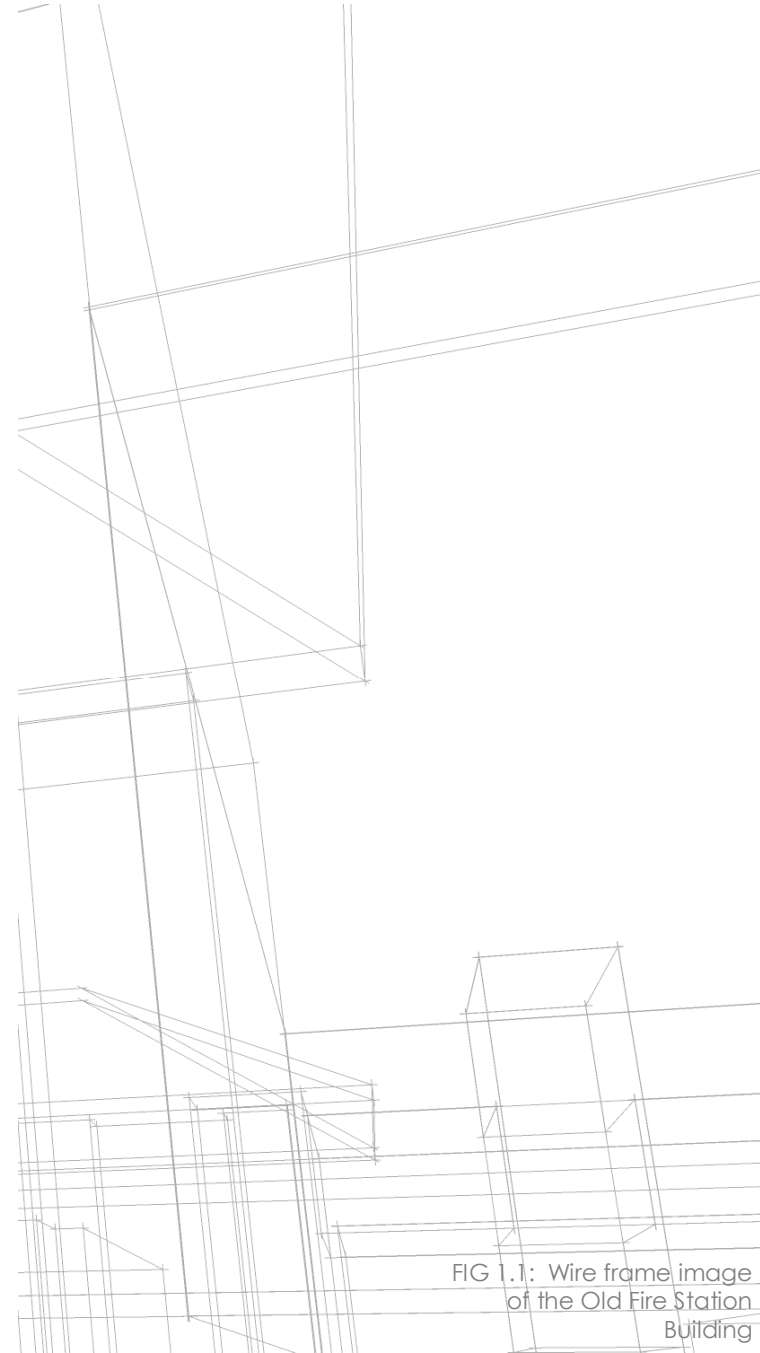


FIG 1.1: Wire frame image of the Old Fire Station Building

1 Nhlumayu (1998)



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t h e p r o b l e m





## 2.1 THE CURRENT SITUATION

Lonely Planet's<sup>1</sup> response to the tourist information centres in Pretoria:

"The Tourist Information centres are pretty useless and, astonishingly for a city this size, closed on weekends. You can still get maps and brochures when it is closed, but you're better off asking your hotel of locals for advice."



FIG 2.1: Old Nederlandsche Bank building on Church Square

FIG 2.2: Information signage in front of Old Nederlandsche Bank building



The tourist information centres that currently cater for the City of Tshwane and surrounding areas are inadequate. They are:

1. not easily accessible;
2. not efficiently operated;
3. not properly equipped;
4. not sufficiently funded.

There are two main information centres in the inner city of Pretoria:

### Church Square Tourist Information Centre

The main tourist information centre of the city is situated in the historic Old Nederlandsche Bank building on Church Square. Entry is gained via a dark and obscure reception hall. Brochure stands with local information and advertisements occupy most of the waiting area. Smaller partitioned cubicles where personal assistance is given are lined up against a wall. At maximum capacity only four people can be helped simultaneously. There are no other supporting tourist functions (travel agents, tour operators, exchange facilities or accommodation).

### Museum Park Tourist Centre

The entrance to this tourist centre, situated on the south east corner of the rundown Old Fire Station Building, is uninviting and poorly defined. It merely consists of a single room occupied by displays of free flyers and pamphlets. A maximum of two people can be helped at the same time. City tours can be booked here. Accommodation is also available on the premises, but facilities are extremely poor.

<sup>1</sup> Fitzpatrick, et al. (2006:431)

FIG 2.3:  
The Information  
Centre in the Old  
Nederlandsche Bank  
Building on Church  
Square



FIG 2.4:  
Entrance into Old  
Nederlandsche  
Bank Building:  
waiting area for  
information



FIG 2.5:  
Brochure display  
stands



FIG 2.6:  
Museums Park  
Information Centre's  
entrance from  
Minnar Street



FIG 2.7:  
Waiting area

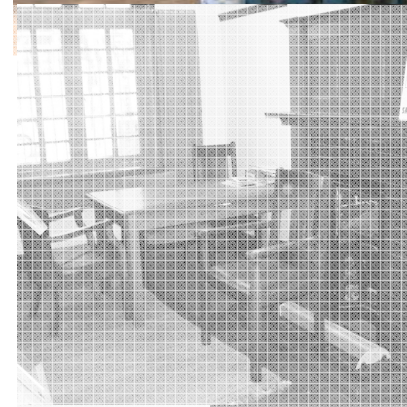


FIG 2.8:  
Brochure display  
stands



## 2.2 PROBLEM DEFINITION

The supplementary volume two of the addendum to the draft environmental impact assessment<sup>1</sup> states the following:

“Provision should be made for the development of a museum and related information centre in the area under consideration to accommodate all heritage-related aspects with regard to the development of the Gautrain Rapid Rail Link. Such a facility would need to illustrate how heritage issues came to be addressed within the context of the new development. It is also suggested that funding should be allocated for the development of a suitable railway heritage tourism node catalysed by the new station. This clearly meets current thinking in the development of guidelines with regard to the functional area around the Pretoria Station.”

In response to these facts the main objective of this thesis is to address the shortcomings of the current situation and create an environment that will provide diverse facilities to its users. This Information Node can be considered a fusion of activities, an anchor for the tourism and transport industry in the Museum Park context. The facility will enhance the user's overall experience of his or her destination.



FIG 2.9:  
Bosman Street view of the  
Old Fire Station Building

Bennett<sup>2</sup> explains that:

“Today travellers are looking for greater freedom, more adventure and less formality. Travellers are also becoming more demanding when it comes to accommodation. They do not see accommodation as merely a ‘room to sleep in’ but as a total leisure experience, composing a wide range of services and emotional experience which together make up the holiday or business stay.”

1 Gauteng Provincial  
Government  
(2007: 24)

2 Bennett (2000:55)



OBJECTIVE  
AND GOAL

2.3

creating  
a place

The proposed project must act as a node to accommodate public city spaces that connect with the urban realm, as well as internal semi-private and private spaces. By opening up the street edge of the building on Minnaar and Bosman Streets, commercial activities can be accommodated to allow interaction with pedestrians at street level. In this way, access to and the visibility of the building will also be improved. Accommodation on the first floor amplifies the function of the node. The additional 24-hour activity thus created will also improve security in the surrounding area.

The interaction of the building with its surrounding landscape and other existing facilities on the site will reinforce the Museum Park concept and boost the tourism industry in the area. The building must be clearly visible to tourists and its function and facilities easily recognizable.

The idea of a 'tourist friendly city' can be implemented all over Tshwane and not just in one building. Smaller information stands (temporary or permanent structures) can be placed at strategic points to stimulate the tourism market as a whole and make the community more aware of available activities.

This thesis promotes the concept of a mixed-use community interacting in public space, by creating social gathering places, developing a sense of guardianship and providing places for community events. This can build in a strong sense of community for residents and workers in the area. Where public space goals and management strategies are concerned, the Node must reflect harmony between the development itself, the existing community and the public sector. A sense of place and a variety of destinations must be created, offering a wide-range of uses and activities so that the facilities are vibrant and well-used during all seasons and serve a variety of people of all ages, races and economic levels. The goal of such an information node must be well-integrated with the existing communities and its context.

## 2.4 CONSTRAINTS AND POSSIBILITIES

According to Whole Building Design Guide<sup>1</sup> the following points can be seen as guidelines for a project's design objective:



FIG 2.10:  
Bosman Street: Original entrance of the  
Old Fire Station building is not in use today

<sup>1</sup> National Institute of  
Building Science  
(2007)

### 1. Accessible:

Pertains to building elements, heights and clearances implemented to address the specific needs of disabled people.

- \_Provide equal access.
- \_Plan for flexibility.
- \_Be proactive.

### 2. Productive:

Pertains to occupants' well-being, physical and psychological comfort, including building elements such as air distribution, lighting, workspaces, systems, and technology.

- \_Integrate technological tools.
- \_Assure reliable systems and spaces.
- \_Design for the changing workplace.
- \_Promote health and well-being.
- \_Provide comfortable environments.

### 3. Aesthetics:

Pertains to the physical appearance and image of building elements and spaces as well as the integrated design process.

- \_Engage the appropriate language and elements of design.
- \_Engage the integrated design process.

### 4. Functional and operational:

Pertains to functional programming, spatial needs and requirements, system performance as well as durability and efficient maintenance of building elements.

- \_Account for functional needs.
- \_Ensure appropriate product or systems integration.
- \_Meet performance objectives.

## 5. Secure and safe:

Pertains to the physical protection of occupants and assets from man-made and natural hazards.

- \_Plan for fire protection.
- \_Ensure occupant safety and health.
- \_Resist natural hazards.
- \_Provide security for building occupants and assets.

## 6. Sustainable:

Pertains to environmental performance of building elements and strategies.

- \_Optimize site potential.
- \_Optimize energy use.
- \_Protect and conserve water.
- \_Use environmentally preferable products.
- \_Enhance indoor environmental quality.
- \_Optimize operational and maintenance practices.

## 7. Historic preservation:

Pertains to specific actions within a historic district or affecting a historic building whereby building elements and strategies are classifiable into one of the four approaches: preservation, rehabilitation, restoration or reconstruction.

- \_Apply the preservation process successfully.
- \_Update building systems appropriately.
- \_Accommodate life safety and security needs.
- \_Comply with accessibility requirements.



FIG 2.11:  
Minnaar Street: entrance of the Tourist Centre  
in the Old Fire Station Building, Museum Park

## 2.5 THE CLIENT BODY AND USER GROUP



Successful public spaces make business sense if they are creatively used and properly managed. A vibrant square or active, pedestrian-friendly street contributes directly to the satisfaction of the client and improves the competitiveness and economic return of a building or mixed-use development, and of its tenants. A successful public space can push the rents of surrounding buildings upwards and reduce vacancy rates. Income can also be generated directly by the spaces themselves, by providing rental facilities for catering and events. To collaborate with tenants and the community on the use and management of the spaces will build strong ties with potential sponsors and investors, and will also help to offset operational costs.

Successful, active public spaces have been shown to increase the value of surrounding properties, and can have substantial positive long-term effects on the community and its context. Investment in new developments and the conversion of existing buildings around Pretoria Station and the CBD of Tshwane is an investment in preserving and enhancing the value of historical properties far into the future.

Developers, private investors and municipalities can work together to ensure that all public spaces in a new development are integrated into the fabric of the community, bringing life to all aspects of the development. The user group is the public. The proposed project must be a public space that can provide information to anyone, including tourists, travelers, local citizens and the disabled.

The processes and outcomes of urban design involve and affect users and their interests in different ways: as individuals; as members of local groups, communities, and society as a whole; as occupiers and users; and as members of present and future generations.

BUILDING  
ACCOMMODATION

2.6

building  
accommodation

- 1 \_ Information Centre
- 2 \_ Exhibition space
- 3 \_ Tour operators and travel agents
- 4 \_ Office space
- 5 \_ Internet facilities
- 6 \_ Coffee bar / Take-away deli
- 7 \_ Restaurant and kitchen
- 8 \_ Retail
- 9 \_ Transportation
- 10 \_ Accommodation facilities (small hotel)
- 11 \_ Conference facilities / lounge / function venue
- 12 \_ Theatre / cinema
- 13 \_ ATM / foreign exchange
- 14 \_ Dry cleaners
- 15 \_ Medical and police facilities
- 16 \_ Toilets
- 17 \_ Lockers
- 18 \_ Beauty spa
- 19 \_ Luggage storage
- 20 \_ Rental facilities: cars, laptops, phones.

It can be said that ...

...cities are like fragments of culture, social and historic fabric. They represent the history of a place, the society, and the culture of people. Cities are the interplay of spaces, places, cultures and people that have accumulated over time to become points of elaborate expression of urban form.

On arrival in a new, unfamiliar city, tourists normally want to obtain information to enable them to see as much as possible in a short time. Information centres give the first impression of a city's character.

This thesis focuses on the information required by people and the supportive facilities that can enhance the experience of visitors or local residents of the city. The conversion of the old fire station can accommodate some of these proposals.





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t o u r i s m



## 3.1

### THE SOUTH AFRICAN TOURISM INDUSTRY

South Africa's scenic landscapes, climate, cultural diversity and reputation for delivering value for money have made it one of the world's fastest growing holiday destinations. The number of foreign tourists visiting South Africa has more than doubled since 1994, from less than three million to a record 6.7 million in 2004.<sup>1</sup>

Tourism is one of the fastest-growing industries in the country, contributing R93.6 billion to South Africa's gross domestic product in 2004<sup>1</sup> and receiving an increasing number of international accolades. Due to its unique historical past, South Africa generally has first-world infrastructure at third-world costs. The country is highly diverse<sup>1</sup> in terms of its climate, culture, tourist activities and infrastructure, catering for virtually every tourism niche from eco- and cultural tourism through to adventure and sport tourism.

South Africa is one of the world's most affordable holiday destinations.<sup>1</sup>

The number of foreign tourists visiting SA has more than doubled in 10 years.<sup>1</sup>

Tourists contribute almost **R1-billion** to South Africa's economy each month.<sup>1</sup>

FIG 3.1: Wildlife experience



FIG 3.2: View from Table Mountain



FIG 3.3: Coast of South Africa



## campaigns involving tourism in South Africa:

### Poverty-relief funding

The Department of Environmental Affairs and Tourism's poverty-relief projects<sup>2</sup> promote the following:

"The development of community-owned tourism products and the establishment of tourism infrastructure, including roads, information centres and tourism signage. They are categorised into product development, infrastructure development, capacity-building and training, the establishment of small, medium and micro enterprises and business-development projects."

### Welcome Campaign

The *Welcome Campaign*<sup>2</sup> encourages all South Africans to embrace tourism and share South Africa's rich natural and cultural heritage.

### Sho't Left Campaign

This domestic marketing campaign<sup>2</sup> aims to increase the number of domestic tourists nationally. The campaign showcases accessible holiday opportunities in the provinces. In alignment with the Tourism Black Economic Empowerment Charter, this project also addresses unemployment and skills transfer.

1 International Marketing Council of South Africa (2007)

2 Department of Environmental Affairs and Tourism (2005)

FIG 3.4: Sho't Left Campaign's Logo



FIG 3.5: Welcome Campaign's Logo

INTERNATIONAL  
TOURISM

3.2

The South African Cabinet has approved the International Tourism Growth Strategy.<sup>2</sup> The strategy not only aims to increase arrivals, but also to:

- \_increase the duration of the time tourists spend in South Africa;
- \_ensure that tourists travel throughout the country and not just to a few provinces;
- \_facilitate transformation and B.E.E. in the local tourism industry.

South Africa has made its mark as a world meeting, incentive, conference and exhibition destination. The New Partnership for Africa's Development (N.E.P.A.D.)<sup>1</sup> identified tourism as an important sector to address the development challenges facing Africa. The N.E.P.A.D. Tourism Action Plan has been developed to provide a detailed framework that includes the following interventions in its focus areas:

- \_the creation of an enabling policy and a regulatory environment;
- \_institution building aimed at promoting the marketing of tourism;
- \_research and development;
- \_investment in tourism infrastructure and products;
- \_human resource development and quality assurance.<sup>1</sup>

Department of Environmental Affairs and Tourism<sup>2</sup> state that:

"South Africa hosted the 2004 Hotel and Tourism World Africa Conference in Sandton, Johannesburg, in June 2004. The Conference focused on a global and regional overviews of development in the hotel and tourism industry, the involvement and responsibility of the government regarding the industry, as well as the importance of a good transport infrastructure. South Africa Tourism spent R468 million in 2004 to market the country as the most preferred destination in the world, to retain existing markets, and to grow the country's share of the global tourism market to 2%."

FIG 3.6: (top) Children in front of the graffiti wall in Cape Town



FIG 3.7: Pretoria, Gauteng: night view with the Union Buildings



<sup>2</sup> Department of Environmental Affairs and Tourism (2005)

## 3.3 DOMESTIC TOURISM



FIG 3.8: (top)  
Pretoria's jacaranda trees

FIG: 3.9:  
Images from Department of Environmental Affairs and Tourism



Domestic tourism is particularly valuable<sup>1</sup> to the country because unlike foreign tourism, it is not seasonally based. It contributes R47 billion to South Africa's economy<sup>1</sup> and there is huge potential for growth. Some 49,3 million trips are made annually by South Africans within their own country. This comprises 46% of the country's total income from travel expenditure.<sup>1</sup>

A study conducted by the department and South African Tourism, as part of developing the strategy<sup>1</sup>, found that:

"Nearly two-thirds of trips were conducted to visit friends and relatives. Although holiday travel accounts for only 16% of trips, it accounts for 44% of all expenditure. Therefore, by focusing on holiday travel, the overall value of the domestic tourism market will be increased."

Some 64% of local people who travel reside in KwaZulu-Natal, Gauteng and the Eastern Cape. These three provinces, in turn, receive 60% of the domestic tourist trade. Some 60% of domestic travel is undertaken in the province in which people live (intra provincial travel), while only 40% of trips taken are to another province (inter provincial travel).

To continuously support the growth of the domestic industry, the following have been implemented:

- \_greater promotion of the domestic tourism brand;
- \_promotion of a set of experiences that relate to South African consumers;
- \_distribution of appropriate information in specific places;
- \_facilitation of the development of co-operative product packages;
- \_development of marketing and distribution channels;
- \_promotion of repeat visitation.

<sup>1</sup> Department of Environmental Affairs and Tourism (2005)

The domestic market currently provides the following value to the South African economy:<sup>2</sup>

"The Domestic tourism market is comparable with the International tourism Market in terms of size and value – even with only a small proportion of the domestic population currently taking trips for holiday purposes. This domestic market is currently valued at some R47 Billion, and research indicates there is definitely opportunity for growth."

The domestic market has untapped value and potential for growth. The opportunity exists to grow the domestic market, increase the value of the market and combat issues of seasonality, geographic spread and limited trip expenditure.

The domestic tourist provides the base load for the International Market.<sup>2</sup> Support of the local industry by South Africans can realise improved quality in product and services, maintenance of occupancy levels and ultimately the confidence of international visitors. This reduces the exposure of the tourism industry to fluctuations in international demand, which is extremely sensitive to global, political and economic issues.

It is established by the Department of Environmental Affairs and Tourism and South African Tourism<sup>1</sup> that 64% of people who are travelling reside in KZN, Gauteng and the Eastern Cape. These three provinces similarly receive 60% of the domestic tourist trade.<sup>1</sup>

The 60% of domestic travelling is within the province in which people live (or INTRA provincial travel). Only 40% of trips taken are to other provinces (INTER provincial travel).<sup>1</sup> The need to improve geographical spread of domestic tourism is obvious.

## why focus on the domestic market?

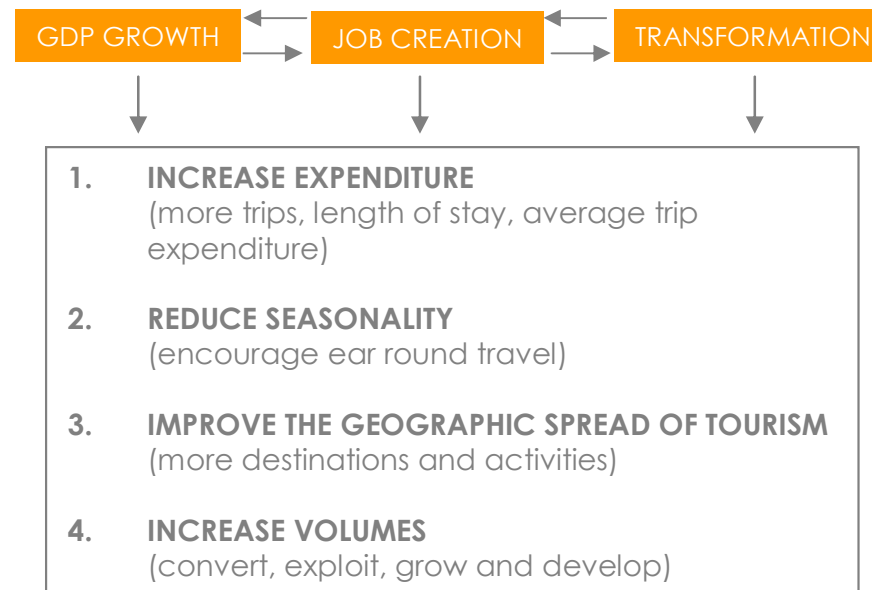


FIG 3.10:  
Domestic Tourism Objectives

<p><b>INTER-PROVINCIAL TRAVEL</b> 40% of domestic trips in SA 19.5 million</p>
<p><b>INTRA-PROVINCIAL TRAVEL</b> 60% of domestic trips in SA 29.7 million</p>

FIG 3.11:  
Geographic spread  
of domestic tourism

<sup>2</sup> Department of Environmental Affairs and Tourism and SA Tourism (2007:3)

### 3.4 TOURISM SOUTH AFRICA 2010

#### Tourism Organizing Plan

Based on research into opportunities and challenges,<sup>1</sup> SA Tourism has developed a Tourism Organizing Plan to maximize tourism value in 2010. This includes measures to increase the number of graded establishments, develop a database of tourism products in the country and address poor service levels and skills shortages.

The Tourism Organization Plan<sup>1</sup> is concerned with ensuring tourism-friendly transport at focal points. South Africa is to invest R170-million into its Tourism Enterprise Programme, an initiative designed to stimulate small, medium and micro enterprise development in the tourism sector.

For the first time in its history, F.I.F.A. will be contracting non-hotel accommodation such as national park accommodation, bed and breakfasts, lodges and guesthouses during the 2010 World Cup. It is stated that this will help to achieve the dual objectives of spreading tourism benefits beyond cities where matches are taking place and of providing spectators with an even wider range of accommodation options. Business people are cautioned against focusing only on accommodation when looking for opportunities ahead of the World Cup.<sup>1</sup>

<sup>1</sup> Administrator: World Cup Web (2007)

<sup>2</sup> Adfero Ltd (2007)



FIG 3.12:  
Loftus Versveld Stadium in Pretoria

FIG 3.13:  
Artist's impression of the Nelson Mandela Stadium in Port Elizabeth

**South Africa's Hospitality sector moving confidently towards 2010.** The boost in the country's tourism levels, as well as its knock-on effect on hotel accommodation, shows that the hospitality industry is moving confidently towards the 2010 F.I.F.A. World Cup South Africa.<sup>1</sup> Overall growth of tourism's contribution to the South African economy has had a predictable knock on effect on hotel performance.<sup>1</sup>

**The South African World Cup in 2010 will provide a huge opportunity for tourism in Africa as a whole, experts have argued.**

The 2010 World Cup boasts the slogan "Win in Africa with Africa" and officials are hopeful it will help to build a lasting legacy for South African football. The world is still awaiting the first African winner of the World Cup but many pundits see the 2010 tournament as a great chance to banish this statistic.<sup>2</sup>



## The boost in the country's tourism levels

According to BauNews<sup>3</sup>, the hospitality industry is moving confidently towards the 2010 F.I.F.A. World Cup South Africa. "We are moving confidently towards 2010 and beyond and will be focusing on skills development and our staff to ensure a consistent world class delivery" said Helder Pereira, Managing Director of the Southern Sun<sup>3</sup>, Tuesday.

## The 'BnB Sure Team' responds to F.I.F.A. 2010 directive

All accommodation will need to be graded by the Tourism Grading Council of South Africa (TGCSA)<sup>4</sup> to meet the requirements of Match, the F.I.F.A. mandated company responsible for accommodation and information technology for the 2010 World Cup.

It was also decided that Match<sup>4</sup> will consider non-hotels as an accommodation option for the first time in F.I.F.A. history. This will include guesthouses and B&Bs. Following this decision, BnB SURE has decided to assist its policyholders, both new and existing, with an additional 5% premium discount if they are graded by TGCSA<sup>4</sup>. This will in some way assist establishments insured by BnB SURE to meet the cost of grading.

## 2010 not disabled friendly.

"I think it's highly unlikely unless the industry, government and 2010 planners catch a big wake-up," said Fadila Lagadien,<sup>5</sup> trustee of the Disability Empowerment Concerns Trust, and disability representative on the SABC board. She estimated that about one million of the aimed-for 10 million 2010 visitors would be disabled.<sup>5</sup> They would need access to hotels, public buildings and stadiums, suitably trained hospitality staff and guides, space for their helpers and access to transport. It was estimated that about seven million people (15%)<sup>5</sup> of South Africa's population of 47 million were disabled.

## Many of Johannesburg's top hotels are already fully booked for the 2010 World Cup.<sup>6</sup>

According to the 2010 organising committee's latest progress report released last week, 18 584 hotel rooms<sup>6</sup> have already been contracted for the event. Match Event Services, the company contracted by F.I.F.A. to look at the World Cup's accommodation requirements, is working towards a target of 55 000 contracted rooms.<sup>6</sup> In addition to hotels, Match is also looking to contract non-hotel accommodation such as lodges, guesthouses, national park accommodation and bed-and-breakfasts.<sup>6</sup>

3 BauNews Administrator (2007),

4 The BnB Sure Team (2006)

5 South African Press Association (2007)

6 Gifford, Malwedi, Craig (2006)

### 3.5 TOURISM IN TSWHANE

The Jacaranda City<sup>1</sup> (so nicknamed after its blossoming jacaranda trees) offers an ideal location for tourist experiences. Pretoria boasts a strategic location, within easy reach of Johannesburg International Airport, and is a gateway to many tourist destinations, from the Kruger National Park and other game lodges to the beaches of Kwa-Zulu Natal.

FIG 3.14:  
Streets of Pretoria with  
jacaranda trees



FIG 3.15:  
View from Pretoria Square



The city enjoys a warm climate, with an average of nine hours<sup>1</sup> of sunshine per day for 300 days a year. Pretoria offers many options for entertainment and recreation. The city hosts both local and international sporting events. World-class stadiums cater for a variety of sports, health clubs, gyms, swimming pools and golf courses. The city is renowned, both locally and internationally, for having some award-winning restaurants.<sup>1</sup>

It is home to a variety of nature reserves, including the National Botanical Gardens and the National Zoological Gardens. Hiking trails are within easy reach, and several game lodges are located within a short distance from Pretoria, offering opportunities to view the big five in their natural habitat.

As the seat of executive power in South Africa<sup>1</sup>, Pretoria also displays examples of the country's cultural heritage. The culturally minded visitor has a choice of 35 museums.<sup>1</sup> Art routes, galleries and art museums feature a selection of both local and international works of art.

Pretoria has some 200 conference facilities<sup>1</sup> that range from formal auditoriums to intimate venues. A variety of accommodation options is available to the overnight visitor, from quality hotels to guest houses and lodges, furnished apartments, resorts and youth hostels.

<sup>1</sup> Go24 Online (2006)



# attractions in Tshwane

G024 Online<sup>1</sup> describes Pretoria as the following:

"Pretoria offers all the attractions of a main city. Burgers Park is Pretoria's first park, established in 1882. The Fountains Nature Reserve was proclaimed in 1895, claimed to be the first in Africa. Around Church Square are several buildings built in the late 1800s style: Raadsaal (Council Hall of the Zuid-Afrikaanische Republiek), Palace of Justice, now home of the Supreme Court, Post Office, old Reserve Bank. Sammy Marks Museum is a Victorian period house of a sumptuous lifestyle. Paul Kruger museum is in the house of President Paul Kruger of the Zuid-Afrikaanische Republiek. Melrose House, built in 1886, is an example of Victorian lifestyle. Pretoria Art Museum hosts paintings of South African artists. The Pierneef Museum has an exhibit of the artist Pierneef. Van Wouw House was the home of sculptor Anton van Wouw, and exhibits some of his work. The Museum of Science and Technology has exhibits in which visitors can participate. Pretoria Zoo (the National Zoological Gardens) is the largest zoo in South Africa and with an aquarium. At the State Theatre, consisting of several theatres, productions range from opera and jazz to ballet, drama and cabaret. In the Wonderboom Nature Reserve, just north of the Pretoria Zoo, is a giant fig tree of about 1'000 years old, and which grows over an area of 0,5Ha."

LIST OF MAIN ATTRACTION OF TSWHANE  
ACCORDING TO THE LONELEY PLANET:<sup>2</sup>

- UNION BUILDINGS
- PRETORIA ART MUSEUM
- STATE THEATRE
- CHURCH SQUARE
- PIERNEEF MUSEUM
- PALACE OF JUSTICE
- OLD RAADSAAL
- KRUGER HOUSE MUSEUM
- AQUARIUM AND REPTILE PARK
- NATIONAL ZOOLOGICAL GARDENS
- MUSEUM OF SCIENCE AND TECHNOLOGY
- MELROSE HOUSE MUSEUM
- TRANSVAAL MUSEUM
- CITY HALL
- AFRICAN WINDOW
- VOORTREKKER MONUMENT

FIG 3.16:  
Melrose House



FIG 3.17:  
Union Buildings



<sup>2</sup> Fitzpatrick *et al.*  
(2006:432)

# tourism industries in Tshwane



FIG 3.18:  
Image of Pretoria

FIG 3.19:  
Silhouette image of Pretoria

FIG 3.20:  
City Hall of Pretoria



1A City of Tshwane  
Metropolitan  
Municipality (2007)

## 1. Natural Heritage Tourism in Tshwane:

The natural features of Tshwane range from 2 000 million year-old granite rocks to grassy highveld plains and the shrub lands of the African savannah.<sup>1</sup>

## 2. Tshwane welcomes the Physically Impaired Traveler:

The City of Tshwane makes provision for the physically impaired traveler who wants to experience the capital city's tourism treasures.<sup>1</sup>

## 3. Business Tourism and MICE industry in Tshwane:

Conferences present the platform for learning and information exchange. The City of Tshwane is perfectly geared to be in the best position to do South Africa proud.<sup>1</sup>

## 4. Sport Tourism:

The City of Tshwane plays host to numerous local, national and international sporting events. Major sporting facilities in the city.<sup>1</sup>

## 5. Heritage, Arts and Culture Tourism in Tshwane:

The City of Tshwane is a progressive city whose charm lies in its harmonious blend of African roots and European traditions. The city is a cultural city with a variety of museums, monuments, historic buildings and art centers.<sup>1</sup>

# tourism forum of Tshwane

The Tourism Forum<sup>2</sup> is an informal grouping of people in the tourism industry, meeting on a regular basis to share strategic information and ideas, focus on local tourism products, support viable tourism initiatives and in general, to develop and promote tourism business in the capital city.

## The Tourism Forum: Vision and Aims

It is the aim of the Tourism Forum<sup>2</sup> to strive towards a common vision for tourism in Pretoria and for Tshwane Metropolitan area to become a preferential tourism destination. The development of shared tourism products and/or a family brand of products will have common benefits for all participants.<sup>2</sup>

The whole region has to work together in promoting the city as a whole. In order to minimize duplication, co-ordination needs to be addressed in marketing efforts, products and activities. the development of a common slogan and identification of common target markets. Cross marketing techniques and strategies would optimize the sustainable and economical use of facilities and resources.<sup>2</sup>



## MUSEUM PARK'S MISSION:<sup>2</sup>

"To passionately and in a sustainable way develop and promote the unique experience in our capital city, thereby becoming a preferential tourism destination to the benefit of all."

FIG 3.21:  
Touri Bird, logo and mascot  
of the Tourism Forum

## Tourism development projects and ideals:<sup>2</sup>

- "\_promotion of heritage routes
- \_tourism training to staff in industry
- \_development of information centres or services
- \_development of the tourism potential of areas
- \_rejuvenation of inner city
- \_trauma support
- \_tourism expo
- \_networking
- \_sharing of information and development
- \_support Wednesday Parades at Church Square
- \_development of a year programme of tourism events
- \_introduction of local tourism products
- \_busking in the inner city."

<sup>2</sup> Museum Park (2006)



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# c o n t e x t   s t u d y



## 4.1 INTRODUCTION

The Spatial Development Strategy 2010 and Beyond of Tshwane<sup>1</sup> state the following:

"The Inner City is strategically placed as the most important 'place' in Tshwane for the 2010 World Cup. This is in all probability the area where most of the tourists will be staying, going out, eating out and attending fan parks during the broadcast of the games."

The inner city is the area that can derive the most economic and social benefit from any investment that the municipality makes.<sup>1</sup> From an environmental, economic and social point of view, it is generally acknowledged that the inner city is currently not functioning as it should if it is to fulfill its role as the functional and symbolic heart of the capital city of the Republic of South Africa.

In identifying the first round of Priority Areas<sup>1</sup>, certain criteria were used to determine the most suitable locations in the city for these areas. The criteria include the Gautrain Station precincts.<sup>1</sup>



FIG 4.1:  
Pretoria region with the City Centre  
as main development area<sup>1</sup>

The new Gautrain Station<sup>1</sup> in Pretoria will be located south-east of the existing Pretoria Station with its historic Herbert Baker building. It is an important landmark in the City and is located near the proposed Information Node site. The new station will be situated underneath the existing railway lines and platforms.<sup>2</sup>

VISION OF THE PRETORIA STATION:

“Being one of the anchor stations of the project, the Gautrain Pretoria Station provides access to and from the Pretoria CBD. It will further also have an important tourism role and stimulate urban renewal in Pretoria’s CBD. The Gautrain Station would be a tourism starting point for the CBD from where tourist attraction within and beyond the city can be visited and from where connections to regional tourist destinations can be made. Accordingly, the station should accommodate all relevant tourism information.”<sup>2</sup>

In addition to the above, the station would be a catalyst for the upgrading and renewal of the Pretoria CBD area, which will in turn provide improved living and working environments for local users. The latter objective is integrated with the need to create proper linkages, provide pedestrian pathways, clean the environment and counter-act urban decay.

ACCESS TO THE PRETORIA STATION:

It is anticipated that more than 55 000 people<sup>1</sup> will use the Gautrain Station on a daily basis. A significant number of passengers arriving at this station will walk to their end destinations. Relevant pedestrian links will thus have to be established to ensure easy access to and from the station. Over and above the Gautrain feeder and distribution services, Metrorail services, bus services provided by Pretoria City Transport and taxi services operating between the Tshwane suburbs and the CBD are expected to feed and distribute passengers to and from the Pretoria Station.<sup>2</sup>

GAUTRAIN RAPID RAIL LINK DEVELOPMENT

4.2



FIG 4.2: Gautrain Logo



FIG 4.3: Route of the Gautrain with Stations.

The Gautrain is a state-of-the-art rapid rail network<sup>1</sup> planned for Gauteng. The rail connection comprises two links, namely a link between Tshwane (Pretoria) and Johannesburg and a link between O.R. Tambo International Airport and Sandton.<sup>1</sup> Apart from the three anchor stations on these two links, seven other stations will be linked by approximately 80 kilometers of rail along the proposed route.<sup>2</sup>

<sup>2</sup> Gauteng, Provincial Government (2007)



FIG 4.4:  
Images from the Gautrain gallery

1 Gauteng,  
Provincial  
Government  
(2007)

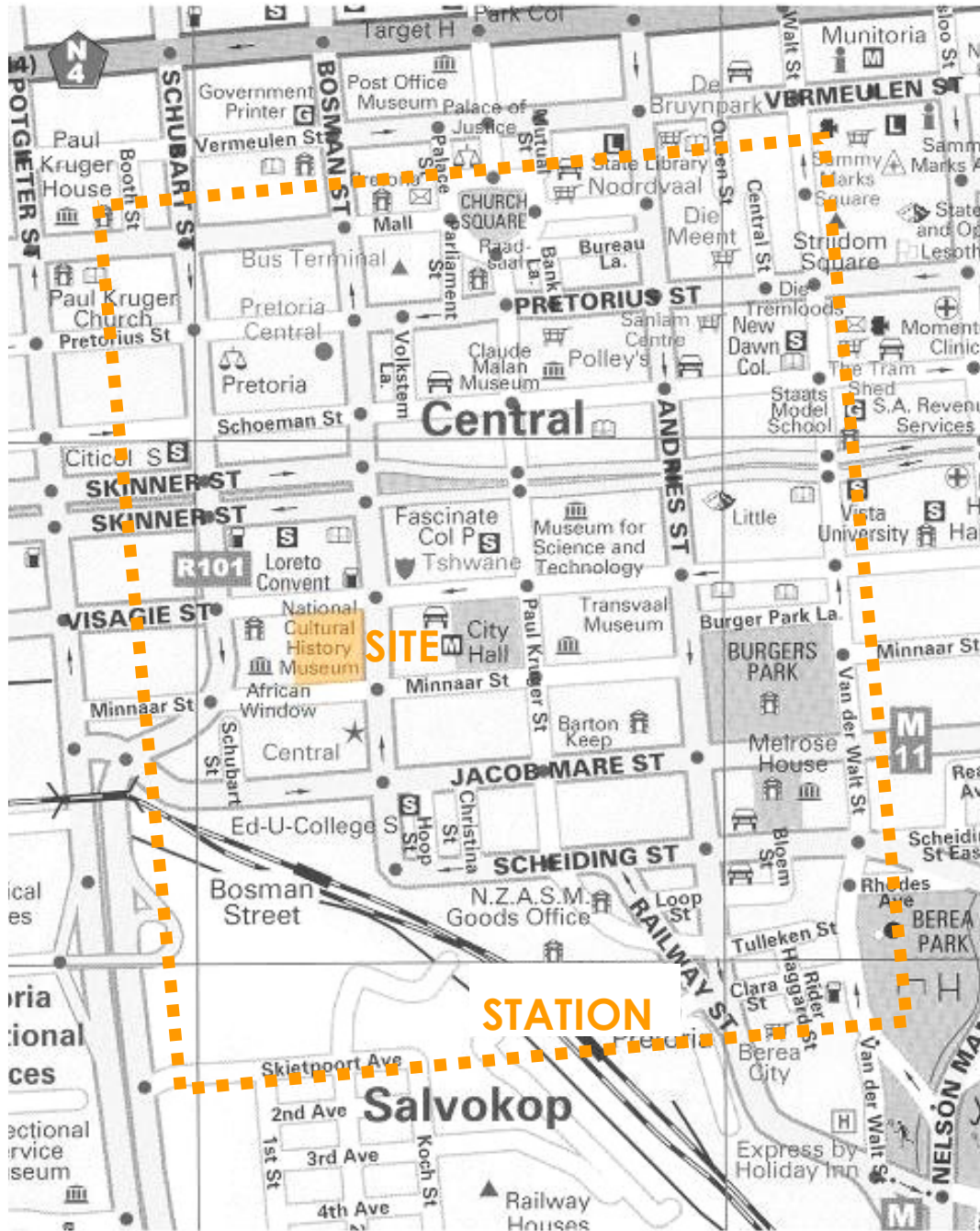
## LAND USE IN THE PRETORIA STATION AREA

Like the Johannesburg Park Station, the Pretoria Station is situated in a city which is already formally established and forms the economic core of the metropolitan area. As with the former, the Gautrain Pretoria Station<sup>1</sup> is deemed to generate urban upliftment and revitalization, encouraging growth in the areas of business, housing and tourism. Progress regarding the renewal of the Pretoria CBD has already been made 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.<sup>1</sup>

## ATTRACTIONS IN THE PRETORIA STATION AREA

The following attractions and destinations<sup>1</sup> are important places in and around Pretoria Station:

- “\_the proposed Salvokop Village and Freedom Park
- \_Voortrekker Monument
- \_UNISA
- \_museum precinct, which includes City Hall, Transvaal Museum and other museums in Visagie and Minnaar Street
- \_Church Square
- \_National Zoological Gardens and the National Cultural History Museum
- \_Union Buildings
- \_Nelson Mandela Development Corridor and the Department of Trade and Industry development.”



### THE LOCATION OF THE SITE

4.3

The site lies to the south-west of the city centre of Pretoria, in Museum Park near the Pretoria Station. It is conveniently located on major movement routes. It forms part of the rich historical heritage of Pretoria. Minnaar Street runs parallel to Church Street and forms the main axis of Museum Park.

FIG 4.5:  
Map of Pretoria Central:  
Context and site allocation.








## 4.4

### CONTEXT NETWORKING

Museum Park is situated in close proximity to nodes which form part of important transport networks into and out of the city. A reasonable amount of pedestrian traffic flows from the Pretoria and Bosman Street Stations through Minnaar Street into the centre of town and vice versa. The location of the Pretoria City Hall and Transvaal Museum as part of Museum Park makes this an important location for tourists and tourist transit networks. More travellers will be using the station with the implementation of the Gautrain, which will require an underlying support system for transportation. With the concept of marketing the city, a network of specific routes will be created. This network will provide the option of going on a tour through the city and back to the Node or Station. There will be regular pick-up intervals at certain main points of attraction that are mainly situated in Museum Park. These points can become waiting-areas defined by a structure that serves as a marketing tool.

- |   |               |    |                  |
|---|---------------|----|------------------|
|  | SITE          | 1. | Station          |
|  | SITE CONTEXT  | 2. | Information Node |
|  | 24 hour route | 3. | Pretorius Square |
|   |               | 4. | Church square    |
|   |               | 5. | Science Museum   |
|   |               | 6. | Burgers Park     |
|   |               | 7. | Melrose House    |

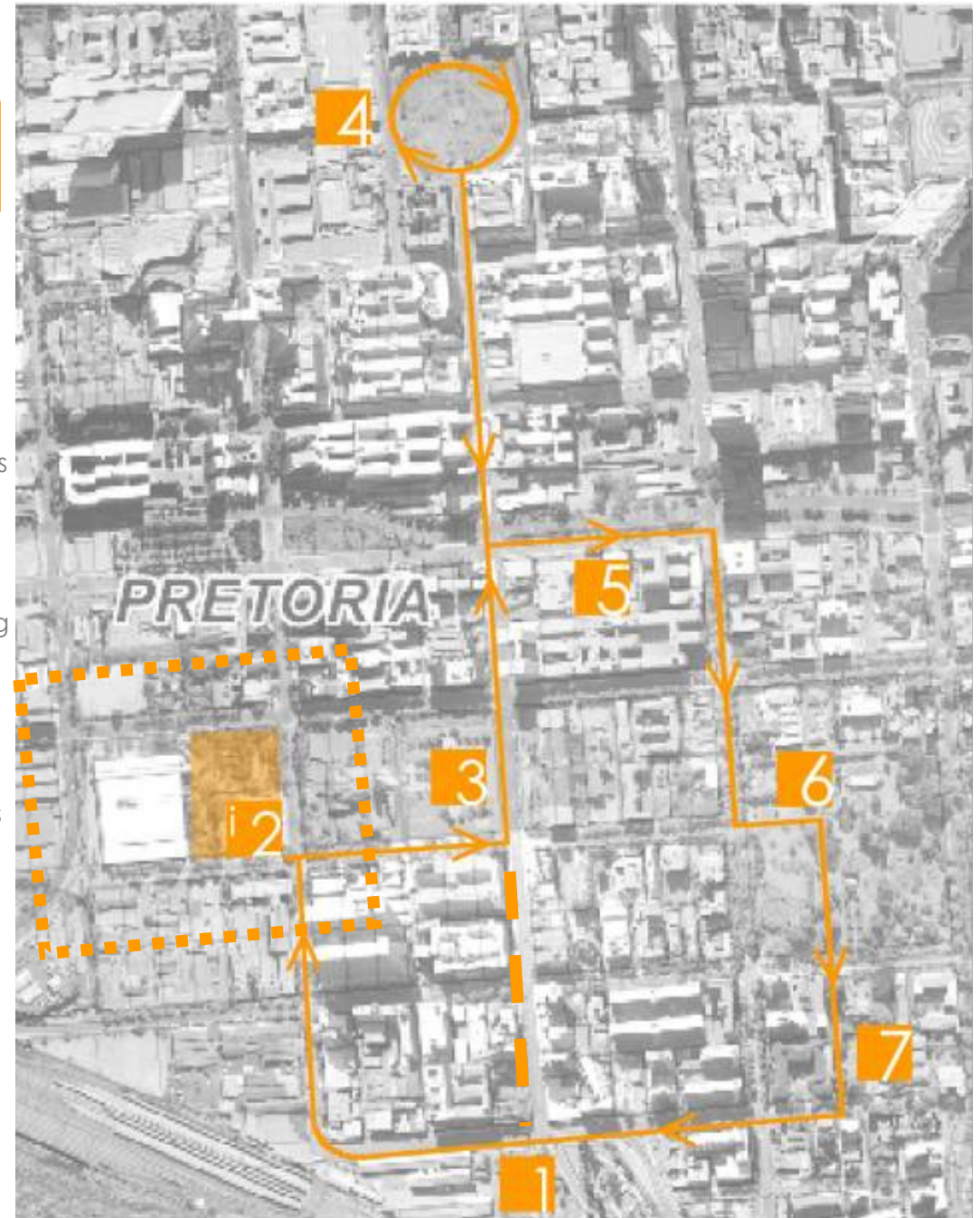


FIG 4.6: Aerial photograph of Pretoria Central with route of network.

## CHOICE OF SITE AND BUILDING

4.5

The proposed site for the Information Node is Erven 913 & 914, on the corner of Bosman and Minnaar Streets. It is located between the African Window Museum and the City Hall.

A number of factors were taken into consideration when the site for the proposed building was chosen. Together, the existing buildings should share the resources provided by people and the dynamics of human activity. If this could be achieved it would strengthen the credibility of the project and create an environment for different buildings to interact with one another.

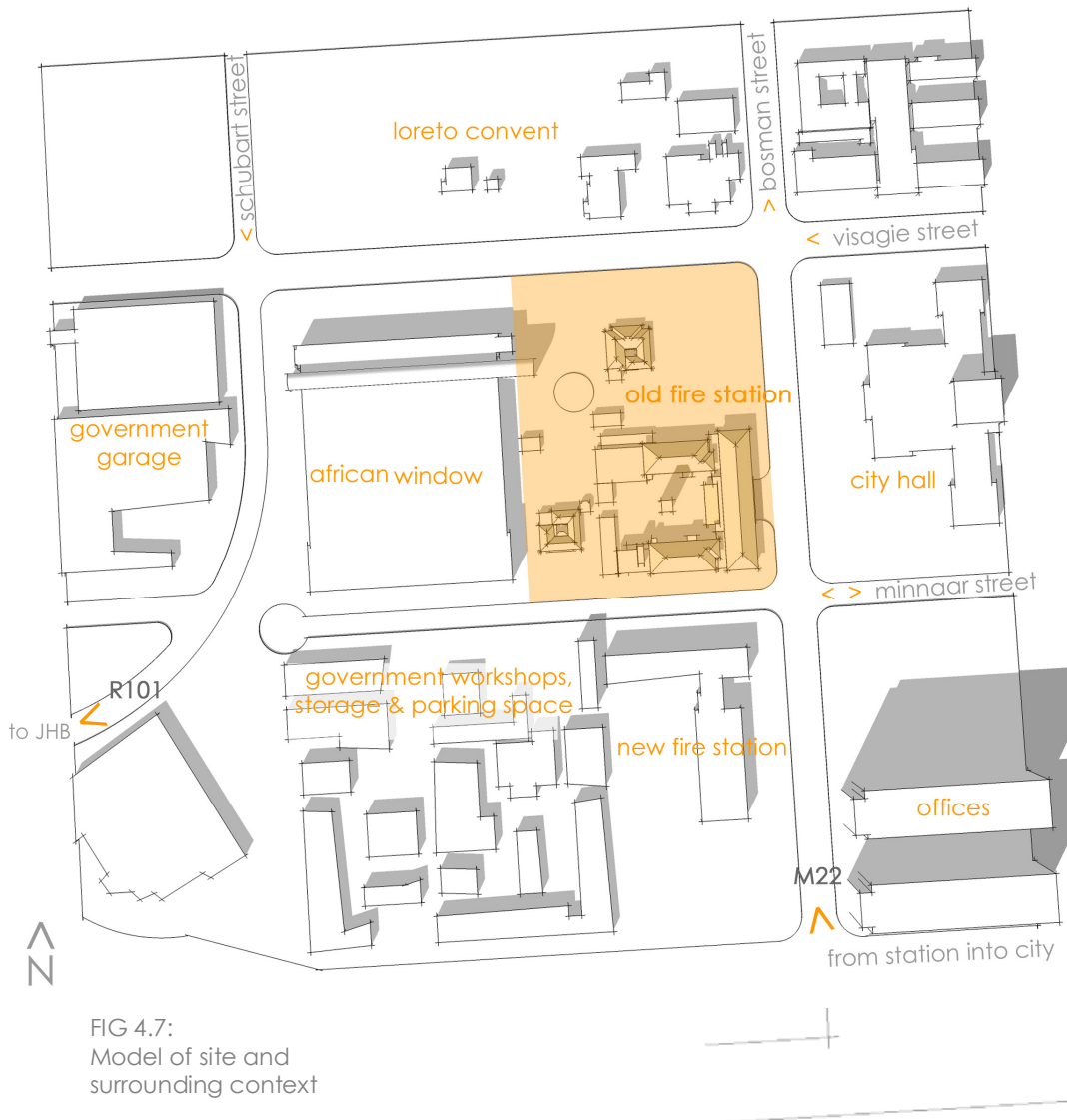
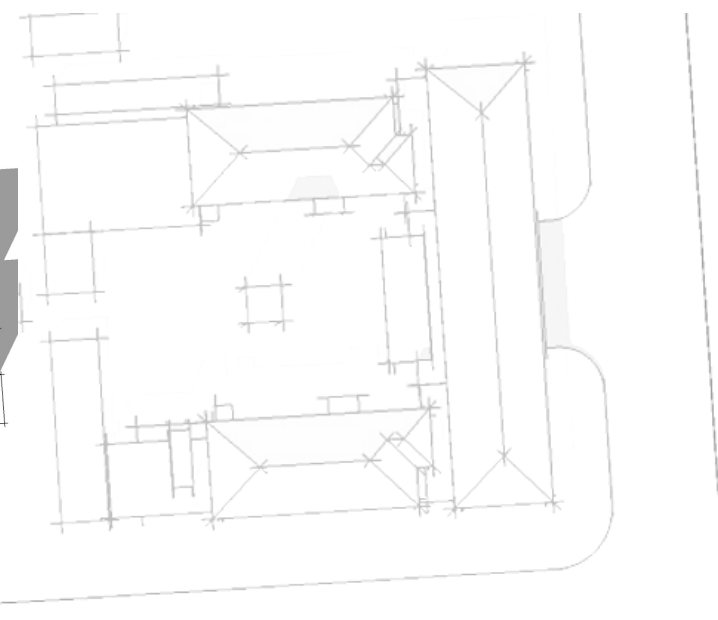


FIG 4.7:  
Model of site and  
surrounding context





- pergola
- parking
- Visagie Street House
- African Window's entrance
- toilets
- Old Fire Station
- Minnaar Street House

This particular location is suited to the project for the reason that the area has the potential of becoming an important node of cultural activity – a place frequented by tourists and the local community. It is, however, important to ensure that the development of such a node is financially and functionally viable. Placing an information node and other related facilities in this area would not only concentrate these functions around an 'appropriate node', but would also ensure that the area is used seven days a week by people having a personal interest in the area. Currently, the existing buildings on the site include the African Window Museum, Mint House, Minnaar Street House and the Old Fire Station. The site is not used to its full potential and there is no interaction between the neighbouring structures. The African Window forms the main function and point of activity of the site. The Mint House is used as office space, while Minnaar Street House is vacant. The original Old Fire Station building is isolated from the rest of the site by insensitive subsequent additions.

FIG 4.8:  
Aerial Photograph of Site



THE HISTORY OF THE SITE AND ITS SURROUNDING CONTEXT

4.6

The development of the Information Node would incorporate Minnaar and Visagie Street Houses. The development of the entire site would complete the block as one unifying design, with facilities that are integrated with each other. The African Window is purely functional in museum terms and makes little allowance for public use of the site. The design proposal will incorporate public spaces.

THE AFRICAN WINDOW MUSEUM. The African Window Museum was previously the Old Royal Mint, which was built in 1921. The Mint was originally built on a site which was already of historical importance. A bronze plaque of the Council for National Monuments (now SAHRA) fixed to the fence along Visagie Street explains that the site was previously known as the "Convent Redoubt". The training tower has historical value and acts as a landmark on the site.

MINT HOUSE AND MINNAAR STREET HOUSE. The Mint House was occupied by the Mint Director, and Minnaar Street House by the Director of Works. The Mint House is a traditional style building and was renovated when the African Window was being developed. It was renovated with the aim of turning it into a restaurant. At present the house is occupied by an Environmental Centre Office. Minnaar Street House is currently standing empty and is in need of renovation before it can be occupied. The house could be utilized by the Information Node and its related activities. The Fifty Year Act focuses on the protection of buildings older than fifty years that have not yet been declared monuments. These buildings provide historical character and richness to the site and should be incorporated into its proposed development.

OTHER SURROUNDING BUILDINGS FORMING PART OF THE CONTEXT:

LORETO CONVENT. A convent school for girls is located in Visagie Street to the north of the site. Its sports grounds can supply overflow parking for large events at the African Window.

THE CITY HALL, PRETORIUS SQUARE AND THE TRANSVAAL MUSEUM. These are places of great historical importance and main tourist attractions in the area. Pretorius Square is not utilised to its full potential.

The Transvaal Museum is built on a civic scale and creates a landmark. The west façade is of sandstone and is beautifully detailed, while the extended side wings are of face brick. It forms a grand edge to Pretorius Square.

The City Hall is only on a civic scale where the clock tower stands. The wings and the east façade are of lesser proportions, being only three storeys high. The west façade of the City Hall does not define the edge of Bosman Street, nor does it respond in any way to the street section on which the Old Fire Station is located. By defining this particular street edge, the entire space will be defined.



## 4.7

## MUSEUM PARK



FIG 4.9:  
Logo of Museum Park

The site forms part of the Museum Park redevelopment program (RDP) in Pretoria. Museum Park currently stretches from Schubart Street in the west to Van der Walt Street in the east, and from Skinner Street in the north to Scheiding Street in the south. The development is concentrated around Minnaar Street and is modelled on the Smithsonian in Washington DC.

The idea is to develop a park that offers the largest focus of cultural resources in Africa with the following attempts:<sup>1</sup>

“To visually and structurally group a number of diverse museums, buildings, spaces and activities all related to conservation and education into a unified whole. There would also be facilities for functions and conferences, as well as restaurants and museum shops. The Museum Park is well supplied with safe parking and focuses and promoting pedestrian links.”

1. African Window:  
National Cultural History Museum
2. SITE: Old Fire Station:  
Information Node
3. Old Mint House (Visagie Street)
4. City Hall
5. Pretorius Square
6. Transvaal Museum
7. Science Museum
8. Burgers Park
9. Melrose House



FIG 4.10:  
Location of Museum Park  
with main attractions

1 Museum Park (2006)



## historical background of museum park

The vision for the Museum Park Development was initiated with the relocation of the National Cultural History and Open-Air Museum.<sup>1</sup> In 1989 and 1991, when the temporary buildings in Boom Street were flooded, the museum had to be evacuated. After investigating various options, the premises of the old South African Mint in Minnaar Street were chosen as the most appropriate and most economic option.

A contextual study<sup>1</sup> of the area to which the new museum was allocated revealed an unusual concentration of cultural attractions. There are the Melrose House Museum, Burgers Park, the Transvaal Museum, the City Hall, the Old Fire Brigade building and the new African Window Museum in the converted Old Mint Building. Apart from Melrose House, these attractions form an aligned 'cultural belt'<sup>1</sup> between Visagie and Minnaar Streets.

In 1985 the Museum Park Company commenced the upgrading of Minnaar Street into a pedestrian-friendly spine that links the cultural attractions. Holm Jordaan Holm Architects were appointed in 1991 to upgrade Minnaar Street. The design of markers to define and identify the Museum Park precinct was included in the development. Minnaar Street is currently a well utilized pedestrian spine and has been transformed into a street with a recognizable identity.

## participating institutions

The following institutions are core members<sup>1</sup> of Museum Park and have direct representation on the Board of Directors of Museum Park:

### **National museums and institutions**

- \_National Cultural History Museum
- \_Transvaal Museum
- \_Geoscience Museum.

### **Other local museums and institutions**

- \_Melrose House
- \_Enviro Centre
- \_Museum Park Discovery Centre
- \_Kruger Museum
- \_Pretoria Art Museum
- \_Fort Klapperkop Museum
- \_Tswaing Meteorite Crater
- \_Pioneer Museum
- \_Willem Prinsloo Agricultural Museum
- \_Sammy Marks Museum.

### **Historical sites and buildings**

- \_Burgers Park
- \_City Hall of Pretoria
- \_Pretorius Square.

<sup>1</sup> Museum Park (2006)



## mission and vision of museum park

The vision of Museum Park is to create a cultural experience for the visitor and to share our country's heritage with the rest of the world in the capital city, Pretoria.<sup>1</sup>

Museum Park<sup>1</sup> is an organization that develops and markets the heritage activities of several museums and historical sites in a prominent precinct in Pretoria as a tourism destination. This precinct is regarded as possibly the largest focus point of cultural resources in Africa.

The overall objective<sup>1</sup> of Museum Park is to:

"Promote public awareness, understanding and appreciation of cultural, scientific, artistic and natural heritage, science, engineering and technology and to enhance the knowledge and expertise of the people of South Africa in these fields. In order to achieve this, the objectives are to generate own income by way of trading, sponsorships and other means to offset expenditure. Furthermore, the task of Museum Park is to attract people to the Museum Park precinct by marketing, facilitating and co-coordinating heritage, tourism, recreational and educational related activities linked to the mandates of participating institutions."

<sup>1</sup> Museum Park (2006)

## the character of the built environment

A variety of building styles are found in Museum Park. Styles vary from modern office blocks to Neo-Classical sandstone buildings. Building uses vary between recreational facilities and maintenance workshops for the Public Works Department. There are, however, certain buildings which play key roles in the Museum Park development. The two most important ones, both in scale and symbolic meaning, are the Pretoria City Hall and the Transvaal Museum. Both these buildings are on a civic scale in terms of spatial arrangement and architectural style, with the open area between them being an important space within the area as a whole. The Transvaal Museum is fully operational, but the City Hall building is very much under-utilized. Another important venue is the African Window Museum. This museum, bordered by Visagie, Schubart, Bosman and Minnaar Streets, offers the largest collection of artefacts<sup>1</sup> of all the cultural history museums in South Africa.



FIG 4.11:  
Bosman Street, View of  
Old Fire Station building



MINNAAR STREET

4.8

Minnaar Street forms the backbone of the Museum Park Development. The closing off of the western end of Minnaar Street and the lack of public facilities provide little incentive for pedestrians to move down the street to and from Burgers Park. This fact has the advantage that Minnaar Street will not become a high speed traffic thoroughfare. At present, the African Window opens onto Visagie Street, and is situated on the corner of Visagie and Schubart Streets. There are pedestrian entrances to the African Window on both Minnaar and Bosman Streets. The site is easily accessible. The train and bus stations are in close proximity to the site, which is situated between the station and the CBD. High levels of pedestrian activity take place around the site, and these will increase with the development of Museum Park. A diversity of cultures move through this area on a daily basis. As Minnaar Street is intended to be a cultural spine, the site is well suited as a location for the Information Node.

The first phase of the Museum Park development provided street furniture along its spine, visually connecting the related functions and broadening the sidewalk on one side in order to emphasize the flow of pedestrian traffic. A row of parallel parking spaces was also provided along the northern edge of the street. The approach involved the incorporation of important buildings and elements along the street into the development. The project was initially envisioned by Louis Cloete, who was involved with the City Council. Up to this point the design had been done by Holm Jordaan Architects and Urban Designers.

Minnaar Street has been upgraded to a pedestrian-friendly street, using landscaping as well as changes in paving. Although it functions well as a pedestrian walk, there are certain areas of the Museum Park development that need to be addressed:<sup>1</sup>

- \_ Although it is based on the Smithsonian model, only the northern side of Minnaar Street has been activated.
- \_ The entrance to the African Window is on Visagie Street, resulting in the reduction of pedestrian activity on Minnaar Street.
- \_ Activities do not extend beyond the dead-end of Minnaar Street, resulting in a lack of pedestrian activity beyond Bosman Street.
- \_ The tourist infrastructure needs to be addressed. A lack of information undermines plans to increase tourism in the area.
- \_ The transportation of tourists between attraction points and the station also needs to be addressed

<sup>1</sup> Museum Park (2006)



## the built environment and spatial relationships in minnaar street

The height of buildings in Museum Park vary, with most of the buildings towards the west being three to four storeys high, and the housing blocks to the east having an average height of seven storeys. This is due to the residential zoning requirements of the area around Burgers Park. Few offices in Minnaar Street are exceptionally tall in relation to other buildings, the highest of these being fourteen storeys.



FIG 4.12:  
Views of Minnaar  
Street from the Old  
Fire Station Buildings

The building mass density in the area is much lower than that of the CBD, but increases rapidly north of Visagie Street towards Skinner Street, forming a strong barrier between the museum district and the CBD. Museum Park has provides very good opportunities for the development of small-scale open spaces with the potential to become urban 'pockets' used for parking as well as informal public activities.

Unfortunately, these spaces are poorly utilized, and there are only two public open spaces, both on a very large scale. All the other 'open spaces' are either vacant lots or on-site parking areas. The process of enhancing Minnaar Street through the use of identifiable landmarks and street furniture has made some progress. Simultaneously, development of the sidewalk has shifted the emphasis to pedestrian traffic. However, the street still does not relate properly to the scale of pedestrian activities and movement patterns. It lacks edge continuity and multi-functional smaller open spaces.



Buildings are set back from the street at various distances, with vast open areas in some cases, such as the space in front of the City Hall. However, much potential exists for the creation of better street edges and pedestrian street spaces. Rows of trees line both sides of the street, and parking is also provided. This fact relieves the amount of parking required on the site of the new design scheme that will be incorporated into this development. The area is generally under-utilized because of a lack of residential and commercial activities.

The Old Fire Station was replaced by the new Fire Station built on the south side of Minnaar Street, directly across from the old one. The Old Fire Station building was subsequently utilised to house ambulance services. At the time of the conversion of the Old Mint Building into the African Window, the ambulance services still occupied the premises and they refused any proposal by the City Council to develop the building. The Old Fire Station was therefore not included in the development of the block. For this reason, there are a number of links to the Old Fire Station, incorporated in the landscape design of the African Window, that terminate in dead ends. These already supply perfect opportunities to link the landscape design with the Old Fire Station.

The original building is highlighted in FIG 4.13. It included the Tower and Minnaar Street House.



## THE OLD FIRE STATION BUILDING

4.9



FIG 4.14:  
Training Tower of the Old Fire Station



# historical background of the old fire station building



As mentioned before, the old ambulance building was originally designed as a fire station complex. After the new fire station was erected on the opposite (south-western) corner, the ambulance services moved into the complex. The complex was designed by Cowin & Powers Architects<sup>1</sup> and completed in 1912. It is situated on the corner and is one of the few buildings in the precinct that defines the street edge. The complex is two storeys high and interacts well with the topography of the surrounding buildings.

## ARCHITECTS:

The Archives of the Department of Architecture, University of Pretoria<sup>1</sup> state the following about the Old Fire Station Building architects:

"Cowin & Powers Architects started in 1912. This partnership between N.T. COWIN and E.M. POWERS in Pretoria from 1912 was first listed in 1913. The partnership was formed on winning the competition for the Central Fire Station in Bosman Street, Pretoria in 1912, probably in collaboration with JS CLELAND. The partners came second in the competition for the Boksburg Town Hall (1912), and won the competition limited to Transvaal Architects for the Dutch Reformed Church at Greylingstad in the same year, a competition adjudicated by Herbert BAKER. In 1919 they won the competition for the South African Party Club with a simple, solid classical design, characteristic of the period. In 1920 they were placed second in the competition for the 'Johannesburg University Building' (the Main Building, University of the Witwatersrand). The Roll of Honour for the Association of Transvaal Architects was designed by Cowin & Powers in 1920. In 1921, TG ELLIS joined the firm, the style of the firm becoming COWIN, POWERS & ELLIS."

<sup>1</sup> Archives of the Department of Architecture, University of Pretoria (2006)

FIG 4.15:  
Old Fire Station 1912, Bosman Street view



## choice of building type

The conservation and re-use of existing buildings in the inner city must be investigated to keep the character of the city alive. The existing Old Fire Station is standing partly empty, while a small part – only one room - is used as an information facility. Other facilities like accommodation, education laboratories and conference facilities are available on the premises, but the building is not utilized to its full potential.

A proposal has been made by the Museum Park Society in co-operation with the African Window to convert the building into a discovery museum for children. The Transvaal Museum, which is located 800 m from the site, is underutilized, and proposals are underway to develop parts of it to play a more interactive role. Therefore, it would seem a more viable option not to remove possibilities from the Transvaal Museum, but rather to increase the density of functions in the surrounding buildings. Turning the Old Fire Station into a children's museum would exacerbate the current underutilization of the Transvaal Museum.

The development of the Information Node would make visitors more aware of the surrounding activities that are available. The proposal would encourage the re-use of the existing buildings. The Fire Station has a robust internal layout, and can easily be converted. The spaces already lend themselves to accommodation, offices, retail and entertainment.

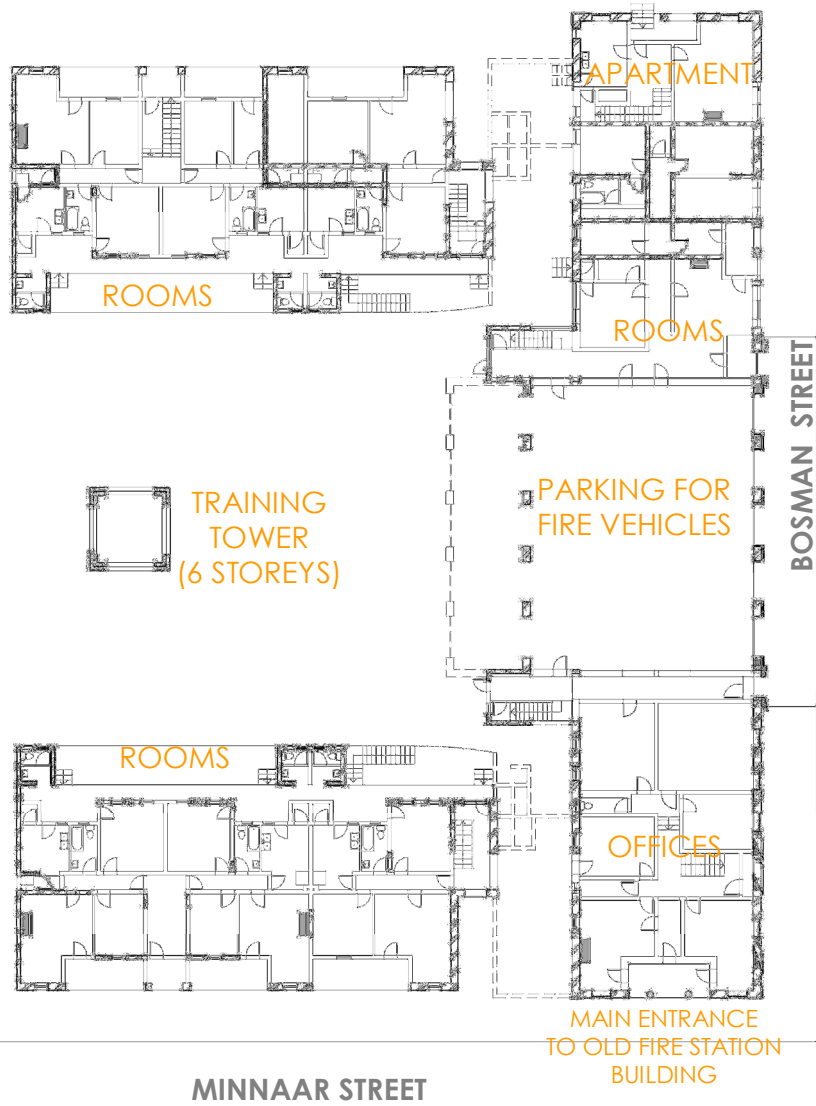
## architectural style, structure and material use of the building

This building has a historical, cultural and architectural value. It is in need of restoration, conservation and re-use.

- \_The building is built in a U-shape and is placed close to Bosman and Minnaar Streets. The courtyard is open to the west.
- \_The double-storey façade facing Bosman Street is symmetrically designed around a central axis. This entrance or exit is well defined by a tower on the roof.
- \_Two identical wings on the northern and southern sides of the courtyard are aligned on a north-west axis.
- \_The Fire Station is structurally sound and relies on internal and external load-bearing walls.
- \_Wood-framed windows and doors, timber and granite floors and timber ceilings can in some places be recognized as original finishes.
- \_The original wooden doors of the vehicle entrances have been replaced by rolling steel doors.
- \_The original clay tiled roof has been replaced with corrugated iron sheeting which needs repainting. In some places the sheets as well as the waterproofing and gutters will have to be replaced.
- \_The clay brick walls are currently painted, except for those of the six-storey training tower.
- \_The section of the fire station presently in use is in good condition. It has been painted and the wooden floors renovated.
- \_The interior is in a dismal condition. In most places the paint is peeling and damp spots are noticeable.
- \_Steel moulded fireplaces with timber frames, square tiles and copper plates can still be seen in most of the rooms and offices. The fireplaces are in need of cleaning.
- \_Some of the electrical switchboard connections have been cut and will have to be rewired.
- \_Most of the toilets, except for those in use by the existing information centre, are unusable.



ground floor plan



first floor plan

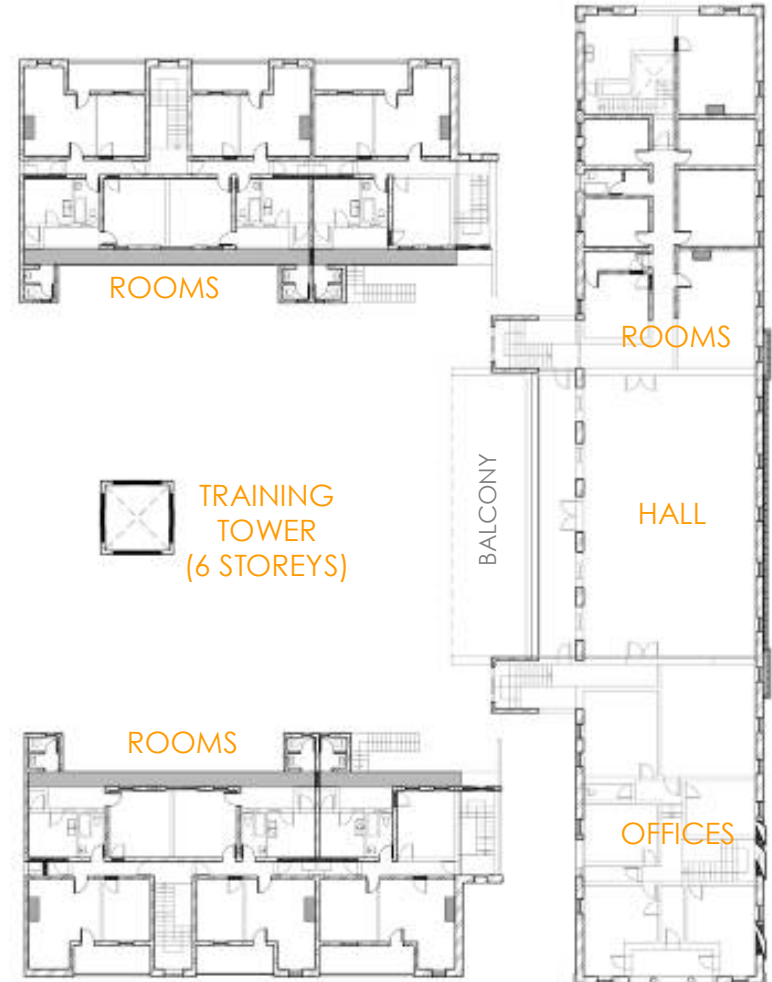


FIG 4.16:  
Floor plans of the Old Fire Station building



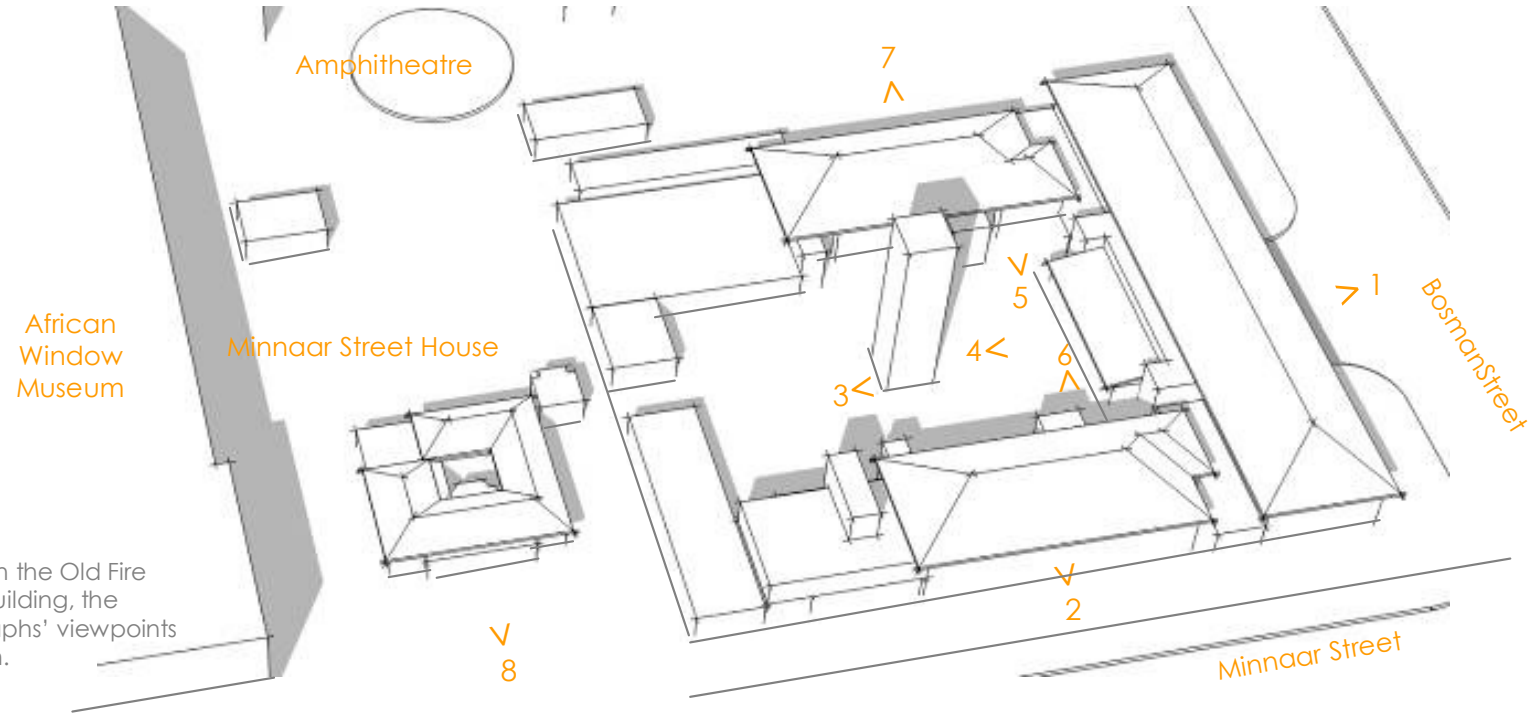


FIG 4.17:  
To explain the Old Fire  
Station Building, the  
photographs' viewpoints  
are given.



FIG 4.18:  
Eastern façade (Bosman Street)



FIG 4.19:  
Detail of entrances at eastern façade (Bosman Street)



FIG 4.20:  
Original ambulance sign (1912)



2



FIG 4.21:  
Balconies at south  
wing, facing towards  
Minnaar Street

FIG 4.22:  
Corner of Minnaar  
and Bosman Street



FIG 4.23:  
Minnaar Street:  
View to Bosman Street



FIG 4.24:  
View from information  
centre's entrance towards  
Minnaar Street House



FIG 4.25:  
Staircase and entrance  
into square from Minnaar  
Street (unused)

FIG 4.26:  
Signage and entrance  
of Tourist Centre

3



4







5



FIG 4.31:  
Northern wing and garages  
viewed from inside the square



FIG 4.32:  
Northern wing viewed  
from inside the square

6



FIG 4.33:  
Information centre  
entrance from square

FIG 4.34:  
Additional staircase  
to upper floor



FIG 4.35:  
Southern wing viewed  
from inside the square



8





FIG:4.41:  
Two old fire trucks still on site

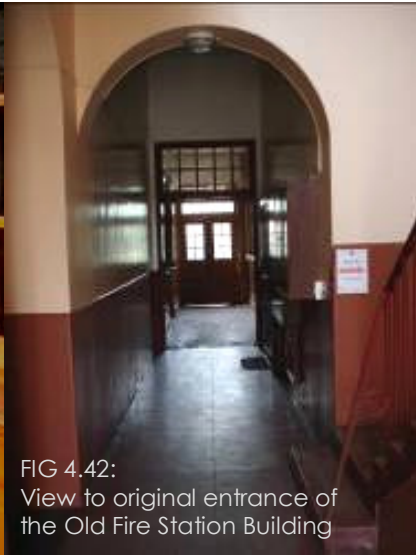


FIG 4.42:  
View to original entrance of  
the Old Fire Station Building



FIG 4.43:  
Original staircase with face brick walls  
(some painted white) and window detail



FIG 4.44:  
Conference hall with original  
timber roof and floor



FIG 4.45:  
Original timber floors and  
fireplaces in some offices and rooms

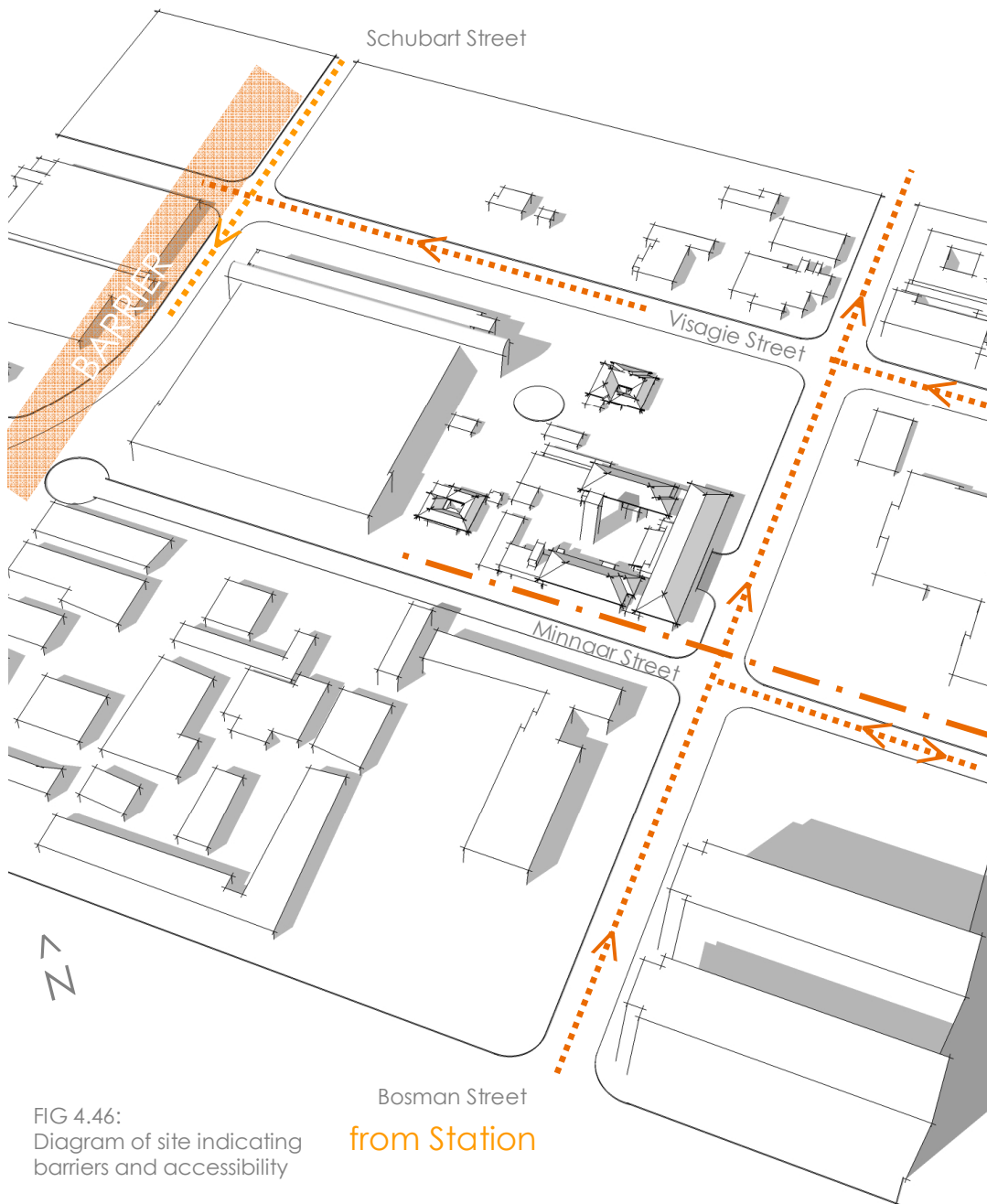


FIG 4.46:  
Diagram of site indicating  
barriers and accessibility

Bosman Street  
from Station

## SITE ANALYSIS

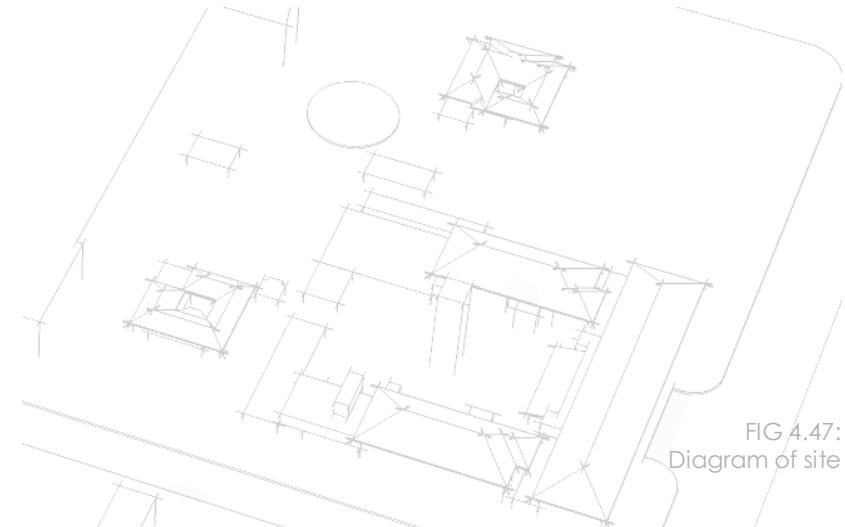
4.10

**LINKAGE:** Linkage represents the glue of the city. It is the act by which all the layers of activity and resulting physical form of the city are united. Urban design is concerned with creating comprehensible links between the following:

- \_visual linkage between the City Hall and Transvaal Museum;
- \_linkage between the Pretoria Station and tourist attractions;
- \_linkage between Church Square and the Pretoria Station;
- \_linkage between Church Square and tourist attractions.

**BARRIERS:** Schubart Street acts as a physical barrier that prevents the extension of the Museum Park in a westerly direction.

**ACCESSIBILITY:** The site is centrally located and easily accessible from the station. Pedestrian accessibility from Paul Kruger Street is encouraged by the pedestrian-friendly Minnaar Street. The traffic in Bosman Street moves in a northerly direction due to it being a one way street. This creates rapid movement past the site and needs to be considered in the design process. Museum Park enhances pedestrian activity along the streets. High levels of pedestrian movement take place around the site.


 FIG 4.47:  
 Diagram of site

#### NOISE POLLUTION:

The site is protected from major traffic noise disturbances. The eastern side borders Bosman Street, which becomes very busy during rush hour traffic. The thick walls of the old building, however, blocks out most of the noise pollution.

#### VISUAL CHARACTER AT NIGHT:

The visual character of Museum Park at night is important for determining the actual value of night-time activity. At present, activity in the evening is located more towards the eastern residential area, but does permeate the area towards the City Hall where people move down Paul Kruger Street. Minnaar Street is very quiet at night, especially towards the western end. The visual quality of the site in the evening must be designed carefully and with deliberate consideration as Museum Park may become increasingly utilized after hours.

In *The Image of the City*<sup>1</sup> Lynch describes how people 'image' the city, that is, how they create and remember mental images of the large-scale environments in which they live. He focuses on how people think about the structure of their cities. From verbal and pictorial accounts, he derives five basic elements<sup>1</sup> of the city image: PATH, NODE, LANDMARK, DISTRICT and EDGE..

The contents of city images needed for successful human interaction can be classified into these five types of elements. They can be applied to any urban environment, as they are derived from a study of human needs and activity patterns. These five would be useful in any context of spatial division.<sup>1</sup>

Museum Park forms a district that is already improving the legibility of the surrounding area. Through further applications of design, the area can potentially become easily legible in the urban context.

<sup>1</sup> Lynch (1960:46)

## PATHS: *The channels along which people move.*<sup>1</sup>

The site is easily accessible. A diversity of tourists and cultures move through the area on a daily basis. The site can easily be accessed by vehicle, train or on foot. This fact reduces the required number of parking bays needed in the area. The train and bus stations are in close proximity to the site. The main point of entry for tourists into Tshwane is the Pretoria Station.<sup>2</sup> The Blue Train, Rovos Rail, Touring Couches, Spoornet trains (and soon the Gautrain) transport tourists to and from Tshwane.

All the routes surrounding the site are major vehicular routes. Visagie, Paul Kruger and Schubart Streets are prominent vehicular routes and form the main eastern exits from the city centre. Currently, the main entrance to the African Window is on Visagie Street. This poses a problem in terms of the circulation in the streets surrounding the site. All the streets, except for Minnaar Street, are one-ways and if the entrance is missed one has to make a long round trip to return. It makes more sense to allow for pedestrian entrances from all the surrounding streets. This will also increase the use of street parking.

High levels of pedestrian activity take place around the site, which will increase with the development of Museum Park. Paul Kruger and Bosman Streets are also heavily used pedestrian paths from the Pretoria Station to the centre of town. On entering the site via the pedestrian entrance in Bosman Street, one moves through the pergola along Visagie Street House. One encounters the entrance to the African Window after passing the amphitheatre. If the site could be entered from Minnaar, Bosman and Visagie Streets, pedestrian movement through the site will be encouraged. The permeability of the site will be improved if the add-on buildings of the Old Fire Station were to be demolished. This would enhance interaction between the existing buildings on the site. Spaces could then cater for movement through the site.

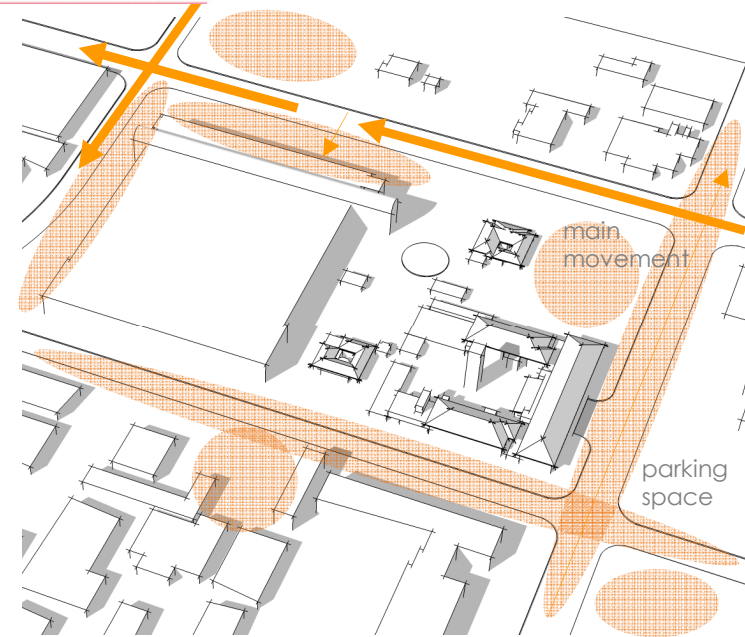


FIG 4.48: Vehicle movement and parking

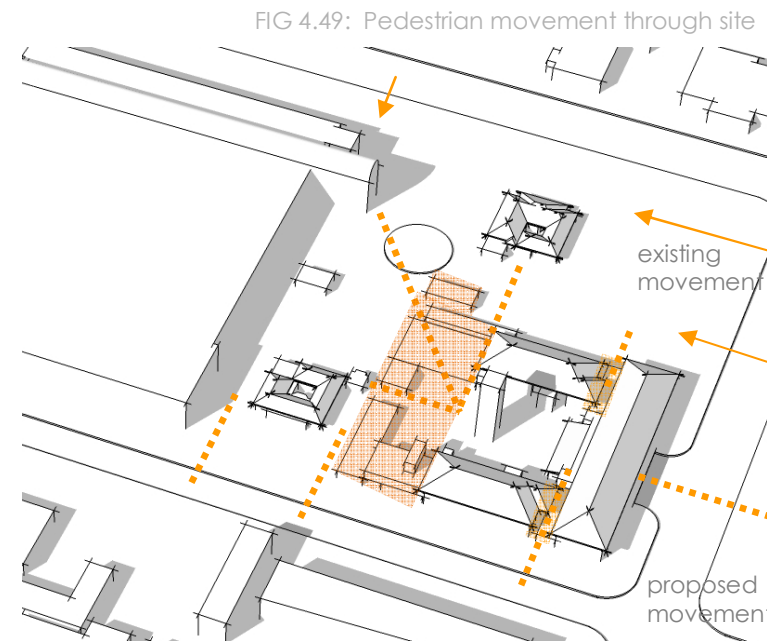


FIG 4.49: Pedestrian movement through site

1 Lynch (1960:46)

2 Fitzpatrick (2006:440)

**NODES:** *Points in the city where paths meet or cross, experienced as points which the observer can enter. The node is a place that creates a space of activity.<sup>1</sup>*

The precinct in which the site is located accommodates important transportation nodes. The only prominent nodes in the whole of Museum Park area are the Pretoria and Bosman Street Stations. The Pretoria Station is within walking distance from the site. Taxi ranks are located in the area, but taxis are not predominantly considered as a mode of transport for tourists.

Pretorius Square, if defined more clearly and designed to accommodate a diversity of activities, could act as a node space. There clearly exists a strong need and great potential for activity nodes within the Museum Park development. Therefore, nodes should be carefully considered and incorporated. Designing functions surrounding the edges of these nodes will improve legibility in terms of spaces of public gathering and the usage of these spaces.

The current nodes on the site are the African Window Museum. At least one conference a day is held at the facility. The Museum, amphitheatre and two houses do not interact with each other. By demolishing the add-on buildings between the Old Fire Station and the rest of the site, the node could be used to its full potential by giving access to the whole site from four streets. The design will further define and incorporate the functions of the existing buildings on the site.

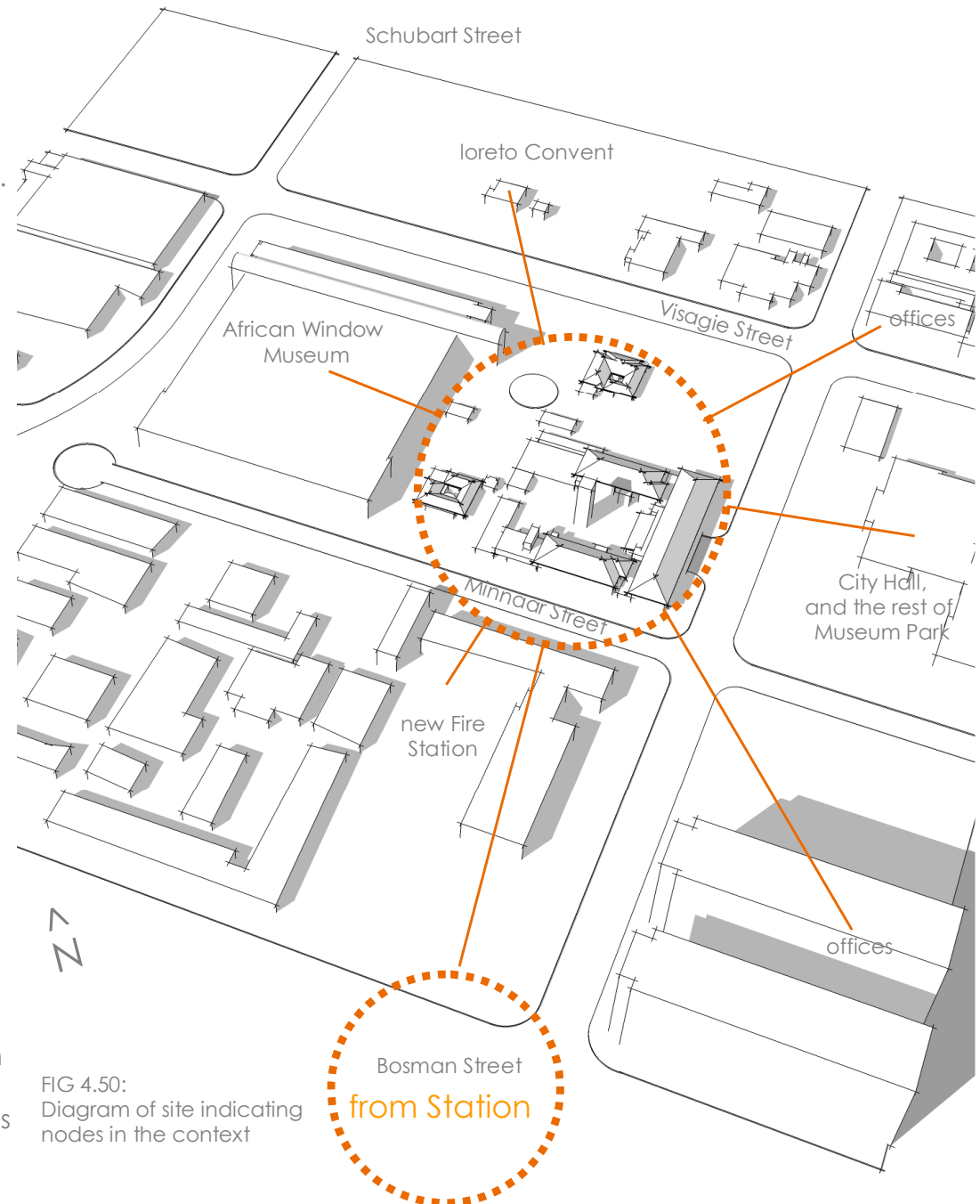


FIG 4.50:  
Diagram of site indicating  
nodes in the context

<sup>1</sup> Lynch (1960:46)

**LANDMARK:** *Physical reference points used for orientation within the city. They are experienced externally and the observer does not enter them as in the case of nodes.*<sup>1</sup>

The site allows easy legibility as the African Window stands as a landmark on the main movement routes that surround the site. The Old Fire Station forms a strong corner building and edge, and can be seen as a landmark building. The training tower also acts as a landmark but can easily be missed. The visibility of the tower will be improved by the new development. The City Hall and the Transvaal Museum can also be regarded as landmarks. The visual connection of both landmarks adds to the legibility of the site. At night the lights at the entrance of the African Window Museum draw attention to the building as a landmark. The same technique should be used for the Old Fire Station tower. Visuals are important for nocturnal movement and legibility.

**DISTRICT:** *Areas with a similar spatial and visual character. They are perceived as having some common identifiable character.*<sup>1</sup>

The greater part of Museum Park is a district on its own because of the mixture of cultural and institutional functions it contains. It is surrounded by districts which all differ in character. To the east are located the residential areas around Burgers Park; to the north are large-scale office developments and the south consists mostly of transport and informal trading areas.

The potential of the site is limitless and the Information Node proposal is well suited to the site. The Information Node will complement the focus on information, conservation and education in the area. The conservation aspect would be realized not only by the re-use of the existing buildings on the site but also by increasing the awareness of South African heritage within Tshwane and the tourism field.

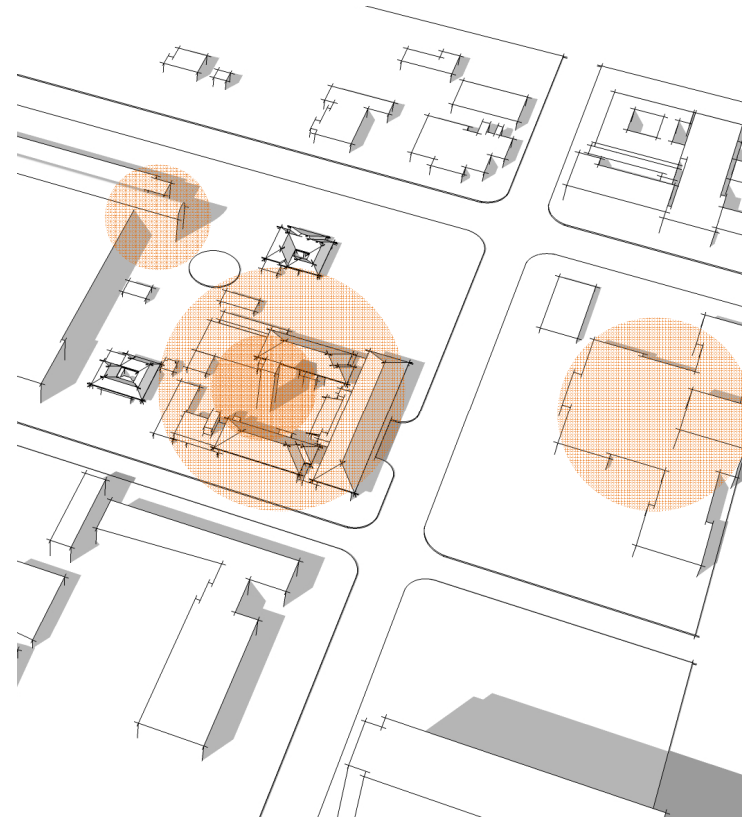


FIG 4.51: Diagram of site indicating landmarks in the context

<sup>1</sup> Lynch (1960:46)





**EDGE:** *Linear elements not considered as paths by the observer. They are boundaries between two phases or breaks in continuity.*<sup>1</sup>

Along the north side of Visagie Street, buildings form an edge that defines Museum Park clearly. The only other clearly defined spatial edge is formed by a group of taller buildings towards the south of the City Hall site. The City Hall defines the edge of Bosman Street rather ineffectively.

The edge of Minnaar Street is well defined by the Old Fire Station. The set-back of the defining edge at Minnaar Street House indicates the approach to an entrance. The pergola indicates movement from the pedestrian entrance to the African Window. The wall dividing the surrounding sites and activities from the Old Fire Station will be removed, allowing its façade to become the edge of the node. The other edges to the space will be designed so as to allow activities to spill out onto the space.

The fence along the Bosman Street edge will be removed so that the eastern façade of the Old Fire Station building can become a new edge. The removal of the garage doors will establish a visual link with pedestrians as well as vehicles in Bosman Street. Privacy will be achieved by the horizontal distance when the space is opened up, and will attract people to the square. The edges should encourage activity and promote pedestrian movement.

<sup>1</sup> Lynch (1960:46)

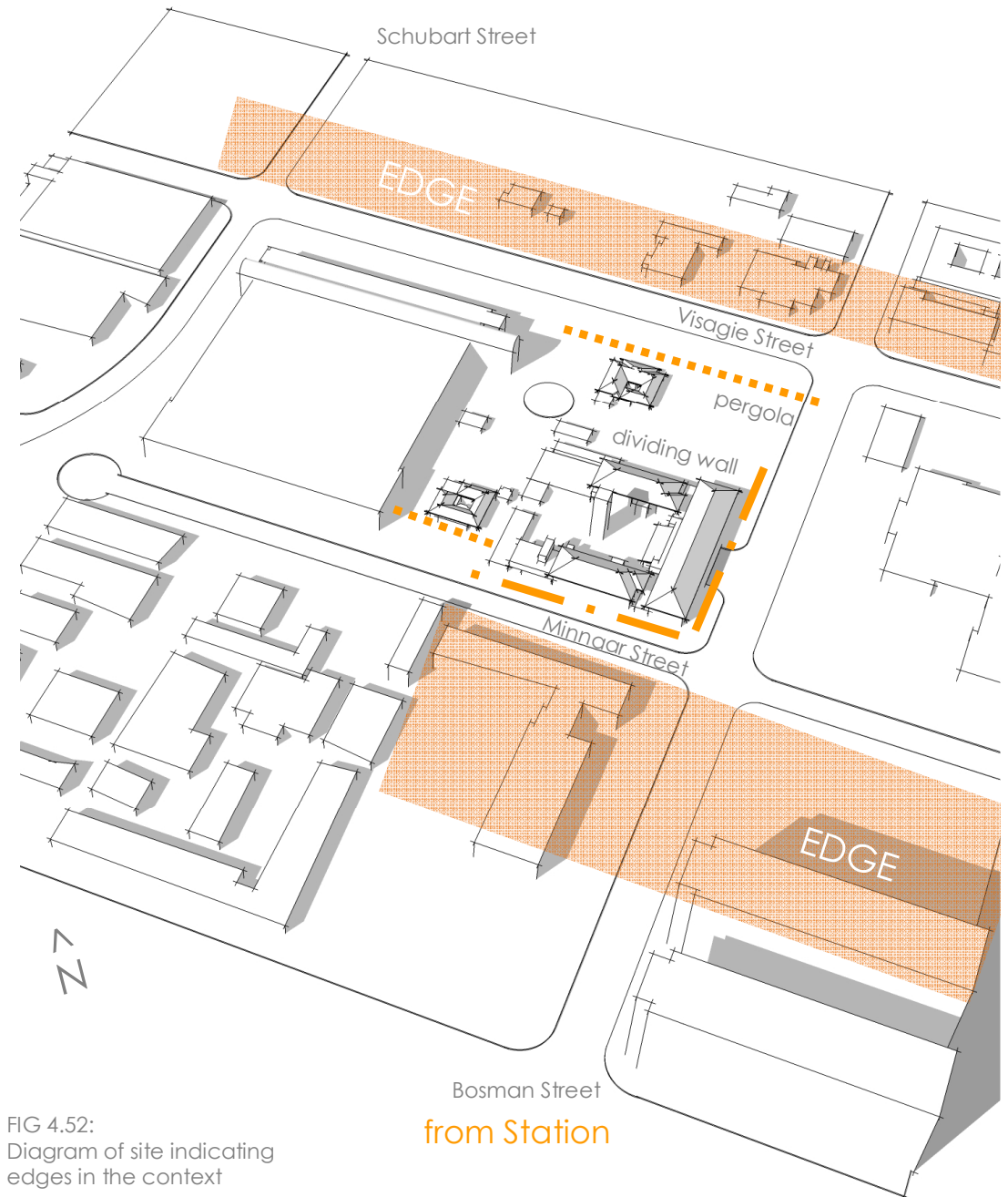


FIG 4.52:  
Diagram of site indicating  
edges in the context

## CONCLUSION

4.11

The Fire Station is already associated with an information centre and is clearly visible from all major routes and tourist activities. The spaces already lend themselves to both public and private areas that will complement the Metropolitan Activity Nodes<sup>2</sup> that form part of the development strategy of the Tshwane Spatial Development plan.

Metropolitan activity nodes<sup>2</sup> can be defined as the following:

“Centres of economic activity as far as business enterprises in the city are concerned. These are retail and office centres, which should provide opportunities for a wide range of business types and sizes. As far as possible, these nodes should be physically and functionally integrated with and around major railway stations. Metropolitan Activity Nodes should be the highest order activity nodes in the metropolitan area with the highest concentration of residential, commercial, social, cultural and other general urban activities.”

They should be characterised by:

- \_high intensity and high density mixed land uses;
- \_highest levels of accessibility;
- \_24 hour activity;
- \_well-defined public spaces;
- \_pedestrian-friendly environments;
- \_public transport facilities and activities.<sup>2</sup>

Metropolitan activity nodes should be extended into high density, mixed-use activity spines along certain vehicular public transport routes.<sup>1</sup> The site and the existing building can be classified according to all the above criteria, thus the conclusion can be drawn that the site is well suited to accommodate an Information Node.

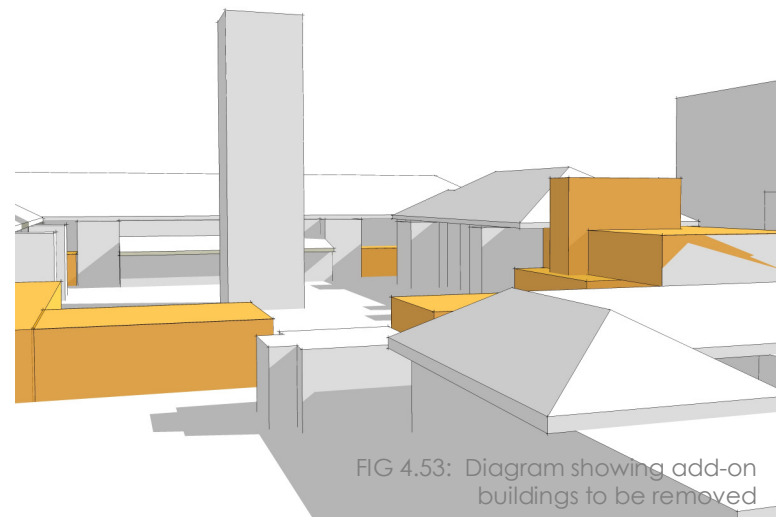


FIG 4.53: Diagram showing add-on buildings to be removed

2 City of Tshwane Metropolitan Municipality (2007:18)



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d e s i g n p h i l o s o p h y  
a n d a p p r o a c h



## 5.1

 DESIGN PHILOSOPHY:  
 PUBLIC SPACE

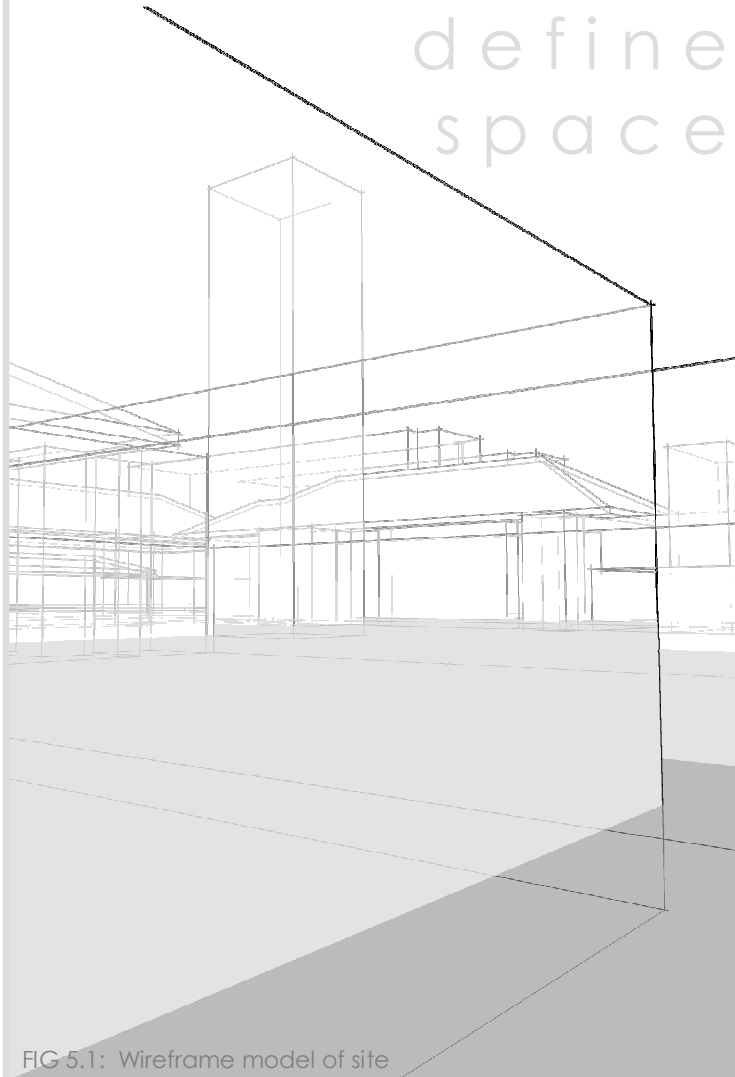
 define  
 space


FIG 5.1: Wireframe model of site

In *The Production of Space*, Henri Lefebvre<sup>1</sup> contends that there are different levels of space, from very abstract, crude, natural space ("absolute space") to more complex spatialities of which the significance is socially determined ("social space").

A **public space** or a **public place** is a place where anyone has a right to come without being excluded because of economic or social conditions.

**Semi-Public space:**

A broader meaning of public space or place includes also places where everybody can come if they pay, like a café, train, movie theatre or brothel. A shop is an example of what is intermediate between the two meanings: everybody can enter and look around without obligation to buy, but activities unrelated to the purpose of the shop are not unlimitedly permitted.

There is no expectation of **privacy** in a public space. Public spaces are attractive for budget tourists and homeless people. Whilst it is generally considered that everyone has a right to access and use public space, as opposed to private space which may have restrictions, there has been some academic interest in how public spaces are managed to exclude certain groups - specifically homeless people and young people. Measures are taken to make the public space less attractive to them, including the removal or design of benches to restrict their use for sleeping and resting, restricting access to certain times, locking indoor or enclosed areas. Police forces are sometimes involved in moving 'unwanted' members of the public from public spaces.

<sup>1</sup> Lefebvre (1991)



# the (social) production of space

Lefebvre<sup>1</sup> argues that space is a social product, or a complex social construction (based on values, and the social production of meanings), which affects spatial practices and perceptions. As a philosopher, he argues that this social production of urban space is fundamental to the reproduction of society, hence of capitalism itself. Social space is a social product - the space produced in a certain manner serves as a tool of thought and action. It is not only a means of production but also a means of control and hence of domination or power.

Lefebvre<sup>1</sup> contends that the production of space in its raw form is nature, which is transformed into a product called art. The Bauhaus group considered themselves to be revolutionaries since they had developed a global concept of space. They understood that objects could not be created independent of each other in space without taking into account their interrelationships and their relationship to the whole. For them, the production of space corresponded to the capacity of productive forces which eventually led to rationality. Therefore, forms, functions and structures came together in a unified conception.

David Adjaye<sup>2</sup> is one of Britain's leading architects. He combines the physical and emotional with a theoretical approach to the essential elements of architecture. He has explored scale, measurement, space, light and materials in projects that have included private homes, retail spaces, and public buildings, refusing to lower his recognized language to a signature style.

Peter Allison<sup>2</sup> states that public space is never open space. It is continuously legislated, monitored and explored by official institutions. Adjaye regards the creation of public space as a responsibility in his work. He states the following:

"We do not built public spaces; we construct it through a variety of individual govern-mentalities. It is not the organization or buildings choice, but rather the silent but obvious facilities that is recognised by everyday users as symbols of the publicness of space. An architect must visualize to constantly make this aspect visible to obtain the quality of public space."

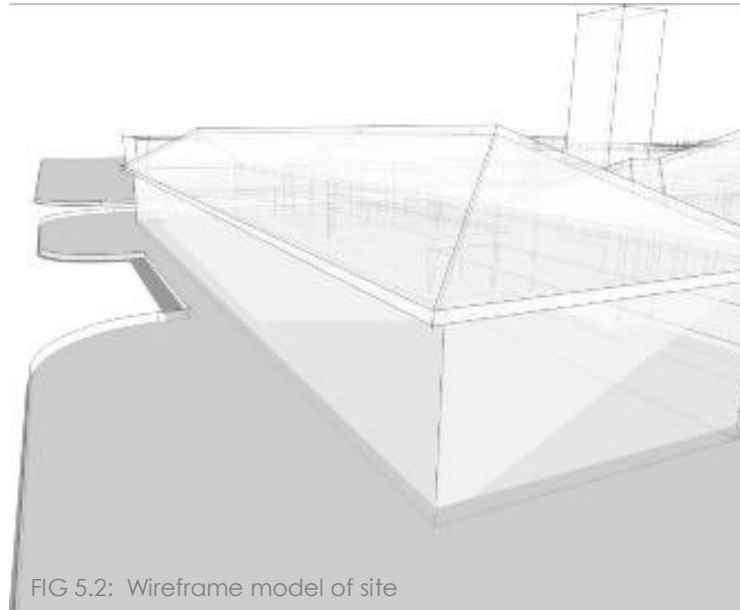


FIG 5.2: Wireframe model of site

1 Lefebvre (1991)

2 Allison (2006:7)



## public materials

Public space is not an object but rather a value-added principle of existing architecture.<sup>1</sup> There is a complexity created within buildings that can be seen as a 'third space',<sup>1</sup> a kind of invisible zone of maximum interaction and social dialogue between people. This is a fundamental concept of open space, one that is predicated by both the simplicity of design and the individuality of function, use, ethics, and value. Adjaye's buildings emphasize the functionality of the built environment while considering the experience and understanding of it. Adjaye<sup>2</sup> state the following:

"Buildings are deeply emotive structures which form our psyche. People think they are just things they manoeuvre through. But the make-up of a person is influenced by the nature of spaces."

The combinations of the smooth with the rough and the existing and the new are strong concepts in Adjaye buildings. His goal is to make space itself present, to strengthen one's experience of it. In many ways, Adjaye's buildings rise from within. In an interview with Peter Allison in 'David Adjaye, Making Public Buildings',<sup>2</sup> he speaks of his public buildings as public rooms, marked by an informality 'that is about everyday reality'. Attention to materials is one of the elements that he deploys to this effect. David Adjaye's recent engagement with public buildings comes at a time of renewed urgency and debate around notions of "publicness".

Architectural elements such as floors and walls, or glass that reflects street activities, are interpreted as material transitions between systems and environments, as boundaries that define openness and closure. The degrees of visual protection and exposure, noise and silence, reflection, colour and texture that materials provide create different modes of perception.

Rosalyn Deutsche<sup>1</sup> defines public space as the intimate connection with ideas about what it means to be human, the nature of society and the kind of political community we want. In this sense, it is not public space but public society that should be attended to first. Public space is never a given; it must constantly be produced and forms an essential part of civil society.

Levebvre<sup>3</sup> explains social space as the following:

"Social space contains a great diversity of objects, both natural and social, including the networks and pathways which facilitate the exchange of material things and information."

1 Deutsche (1996:269)

2 Allison (2006:7)

3 Lefebvre (1991:25)

### ANCHORING PUBLIC SPACE THROUGH DIFFERENCE AND COMPLEXITY - PUBLIC BUILDINGS THAT MAKE PUBLIC SPACES:

Allison<sup>4</sup> explains the concept of public buildings as components of the urban fabric that stand out where they are inserted. They produce a point of gravity around which practices can emerge and take shape. He states that these buildings are not simply in public space, but they *are* public space.

In public buildings, the wall can be seen as a critical element, normally associated with space that is restricted or private. Environments are given barriers in order to express logical borderlands or boundaries. Barriers must rather become components and parts of connected space and not act as divisions between two different spaces expressed as inside or outside and private or public.

The 'third space'<sup>1</sup> or wall, is symbolized by its different functions in the context. It is interpreted as borderland rather than borderline. In Adjaye's buildings,<sup>4</sup> the wall becomes a space that creates or activates public space, and does not divide inside from outside. The integrated objective of the walls of these public buildings ensures that the interactions of the inside and outside are directly co-dependent on each other. The uniqueness of and relationship between each element, the building, the wall and the surrounding context, maintain their specificity. It can be said that the energy of people moving through these elements creates an underlying visual connection between them.

The corner of Bosman and Minnaar Streets lends itself to a new interpretation to form a public space. It is situated in the perfect location with high enough levels of pedestrian and vehicle movement to form a 'third space'.

Awareness of the interior function would become clear if the corner of the Old Fire Station building were to be opened up. If a visual link between the inside and the outside context were created, the public space could become a more accessible environment.



FIG 5.4: Wireframe model of site

4 Allison (2006:14)



## 5.2

DESIGN APPROACH:  
SUCCESSFUL SQUARES

## MISSION FOR SQUARES

The following advice in the layout and design of areas of concern in the public spaces is given by the 'Project for Public Spaces, Inc.':<sup>1</sup>

## flexibility

Public spaces must respond to the changing needs of a community over time. Their design should be flexible and responsive rather than fixed and static. The development of a strategy will allow for the evolution of the public spaces as the development grows and changes.

## access

Access and linkages play a major role in creating vibrant public spaces. Optimizing of pedestrian, transit, bicycle and vehicular mobility and access must be considered. The design of streets and walkways will enhance the adjacent land uses and increase mobility for all users, not just cars.

## facilities

The role of seating, lighting, shade and landscaping – in short the facilities that make people feel safe and comfortable in a public space must be incorporated into the design. The development aspects include the design of storefronts, restaurants, public buildings and other ground floor uses that will bring energy to the streets and enhance the success of the retail and other commercial uses.

According to Kent's newsletter: '**Why Great Places are more than the sum of their parts**' from the 'Project for Public Space, Inc'<sup>2</sup> a successful urban environment's function, should be made up of destinations. Each destination should offer many things to do. They call this concept the **Power of Ten:**<sup>2</sup> **to be successful, a community should have at least ten great places and each place should have ten different things to do there.** This diversity of places and activities ensures that a community will attract the people who will make it a successful place. The Project for Public Space, Inc.<sup>2</sup> firmly believes that the success of public spaces can largely be attributed to the activities, events, recreational uses and social gatherings that take place there, whether planned or spontaneous and not to a fixed design.

Today, more people come to recognize the concealed energy of squares and plazas. Underperforming spaces in the inner-city can be transformed into a great nodes of activity. An understanding of how people will use a place and what activities will draw them there is necessary. Within any successful square or plaza, there should be several dynamic destinations that attract different kinds of people. These destinations should offer many things to do. Creating a great public space requires helping communities articulate a vision for these activities and destinations. The 'Principles for Creating Successful squares'<sup>2</sup> creates a concept plan with the following ten basic principles:

<sup>1</sup> Kent (2004)

<sup>2</sup> Project for Public Spaces, Inc. (2006)





## TEN PRINCIPLES FOR CREATING SUCCESSFUL SQUARES

### 1 Image and Identity

Historically, squares were the centre of communities, and they traditionally helped shape the identity of entire cities. Sometimes a element was used to give the square a strong image: The training tower of the Old Fire Station act as a landmark in this space. The image of many squares was closely tied to the great civic buildings located nearby, such as cathedrals, city halls, or libraries. Today, creating a square that becomes the most significant place in a city, and that gives identity to whole communities, is a challenge.

### 2 Attractions and Destinations

Any great square has a variety of smaller 'places' within it to appeal to various people. These can include outdoor cafés, fountains, sculpture, or a musical performances. These attractions don't need to be big to make the square a success, but draw people throughout the day. The idea of 'The Power of Ten'<sup>1</sup> is to set goals for destinations within a square that can be applied. Creating ten good places, each with ten things to do, offers a full program for a successful square.

### 3 Facilities

A square should feature facilities that make it comfortable for people to use. A bench or waste receptacle in just the right location can make a big difference in how people choose to use a place. Lighting can strengthen a square's identity with highlighting specific activities, entrances or pathways.

### 4 Flexible Design

The use of a square changes during the course of the day, week and year. To respond to these natural fluctuations, flexibility needs to be built in. Instead of a permanent stage, for example, a retractable or temporary stage could be used. Likewise, it is important to have on-site storage for movable chairs, tables, umbrellas.

### 5 Seasonal Strategy

A successful square can't flourish with just one design or management strategy. Great squares change with the seasons. Skating rinks, outdoor cafés, markets, horticulture displays, art and sculpture help adapt our use of the space from one season to the next.



## 6 Access

To be successful, a square needs to be easy to get to. The best squares are always easily accessible by foot: Surrounding streets are narrow; crosswalks are well marked; lights are timed for pedestrians, not vehicles; traffic moves slowly; and transit stops are located nearby. A square surrounded by lanes of fast-moving traffic will be cut off from pedestrians and deprived of its most essential element: people.

## 7 The inner Square and outer Square

The streets and sidewalks around a square greatly affect its accessibility and use, as do the buildings that surround it. An active, welcoming outer square is essential to the well-being of the inner square.

## 8 Reaching Out

Just as important as the edge of a square, is the way that streets, sidewalks and ground floors of adjacent buildings lead into it. The influence of a good square starts at least a block away. Vehicles slow down, walking becomes more enjoyable and pedestrian traffic increases. Elements within the square are visible from a distance and the ground floor activity of buildings attract pedestrians.

## 9 The Central Role of Management

The best places are ones that people return to time and time again. The only way to achieve this is through a management plan that understands and promotes ways of keeping the square safe and lively. For example, a good manager understands existing and potential users and gears events to both types of people. A feeling of comfort and safety in a square should be created, fixing and maintaining it so that people feel assured that someone is in charge.

## 10 Diverse Funding Sources

A well-managed square is generally beyond the scope of the average city parks or public works department, which is why partnerships have been established to operate most of the best squares examples. These partnerships seek to supplement what the city can provide with funding from diverse sources.



GUIDELINES FOR THE  
DESIGN APPROACH

5.3

- \_Structural flexibility is required to accommodate varying spatial needs and loadings.
- \_Ground floor areas adjoining public spaces must be incorporated by 'active' rather than 'passive' uses. There should be interaction between inner 'private' spaces and outer 'public' spaces.
- \_Multiple entrances must be created to encourage interaction between public and private areas and to improve planning adaptability. Too many entrances may lead to the legibility of the block breaking down. Many entrances must be closable for security and legibility reasons.
- \_In locations where the privacy of the ground floor level should be preserved, a change in level between pavement and ground floor should be introduced. Privacy can also be achieved by horizontal distance, or a combination of horizontal and vertical distances.
- \_Balconies on the public facades allow the private domain to interact with the public areas and enhance surveillance of the public domain.

- \_On-street parking will be provided throughout, to support street activities. Street intersections are intended to aid the crossing of pedestrians, incorporating traffic calming devices where appropriate. This was already done when Minnaar Street was upgraded.
- \_To be successful, mixed-use developments need a 'live-in' community. When a place is one's home, the local environment becomes one's concern. There are already apartments and rooms designed for the original usage of the existing building. The proposed development will take a residential or accommodation component into account.
- \_The layout of the site lends itself towards the idea of the perimeter block, with the exception that the edges are more defined. Perimeter blocks define the public realm, only retreating from the street to form focal nodes. This creates continuity of the street and assists its use in terms of legibility and orientation. Perimeter blocks also define a private realm that offers security and privacy.
- \_Active pavements form a vital component of the public realm. Where appropriate, they can be up to 5 meters wide, allowing activities to spill out from the building, if desired.

Both the existing site and building lend themselves to the easily implementation of the above guidelines.



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# p r e c e d e n t   s t u d i e s



## reconverting space

Buildings often survive their original uses as silent witnesses of the passing of time. Factories, warehouses and depots which have been left to decay are given a new lease of life as towns become centres of leisure, culture and service.<sup>1</sup>

The past of historical buildings deserves to be acknowledged and preserved. New opportunities for pulling these structures back into the urban fabric of today can be created without demolishing them to make way for new developments. Many structures are saved from demolition by a process known as adaptive re-use, the process of converting a building for functions other than that for which they were originally designed.



FIG 6.1: Diagram showing add-on buildings to be removed

The 'recycling' of a building is a reaction to the shortage of floor space in the inner city and the problems created when towns spread outwards.<sup>1</sup> The re-use of buildings has important environmental, social and economic advantages for the surrounding areas. It is more cost effective and ecologically sustainable in the long term than the construction of a new building. One of the most important benefits of re-using an old building is the retention of the 'energy within'. This 'energy' is unique to a certain time – the building's heyday – and this time can not be copied or replaced by a new building. Historical buildings have a personality that makes them one of a kind.<sup>1</sup>

Carte<sup>1</sup> states the following:

"Socially, the adaptation of abandoned constructions generates dynamism, small concentrations of urban reorganization and an attractive visual variety. The reutilization of a historic building for the future improves the quality of life in neighbourhoods and built-up areas as well as keeping an important part of the town's collective memory alive."

Mostaedi<sup>2</sup> explains what rehabilitating architecture involves:

"Rehabilitating architecture involves delving into the past in order to rewrite history and give it new life. To restore, preserve, to repair, to reconstruct, to intervene. This family of terms refers to the same practise that seeks to refurbish old spaces in order to give them a new use, whilst safeguarding their historical character and holding back excessive expressions of personality by the designer. It is a difficult balance involving many conflicts over historical research and technical solutions."

1 Carte (2006:11)

2 Mostaedi (2000:7)

Carte<sup>3</sup> supports the option of intervening in disused historical buildings, so that old structures can host different entities or activities. This is in many cases the result of a rational approach aimed at facing the scarcity of space in big cities and the high prices of space generally. A multifunctional solution often allows the final user, by offering different services or options in a given space, to optimize the use of the building.

Historic places embody the traditions and contributions of all who have used them in the past. If the city needs to remain a distinctive place with a high quality of life, then the historic places, buildings, neighborhoods, towns, and landscapes are essential resources for the present and the future. The challenge is to build on these foundations without discarding or demolishing the distinctive legacy of the past. Historic places embody the record of the identity of a society. They reflect tradition and a sense of place. They define quality of life.

The aim of this thesis is the reutilization of the Old Fire Station building to create a node with information and complementary facilities for public use.

The building will accommodate new functions. Alterations with a specific use in mind will transform the existing space to house flexible and multidisciplinary facilities. These will breathe new life into Museum Park, the surrounding area and the Tshwane tourism industry.

The following projects act as precedent studies and inspire the design development of the Information Node as adaptive re-use for a public building:

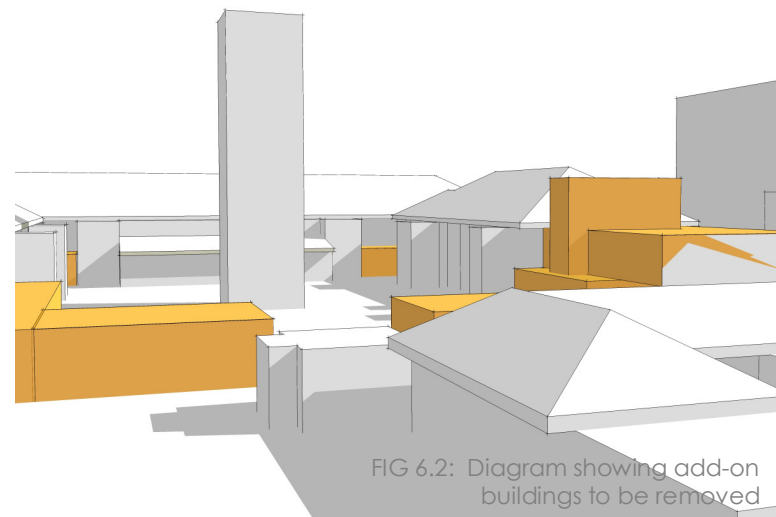


FIG 6.2: Diagram showing add-on buildings to be removed

3 Carte (2006:37)



## 6.1

## DAVID ADJAYE

Nobel Peace Centre

2002-2005, City Hall Square, Oslo, Norway

The Centre is located in the Old Vestbanen Station and has strong external form that encloses a number of highly differentiated spaces within a masonry structure. Where the original space is visible, they have been transformed by radical decoration. In other places the interiors have been reoccupied by a series of installations whose materiality and orientation contrast with the enclosing fabric. Whichever approach has been used, the overall intention remains the same: to create a powerful sequence of experiences which illustrate the work of the Peace Prize programme.<sup>1</sup>


 FIG 6.3:  
 View of site

<sup>1</sup> Allison (2006:24)

<sup>2</sup> Allison (2006:35)

## canopy:

The canopy introduces that a new use of the existing has taken place before entering the building. 'It brings together two architectural elements which normally lead separate lives: the gateway or portal and the type of arching footway which is associated with bridges'.<sup>1</sup>

## reception:

The area is coloured red, with a resin finish to all surfaces, furniture and storage. The use of colour and new elements contrast with the original building.<sup>1</sup>

## exhibition space and cinema:

There are two spaces for temporary exhibitions. The larger one is located on axis with the main entrance. The smaller one, for more informal exhibitions, is on the first floor. The windows can be closed off by the full-height pivoting doors. When the windows are not covered, the doors can be placed diagonal to create five separate bays. There is a small cinema next to this space.<sup>1</sup>

## noble field:

The title refers to the manner in which each of the Peace Prize laureates is represented by a monitor standing on a clear acrylic support. At rest, the monitor displays a portrait of that person, but when approached by a visitor, it switches into a video presentation. The dark blue colour of the floor, walls and ceiling focuses attention on the monitors. This creates a calm atmosphere.<sup>1</sup>

## café de la Paix:

In contrast to the reception area, the café is painted in different shades of green. The Yellow and Green is a spatial version of the maps on which airlines represent their flights by drawing a line between different destinations. The building is reused by mainly decoration, rather than an installation to preserve the original structure.<sup>2</sup>



FIG 6.4:  
Exhibition space



FIG 6.7:  
Register



FIG 6.8:  
Nobel Field



FIG 6.5:  
Small cinema



FIG 6.6:  
Entrance hall



FIG 6.9:  
Café de la Paix



FIG 6.10:  
View of entrance

Influences on the design approach

- \_an existing building is converted to a new usage, without destroying its historical value
- \_the position of the building on the site and its scale is consistent with that of the Old Fire Station building
- \_the handling of the street front and the introduction of new elements emphasize the entrance
- \_the circulation of people between the different functions in the existing building
- \_new and dramatic colour usage in the interior that contrasts with the existing
- \_the use of new technology as an interactive information medium.



## 6.2

## DAVID ADJYAE

## Idea Store Crisp Street

2001-2004, 1 Vesey Path,  
East India Dock Road, London.

The shopping centre as Crisp Street was built in 1950's and serves as housing. The site for consisted of an shop unit and the larger deck which previously formed its roof.<sup>1</sup>

While sensitive to its location, the exterior of the Crisp Street Idea Store<sup>1</sup> is perceived as a single volume. The quality of light and extensive use of timber create a warm interior. The use of identically coloured glass panels on the two Idea Store is a large-scale graphic device which reinforces the presence of these facilities within the communities they serve.<sup>1</sup>

The use of glass in the facades respond to the materiality of the adjacent shop fronts, as well as the requirements for the new building. The front façade is most transparent, allowing the interior to be seen from the outside.<sup>2</sup>

Influences on the design approach:

- \_the use of coloured glass to create a unique identity during the night and the day
- \_the use of light as a tool to differentiate between the old and new structures
- \_glass facades that create a dialogue between the inside and outside environments
- \_public and private spaces differentiated through proportion and scale of elements
- \_re-use of an existing building.

1 Allison (2006:163)

2 Allison (2006:172)



FIG 6.11:  
South façade with entrance at right



FIG 6.12  
Study on eats  
facade



FIG 6.13  
View across  
entrance space



FIG 6.14:  
East façade:  
day and night view

6.3

DAVID ADJAYE

Thyssen-Bornemisza Limited Edition Art Pavilion

2005, Islands of San Lazzaro degli Armeni,  
Venice, Italy.

The Venice pavilion<sup>3</sup> was designed to present 'Your black horizon', an installation by the artist Olafur Eliasson. In the windowless space, a horizontal line at eye level serves as the primary light source. It is about personal orientation in both inner and outer space.

This pavilion is conceived as a two sided: a pathway leads to a loggia which a view of the Laguna, or access to an impressive art work. As it is constructed of prefabricated components, it is capable of being moved to another location. Timber are the primary material in its construction for economy, lightness and ease of replacing damaged components. It is composed of a gallery that forms the main volume enclosed a column-free space, loggia, and ramped access. The louvers protect the entrance sequence from the glare-inducing view across the Laguna and provide an opportunity for the eye to adjust to light levels inside and outside the pavilion.<sup>3</sup>

Influences on the design approach:

- \_the use of material and structure to create walls that define interior and exterior spaces
- \_the use of light as a material art medium
- \_the accessibility of the building.

3 Allison (2006:89)



FIG 6.15:  
End wall of loggia

FIG 6.16  
Entrance ramp

FIG 6.17  
View of internal ramp

FIG 6.18  
View from timber screen

## 6.4 PUGH and SCARPA

Jigsaw Studios

2001-2004, Los Angeles, CA, USA

The architects used an industrial warehouse as a container and added two isolated structures.<sup>1</sup> The structures are suspended above a pool of water, a visual paradox which inverts the usual heavy-light order. The rest of the studio is very open, luminous and socially orientated.<sup>1</sup>

Two cube shapes welcome the visitor with their translucent screens. Translucent screens of the modules are double glazed windows which are filled with ping pong balls and plastic beads creating a filter to give the soft light needed in the work zones.<sup>1</sup> The café serves as an area for informal meetings and as a waiting room. On the opposite side a continuation of the flooring rises up from the ground to form the reception table.<sup>1</sup>

Influence on the design approach:

- \_the creative solution of keeping the original structure of the existing building, and inserting free-standing elements (or rooms) with different functions into the space
- \_the use of water as a tool for separating zones (private and public) without a visual vertical barrier
- \_new uses of materials (like the ping pong balls in double glazing) to create a playful atmosphere.

<sup>1</sup> Carta (2006:37)



FIG 6.19: (TOP)  
Industrial Warehouse before  
and after design implementation

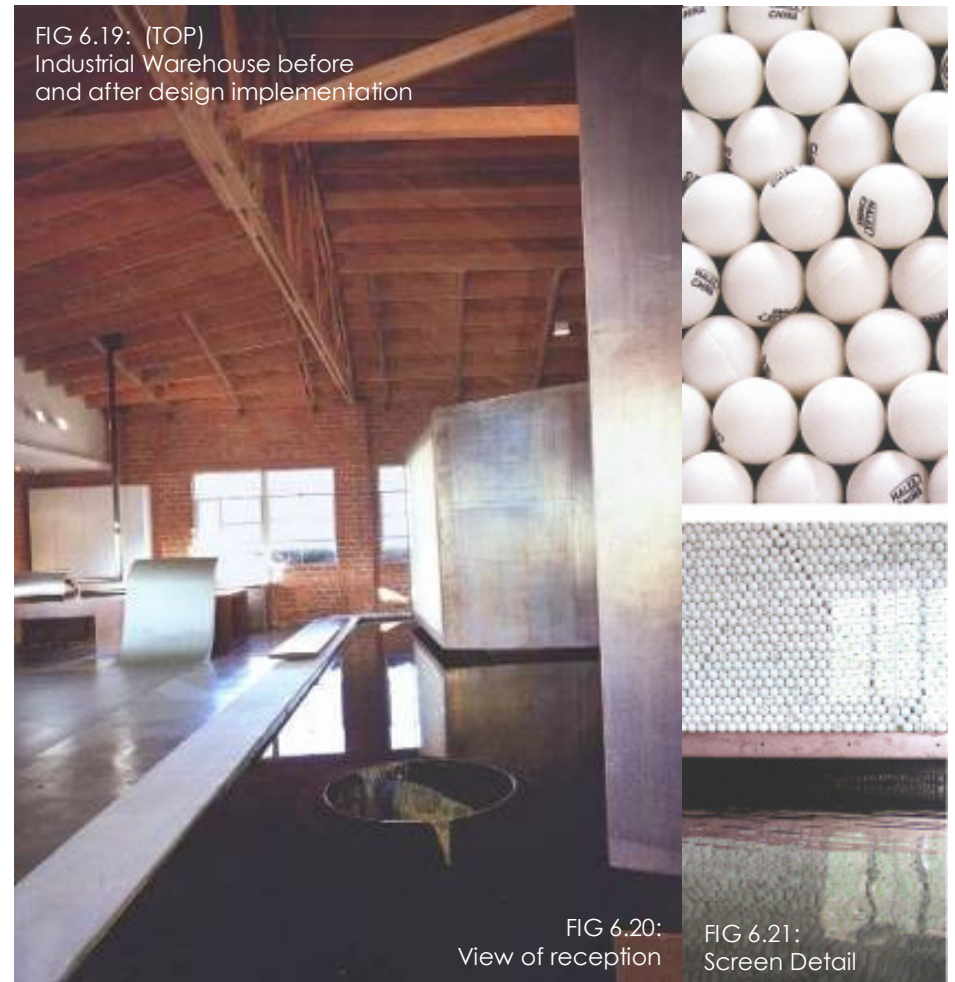


FIG 6.20:  
View of reception

FIG 6.21:  
Screen Detail



FIG 6.22:  
Fire Station before and after renovation



FIG 6.23:  
New street facade



FIG 6.24:  
Bridge in tower that connects to the floor above

## SAUCIER AND PEROTTE

Theatre Sans Fil

Montreal, Canada

6.5

The project involved the renovation of a Fire Station in disuse for an important theatre company from Quebec.<sup>2</sup> Built in 1914 in the style of the Unity Temple by Frank Lloyd Wright, the building holds workshops, rehearsal room and offices. The architect conserved and restored the characteristic ceramic bricks of the era, adding lightweight elements which contrast well with the brickwork and increase the value of the original construction.<sup>2</sup>

The extension is integrated within the context of the park. The glass facades lighten the concrete structure and at night transform the space into a light-house, visible from afar.<sup>2</sup>

The axis of circulation originates from the very high space of the observation tower. As with the hall, the architects built an elevated walkway which link the rooms to the floor above.

Influences on the design approach:

- \_ the building's original function is the same as that of the proposed thesis building
- \_ the usage of elements, like the training tower and its incorporation into the new use of the building
- \_ the contrast of the new additions with the old existing building.

## 6.6

## JFAK – John Friedman, Alice Kimm

L.A. Design Centre

Los Angeles, CA, USA

The need to create an attractive area from where to sell furniture, to stimulate investment and change the neighbourhoods identity in a positive way, led the architects to develop a program in four phases. It involved the conversion of two abandoned industrial warehouses into a showroom, space for renting for design studios and offices. The project needed a striking visual identity but one which could be integrated with the neighbourhood. The solution was to cover the building with a series of diverse layers which partially covered it. Envisaged as a pedestrian zone and social centre of the complex, the space between the warehouses, usually reserved for parking, is a fundamental element of the project. The brick structure of the warehouse was renovated and the interior was minimally equipped in steel, wood and glass, so as not to detract from the furniture exhibited.<sup>1</sup>

Influences on the design approach:

- \_taking the context and the influence of the neighborhood into consideration when making design decisions
- \_the treatment of the street front and parking as a space of interaction
- \_branding is incorporated in the layering of the building
- \_the use of shading and landscape elements to soften the harsh concrete paving
- \_materials chosen to contrast the existing with the new for exterior and interior
- \_the simplicity of new elements.

FIG 6.25: Before and after design implementation of the street facade



FIG 6.27: Parking area



FIG 6.26: Layered facade and sunscreens



FIG 6.28: Views of the interior

<sup>1</sup> Carta (2006:166)

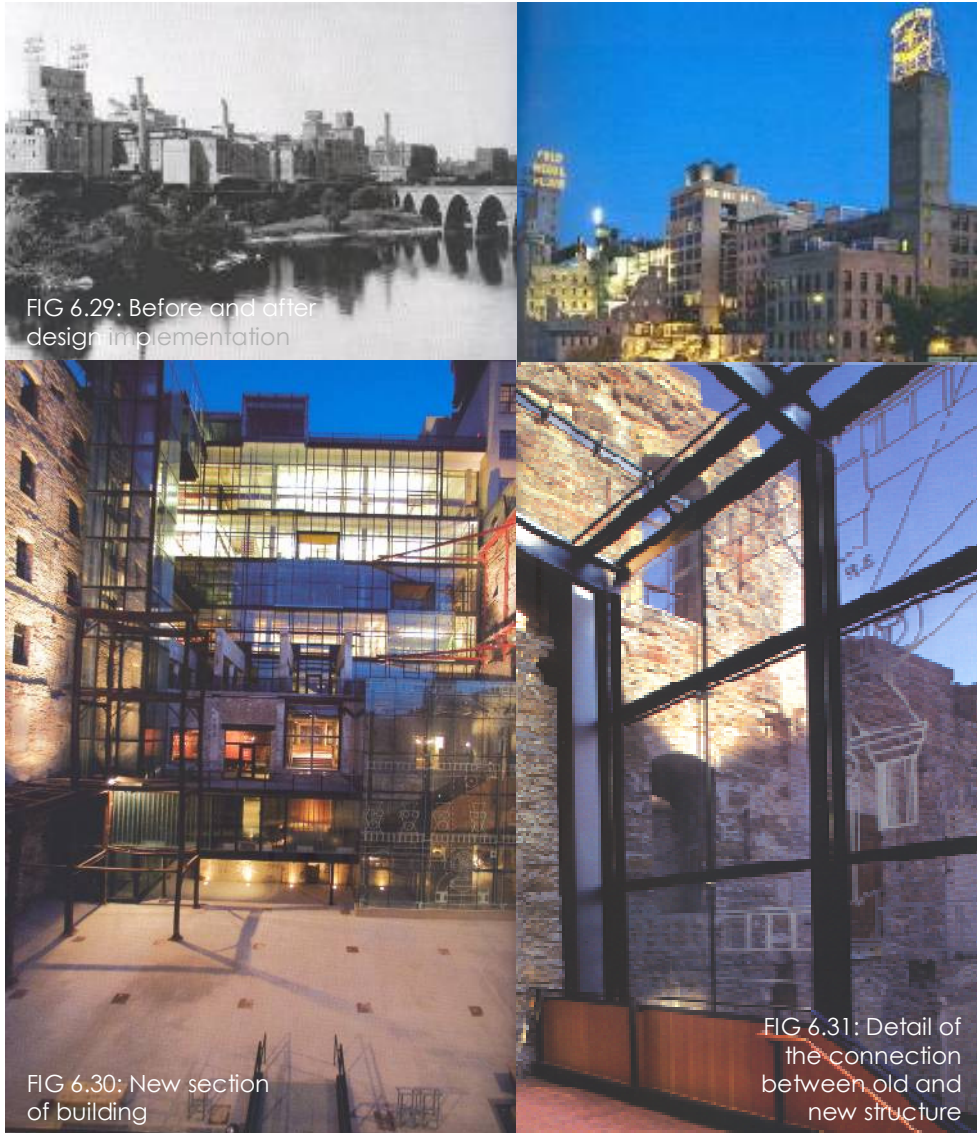


FIG 6.29: Before and after design implementation

FIG 6.30: New section of building

FIG 6.31: Detail of the connection between old and new structure

MS & R – Meyer, Scheirer and Rockcastle

Mill City Museum

Minneapolis, MN, USA

6.7

Built in 1874, the headquarters of General Mills<sup>2</sup> was one of the greatest flour factories of the world. Despite being declared a site of national interest, the building has been in disuse and later a fire destroyed the whole interior.<sup>2</sup> The museum, an independent space of glass and steel, has been carefully integrated into the remains of the complex with great success. In addition, the project includes the conversion of the silos and the transformation of the factory's old offices into shops, small offices and lofts.<sup>2</sup>

To benefit from the situation on the shores of the Mississippi, the architect created various accesses and walkways so that the flour complex works as a passageway link between the centre of town and the river. The decision to leave the remains of the burnt building and introduce a luminous glass space creates a balanced complex with an attractive contrast between the new and the old.<sup>2</sup>

Influences on the design approach:

- \_the dynamic addition of the 'light box' inserted between the old and new buildings creates a new awareness of its historical value
- \_the use of a glass and steel structure that is not dependent on the original structure of the existing building
- \_the creation of a multi-functional building that responds to the context and its systems.

d e s i g n   d e v e l o p e m e n t





## 7.1

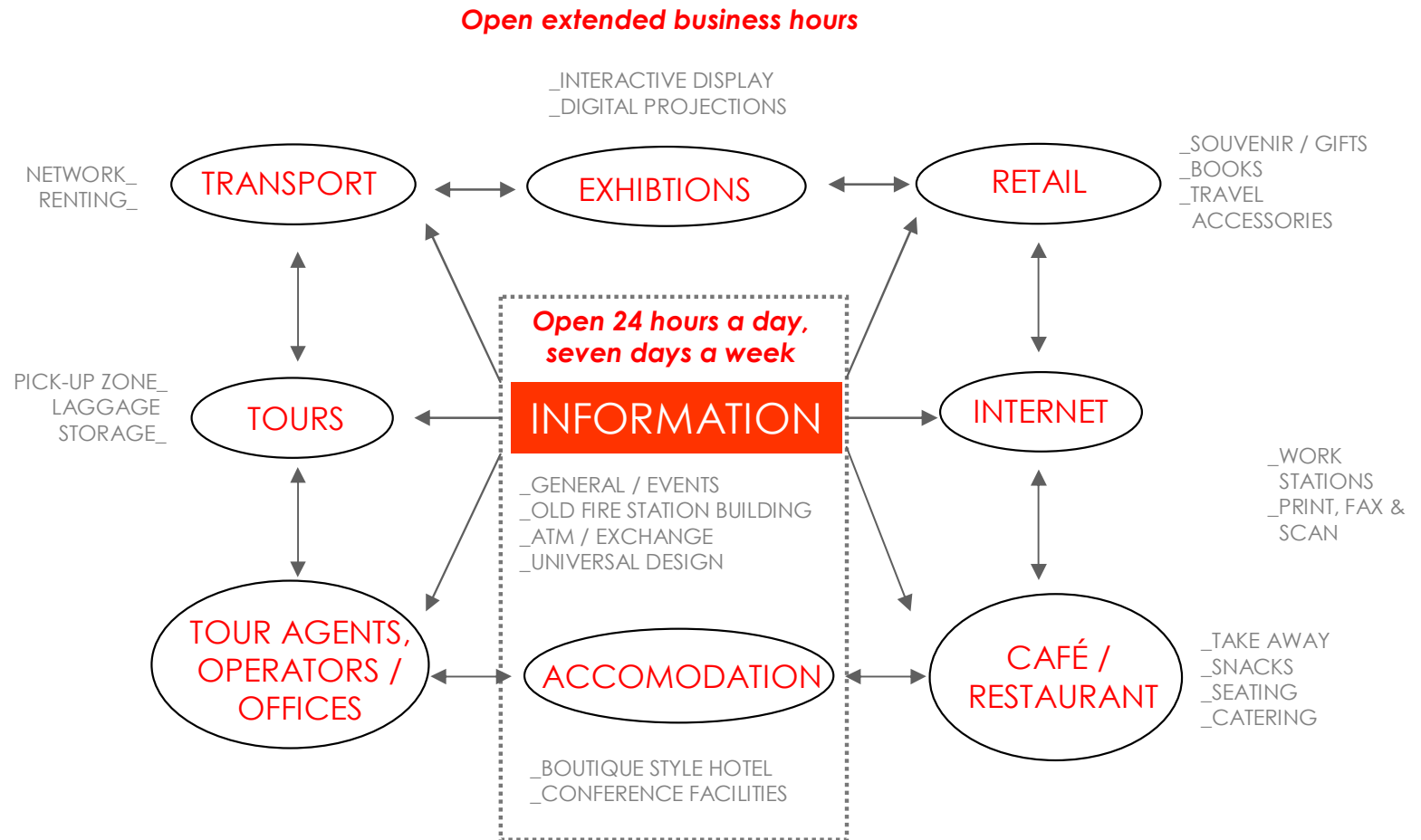
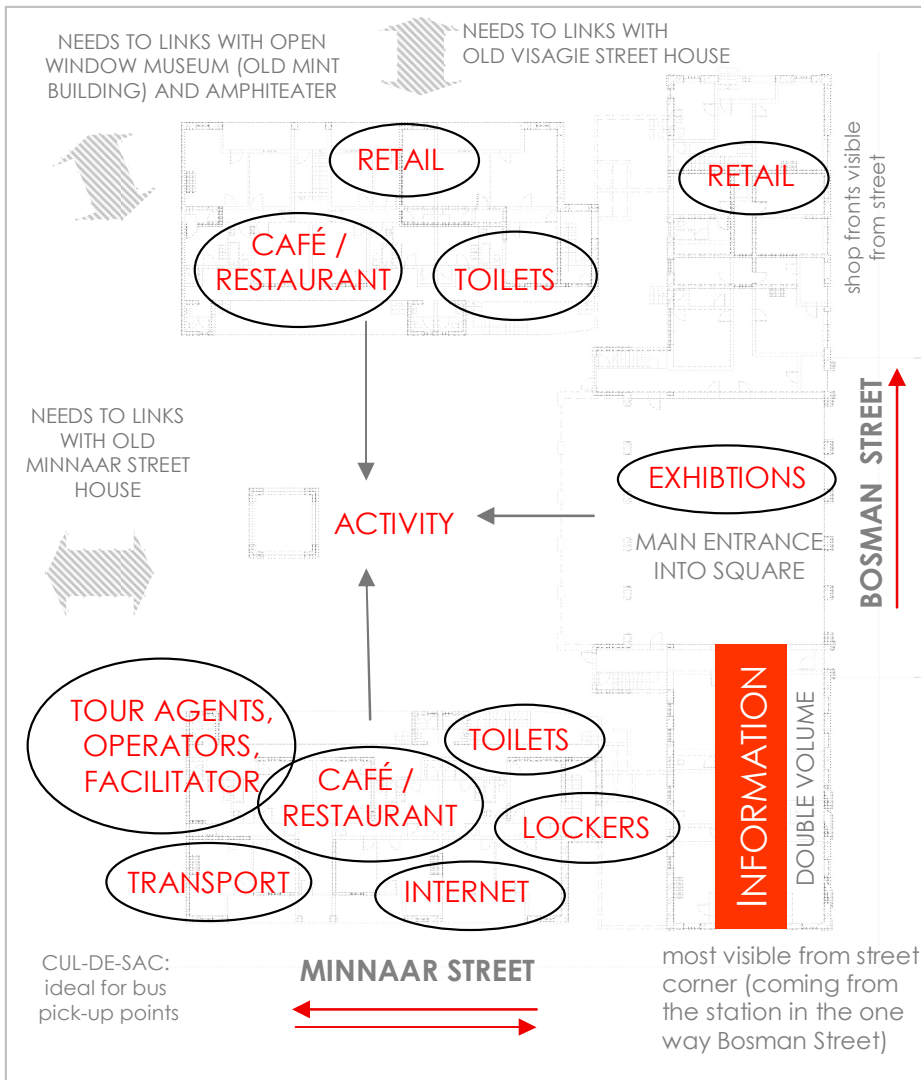
 SCHEDULE OF  
 ACCOMMODATION

 FIG 7.1:  
 Diagram of accommodation network



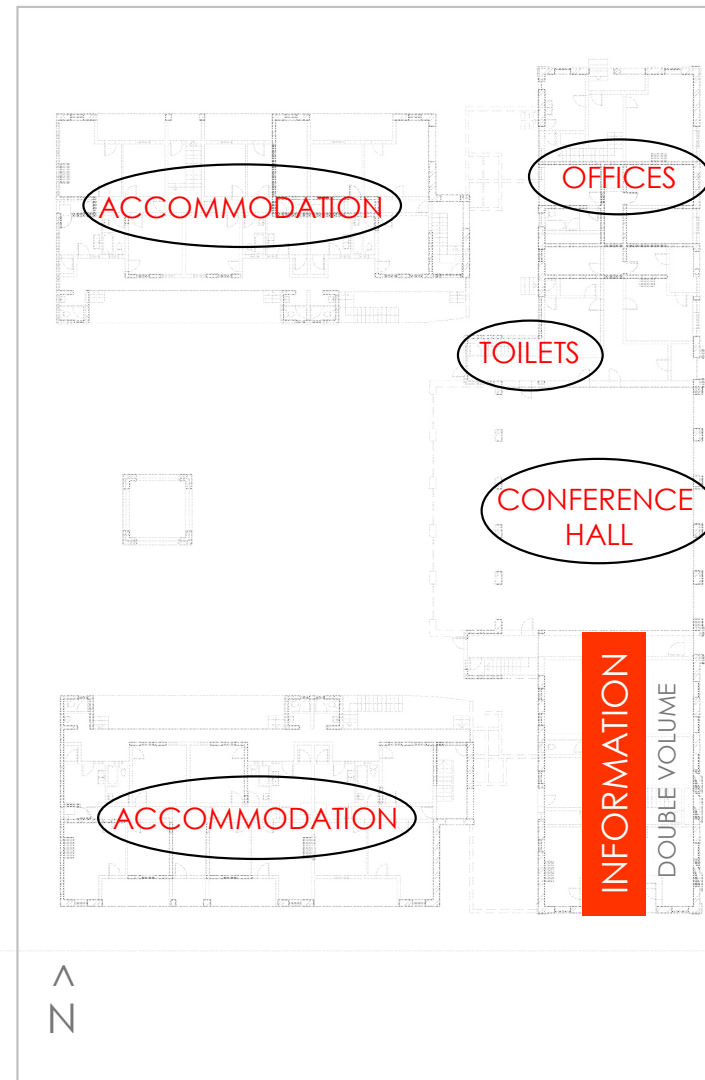
FIG 7.2:  
Floor plans of Old Fire Station building,  
indicating function zones

THE CONCEPTUAL  
LAYOUT OF THE BUILDING

7.2



ground floor



first floor



## THE EXISTING SITE AND BUILDINGS

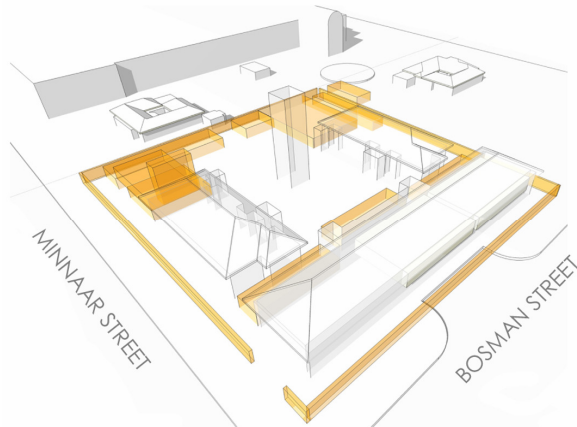


FIG 7.3:  
Concept model and photo of existing site

- \_The Old Fire Station building is closed off from the activities in its surroundings. The walls and fences around the building are removed to create a connection between the activities on the site.
- \_The structures that were added onto the original Old Fire Station Building are demolished.
- \_Circulation spaces between the original structures are established.
- \_Opportunities to create new buildings that will be more supportive of the site and activities are incorporated with the new site layout.

## DISPLAY CORRIDORS

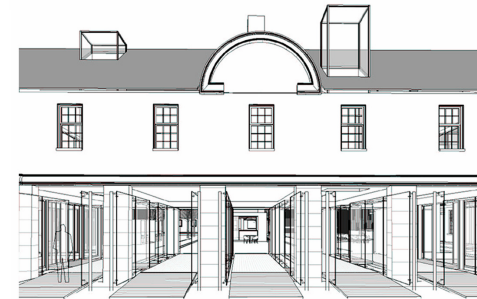
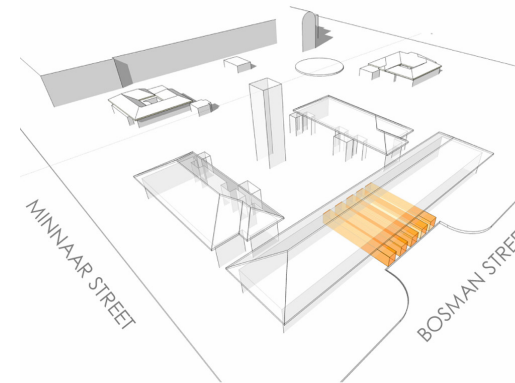


FIG 7.4:  
Concept model of the display corridors

- \_The original fire vehicle garages are re-used for the main entrance.
- \_Glass corridors connect the street with the activities inside.
- \_These corridors act as the main information exhibition areas.
- \_Different formats are used to provide information, for example digital projection, touch screens and displays.
- \_Wire frame images of the evolution of fire vehicles are graphically displayed on each glass panel to remind the user of the original function of the building.

## INFORMATION

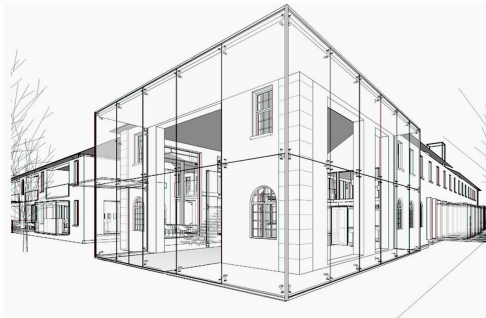
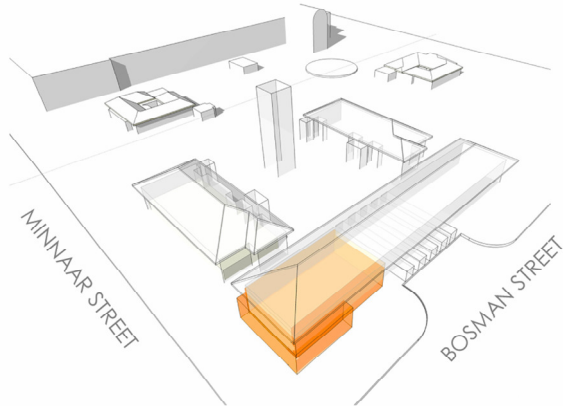


FIG 7.5:  
Concept model of the Information

- \_The original entrance of the Old Fire Station Building is again utilized as the main entrance to the Information Node.
- \_The internal walls and first floor are demolished to create a double volume open space.
- \_The original layout of the walls is displayed graphically as a watermark on the floor.
- \_The corner of the building is opened up with a new glass façade layer, to make the activities inside visible from the street.
- \_A reception 'box' and staircase are placed inside this space as loose elements that connect with the first floor.

## CAFÉ, INTERNET, BOOKSHOP, TOILETS AND LOCKERS

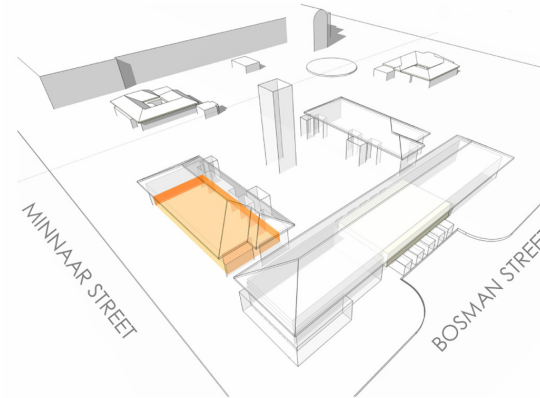


FIG 7.6:  
Concept model of the café, internet,  
bookshop, toilets and lockers

- \_These functions act as the main supporting elements of the Information Node.
- \_The original entrance to the rooms is re-used.
- \_Most of the original walls are demolished.
- \_The original fireplaces are re-used as focal points.
- \_The original patios are re-used for outside seating to enhance the activities on Minnaar Street.
- \_The walkways are used as outside seating to enhance activity in the square.
- \_The toilets and internet facilities are placed as loose standing elements in the space.

## RETAIL AND ENTERTAINMENT:

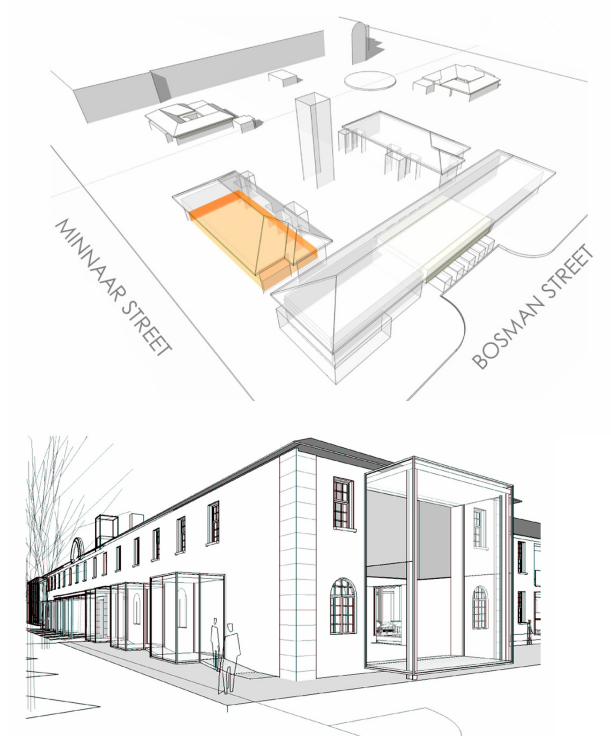


FIG 7.7:  
Concept model of retail and entertainment

- \_New shop fronts are created on the eastern and northern facades.
- \_These new structures form a supporting layer of separate entrances and serve as marketing tools for each shop.
- \_The Training Tower acts as an activity node in its own right, for example as a cocktail bar with seating.
- \_The tower is emphasized with lighting and digital projection to create a dynamic landmark, visible from the street.

## CONFERENCE FACILITIES AND OFFICES

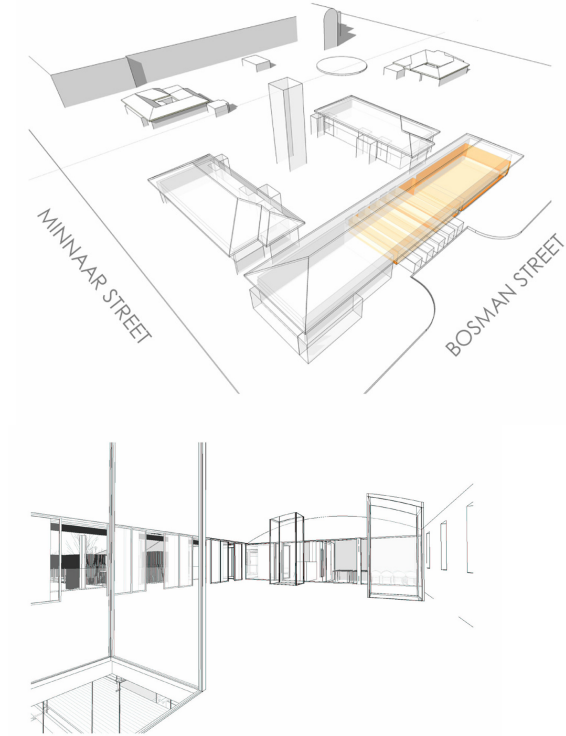


FIG 7.8:  
Concept model of the conference facilities and offices

- \_The original hall is re-used as a conference facility.
- \_Double-volume skylight shafts are inserted through the roof and floor. These connect the ground floor activities (display corridors) and the first floor activities (conference hall) visually with each other, and also enhance the natural light quality of the spaces.
- \_The original room layouts of the Old Fire Station building are re-used as offices, storage and toilet facilities.

## ACCOMMODATION

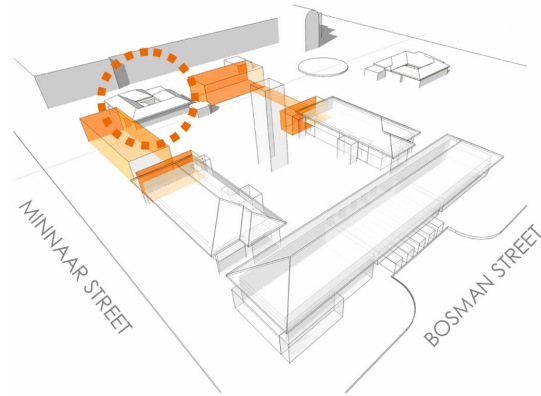


FIG 7.9:  
Concept model of the accommodation

- \_The original layout of the rooms ideally lends itself to hotel accommodation.
- \_Two of the original rooms are joined to form one new boutique-style hotel room.
- \_New bathrooms are placed as loose elements, raised from the floor to accommodate services with minimum impact on the original building.
- \_The main information reception area doubles up as the boutique hotel reception, with lounges at each wing entrance acting as security points for guests.
- \_Skylight shafts enhance the natural light quality in the corridors to the rooms.

## NEW BUILDINGS: TOUR AGENTS AND OPERATORS / OFFICES / VENUE FOR FUNCTIONS OR EXHIBITIONS

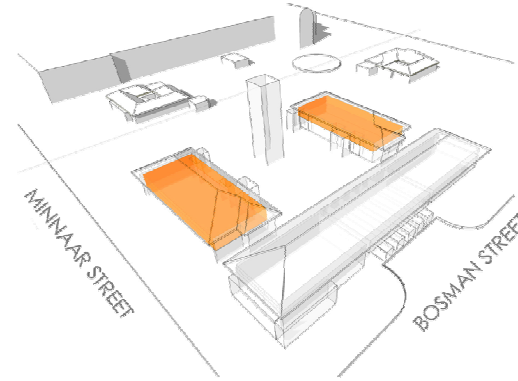


FIG 7.10:  
Concept model of the new buildings

- \_The new buildings are placed so as to accommodate supporting functions that could not be accommodated inside the original building
- \_The new buildings are seen as a new layer to complement the existing structures and to form an enclosed feeling away from the street.
- \_Minnaar Street House is incorporated into the square's activities by linking the old and new with walkways. The house is used as a restaurant for the public and boutique hotel guests. Catering for the function venue and conference facilities can be supported by the restaurant.
- \_By placing the new correctly scaled structures strategically, a visual link with the African Window Museum and Visagie Street House is created. Access is made possible through the Bosman or Minnaar Street entrances to the Museum and Visagie Street House.



## 7.3

DESIGN  
STRATEGY

## LAYERING:

The original building form and identity is preserved with only essential walls removed to accommodate new functions. New structures are layered onto the existing to create spaces for these functions. The primary function of information is layered by the secondary functions, creating a rich and diverse environment.

## CONTAINED SPACES:

The concept of creating space within space<sup>1</sup> is used as a design generator: smaller spaces are placed as loose objects inside the original building envelope. These objects accommodate the services of the different functions with minimum impact on the original structure. The 'contained spaces' are either hovering or cut into the original floor level to emphasize that they are detached from the original structure. When combined with lighting, the objects become elements floating in space.

## OLD VERSUS NEW:

To easily differentiate between the existing and add-on structures, deliberately contrasting materials and construction technologies are used. Transparent and translucent materials create an architectural language of lightness, allowing the new structure to be sensitively inserted into the existing building. The outer skin of the building is punctured at critical points, allowing the glass insertions to reach out from within, giving a glimpse of the functions contained inside.

## PLACEMAKING:

New structures are added to the existing to articulate both indoor and outdoor functional spaces. The perceived scale is reduced in certain areas to create human friendly spaces. The square's ambiguous boundaries are completed to contain the public outdoor space and increase the sense of enclosure. The approach and circulation routes through the building are used as organizing devices linking functions and spaces. Various degrees of spatial and visual continuity between adjacent spaces are achieved through the treatment of the boundaries that both separate and bind them together.

<sup>1</sup> Ching (1979:196)



site model:



FIG 7.11:  
Concept model of the site



Two portions of the building are chosen to be investigated for the design development of the Information Node.

These are the following:

#### **PORTION A: Information**

This portion includes the following:

- \_the glass facade
- \_the reception area with staircase
- \_interactive work stations and display
- \_information corridors
- \_the conference hall with skylight shafts.

#### **PORTION B: Café, internet facilities, bookshop, toilets and lockers.**

This portion includes the following:

- \_a cafe with outside seating
- \_interactive workstations
- \_a bookshop
- \_toilets
- \_lockers
- \_the boutique hotel lobby and rooms.

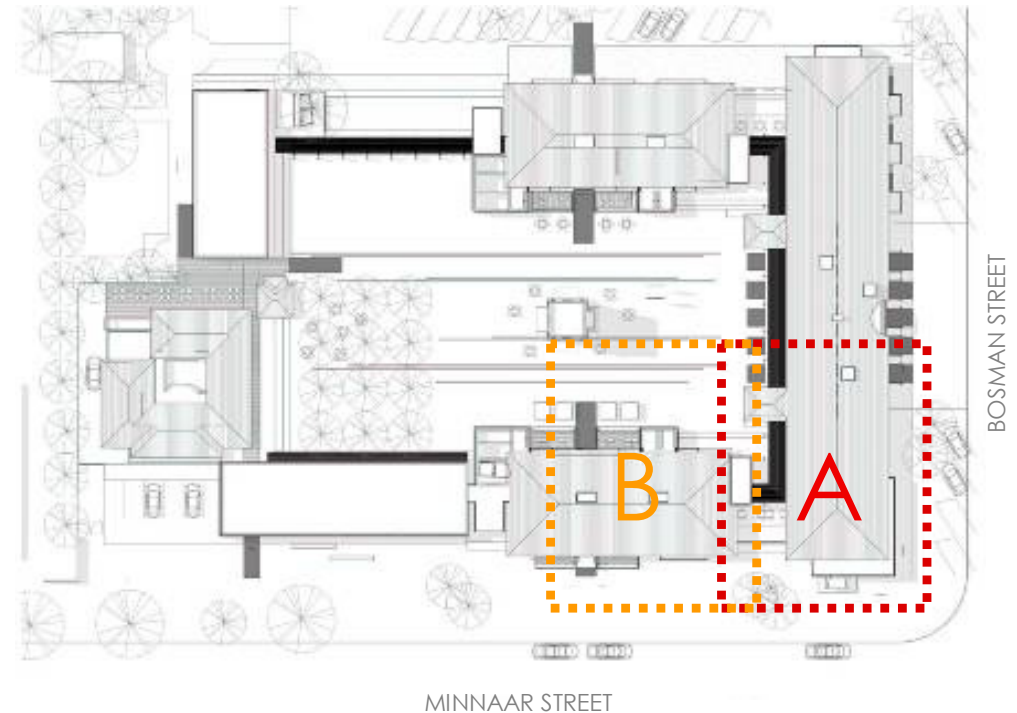


FIG 7.12:  
Site plan





PORTION A

7.4

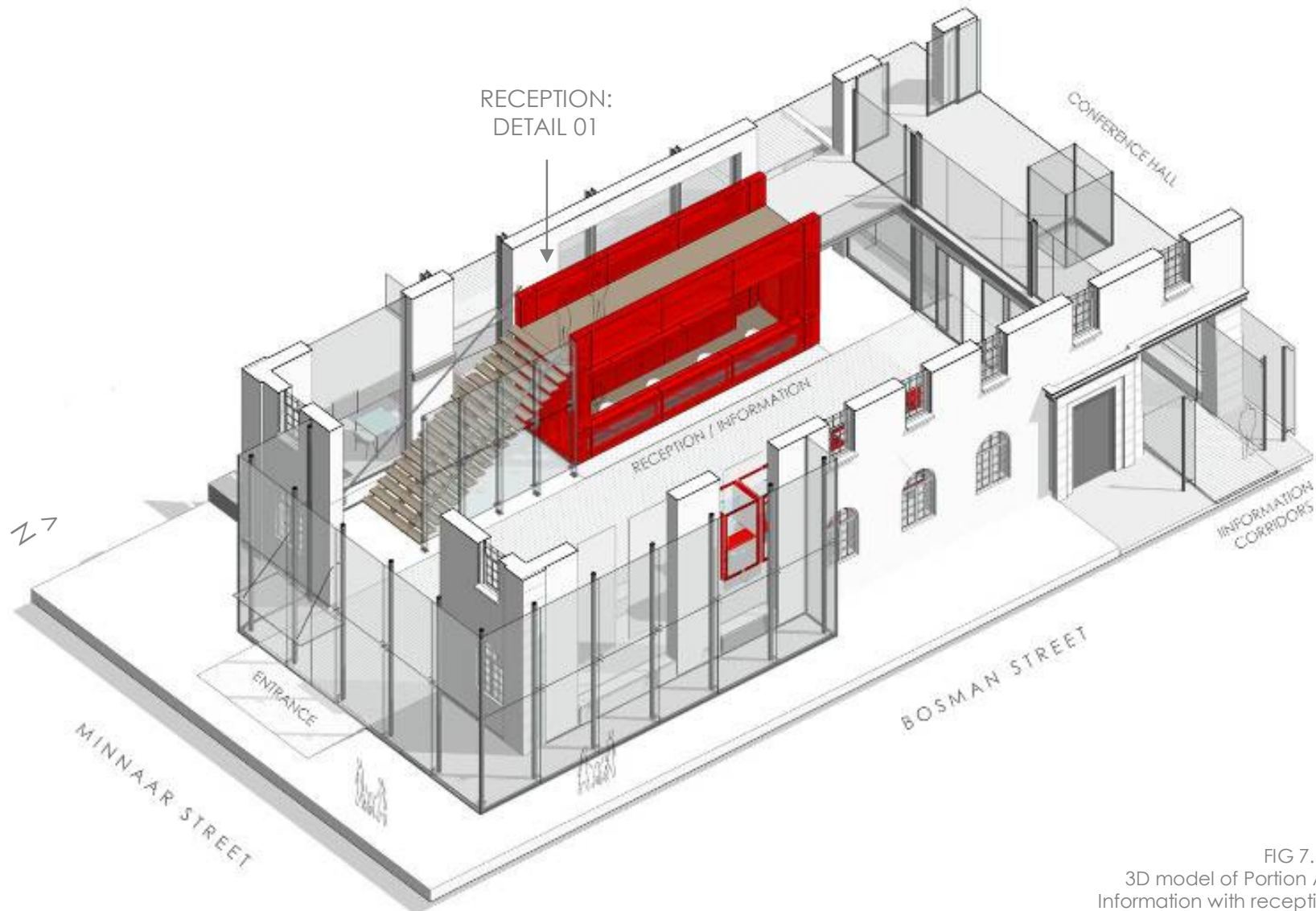


FIG 7.13:  
3D model of Portion A –  
Information with reception



FIG 7.14:  
Reception counter and staircase

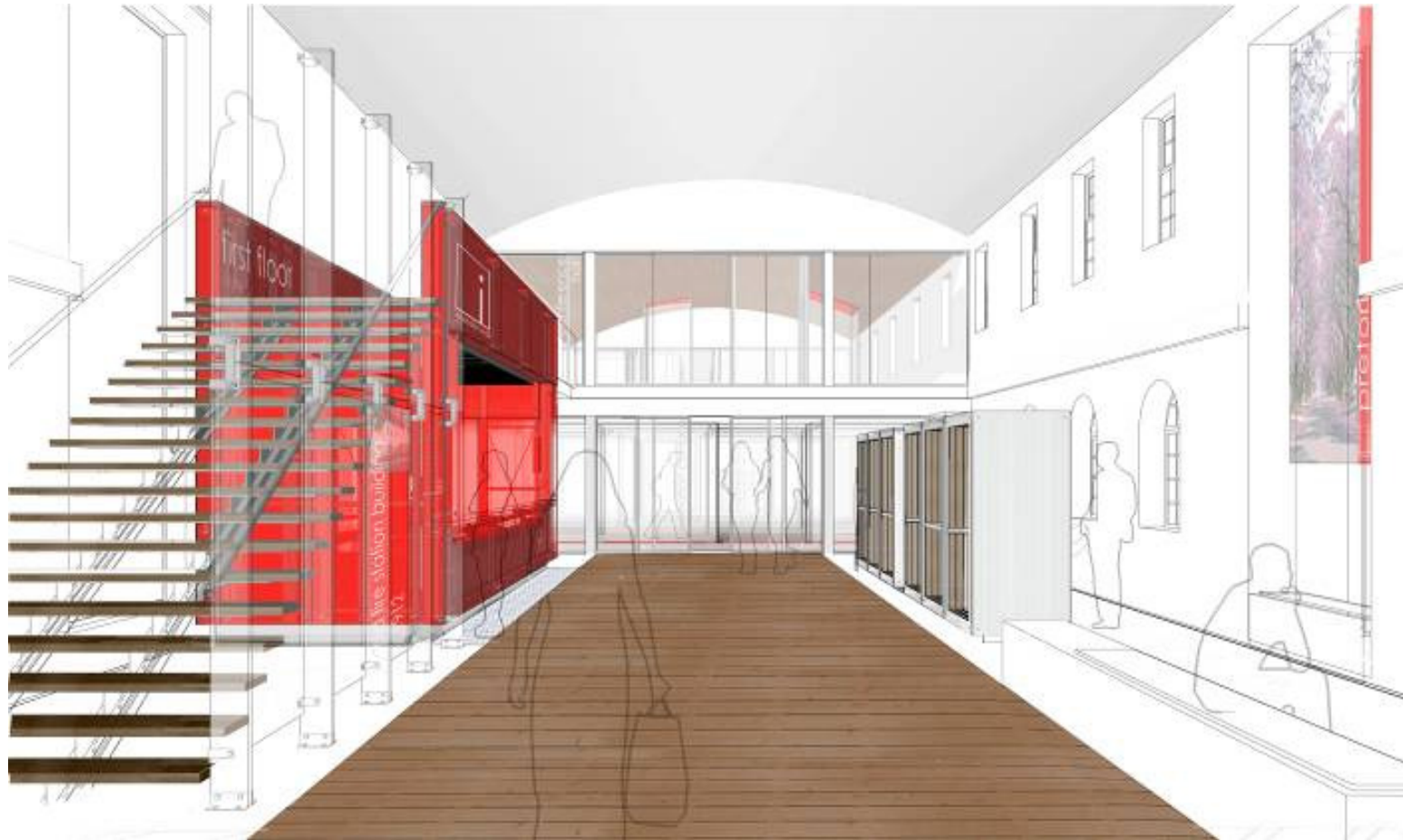


FIG 7.15:  
View of the Information when  
entering from the Minaar Street entrance



FIG 7.16:  
 Reception counter with views to the  
 Coffee Café and the training tower



FIG 7.17:  
 Walkway with a view  
 of the training tower



FIG 7.18:  
 Walkway with a view  
 of the conference hall



FIG 7.19: (top)  
Walkway with a view of  
the Minnaar Street entrance

FIG 7.20:  
Interactive workstations

FIG 7.21: (top)  
View from inside  
the reception

FIG 7.22:  
Information corridors with Minnaar  
Street House in the background

## 7.5 PORTION B

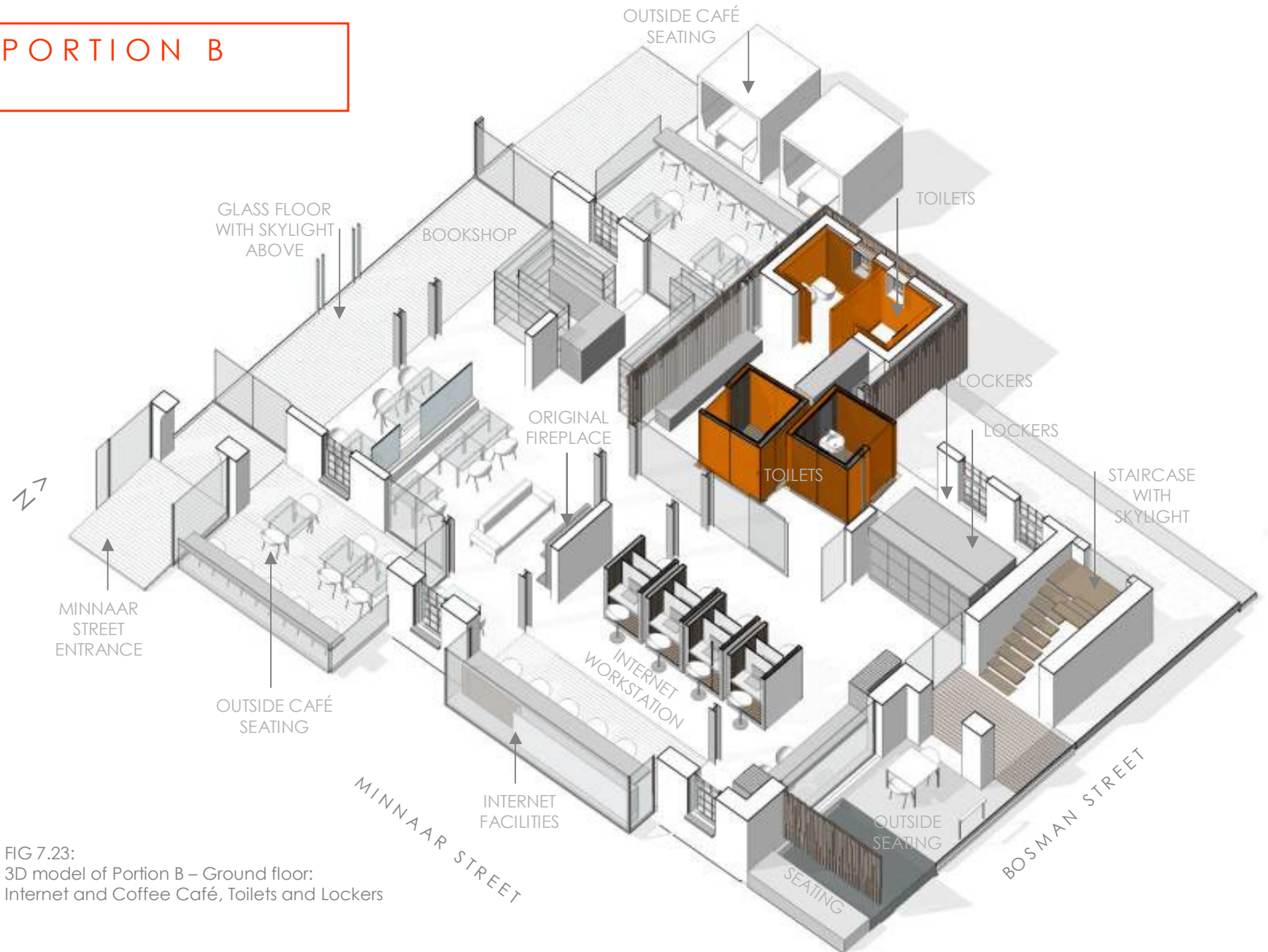


FIG 7.23:  
 3D model of Portion B – Ground floor:  
 Internet and Coffee Café, Toilets and Lockers

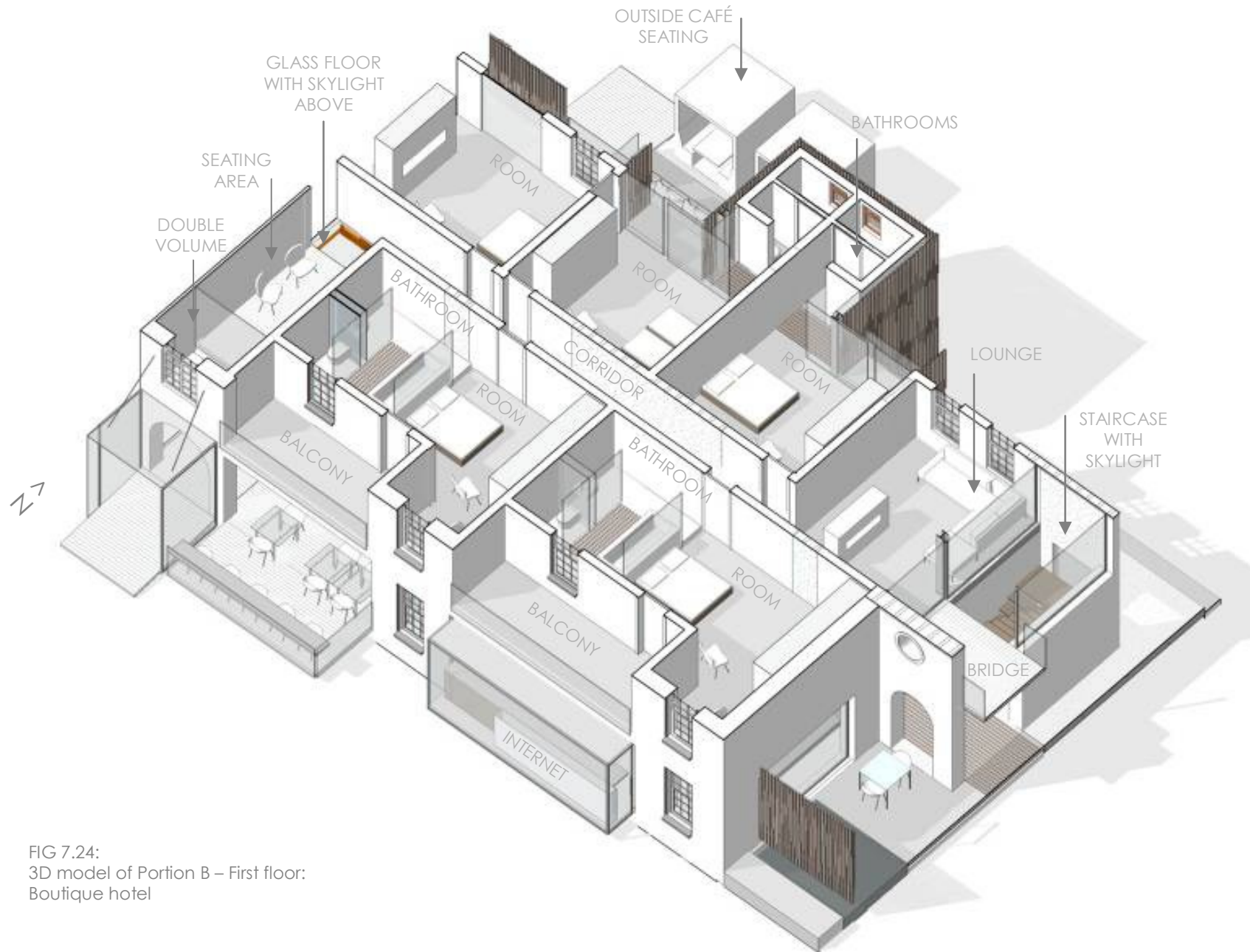


FIG 7.24:  
3D model of Portion B – First floor:  
Boutique hotel



FIG 7.25:  
Entrance to the Coffee Café and Bookshop



FIG 7.26:  
View towards the Coffee Café's  
outside seating



FIG 7.27:  
Toilets and Bookshop





FIG 7.28: (top)  
Internet workstations  
and Toilets



FIG 7.30: (top)  
Coffee Café  
with counter seating



FIG 7.29:  
Original fireplace with  
Internet workstations



FIG 7.31:  
Coffee Café with a view  
towards the Information



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YUNIBESITHI YA PRETORIA

# t e c h n i c a l   r e p o r t

8

## 8.1 CONTAINED SPACES

The design strategy of 'contained space' is used for different functions in the building. Some of these functions include the following:

- \_reception
- \_interactive work station and display
- \_toilets
- \_bookshop
- \_bathrooms in boutique hotel rooms
- \_outside seating for the café

The construction of these objects is based on the same principle: a steel structure layered with specific materials to accomplish its function,

The reception area in the Information Node is analyzed as an example in terms of the construction method and materials used.

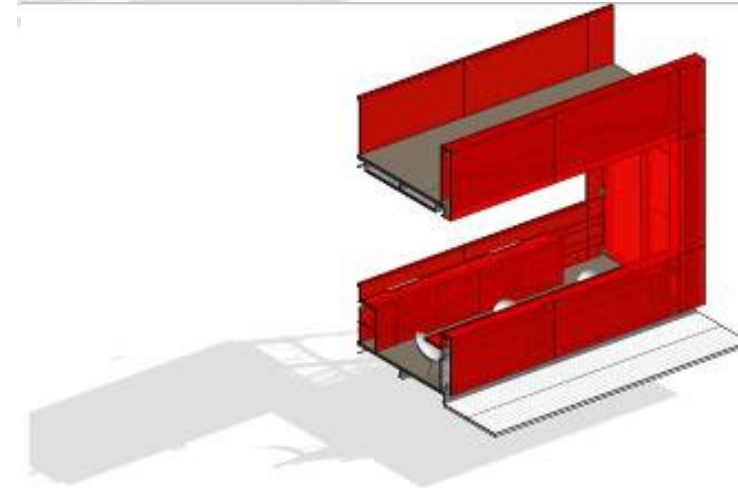
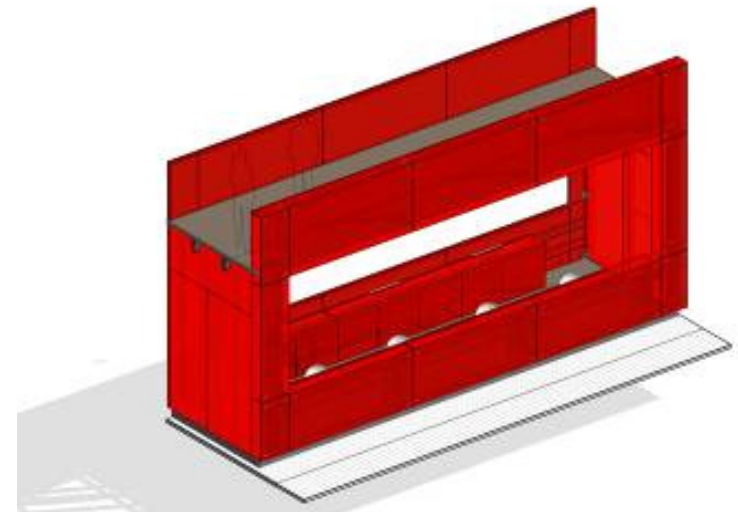
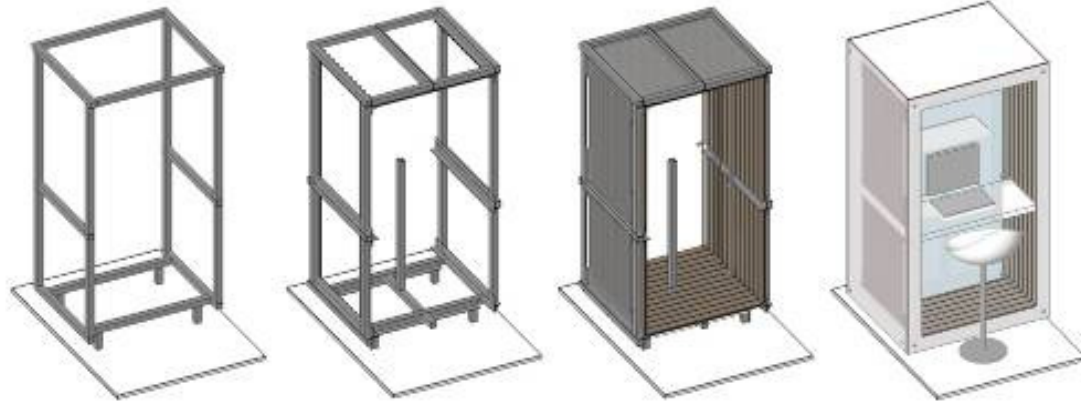


FIG 8.1:  
3D model of the reception counter,



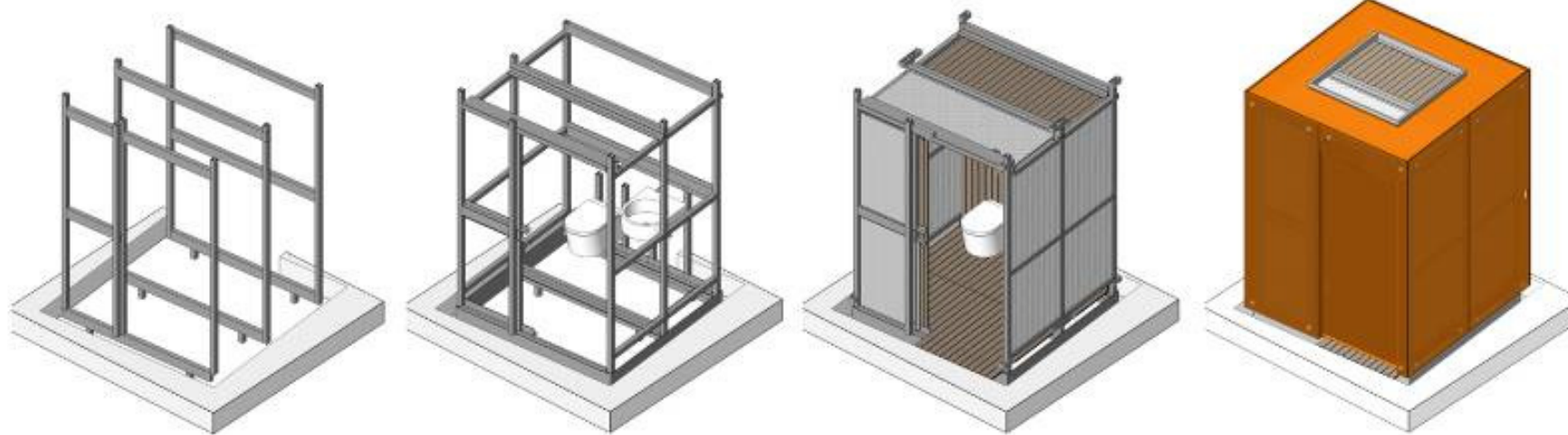
MAIN STRUCTURE

SUB-STRUCTURE

TIMBER AND  
ACOUSTIC  
PANNELING

CLADDING

FIG 8.2:  
3D model of the Interactive  
workstation concept



MAIN STRUCTURE

SUB-STRUCTURE

TIMBER AND  
ACOUSTIC PANNELING

CLADDING

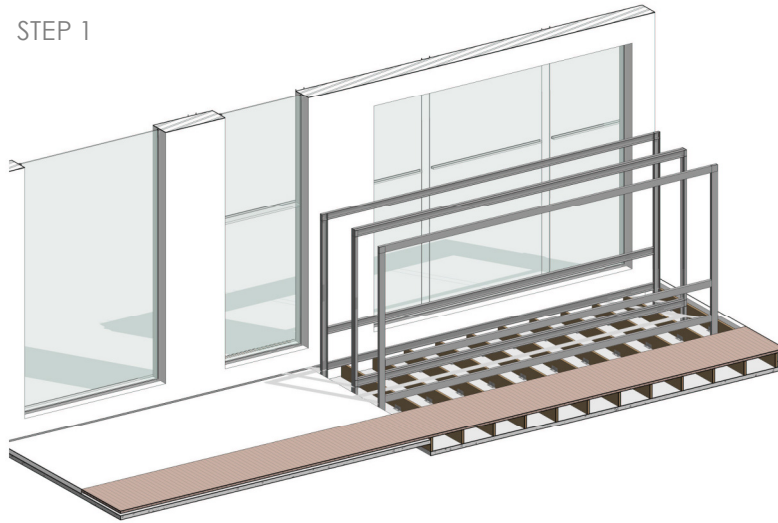
FIG 8.3:  
3D model of the Toilet  
cubicle concept

## 8.2

 CONSTRUCTION  
 METHOD

FIG 8.4:  
3D model of Reception's main structure

STEP 1

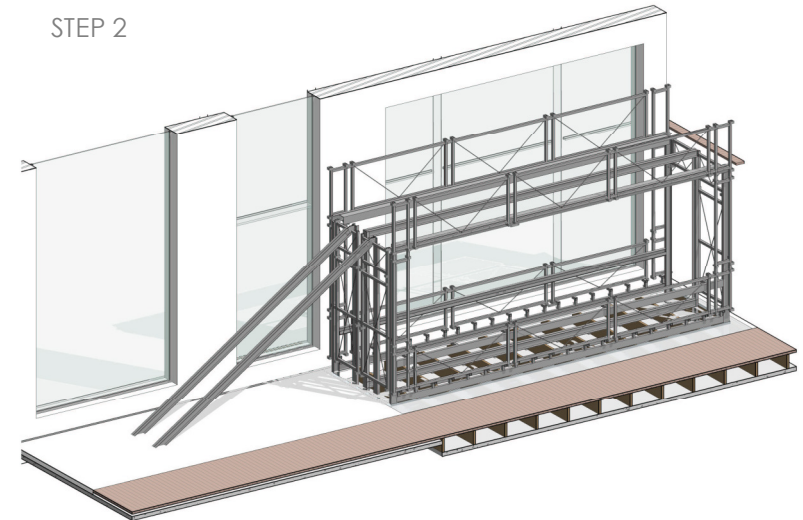


## MAIN STRUCTURE:

- \_Four mild steel channel frames are bolted to the original concrete floor.
- \_Timber rafters are bolted to the original floor to create a new level. This creates one floor level in the reception area that is accessible to everyone

FIG 8.5:  
3D model of Reception's sub structure

STEP 2

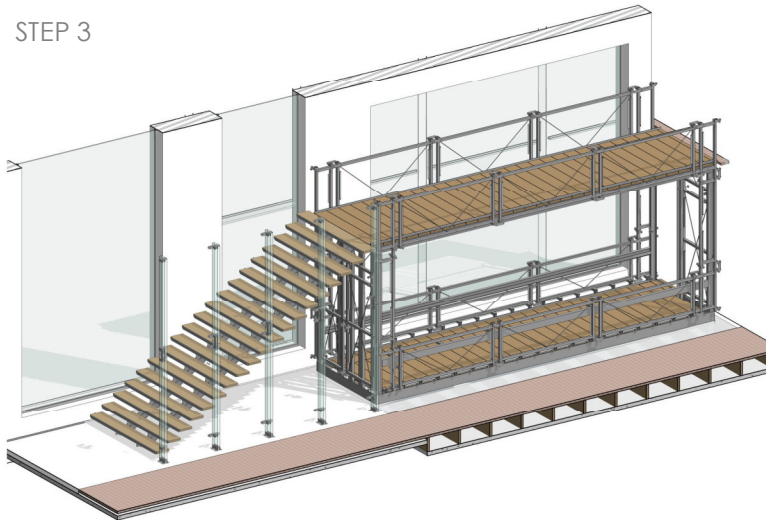


## SUB-STRUCTURE:

- \_Mild steel square hollow section frames (with a steel cross supporting structure) form the sub-structure.
- \_The sub-structure is bolted to the main channel structure.
- \_The staircase consists of two main M.S. steel channel structures bolted to the floor.
- \_Custom-made M.S steel T-brackets are bolted to each of the main staircase channels. They connect the two channels supporting the timber treads.

FIG 8.6:  
3D model of Reception's treads and light fittings

STEP 3

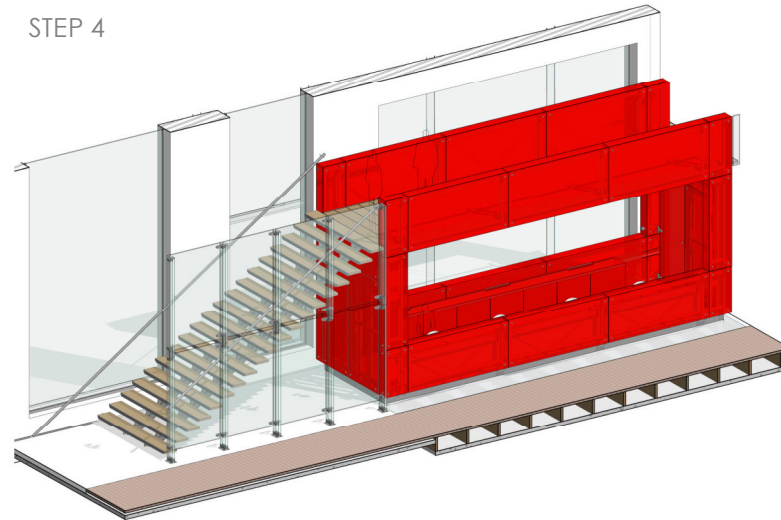


### TIMBER TREADS AND LIGHT FITTINGS:

- \_Eucalyptus timber treads are supported by a custom made T-shaped steel plate. This tread is bolted between the two supporting channel frames.
- \_Acoustic panelling and a timber boarding finishing layer are fixed underneath the timber treads.
- \_Light fittings that illuminate the panels from the inside are fixed to the square sections.
- \_The staircase screen consists of structural fins bolted to the floor.

FIG 8.7:  
3D model of Reception's cladding and staircase screen

STEP 4



### CLADDING AND STAIRCASE SCREEN

- \_3Form Chroma panels are bolted to the brackets on the substructure.
- \_Acoustic panelling is placed underneath the work counter.
- \_3Form panels are fixed between the structural fins to create the staircase screen.
- \_Stainless steel hollow circular section handrails are bolted to the wall and 3Form panels.

## 8.3

## MATERIALS

 RECEPTION BOX CLADDING  
 AND WORK SURFACES

3Form panelling is used to clad the steel sub-structure of the reception box. It is fixed to the sub-structure with bolts and brackets. With a light source incorporated between the 3Form layers, an illuminated red box is created that makes it a focal point, visible from the street.

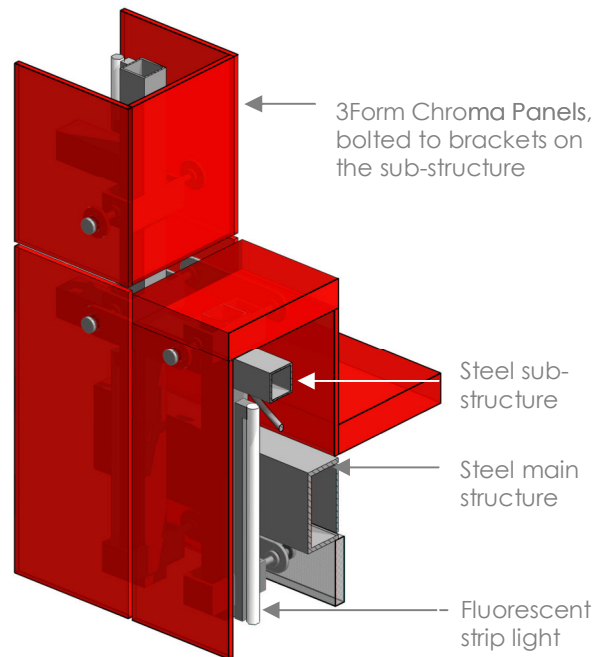


FIG 8.8:  
3D model of Reception's  
structure cladding

FIG 8.9:  
**3FORM CHROMA**  
CAST POLYMETHYL  
METHACRYLATE (PMMA)  
RESIN.  
COLOUR: CRANBERRY  
TEXTURE: RENEWABLE MATTE  
9 / 25 / 50 mm THICKNESS



This material makes use of aura colour infusion technology that creates a solid surface saturated with luminous colour. Either naturally or artificially illuminated, Chroma has a radiant, jewel-like colour. It has the same working properties as wood. The coloured resin panels are engineered to be resurfaced and re-coloured again and again. This prevents the Chroma material from entering the waste stream and allows each panel to be multi-cycled into new architectural installations. A durable finish and easy installation makes this material ideal for the reception box.



## FLOORING

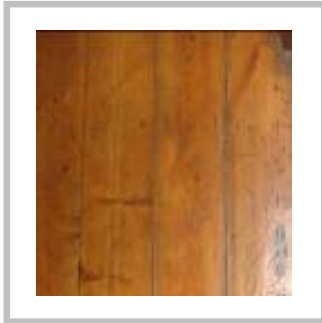


FIG 8.10:  
**ORIGINAL OREGON PINE FLOORING**  
RE-USED FOR THE MAIN WALKWAY

The original timber flooring is re-used to remind the user of its heritage value. It gives a rustic, weathered look that contrasts with the new materials. It also adds warmth to this huge open space

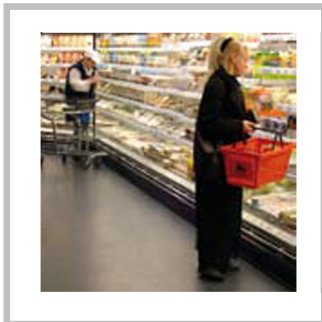


FIG 8.11:  
**B.A.S.F – MASTERTOP 1362**  
POLYURETHANE-BASED FLOOR  
COLOUR: CHARCOAL WITH WATERMARK GRAPHICS OF ORIGINAL WALL LAYOUT OF OLD FIRE STATION BUILDING

The product is self-levelling and crack bridging, with a seamless finish. It is ideal to use in a high-traffic area with properties of abrasion resistance and resilience, good impact sound insulation and comfort underfoot. It is easy to clean and maintain and UV resistant.



FIG 8.12:  
**3FORM: STRUTTURA COLLECTION: STAGE 40mm**

The Struttura collection has structural capabilities and is graded for exterior construction. Stage is a cellular technology that uses the concept of extruded core honeycomb. The product is ideal to use as flooring due to its structural strength and durable finish. A diffused light effect is achieved when this material is illuminated from underneath. It is used to emphasize the new elements (like the reception box) as free-standing objects.

The original timber floor is removed and reused to create the main movement route in the information space. It is contrasted with a highly finished industrial floor with watermark graphics of the original wall layout. The 3Form material is used as an illuminated floor to create the illusion of a floating reception box.



## LIGHTING

The quality of light is affected by the colour and textures of surfaces and their reflectivity. When using the 3Form Chroma panels with strip fluorescent back lights, a diffused red light will be reflected onto the service and work counters. Therefore tracks with halogen spot lights are placed inside the channels above the counters to produce the correct quality of bright light.

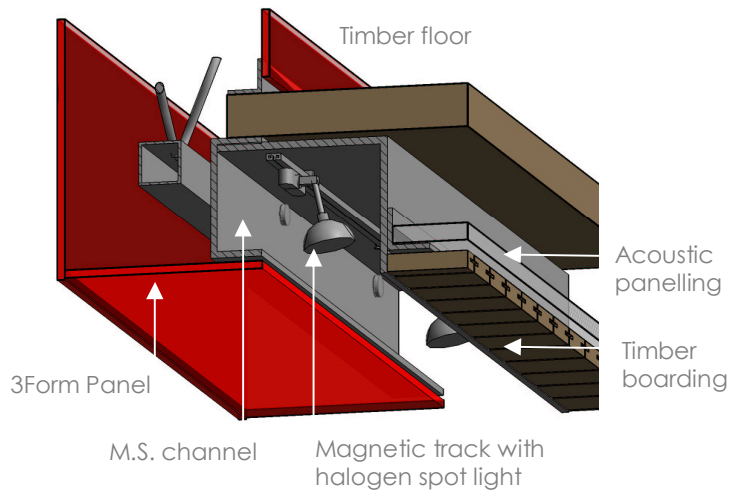


FIG 8.13:  
Magnetic track with  
halogen spot light

FIG 8.14:  
**MAGNETIC TRACK  
SPOT LIGHT**

RADIANT: GA01 TD  
GU5.3 HALOGEN  
MR16 DICHROIC  
REFLECTOR 12V 35W



FIG 8.15:  
**STRIP OR COUNTER LIGHT**

RADIANT: KD40  
FLUORESCENTS – 8W MINI 350 X  
40 X 20mm

RADIANT: KD22  
SLIMLINE LIGHT  
FLUORESCENTS– T4 – 20W  
620 x 45 x 20mm



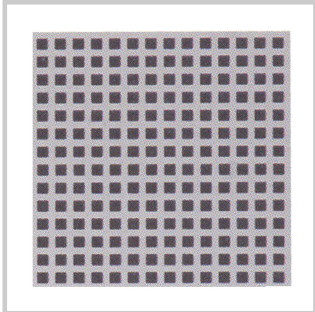


FIG 8.16:  
**LOW ACOUSTIC:**  
**ACOUSTIC PANELING**  
PERFORATED ALUMINIUM  
PLATE WITH SQUARE HOLES

This product provides a very good wide-band absorption effect, which is ideal if noise and reverberation problems occur over a large frequency spectrum.



FIG 8.17:  
**ACOUSTIC PANELING**  
GIVEN TWO COATS OF  
BLACK ACRYLIC PAINT.  
PLACED UNDERNEATH  
TIMBER BOARDING

FIG 8.18:  
**TIMBER BOARDING**

The eucalyptus timber boarding slides into the custom made aluminium profile brackets. No screws or nails are visible with this fixing system. The timber boarding will be spaced so as to allow maximum sound absorption by the acoustic panelling underneath.

## ACOUSTIC WALL & CEILING PANELING

Acoustic panelling is placed inside the reception box to create a comfortable sound environment with adequate sound absorption levels. Acoustic panels are placed underneath the work counter where they will be unobtrusive.

The ceiling consists of layered acoustic panelling, with a finishing layer of timber boarding. The most important physical characteristic of the acoustic qualities of an area is its reverberation time, which is determined by the absorption qualities of the room – the walls, floors, ceiling, contents and volume.

Room area acoustic conditions can be considered optimal if the people within feel comfortable. Offices and conference areas benefit from an improved conversation atmosphere when noise is decreased and the audibility of the spoken word is improved.



## CEILING & WALL COVERINGS

With the walls on the first floor of the Old Fire Station building being demolished, the ceiling over the new double volume space needs to be replaced. The ceiling will be curved in the same way as the timber ceiling in the original hall. It connects the two spaces visually, and enhances the new interpretation of the existing with the use of new technology and materials.

Graphics can be printed onto the fabric and used for ceiling or wall coverings. The entire system is no more than 10 mm thick and no fixings are visible. It is ideal to use for branding and as information sources (like maps and photographs), and can be changed over time.

### FIG 8.19: **ALYOS CEILING AND WALL SYSTEM**

THIS SYSTEM CONSISTS OF A COVERING MATERIAL OF POLYESTER FABRIC COATED WITH POLYURETHANE

The lightweight system is suitable for all ceilings. The covering material is stretched from wall to wall and is held in position by special profiles attached to the perimeter of the room. The type of material and the quality of the coating allow optimal tension to be achieved without joints, seams or suspension brackets. It is ideally suited to renovation projects as it leaves no mess, has a short installation time and gives off no fumes.



## ADDITIONAL MATERIALS USED IN THE DESIGN



FIG 8.20:  
**3FORM CHROMA:**  
**CAST POLYMETHYL  
METHACRYLATE RESIN.**  
COLOUR: VITAMIN C  
TEXTURE: RENEWABLE MATTE  
9 / 25 / 50 mm THICKNESS



FIG 8.23:  
**3FORM STRUTTURA:**  
**CAST POLYMETHYL  
METHACRYLATE RESIN.**  
DUE CRYSTAL  
6 / 16mm THICKNESS



FIG 8.21:  
**3FORM STRUTTURA:**  
**CAST POLYMETHYL  
METHACRYLATE RESIN.**  
PEP TOPAZ  
19 mm THICKNESS

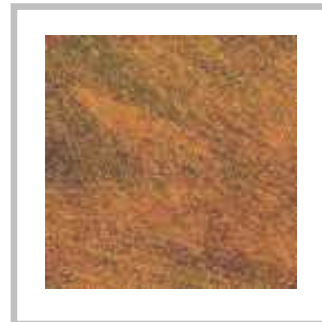


FIG 8.24:  
**IRON PAINT**  
CONTAINS IRON FILLINGS WHICH  
CREATES A METALLIC FINISH ON  
FEATURE WALLS



FIG 8.22:  
**3FORM VARIA:**  
**CAST POLYMETHYL  
METHACRYLATE RESIN.**  
ORGANIC: TING TING  
3 - 25 mm THICKNESS

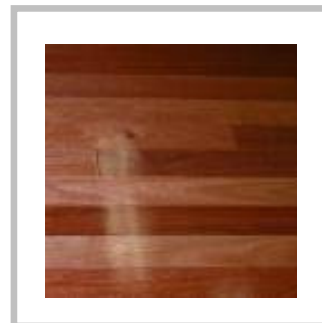


FIG 8.25:  
**EUCALYPTUS SALIGNA.**  
INDIGENOUS AFRINCAN TIMBER  
Moderately durable timber that  
is used in general construction  
and flooring



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