

informal

A Cultural Centre for the Foreign Community, Hillbrow

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Submitted in partial fulfillment of the requirements for the degree
Magister in Architecture (professional) in the Faculty of
Engineering, the Built Requirements and Information Technology.

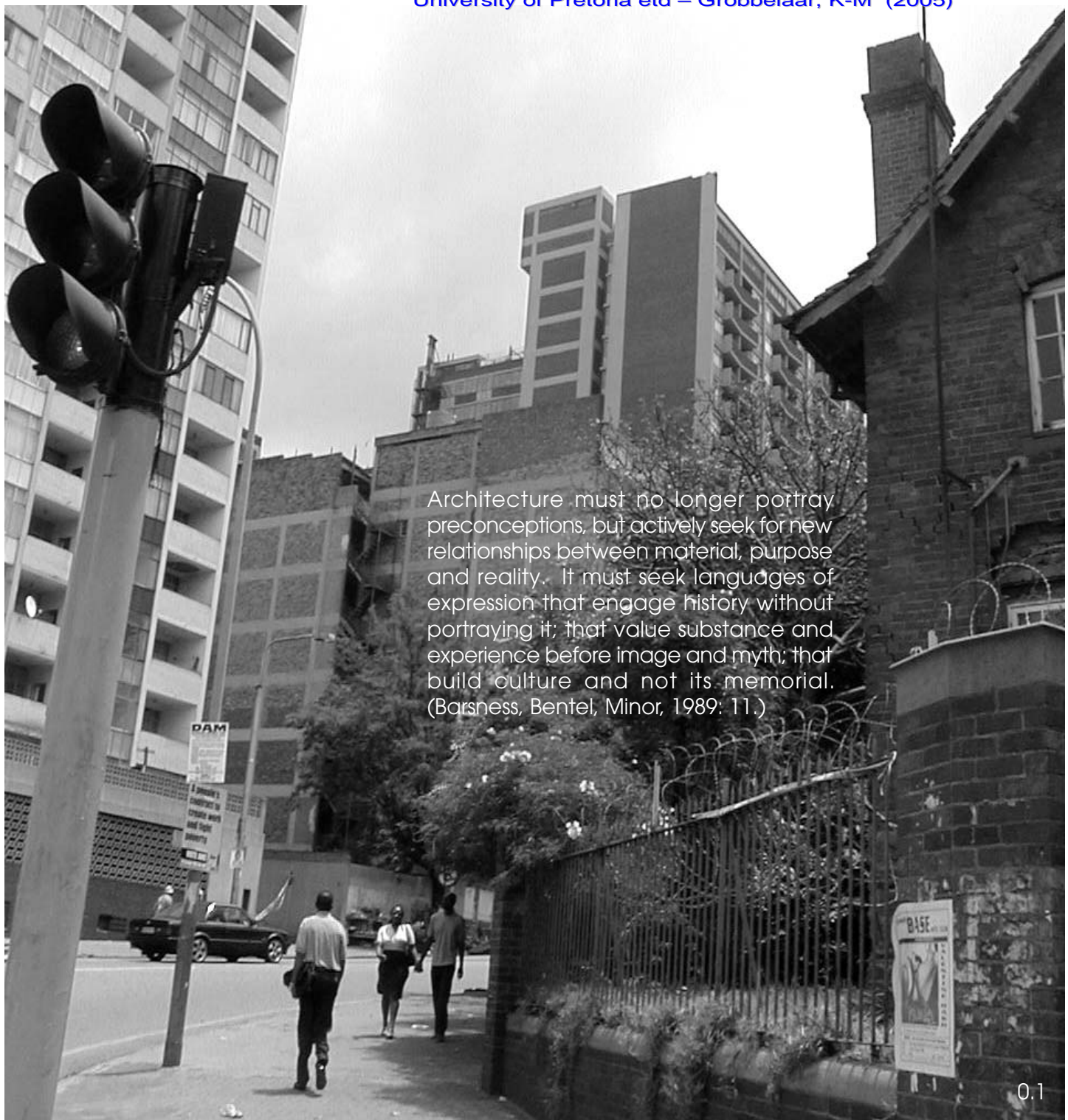
University of Pretoria
Department of Architecture
November 2004

Mentor: Prof. Roger Fisher

The discourse investigates the relationship between the hierarchical structure of the *formal* and the network of the *informal* at both a socio-economic and programmatic level and as the generator of an approach to the design problem.

The site is located in the Health Precinct between Braamfontein and Hillbrow, in an area characterised by a thriving informal economy and much illegal activity. During the Apartheid years, Hillbrow came to symbolise the breakdown of racial segregation. Today, the prominence of the foreign population makes Hillbrow a hot-bed of xenophobic sentiment. A study of the social context points towards the emergence in Hillbrow of a new mode of spatial regulation - tending towards the spatial regimes prevalent in African megacities such as Lagos and Accra - which becomes a critical determinant of the entire discourse.

The project is a Cultural Centre for the Foreign Community, providing a refuge for the foreign population; a place of meeting and interaction; a platform for an anti-xenophobia campaign, and a wellspring of economic opportunity through the integration of the programmes of the formal and informal economy.



Architecture must no longer portray preconceptions, but actively seek for new relationships between material, purpose and reality. It must seek languages of expression that engage history without portraying it; that value substance and experience before image and myth; that build culture and not its memorial. (Barnes, Bentel, Minor, 1989: 11.)

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Jhb. Metropolitan Council

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biophysical_

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Johannesburg Development Agency 2003

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City of Johannesburg 2003

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Author's graphic

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2.2. Klein Street, Hillbrow.

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impermanence_

KZ- NIA Journal 3/2001: 9.

3.1. Warwick Junction: the site between the Shrine of Hazrath Badsha Peer and Berea Road station: before intervention.

Edgar Cleijne in LAVALOU, A. (Ed.) 2001: 696.

3.2. Lagos

Uche Isichei in Isichei 2002: 15.

3.3. Oshodi Market.

Uche Isichei in Isichei 2002: 11.

3.4. Lagos: industry.

Edgar Cleijne in LAVALOU, A. (Ed.) 2001: 698.

3.5. Urban Africa.

Edgar Cleijne in LAVALOU, A. (Ed.) 2001: 237.

3.6. Lagos.

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Johannesburg Development Agency 2003

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Building Plans Department, Johannesburg Metropolitan Council. ERF RE 4352

Author

Africana Museum in Chipkin 1993: 13.

Chipkin 1993: 13.

Barnett Collection 1966 in Chipkin 1993: 14.

Barnett Collection 1966 in Chipkin 1993: 86.

Wits Architectural Library in Chipkin 1993: 181.

African Museum in Chipkin 1993: 170.

Chipkin 1993: 171.

Chipkin 1993: 222.

Photo: J.G. Boss in Chipkin 1993: 227.

H.H. Le Roith collection in Chipkin 1993: 263.

Basil Breakey in Chipkin 1993: 209.

Hisao Suzuki in *EL CROQUIS 79 OMA/REM KOOLHAAS 1992 1996*: 74.

Hisao Suzuki in *EL CROQUIS 79 OMA/REM KOOLHAAS 1992 1996*: 86.

Hisao Suzuki in *EL CROQUIS 79 OMA/REM KOOLHAAS 1992 1996*: 86.

Hisao Suzuki in *EL CROQUIS 79 OMA/REM KOOLHAAS 1992 1996*: 86.

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Hisao Suzuki in *EL CROQUIS 79 OMA/REM KOOLHAAS 1992 1996*: 102.

Hisao Suzuki in *EL CROQUIS 79 OMA/REM KOOLHAAS 1992 1996*: 76.

Hisao Suzuki in *EL CROQUIS 79 OMA/REM KOOLHAAS 1992 1996*: 77.

warwick junction_

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| KZ- NIA Journal 3/2001: 8. | 9.1. Herb Traders' Stalls: OMM Design Workshop. |
| KZ- NIA Journal 3/2001: 11. | 9.2. Traders' Stalls on Leopold Street Pedestrian Bridge: Langa Makhanya & Associates. |
| KZ- NIA Journal 3/2001: 10. | 9.3. Herb Traders' Stalls: OMM Design Workshop. |

faraday precinct_

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| Author
Wim Botha in <i>Digest of South African Architecture 2004</i> : 32. | 9.4. Faraday Precinct: unused taxi ranks - note taxis under motorway in background. |
| Author | 9.5. Faraday Precinct: Herb Market. |

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| Christelle Ferreira | 9.6. Faraday precinct: view of taxi ranks. |
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metro mall_

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rockey street market_

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| Author | 9.10. Rockey Street perimeter. |

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bellevue road campus_

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| SA Architect November /December 2001: 31.
Author | 9.12. View towards north of courtyard. |
| Author | 9.13. Existing house: South Elevation. |
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| SA Architect November /December 2001: 31. | 9.17-18. Integration of buildings and existing trees. |
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| Domus 860 June 2003: 115. | 9.19. View of interior: ITI Building. |
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| Domus 860 June 2003: 115. | 9.20. Perspective |
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rosenthal center for contemporary art_

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| Roland Halbe www.contemporaryartscenter.org/newbuilding
ARCHITECTURE August 2003: 46.
Domus 860 June 2003: 115. | 9.21. Eastern Elevation. |
| Author | 9.22. South-eastern perspective view. |
| Author | 9.23. Lobby with Urban Carpet. |
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laban centre for movement and dance_

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| Dennis Gilbert in <i>The Arup Journal</i> , 2/2003: 5. | 9.26. View of foyer. |
| Armin Linke in <i>Domus</i> April 2003: 54. | 9.27. Curved western façade. |
| Domus April 2003: 67. | 9.28. Longitudinal Section. |
| Armin Linke in <i>Domus</i> April 2003: 77. | 9.29.-6.30. Interior views of stepped library and internal street. |
| Architectural Record June 2003: 130. | 9.31. Cross Section. |
| Domus April 2003: 66. | 9.32. Ground Floor Plan. |
| Domus April 2003: 67. | 9.33. Upper Floor Plan. |
| Armin Linke in <i>Domus</i> April 2003: 74. | 9.34. Daytime view of Dance Studio. |

addendum c: baseline document_

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|-------------------------------------------------------------|-----------------------------------------------------------|
| Author | 10.1. Kotzé Street, Hillbrow. |
| John Chitty in <i>Architectural Record</i> . June 2003: 41. | 10.2. Marocco. |
| WALL, R (Ed). 2000: 24. | 10.3. Informal trade, Durban. |
| Klaus Frahm in <i>Los</i> 1994: 109. | 10.4. Scarpa: Fondazione Querini-Stampala, Garden Detail. |
| Author | 10.5. Disused Chapel, Hillbrow Hospital. |
| Annette LeCuyer in <i>Betsky</i> 2002: 76. | 10.6. Miralles & Pinos: Iqualada Cemetery. |

GJMC

HBRI

JDA

NCRA

OAU

SAHRC

SMME

USAID

Greater Johannesburg Metropolitan Council

Hillbrow Berea Regeneration Initiative

Johannesburg Development Agency

National Consortium on Refugee Affairs

Organisation for African Unity

South African Human Rights Commission

Small -, Medium - and Micro Enterprises

United States Agency for International Development

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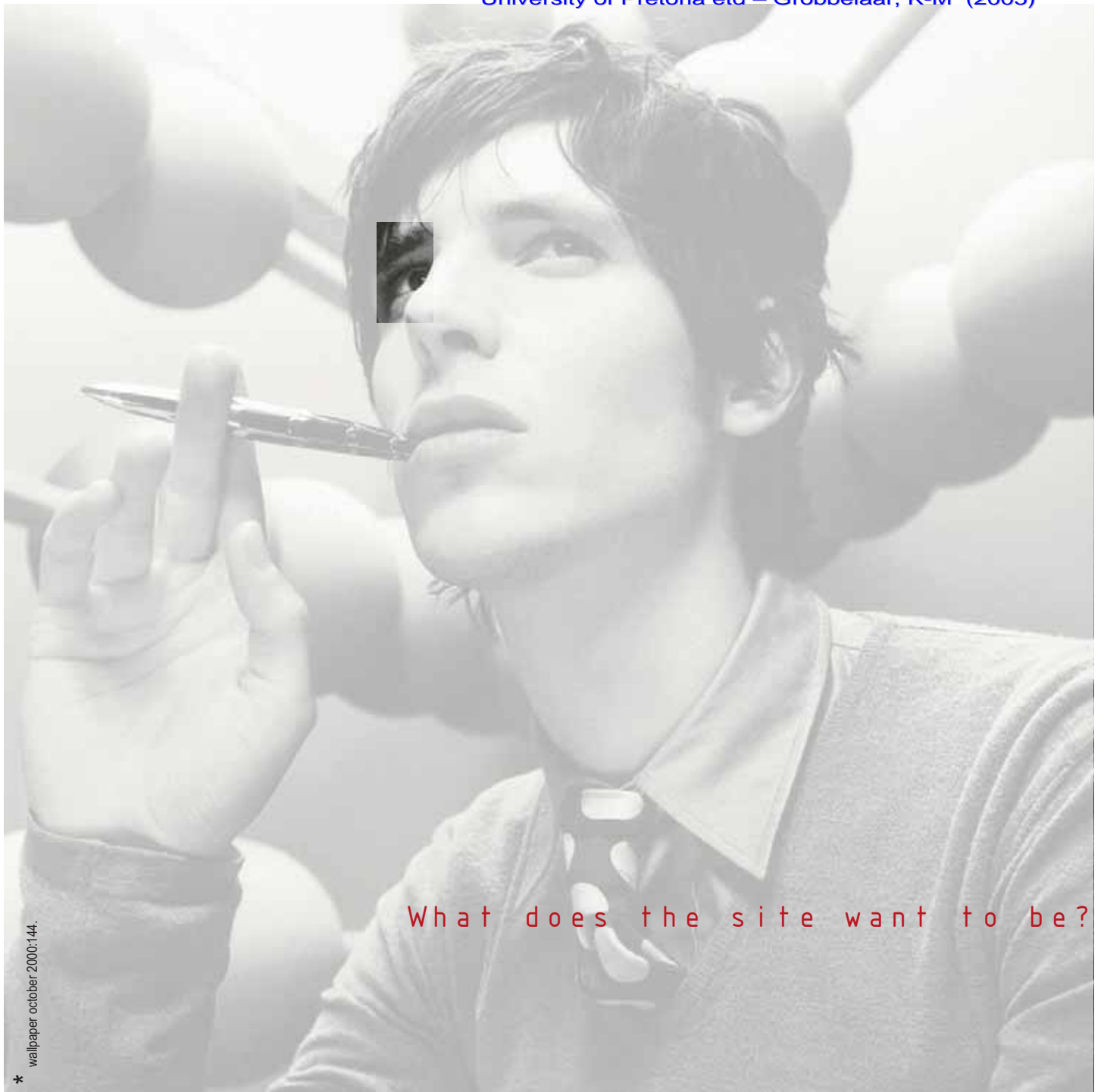
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What does the site want to be?

The designer sets out without preconception as regards a specific building project. Instead, a selected site is the point of departure and becomes the generator of a brief, programme and designed product.

To ask 'What does the site want to be?', or 'What does the site want to become?' is to assume an element of self-organisation, an inherent determinism which exists independently from the preconceptions of the designer. The designer attempts to understand that which is and has been so as to programme the site for a subsequent moment in a greater space-time continuum.

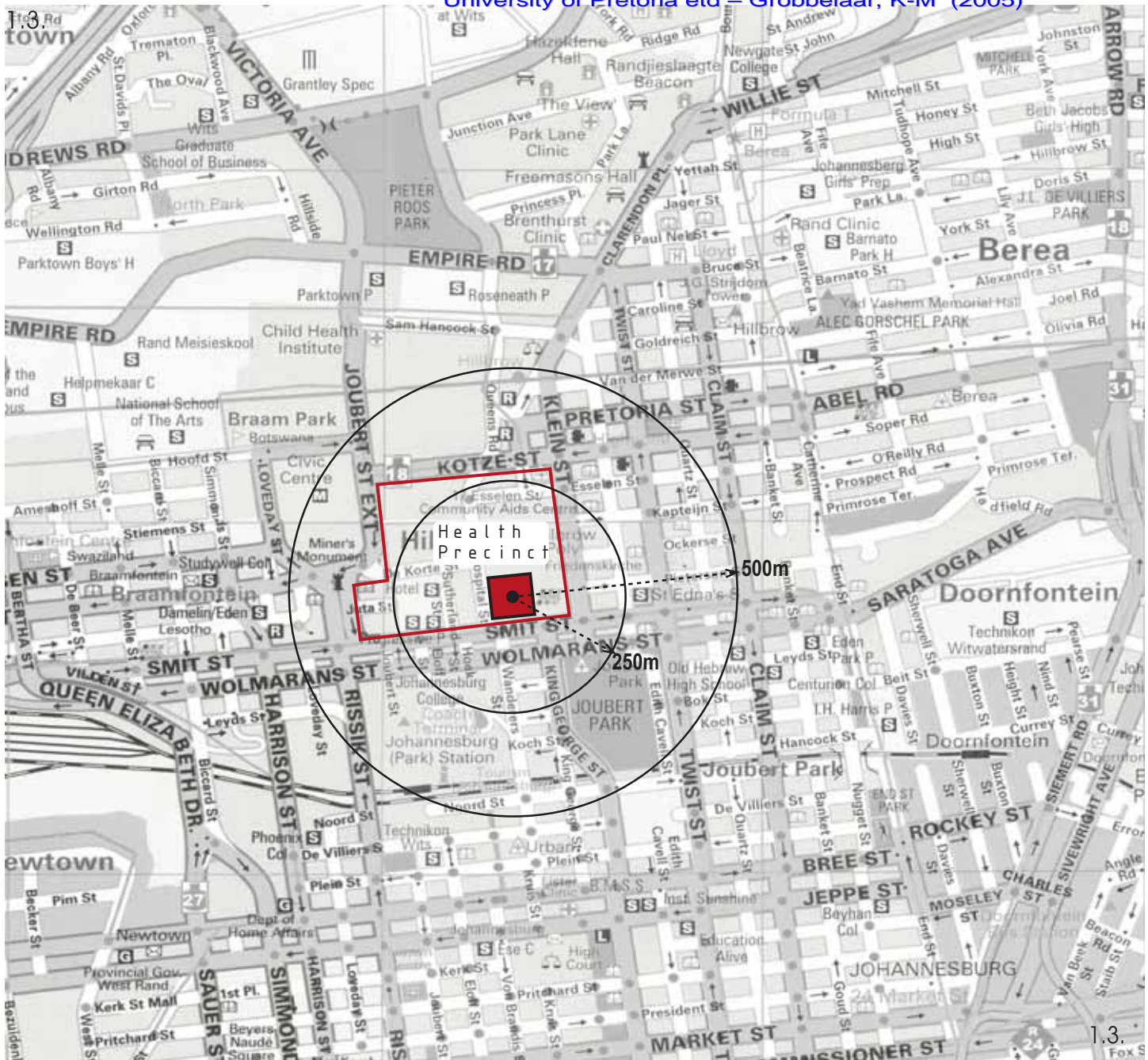
The outcome is a product of the context; grown from the site rather than imposed on it; an unpredictable response to a set of determinant relationships yet to be discovered at the time.



1.1. View down Twist Street, Hillbrow.

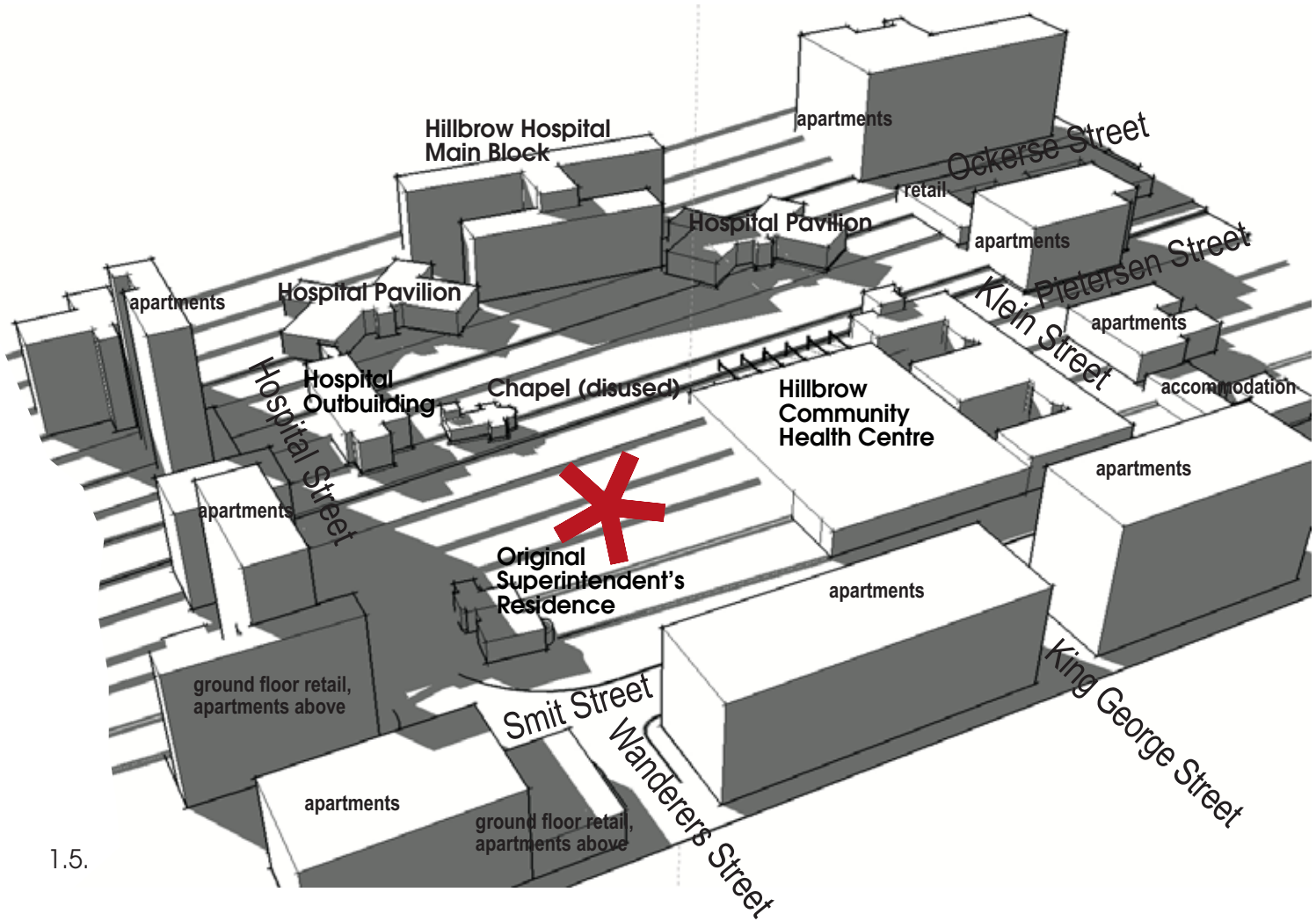


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1.3. Road map: Hillbrow and surrounding areas.

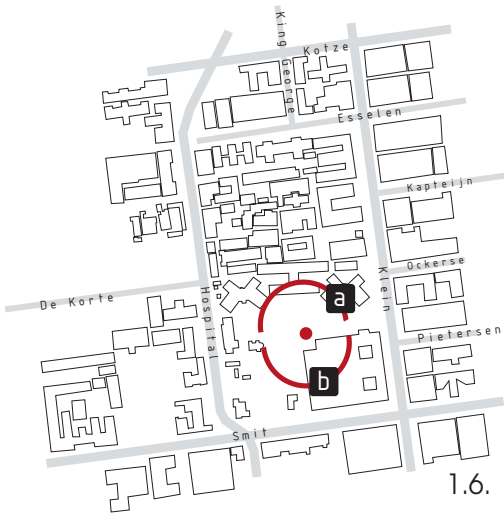




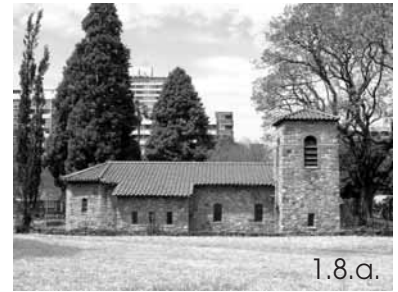
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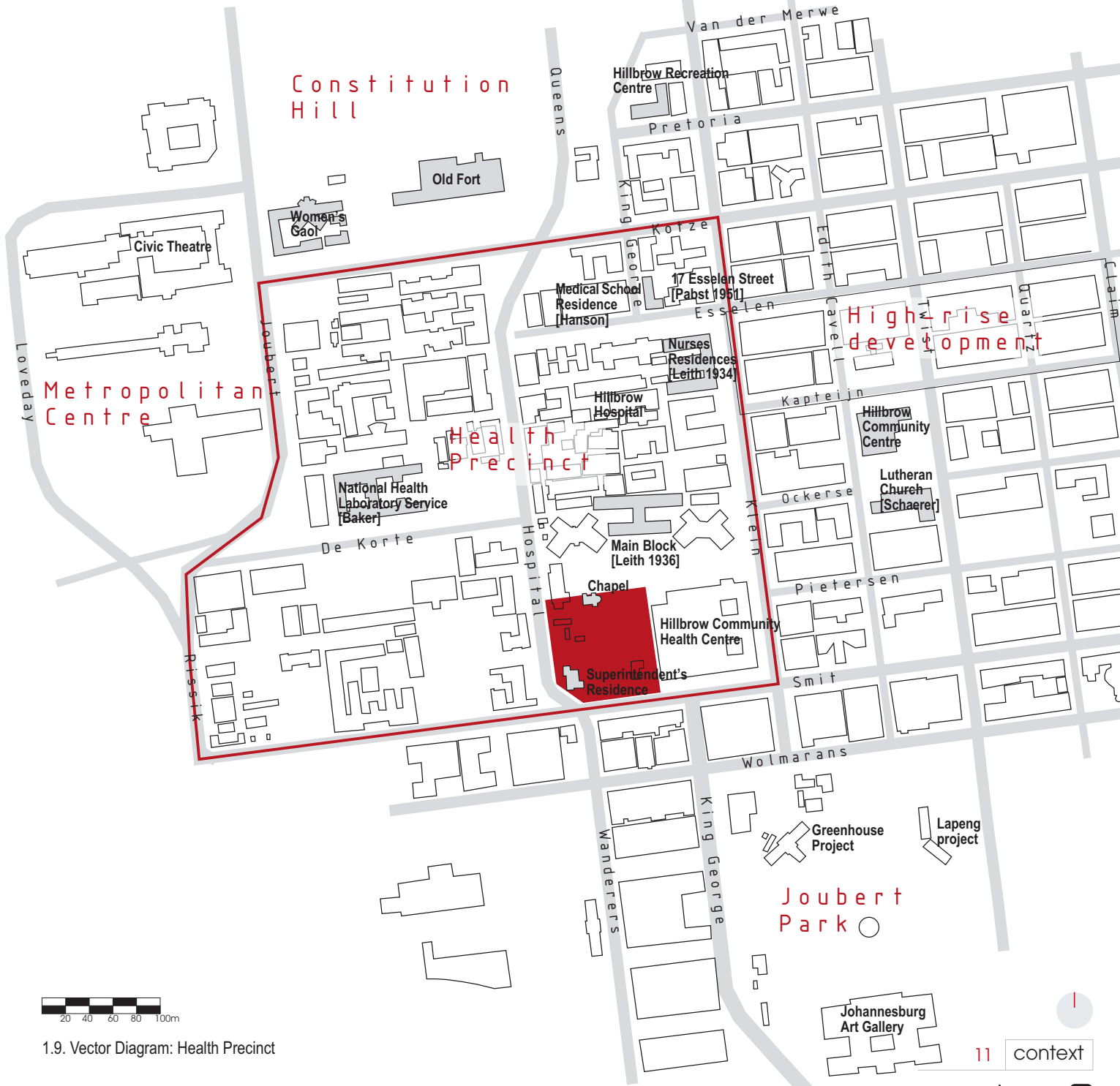
1.5. 3D diagram: site and surrounding buildings. Levels indicate 1m contours.





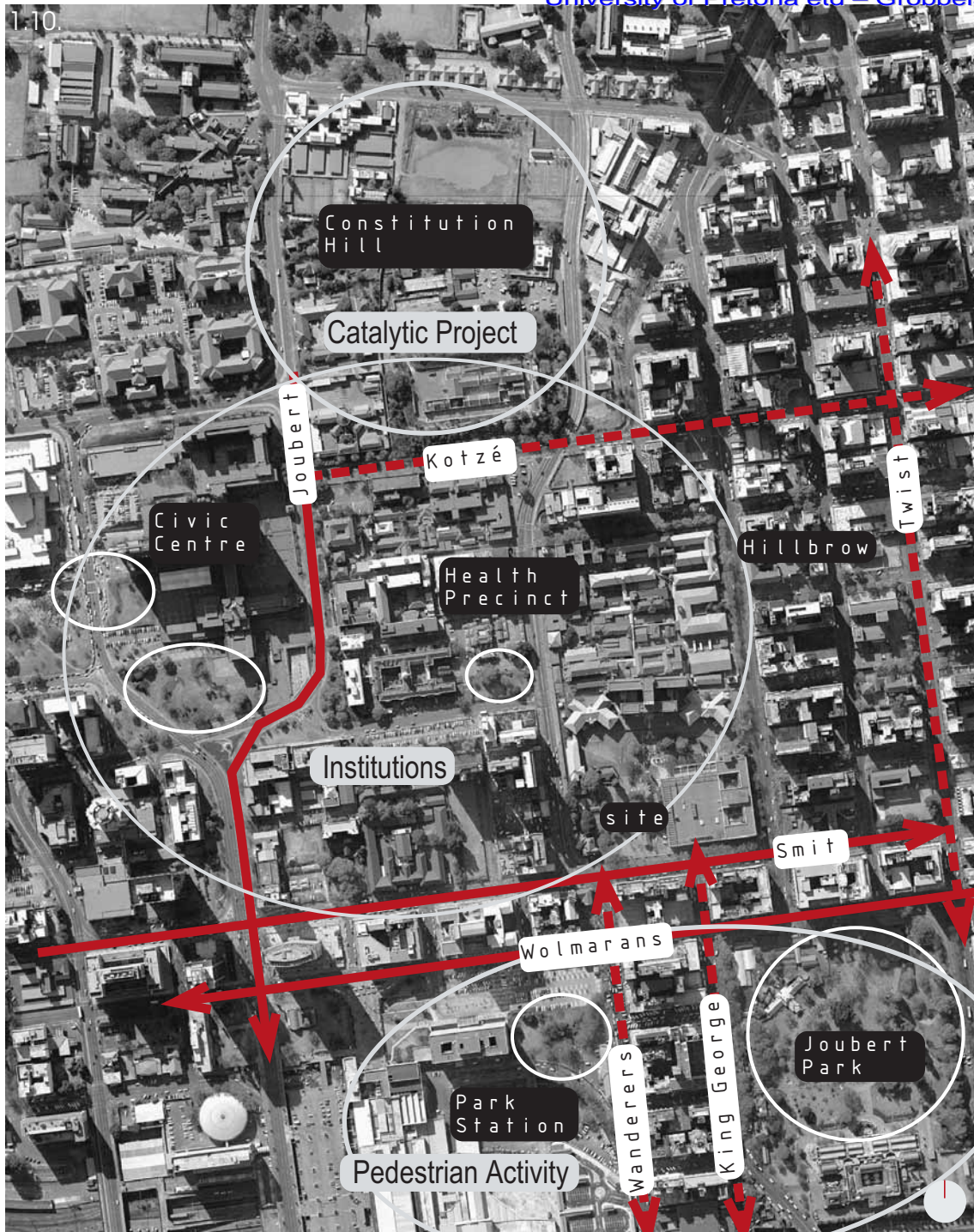




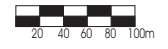


1.9. Vector Diagram: Health Precinct

1.10

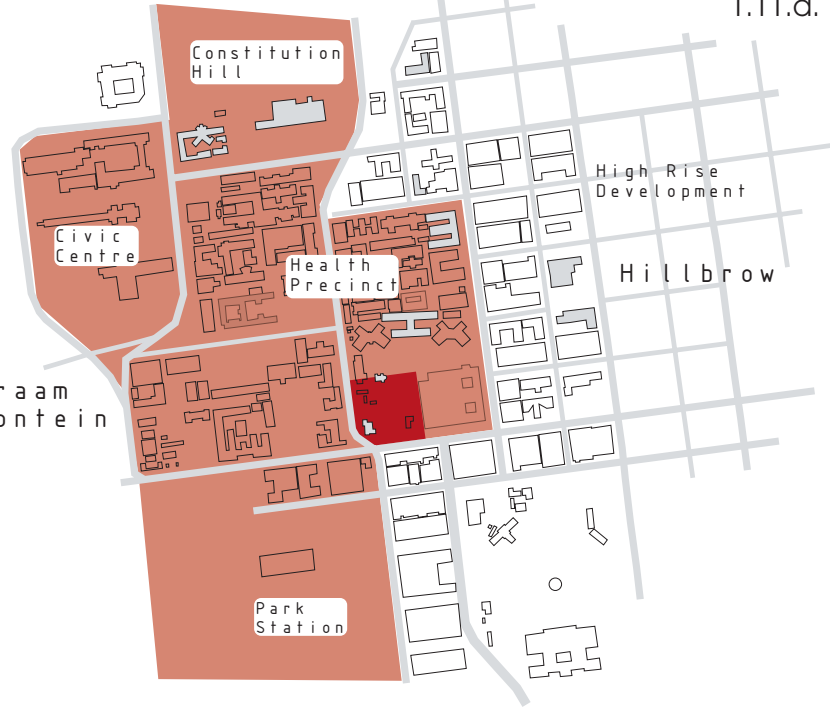


- Primary movement channel
- Secondary movement channel
- Green public open space



When considering the study area (figure 10), Smit - and Wolmarans Street, both four lane one-way streets, are the best integrated into the existing road system and attract the highest levels of vehicular traffic; while Kotzé Street presents a secondary east-west connector with slower vehicular traffic and higher levels of pedestrian movement and sidewalk activity. King George, Twist and Wanderers Street run north-south and are also well-integrated. Joubert Street is high-speed, one-way regional connector effectively contributing to the lack of integration between Hillbrow and Braamfontein.

Braamfontein



A number of institutional land-uses - the Civic Centre, Park Station and the Health Precinct - are located between Braamfontein and Hillbrow (figure 11a). These institutions are situated on large land parcels which fracture the urban grid. The landscaped areas around the Metropolitan centre are generally empty and windswept, serving only to showcase the Modernist architecture. Further green public open spaces are few and far between. The Health Precinct is highly inaccessible to both vehicular and pedestrian traffic (figure 11b). Pedestrian movement is discouraged by long walking distances between street corners. Institutional land-use thus creates a further barrier between Hillbrow and Braamfontein, effectively isolating Hillbrow and Berea from the Metropolitan Centre.

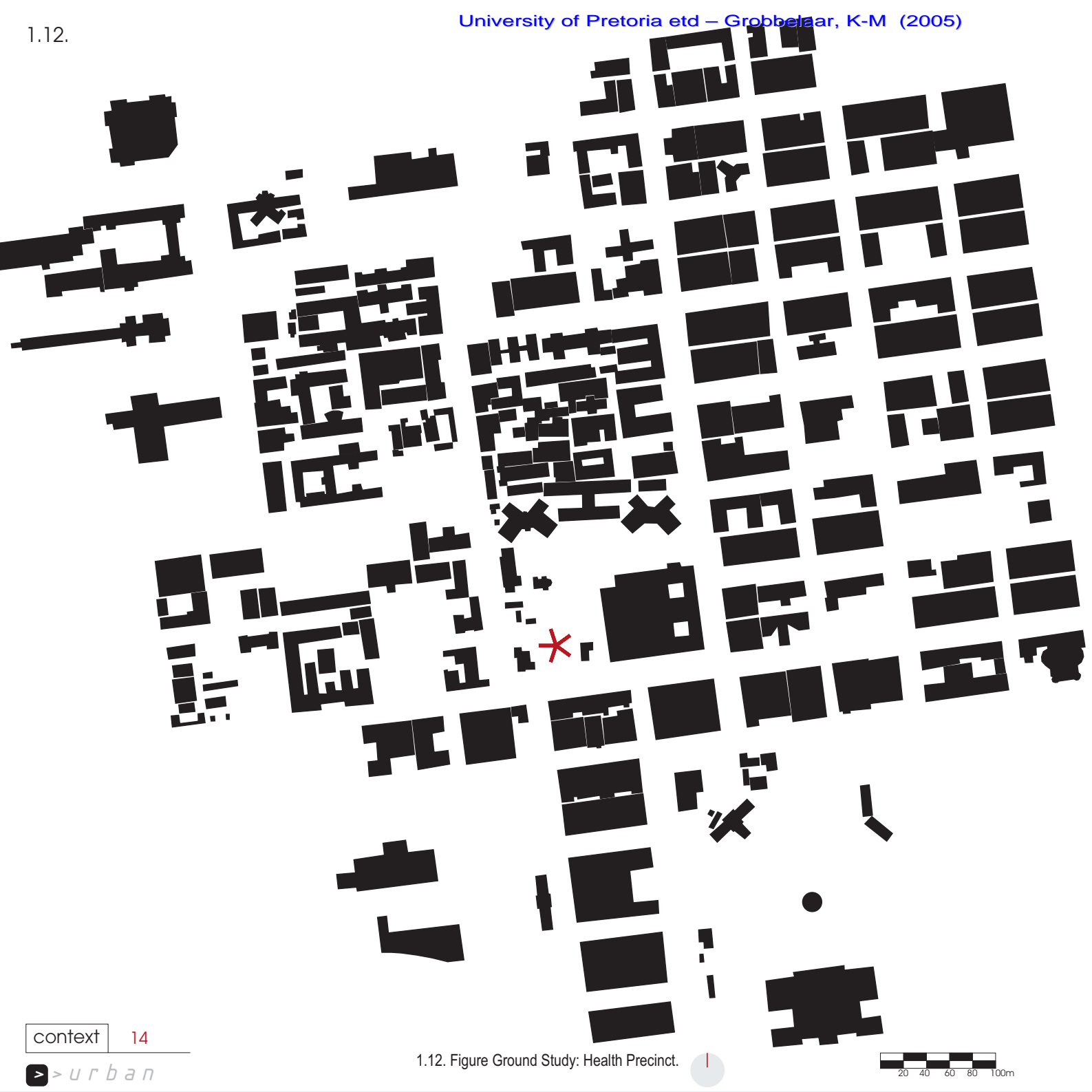
Joubert Park and Park Station are major activity nodes associated with high levels of pedestrian movement.

Constitution Hill has the potential to catalyse the development of the Health Precinct, which in turn may encourage the redevelopment of Hillbrow and its integration with Braamfontein. With hospital buildings along two edges and high-rise apartment buildings along the other two, the site represents a marginal position between institutional land-use and Hillbrow proper.



■ streets
■ access to Hillbrow Hospital

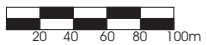
1.11.a. Vector diagram: institutional land-use.
1.11.b. Vector diagram: movement/access.

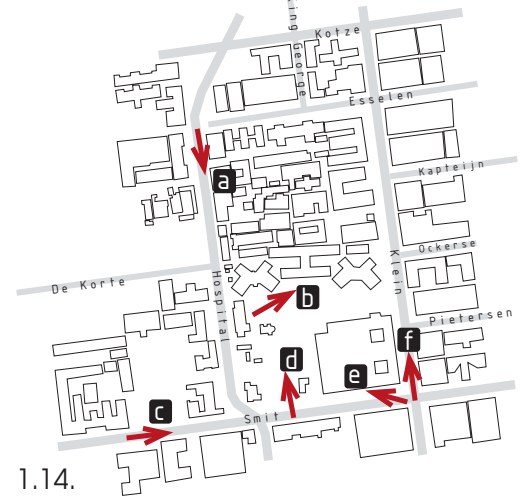


1.13.



1.13. Ground Figure Study: Health Precinct.







c. View down Smit Street.

d. View of site from Smit Street.

e. View up Klein Street.

f. View of Hillbrow Community Health Centre from Smit Street.

Climatic Data: Highveld (Holm 1996)

- _distinct rainy and dry season
- _average 11K difference between day/night temperatures
- _winter temperatures around 15K below comfort level
- _strong solar radiation
- _moderate humidity, low in winter
- _prevailing wind direction
- ___summer: northeast
- ___winter: northwest, some southwest

Microclimate

The site is very much an 'urban' site, with the microclimate seriously affected by noise- and air pollution, wind-channeling, shadows from surrounding buildings (fig. 1.17) and heat radiation from paved and tarred surfaces.

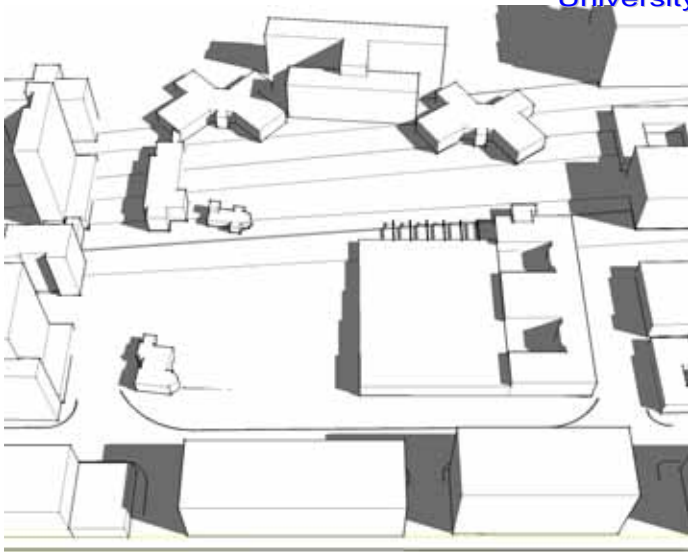
The site contains no endangered **plant or animals species**. Existing trees include specimens of *Quercus rubra*, *Q. palustris*, *Jacaranda mimosifolia*, *Tipuana tipu* and *Juniper sp.* Street trees are *Platanus acerifolia*. A vegetable garden is currently being maintained by hospital staff in the old Superintendent's garden.

The site represents a green pocket in an otherwise largely barren urban landscape. Although the trees on site are exotic species, they can ameliorate the effects of noise, pollution and radiation while providing natural shading devices and increasing humidity levels. Also, they are part of a larger population of exotic species that is integral to the vernacular urban landscape and adds to the character of the site. Mature trees should thus be preserved where possible.

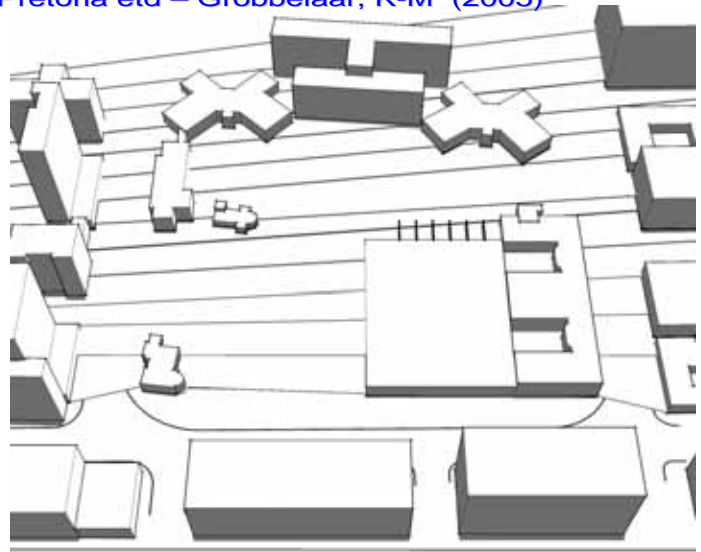
Seeing that the site is surrounded by buildings of between 2 and 19 storeys, it is assumed that **geological** conditions are not problematic and that no special foundations will be required.

The landscape rises from Johannesburg CBD to the northern suburbs. Because the site is located towards the top of Hospital Hill, it is assumed that the water table lies far below ground level and is not an issue of concern. No other **hydrological** matters are of special relevance.



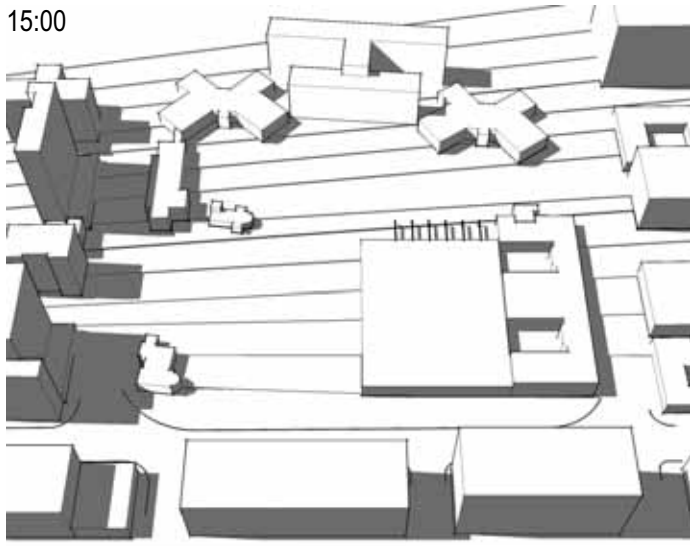


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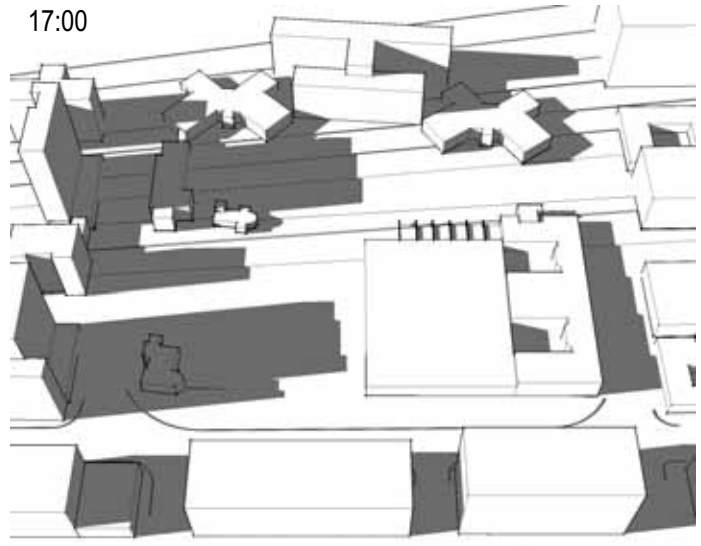


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summer solstice 21 december

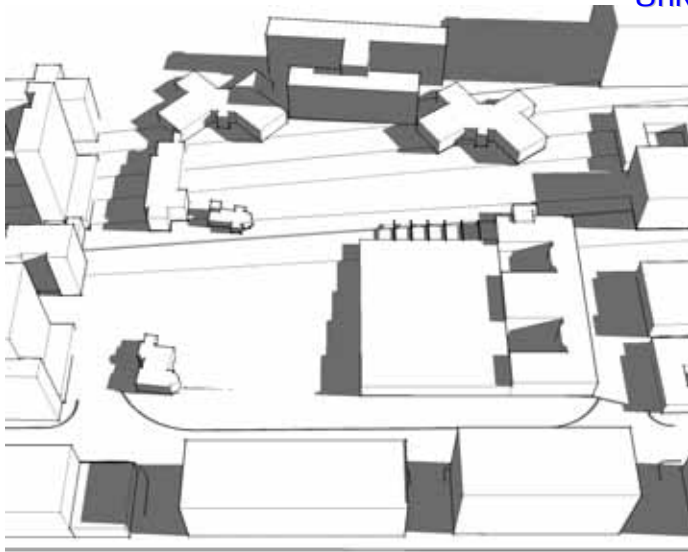


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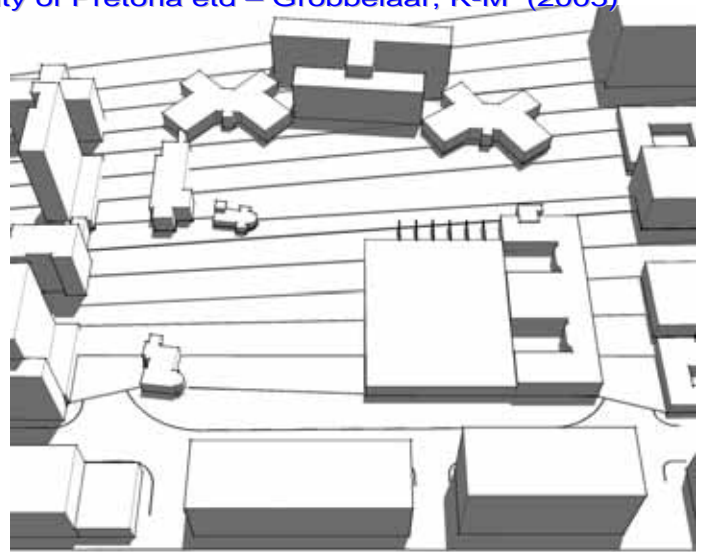


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1.17(a-d). Shadow Study: 21 December.

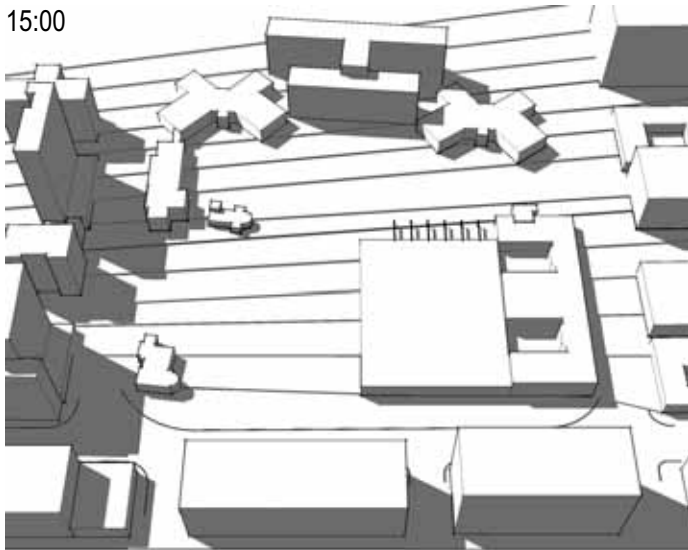


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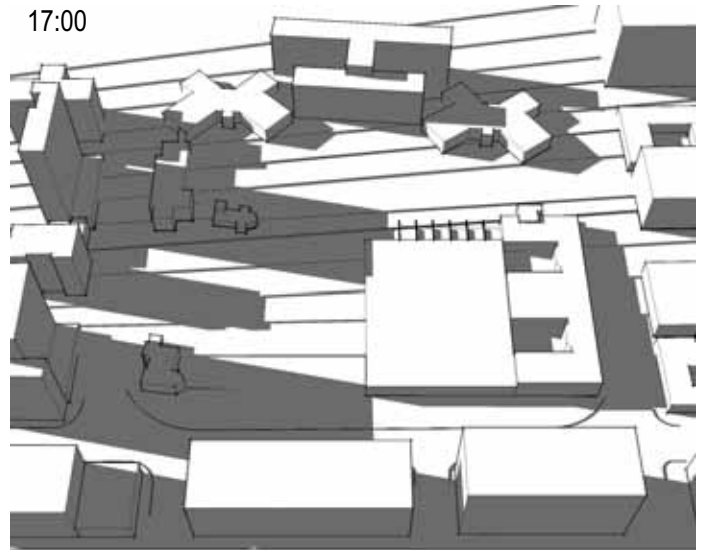


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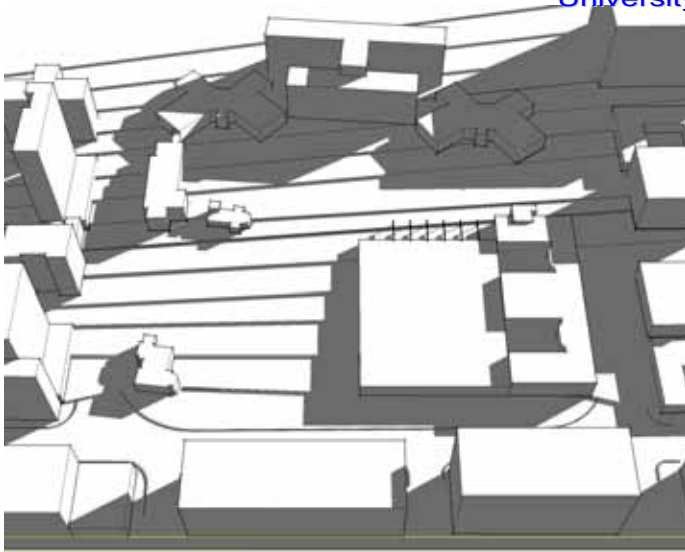
equinox 22 march/22 september



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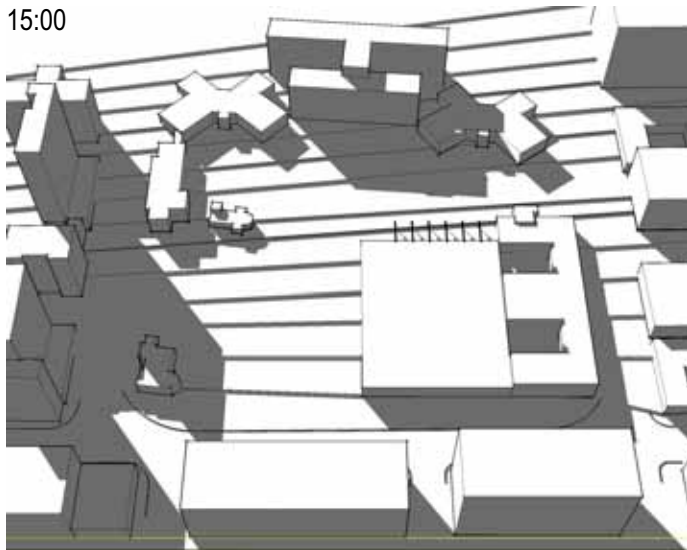


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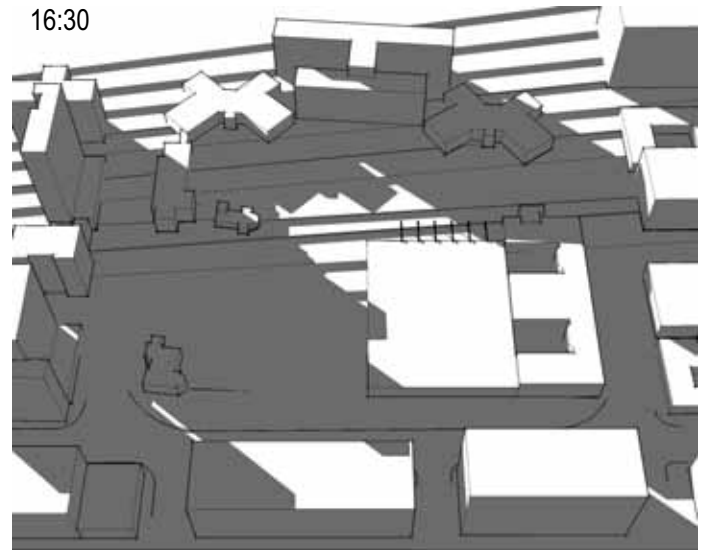


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winter solstice 21 june

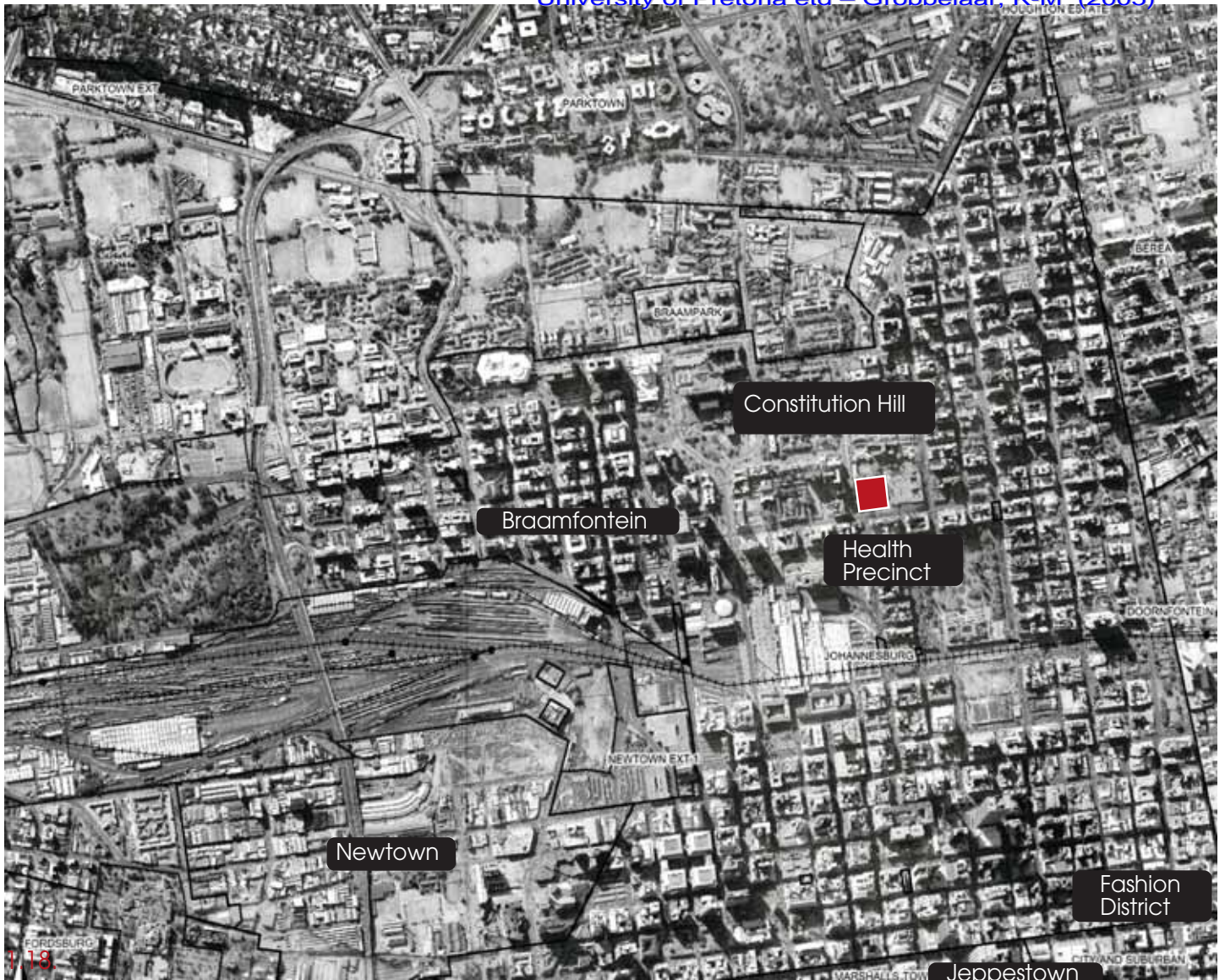


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16:30

1.17(i-l). Shadow Study: 21 June.



Johannesburg's current town-planning developments are regarded as part of the context insofar as such developments are to shape the site's urban environment in future.

The Johannesburg Development Agency was established in April 2001 as an initiative of the City of Johannesburg. It is a city-wide economic development agency that plays a leading role in the implementation of the City's economic development strategy, *Joburg 2030: In 2030 Johannesburg will be a world-class city with service deliverables and efficiencies that meet world best practice. Its economy and labour force will specialise in the service sector and will be strongly outward oriented such that the city economy operates on a global scale. The result of this competitive economic behaviour will be strong economic growth that will drive up city tax revenues, private sector profits and individual disposable income levels such that the standard of living and quality of life of all the city's inhabitants will increase in a sustainable manner* (JDA 2003: 1).

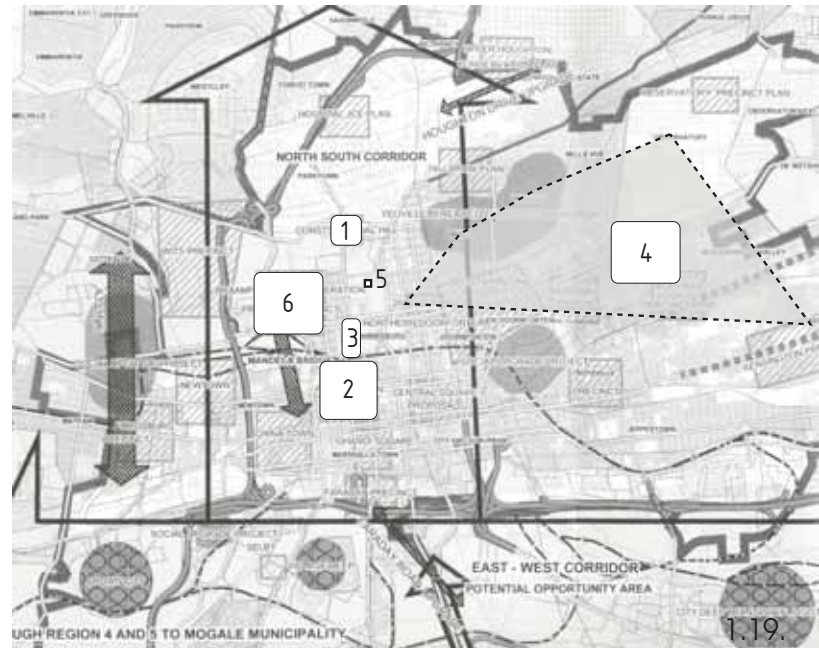
Project areas include:

- _ **Constitution Hill** [Addendum A]
- _ the **Health Precinct**
- _ **Newtown**
- _ **Braamfontein**
- _ the **Jeppetown development**
- _ the **Faraday Precinct** .
- _ The **Fashion District** [fig. 1.18].

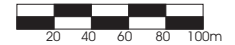
Focus areas as identified by the **Johannesburg Regional Spatial Development Framework 2003** [fig. 1.19] include Constitutional Hill(1), Park Station(2), Western Joubert Park(3), Observatory-Kensington-Hillbrow-Yeoville-Berea(4), Esselen Street(5) and Braamfontein(6) . Generic poverty alleviation; social regeneration; skills development; employment opportunities and by-law enforcement - as regards




informal trading, illegal uses, overcrowding, slum lording and sheebens - are relevant priorities (City of Johannesburg 2003).

The nature of development in the development precincts of both the JDA and the Metropolitan Council points towards a preoccupation with Joburg's image and the stabilisation of decline. The general living conditions in Hillbrow - characterised by overcrowding and a thriving informal and illegal economy - raises a question as regards the potential of recent developments to empower the lower socio-economic classes. However crowded and unsafe, Hillbrow's urban landscape enables the daily survival of thousands of urbanites. Both the JDA and the town-planning department recognise Hillbrow's problem as being primarily socio-political and beyond the scope of conventional town-planning measures (Badat 2004); and accordingly have so far been reluctant as regards planning for physical intervention. Hillbrow has become an island of underdevelopment between the wealthy suburbs to its north and the development precincts to its south.



1.19. Conceptual Regional Spatial Regional Development Framework, Johannesburg.



-  significant building stock
heritage buildings
reusable fabric
occupied buildings
architecturally significant
-  new pedestrian streets
new vehicular streets
-  recent additions
causing damage
unused buildings
little architectural merit

The Johannesburg General Hospital was officially opened on Hospital Hill on the 5th of November 1890 with 103 beds. The Main Block (Gordon Leith) was completed in 1936. When, in 1968, the Transvaal Provincial Administration commissioned the building of the new hospital on Parktown Ridge, the original Johannesburg Hospital became known as the Hillbrow Hospital (www.johannesburghospital.org/aboutus/history).

The development of the built fabric of Hospital Hill (now the Health Precinct) has taken place on an ad hoc basis over 100 years. The older fabric is primarily built along street edges with more recent buildings constructed as additions and connections between older buildings. The result is completely unintelligible. The older fabric has started to decay faster than is usual as a result of poor maintenance, vandalism and the ingress of stormwater, while a number buildings are underutilised or empty. A Scoping Study of the Health Precinct was prepared for the JDA by OMM Design Workshop and Urban Solutions. The Scoping Report represents the first step in a development process the aim of which is to create an accessible, people-oriented centre of medical excellence in the existing Health Precinct.

The Scoping Study proposes to

- _integrate segregated areas of the city;
- _ensure accessibility of public amenities, especially to the pedestrian, young and old;
- _create a sense of place by providing public spaces that are surrounded by primary health functions;
- _create a mixture of land uses to ensure a 24 hour life cycle, and
- _identify catalytic projects.

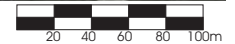
Refer to figure 1.21.

Interventions proposed by the report include

- _the demolition of a number of buildings;
- _the reinstatement of the street grid to ease vehicular and pedestrian movement, increase legibility and ensure accessibility to the public precinct;
- _the development of a public open space network, and
- _the insertion of new health-related and mixed-use buildings with public activities at ground level and private activities on upper levels.

The Hillbrow Community Health Centre is currently undergoing extensive renovations so as to house the Hillbrow Polyclinic, which will provide primary health care.

17 Esselen Street, previously known as the Colin Gordon Nursing Home (Pabst 1951) has been identified as a heritage building and is being developed to house an HIV/AIDS Research and Care Centre. Esselen Street will become the centre of the increasingly accessible and pedestrian-friendly Health Precinct.



Public Open Space ○

New Vehicular Connection - -

New Pedestrian Connection —

Landmark buildings to improve legibility: Hillbrow Hospital, Metropolitan Council, 17 Esselen Street. ■

Catalytic projects: Constitution Hill Development, upgrade of Esselen Street, development of AIDS Research and Care Centre in 17 Esselen Street ●

Existing buildings: uses and heritage aspects to be documented; redevelopment and upgrading of facilities. □

New mixed use development potential including commercial, retail and residential use. ■

New health-related development potential. ■

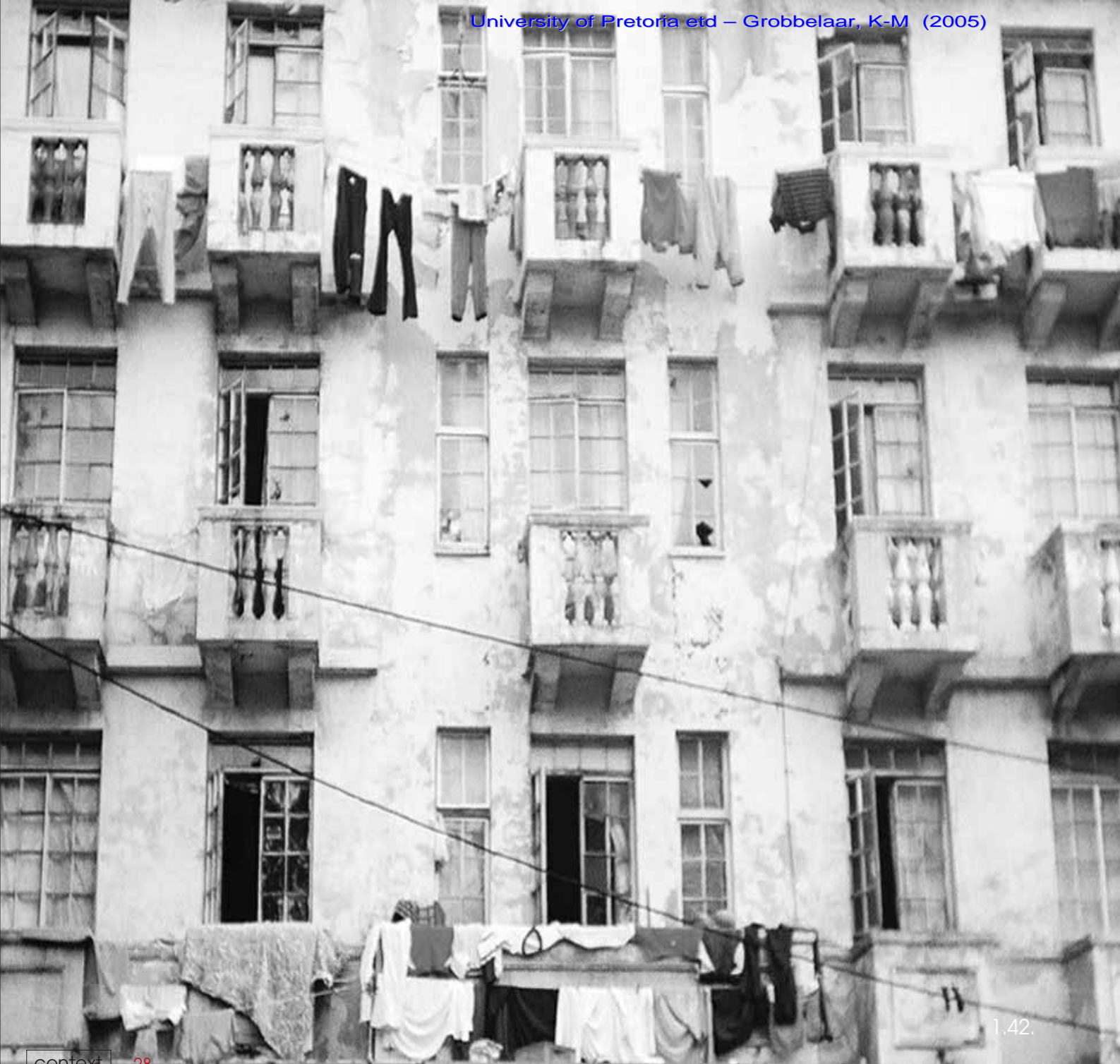
Centralised parking development. ■

The site on the corner of Smit and Hospital Street is earmarked for **mixed use**. The Scoping Study provides, firstly, an indication of the Metropolitan Council's intention to develop the Health Precinct; and, secondly, a framework; however speculative, for the intended spatial development of the precinct as a whole. Its guidelines are not prescriptive in terms of the particular site. Nevertheless, the design proposal forms part of the development of the Health Precinct as a whole and should fit loosely into the preliminary framework as regards

- _increasing the accessibility of the Health precinct
- _creating a pedestrian-friendly environment with a network of public open spaces, and
- _inserting mixed used facilities.

The streetscape around the site - currently barren and underused - should be turned into an active and inviting environment with respect for the human scale and pedestrian speed of movement.





1.42.

Statistics

Hillbrow is South Africa's most densely populated suburb. The majority of the population of this inner city neighbourhood is classified as black African. The 1996 census indicated a population of 30 000 people. A 2001 survey raised the number to approximately 100 000, a figure which doubles over weekends due to the influx of people to entertainment venues in the area. According to the 1996 census, 65% of residents are between 17 and 35 years of age. IsiZulu is the most common first language (39%), followed by English (15%) (Wooldridge 2002: 1). 25% of the population is unemployed and an estimated 40 % are HIV positive. The majority of the population earns below R2000 per month (www.bs.cyty.com/elms/outr).

The Hillbrow Berea Regeneration Initiative (HBRI) Beginning in March 2001, the IMBEWU Consortium embarked on a fourteen-month participatory planning process with the residents of the Hillbrow and Berea. The process was undertaken on behalf of the Greater Johannesburg Metropolitan Council (GJMC) with funding from the United States Agency for International Development (USAID). The aim of the project was to inform the Council's planning for the regeneration of the area through establishing and managing a project office for the HBRI, and engaging residents and stakeholders in participatory planning processes (IMBEWU Consortium 2002: 1). Interactive street theatre and the visual arts proved the most effective means of engaging residents from various age groups, cultures, language groups and degree of literacy in interactive, creative problem solving during the 14 month process undertaken by the Consortium (IMBEWU Consortium 2002: 16).

Problems indicated in the report are:

Unemployment / Poverty: Homelessness, street children, sex work.

1.22 (facing page). Apartment Block, Klein Street, Hillbrow.
1.23. Alley between Ockerse and Kapteijn Street, Hillbrow.

Health: HIV/AIDS

Urban Environment: Litter, pollution and lack of maintenance of public facilities such as street lights and toilets.

Housing: High rent, neglect of buildings, landlord-tenant disputes, overcrowding.

Security / Crime: Police corruption, drug trade, violence and lack of safety.

Child abuse and neglect

Informal trade-related disputes

Pervading pessimism and unrealistic expectations of Government

Xenophobia



1.23.

The report further indicates a need for facilities for diverse recreational facilities; safe, multifunctional public open spaces, and theatres and performance venues.

Frontier City

Hillbrow is a predominantly residential area, but includes a small commercial and entertainment strip concentrated around Pretorius and Kotze Street. Prior to the Second World War, the suburb consisted largely of detached residential houses. In 1946 the Johannesburg City Council passed a revised town-planning scheme for Hillbrow which removed building height restrictions. By the early 1970s, most of the suburb's detached houses had been replaced by high-rise blocks of flats. Today, up to 84% of Hillbrow's population live in rented flats. The remaining portion lives in hotels, rooftop rooms originally built as domestic quarters, the few remaining detached houses or on the streets (Wooldridge 2002: 1).

Hillbrow is known to have become racially mixed prior to the abolition of the Group Areas Act. The mid 1970s saw a high vacancy rate, which Morris (in Wooldridge 2002: 2) attributes to a drop in suburban housing prices; the exodus of foreigners in the wake of the 1976 uprisings, and young whites' staying with their parents or sharing accommodation to minimise costs during the recession. Around 1980, the lifting of rent controls and the introduction of sectional titles forced many of Hillbrow's residents who were unable to buy their homes or pay the rapidly rising rents out of the neighbourhood. Landlords were able to exploit the acute housing shortage by charging high rents to 'illegal' tenants - initially predominantly Coloured and Indian people who were legally prohibited from living in Hillbrow. The provisions of the Group Areas Act were by-passed by using whites to sign lease agreements on behalf of non-white tenants. Nevertheless, illegal tenants remained vulnerable to police raids and eviction (Wooldridge 2002:2).

A landmark court case (State vs Govender 1982) - ruling to the effect that tenants could not be evicted unless suitable alternative accommodation was available - hastened the desegregation of Hillbrow. The Apartheid government did not have the fiscal capacity to provide alternative housing. Moreover, they faced a political dilemma as they were unable to conduct mass evictions in a neighbourhood prominent in the media while trying to woo Indian and Coloured representation into the tri-cameral parliament. Conservative elements viewed the inclusion of Coloureds and Indians in parliament as a retreat from the Apartheid doctrine.

Hillbrow came to symbolise the government's unwillingness or inability to enforce strict racial segregation.



1.24.

The Conservative Party (CP) actively opposed the integration of Hillbrow. Morris (in Wooldridge 2002: 2) quotes a CP leader at a 1983 meeting in protest against racial integration in the inner-city:

...Coloureds, Indians and Blacks are swamping these areas [Hillbrow, Berea and Joubert Park]... Whites are afraid to leave their flats for fear of being attacked; parks are occupied by unemployed Blacks; Indians threaten or bribe landlords to give them accommodation; landlords are allowing people of other race groups to live in their blocks of flats, to intimidate white protected tenants to vacate....crime is increasing, people of colour litter the area and urinate in public. The entire situation is forcing Whites to leave the area.

Being unable to exert legal pressure on individual tenants, the CP began to initiate private prosecutions against landlords who contravened the Group Areas Act. However, efforts to remove 'illegal' tenants failed in the face of the government's inability to provide alternative affordable housing for Indians and Coloureds. Many illegal tenants in Hillbrow at the time were reasonably well employed, paid their rents on time and proved to be good tenants. By the early 1980s, the introduction of a first-time homeowner subsidy for whites having sparked a renewed exodus of whites to the suburbs, illegal tenants were effectively keeping Hillbrow's landlords in business (Wooldridge 2002: 2-3).

Until the mid-1980s, illegal tenants in Hillbrow remained predominantly Indian and Coloured. The number of Africans was limited by influx control laws, which required that Africans carry a 'pass'. In addition, many landlords were blatantly racist and refused to rent to Africans. With the abolition of the pass laws came a massive demographic shift in Hillbrow's population. In 1985, approximately 10% of Hillbrow's residents were African. By 1993 the figure had risen to 62%, and by 1996 over 80% of Hillbrow's population was African (ibid.).

1.25. View up Edith Cavell Street, Hillbrow.

* For the purposes of the study, the term 'foreign migrant' or 'foreigner' will be used in reference to any legal migrant, asylum seeker or refugee. Illegal immigrants are excluded.

While foreign migrants* feature prominently in the social geography of Hillbrow, it is difficult to estimate their exact number. According to Wooldridge (2002: 3-4), 92% of the population counted in the 1996 census were South African, with 4% from SADC counties, 1% from the rest of Africa and the remainder from elsewhere. It is however likely that a large number of legal and illegal foreign migrants were not counted in the 1996 census and that the number has substantively increased since 1996. According to local organisations, Zimbabweans, Nigerians and Mozambicans are amongst the largest foreign migrant groups.



1.25.

Hillbrow once symbolised the breakdown of Apartheid through the relaxation of racial segregation - the frontier of the city where black and white could meet. Today, Hillbrow is known as an area with a prominent foreign population. The old dynamics of racism are overlaid with xenophobia. Social cleavages on the grounds of ethnic differences are becoming increasingly prominent. According to Soja (in Wooldridge 2002: 3), a new mode of 'social and spatial regulation' - based on ethnicity and informal and criminal economic networks - is emerging.

x e n o p h o b i a, *n.* a hatred or fear of foreigners or strangers.
(Gr. *xenos*: strange, stranger; *phobos*: fear)



1.26.

... in Hillbrow

According to Wooldridge (2002: 21), the local spatial and social regime in Hillbrow is to a large extent shaped by national origin. Ethnic differences between South Africans are downplayed, while national differences are emphasised and given a spatial dimension. People of the same nationality typically cluster together in the same buildings/streets; and although this phenomenon is not specific to Hillbrow, the number of distinctions and spatial groupings within this small neighbourhood is remarkable.

A complex pattern of criminal networks and spatial control is nested within a context of general insecurity; the only social order being imposed by criminal networks, with the balance of power weighed towards the most organised groups - the gangs and cartels. While Council continues to deliver services to the area, the political problem is largely neglected. Residents of Hillbrow extend their trust mostly to church groups and small social networks comprised of people from the same nationality. There is significant social capital within migrant groupings, and numerous migrant associations exist, such as 'the brotherhood', the Self Help Christian Refugee Association, the Zimbabwean International Immigrants Confederation and numerous other informal groupings of Zambian and Nigerian migrants (Wooldridge 2002: 7).

Employment

It seems that migrants are not discriminated against in terms of employment opportunities. According to Wooldridge (2002: 15), foreign migrants who own local businesses are more likely to employ people from their home countries than South Africans. In many cases, foreign street traders from particularly West African countries are more educated, experienced and likely to have some capital than their South African counterparts (Gotz and Wooldridge in Wooldridge 2002: 15). Strong feelings of xenophobia exist against foreign

traders: in September 1998, 2000 local hawkers marched the streets of Johannesburg to protest against competition from foreign hawkers (*Weekly Mail and Guardian*, 14 September 1998 in Wooldridge 2002: 16). Foreigners are believed to take jobs away from South Africans. The South African Migration Project; however, interviewed 70 immigrant entrepreneurs in inner-city Johannesburg and found that foreign business people create between two and four jobs each, and that at least half their employees were South Africans. They also invested most of their profits in South Africa (*Weekly Mail and Guardian*, 11 September 1998 in Wooldridge 2002: 16).

Control

Criminal networks operating in Hillbrow are stereotyped according to ethnicity - Nigerians are credited with the drug trade and Zimbabweans with housebreaking, hijacking and violent crimes. The success of the Nigerian drug trade is linked to tight discipline. Nigerian dealers are highly organised and generally refrain from using the drugs they supply. Each 'drug hotel' has a building committee, which elects a president, Vice-President, a Secretary, a Treasurer and a task team. The committee's rules are binding on all Nigerians in the area - those who transgress the rules are fined. Fines are paid into a 'legal fund' to bail out members who are incarcerated. The presence of Nigerian drug cartels effectively reduces violent crime in the streets and buildings where they operate (Wooldridge 2002: 16).

This reliance on informal security networks extends to the sex industry, which centres around the daily accommodation hotels (Wooldridge 2002:19). Sex workers often turn to their hotel security rather than the police. The police themselves are regarded as being corrupt and deeply embedded in local criminal networks (Wooldridge 2002: 18). Many foreigners believe the police to be less likely to react when the victim of a crime is a foreigner. Also, foreigners suffer harassment

Urban Transformation

Hillbrow may once again be a forerunner of urban change. Racial politics is being replaced by, or rather subsumed into, identity politics and xenophobia. The way in which 'otherness' is constructed and managed will play a critical role in the future of urban politics in Johannesburg. Hillbrow is a testing ground for Johannesburg's ability to manage what Chipkin (in Wooldridge 2002: 21) calls the 'new era of African trans-national migration' - the post-1980 wave of migration from African countries not traditionally associated with the migrant labour system. Given the emphasis placed on the 'integrated city' in metropolitan urban policy, the territorial dimension of ethnicity should come under consideration.

from policemen demanding identification documents and bribes regardless of the legality of the documentation provided.

Marginalisation

Many foreign migrants choose to live in Hillbrow for fear of victimisation in the townships, and because of its central location, the informal opportunities it offers for income-generation and the ease with which accommodation can be procured without references or credit ratings.

The anonymity of Hillbrow simultaneously provides social freedom and the security of living in close proximity to fellow countrymen.

Foreign migrants are more likely to use some public services - particularly health clinics and local schools - than local residents. According to Wooldridge (2002: 22), French-speaking immigrants (mostly West-African) make almost exclusive use of recreational facilities in Hillbrow, while Portuguese-speaking immigrants are likely to visit township areas.

Foreigners do not receive poorer service standards from the Council, but in the case of landlord-tenant disputes over payment and maintenance of services foreigners have less recourse than South Africans. Many foreign residents feel that landlords are less responsive to their needs and rights as tenants because they are a part of a vulnerable constituency (Wooldridge 2002: 10). Few migrants participate either individually or collectively in local government politics (Wooldridge 2002:22).

It seems that the degree of spatial segregation is related to the perceived measure of '**other-ness**'. According to Short (in Wooldridge 2002: 21-2), the salience of a migrant group increases with its size (relative to the total population), residential concentration, number of newcomers and the degree of homogeneity as regards class and occupation within the migrant group.



1.27.

1.27. View up King George Street, Hillbrow.

C o u n t e r a c t i o n

According to the South Constitution (Act 108 of 1996 Section 1.3), all citizens [which include asylum seekers and legal foreign migrants] are equally entitled to the rights, privileges and benefits of citizenship. According to Section 2.31, persons belonging to a cultural, religious or linguistic community may not be denied the right, with other members of that community, to enjoy their culture, practice their religion and use their language; and to form, join and maintain cultural, religious and linguistic associations and other organs of civil society. Discrimination on the grounds of ethnic differences is a violation of human rights.

As a signatory to the UN and OAU Conventions on refugee protection, South Africa is obliged to provide protection to people who have well-founded fears of persecution due to race, ethnic origin, political or religious creed or membership of any particular social group.

A 1999 study of South Africans' attitudes towards immigration and immigrants found South Africans to have the highest level of opposition to immigration recorded in any country in the world where similar studies have been done (Peberdy and Majodina in Wooldrige 2002: 21). The rising tide of Xenophobia in South Africa has been addressed in a number of documents:

The **Braamfontein Statement**, which was released by the South African Human Rights Commission in October 1998, rejects irrational prejudice and hostility towards or exploitation of non-nationals and aims to eradicate xenophobia. (SAHRC 1998).

The **Inner City Position Paper**, released by the JDA in January 2001, states that, in order to *develop and encourage the development of the inner city as a desirable location and incubator for SMMEs*, it is necessary to *develop programmes to counter xenophobia and create materially productive relationships between local and migrant entrepreneurs (JDA 2001: 11)*.

The **Johannesburg Declaration on Sustainable Development**, as adopted at the 17th plenary meeting of the World Summit on Sustainable Development, on 4 September 2002, includes the following statement: *We reaffirm our pledge to... give priority attention to the fight against the ... conditions that pose severe threats to the sustainable development of our people, which include: ... intolerance and incitement to racial, ethnic, religious and other hatreds [and] xenophobia (www.joburg.org.za/clean_city/johannesburgdeclaration)*.

The **HBRI Report** suggests the establishment of a *cultural centre where residents from different nationalities can interact in meaningful ways; and a public education campaign which will create an understanding and tolerance of the reasons for the presence of refugees, asylum seekers and migrants in Hillbrow.*

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'Teacher assaulted for being too dark'
 Moshoeshoe Monare and Melanie-Ann Feris
 The STAR March 11 2001

Her dark skin and a "strange manner of dressing" were grounds for a teacher's arrest.

Police arrested Sylvia Manda, 33, on Friday, allegedly beat her up and detained her in a police cell for several hours.

Manda, a teacher at St Edna's Community College in Hillbrow, was on her way to school when she was stopped by two policemen from Jeppe police station who suspected her of being an illegal immigrant. She was arrested, allegedly assaulted and detained for four hours without being offered medical treatment.

Captain Bongani Dube said Manda failed to produce identity documents or "elaborate about her citizenship".

Asked on what grounds they suspected her of being an illegal immigrant, Dube said: "Her complexion, facial appearance, accent and her style of dressing."

www.iol.co.za/html/frame_thestar.php



A Cultural Centre for the Foreign Community

2.1. Informal Trade, Klein Street, Hillbrow.

Site

Street Address: 2 Esselen Street

Erf: RE of ERF 4352

Use Zone: Institutional

Height: 3 Storeys

FAR: 2,1

Coverage: 70%

Building Line: 0 m along Hospital Street, 0m along Smit Street.

Client

Johannesburg Development Agency on behalf of the City of Johannesburg

According to Rogerson (2000: 121), 'developmental local government' as set forth in the White Paper on Local Government (March 1998) requires that South African municipalities become actively involved in maximising social development and economic growth. The White paper indicates that the activities of local government should be oriented towards achieving Local Economic Development - a process based on local initiative and driven by local stakeholders; aiming to create employment opportunities for local residents, alleviate poverty and redistribute resources and opportunities to the benefit of all local residents (Rogerson 2000: 120).

The project is proposed as a Local Government Initiative to counter xenophobia and ethnic intolerance and contribute to economic development and the building of a cohesive community in Hillbrow to the benefit of all local residents.

Procurement

Funding for the development of the Health Precinct is the responsibility of the City of Johannesburg and Blue IQ. It is proposed that additional funding be procured from the Ford Foundation and the Bill and Melinda Gates Foundation, both of which have indicated an interest in the AIDS-related programs currently being operated from 17 Esselen Street (Badat 2004). [Addendum E].

Affected Parties

Users_The primary user group is Hillbrow's foreign population, with South African residents of Hillbrow and tourists respectively being secondary and tertiary users.

The **Hillbrow Community Health Centre**_located immediately east of the proposed development and currently undergoing extensive renovations so as to house the Hillbrow Polyclinic.

Residents_in apartment blocks immediately south and west of the proposed development.

Interested Parties

The **Department of Home Affairs**, according to the Immigration Act (Act 13 of 2002, Section 2.2.e), shall *educate communities and organs of civil society on the rights of foreigners, illegal foreigners and refugees, and conduct other activities to prevent xenophobia*; and deals with matters of citizenship.

The **South African Human Rights Commission (SAHRC)** has the powers, as regulated by national legislation, to investigate and to report on the observance of human rights and to take steps to secure appropriate redress where human rights have been violated. The SAHRC currently chairs the National Consortium on Refugee Affairs and hosts the Roll Back Xenophobia Campaign Coordinator (www.sahrc.org.za/about_the_sahrc).

The **National Consortium on Refugee Affairs (NCRA)** was established in 1997 and is made up of representatives from the refugee communities; service providers of secular and religious backgrounds; the Department of Home Affairs; the South African Border Police; the SAHRC, and specialist Institutes and Universities such as the Centre for Applied Legal Studies. The NCRA aims to monitor the implementation of refugee legislation and promote public awareness of the plight of refugees and asylum seekers in South Africa, and is responsible for the 'Roll Back Xenophobia Campaign'. The Campaign combats violence against foreign hawkers; discrimination against foreign workers; corruption and the physical abuse and arbitrary detention of foreigners by civil servants and the police; misrepresentation of issues relating to migrants and refugees by the media; and ignorance as regards the reasons for the presence of refugees and migrants in South Africa and the rights of such persons under the South African Constitution (www.sahrc.org.za/braamfontein_statement_roll_back).

Management

The Centre is to be managed by a board of representatives of Hillbrow's foreign communities with the assistance of the National Consortium on Refugee Affairs and a representative of local government.

Programme

Instead of an objective process preceding and informing the ensuing design process, programming is considered a part of the process of conceptualisation. The 'programme' - a set of desired behaviours and the spatial qualities appropriate to them, rather than a statement of quantities of space by type - is to be established with reference to activity, from the scale of the individual to that of the collective. Accordingly, the project is synthesised from layers of activity in space and time.

The proposed development is a cultural centre where foreign residents of Hillbrow can meet and engage in the cultural activities from which they are increasingly being excluded on the grounds of their 'otherness'. The Centre provides

_a refuge for the foreign population, offering freedom from discrimination and marginalisation within the boundaries of a defensible foreign territory.

The Centre is not a fortress intended to remove the users from the hostile context, but rather **_a place of meeting and interaction**, programmed to invite lingering and multiply encounters between strangers at direct and indirect points of contact between the public and semi-public domains.

_a platform for an anti-xenophobia campaign, relying primarily on the creative arts to cultivate an understanding of various aspects of the foreign cultures represented in Hillbrow; the rights of migrants, asylum seekers and refugees, and the reasons for their presence in Hillbrow.

_a wellspring of economic opportunity through the integration of the programmes of the formal and informal economy.

2.2. Klein Street, Hillbrow.

It is proposed that foreign-community development will enable the mobilisation of the skills which foreigners can contribute to the South African economy, while empowering them to survive and progress economically by personal incentive; and that cohesive foreign communities will be able to withstand marginalisation and interact with the local community more effectively. The outcome is the building of the social capital of the entire community of Hillbrow.

The Centre is to accommodate

- _public performances and large gatherings
- _a coffee shop/café
- _workspace for local artists and craftsmen
- _dance/music/drama studios
- _a local newspaper
- _a local radio station
- _educational facilities
- _a language laboratory
- _market facilities for art, crafts, international cuisine and other merchandise
- _offices for
 - ___a management committee
 - ___the Department of Home Affairs
 - ___the Roll Back Xenophobia Campaign Coordinator.

Accommodation Schedule: Addendum E.



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According to Withaar (in Teffo and Roux 2002: 173), *“the West has used an individualistic and objectivistic framework, and that has given it a civilization where the individual is powerful, where liberty is a good that is absolute, where there is room for the play of free enterprise, where scientific and technological progress covers the world with its achievements. In Africa things are quite otherwise, since African civilization is characterised above all by solidarity, communitarianism, traditionalism, participation.”*. The traditionally African civilization is based on a concept which Western language is to a large degree unable to express: *ubuntu*, which is *“the root of African philosophy...simultaneously the foundation and edifice”* (Ramose 2002: 230).

Ubuntu may be understood as ‘be-ing human’, a “humane, respectful and polite attitude towards others” (Ramose 2002: 231). *Ubuntu* is actually two words in one: a prefix *ubu-* and stem *-ntu*. *Ubu-* evokes the idea of be-ing, i.e. *“enfolding be-ing before it manifests itself in the concrete form, always oriented towards unfolding...”* (Ramose 2002: 230). *-ntu* is the nodal

3.1. Warwick Junction: the site between the Shrine of Hazrath Badsha Peer and Berea Road station, Durban, before intervention.

point at which be-ing assumes concrete form or a mode of being and may be construed as ‘temporarily having become’. In this sense, *ntu* is a noun; *ubuntu* is thus a verbal noun.

At the ontological level there is no literal separation between *ubu-* and *-ntu*: they are two aspects of being as a one-ness: *be-ing-becoming* and not *be-ing and becoming* (Ramose 2002: 230). However, Western linguistic structure assumes and imposes a strict divide and a necessary sequence in terms of subject-verb-object. The rheomode allows an understanding that ‘whole’ *“cannot appropriately describe ‘be-ing’ since it already implies the fixation of be-ing and its replacement by ‘being’*. *Precisely because motion cannot be stopped, since in the very act of stopping motion is already present, we cannot talk about the whole of be-ing as though be-ing had attained to the state of complete stagnation: absolute rest”* (Ramose 2002: 231). The rheomode allows be-ing to *be and become* simultaneously; hence *be-ing becoming* and not *be-ing and becoming* (Ramose 2002: 233). Whereas fragmentative thinking holds ‘fact’ as an objective state of affairs susceptible to verification, rheomodic thought defines truth as the contemporaneous convergence of perception and action. Thus: *“human beings are not made by the truth. They are the makers of the truth”* (Ramose 2002: 235).

Similarly, in African philosophy **human beings make time and place. The Westerner lives in time and place.**

According to Ramose (2002: 231), the African civilisation is grounded in the maxim *“umuntu ngumuntu nga bantu”*, which may be construed to mean that *“to be a human be-ing is to affirm one’s humanity by recognising the humanity of others and, on that basis, establish humane relations with them.”*

“Architecture ruptures the cyclic nature of time and progression in more traditional societies” (Morojele et al. 2002: 104).

Morojele argues for a sanctioned impermanence as a strategic approach to the development of spatial identities in the transitional environment. This impermanence “requires the promotion of baggy space: space that may be experienced as being significant without being prescriptive.”

is set around significant but common places to create e.g. funeral space. Often domestic space will be temporarily transformed to bring certain social structures into relief. Hence, buildings are required to be flexible in order to encourage and allow for human agency and to anticipate the unintended. According to Morojele (2002: 105), “the requirements of late modernity and global tourism are transforming this ephemeral and light-footed affirmation of identity towards a more fixed, permanent and therefore consumable one”. Morojele argues for an architecture that will accommodate

the informal, the unintended and the unanticipated. -----

The African City

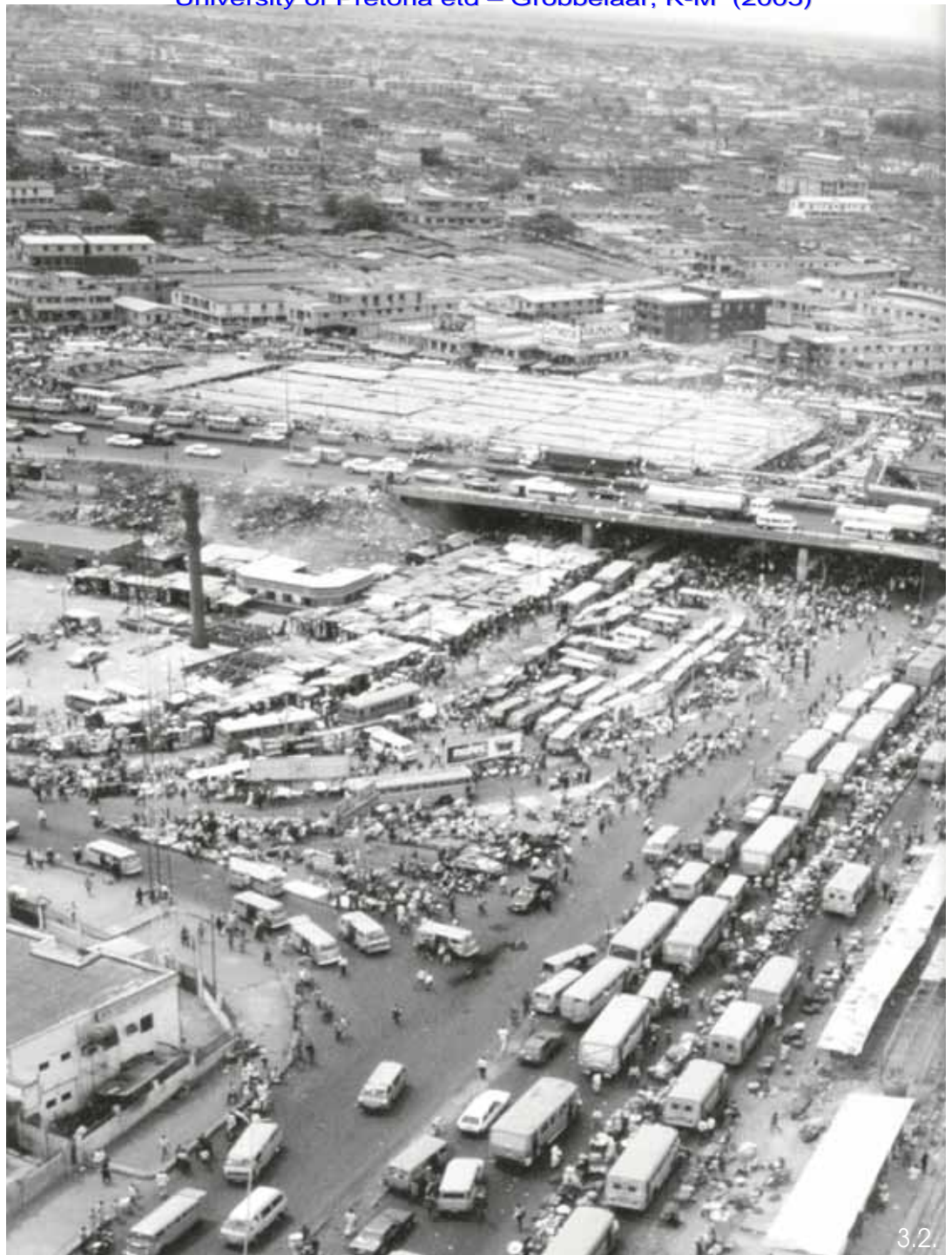
A decade of democracy has seen a massive influx of previously marginalised individuals into South Africa's city centres. In these new 'African' cities, Apartheid has been replaced by new dichotomies: between the urban elite and the increasingly marginalised urban poor; between the city and the increasingly rural hinterland, and between the formal and informal sectors.

The African CBD Project - hosted in Natal in 1998 - attempted to deal with the *prospects and predicaments of African cities and their place within today's rapidly transforming world* (Wall 2000: V). Participants of the workshop used the mangrove tree as metaphor for the African City - **a resilient entity that survives between contexts** (Pearce in Wall 2000: 91). According to the metaphor, the African City is adaptive and subversive. Like a mangrove forest - an interface between land and sea - the barriers that separate the African City have the potential to become edges that integrate and facilitate the exchange of ideas and the meeting of different cultures - a zone of synergy (Wall 2000: 91-2).

Like the Constitutional Hill development between Hillbrow and the northern suburbs, the site for the Cultural Centre has the potential to become an 'edge' of meeting and exchange; a zone of synergy between Braamfontein and Hillbrow; between foreigners and xenophobes and the formal and informal sectors.

The development and growth of the African City requires strategies for the integration of the formal and informal sectors to create a city which can accommodate the daily activities of rich and poor urbanites in multiple layers within a single urban environment.

The informal sector should not be romanticised - it remains one of necessity and not of choice. Nevertheless, it can teach the formal sector lessons *about vibrance, diversity, creativity and alternative models of survival* (Harber 2000: 149). The precedent study (Addendum D) includes an investigation of various modes of accommodating the informal within South African cities.



3.2. Lagos.

3.2.

WE ARE RESISTING THE NOTION THAT LAGOS, ACCRA AND ABIDJAN REPRESENT AFRICAN CITIES EN ROUTE TO BECOMING MODERN, OR, IN THE MORE POLITICALLY CORRECT IDIOM, THAT THEY ARE BECOMING MODERN THROUGH A VALID, 'AFRICAN' WAY. RATHER, WE THINK IT POSSIBLE TO ARGUE THAT THEY REPRESENT A CRYSTALISED, EXTREME, PARADIGMATIC SET OF CASE STUDIES OF CITIES AT THE FOREFRONT OF GLOBALIZING MODERNITY.

MANY OF THE MUCH-TOUTED VALUES OF CONTEMPORARY GLOBAL CAPITAL - AND ITS PROPHETIC ORGANISATIONAL MODELS OF DISPERSAL AND DISCONTINUITY, FEDERALISM AND FLEXIBILITY - HAVE BEEN REALISED AND PERFECTED IN WEST AFRICA.

THIS IS TO SAY THAT LAGOS IS NOT CATCHING UP WITH US. RATHER, WE MAY BE CATCHING UP WITH LAGOS.

LAGOS, AS AN ICON OF WEST AFRICAN URBANITY, INVERTS EVERY ESSENTIAL CHARACTERISTIC OF THE SO-CALLED MODERN CITY. YET, IT IS STILL - FOR LACK OF A BETTER WORD - A CITY; AND ONE THAT WORKS. RAPIDLY EXPANDING, TRANSFORMING AND PERFECTING, THE AFRICAN CITY ALLOWS FOR THE SURVIVAL OF MILLIONS OF INHABITANTS.

THE AFRICAN CITY FORCED THE RECONCEPTUALISATION OF 'CITY' ITSELF. THE FACT THAT MANY OF THE TRENDS OF CANONICAL MODERN WESTERN CITIES CAN BE SEEN IN THE HYPERBOLIC GUISE IN LAGOS OR ACCRA ALSO SUGGESTS THAT TO WRITE ABOUT THE AFRICAN CITY IS TO WRITE ABOUT CHICAGO, LONDON OR LOS ANGELES. IT IS TO EXAMINE THE CITY ELSEWHERE IN THE DEVELOPING WORLD. IT IS TO RECONSIDER THE MODERN CITY.

IN SHORT, WE COULD ARGUE, IT IS TO DO AWAY WITH THE INHERITED NOTION OF 'CITY' ONCE AND FOR ALL.

WESTERN DISCOURSES ON THE CITY HAVE BEEN TRAPPED BETWEEN TWO POLES - THE 'FORMAL' AND THE 'INFORMAL'. IN ORDER TO AVOID THE REDUCTION THAT THE AFRICAN CITY IS MERELY 'FLEXIBLE' OR TOTALLY INDETERMINATE, WE WILL EMBELLISH A THIRD TERM - THE **INFORMAL** - IN ORDER TO ACCESS THE SPECIFICITY OF ITS OPERATIONS. THE INFORMAL IS NEITHER FORMED NOR UNFORMED; ALTERNATELY, IT LOOKS LIKE BOTH.

IT IS NOT IDENTIFIABLE AS A PATTERN OR MORPHOLOGY, BUT NONETHELESS MANUFACTURES THE MATERIAL, REALITY OR URBAN FORM. IT IS AN ALLIANCE OF TRANSFORMATIVE INGENUITY AND THE TACTICAL MOBILISATION OF RESOURCES, PRODUCED FROM CONDITIONS OF NEED AND IN THE ALMOST COMPLETE ABSENCE OF CENTRALISATION.

IT IS A FREEDOM FOUND IN THE INTERSTICES OF THE GENERIC, THE INSERTION OF LOCALISED INTERVENTIONS TO ACCESS OVERLOOKED WELLSPRINGS OF VALUE. **THE INFORMAL IS AN UNDERSTANDING THAT THE LARGEST EFFECTS CAN BE GATHERED FROM OPERATING AT THE SMALLEST SCALE, THAT THE HUMBLEST MEANS CAN ACHIEVE THE GREATEST ENDS, THAT LIMINAL SPACES HOLD ENDLESS POSSIBILITIES FOR PROGRAM, AND THAT TIME IS A SOURCE OF WEALTH.** DESPITE ITS MARGINALISATION, THE INFORMAL CAN RADICALLY ALTER THE CITY. THE WEST AFRICAN CITY DEPENDS UPON IT TO SURVIVE.

The LAGOS CHARTER

West - African Metropolis

Nine national censuses have been conducted in Nigeria since 1911, of which not a single one produced accurate figures. The population of Lagos, Nigeria's commercial and cultural centre, is currently estimated to be between 7 and 10 million. The UN predicts a population of 21,1 million by 2010 (Ip 2002: 368). Over 60% of Lagosians responding to a 1994 employment study described themselves as traders (Hamilton 2002: 257).

According to UNCHS statistics, in 1987 only 70% of Ghana's urbanites had access to potable water. Only 40% of Nigeria's urban residents had access to drainage and sewerage (Shepard and Comaroff 2002: 143). In Lagos, refuse is removed regularly from the central business and administrative zones and upper-class residential areas. The Lagos State Refuse Management Authority has taken to clearing refuse at night to avoid the daily traffic congestion. Very little effort is however made to clear refuse from the areas where most people live, even where reasonable road access exists. Moreover, 60% of Lagos's inhabitants live in areas inaccessible to trucks (Rakodi in Shepard and Comaroff 2002: 143). Electric power is supplied erratically. On several occasions, including recently in 1999, Lagos remained without power for several days. When the power goes, pumps stop and the water supply fails (Rakodi in Shepard and Comaroff 2002: 143).

The question looms: how do the residents of Lagos and other large West-African metropolises survive?

Flexible Infrastructure

An understanding requires a reconsideration of the modern western notion of infrastructure as being large-scale, official, centralised, highly capitalised and immobile. In Lagos's case, the services of conventional infrastructure have been adopted by the informal or marginal sectors of the economy - *small traders, entrepreneurs, thieves, unlicensed electricians and*

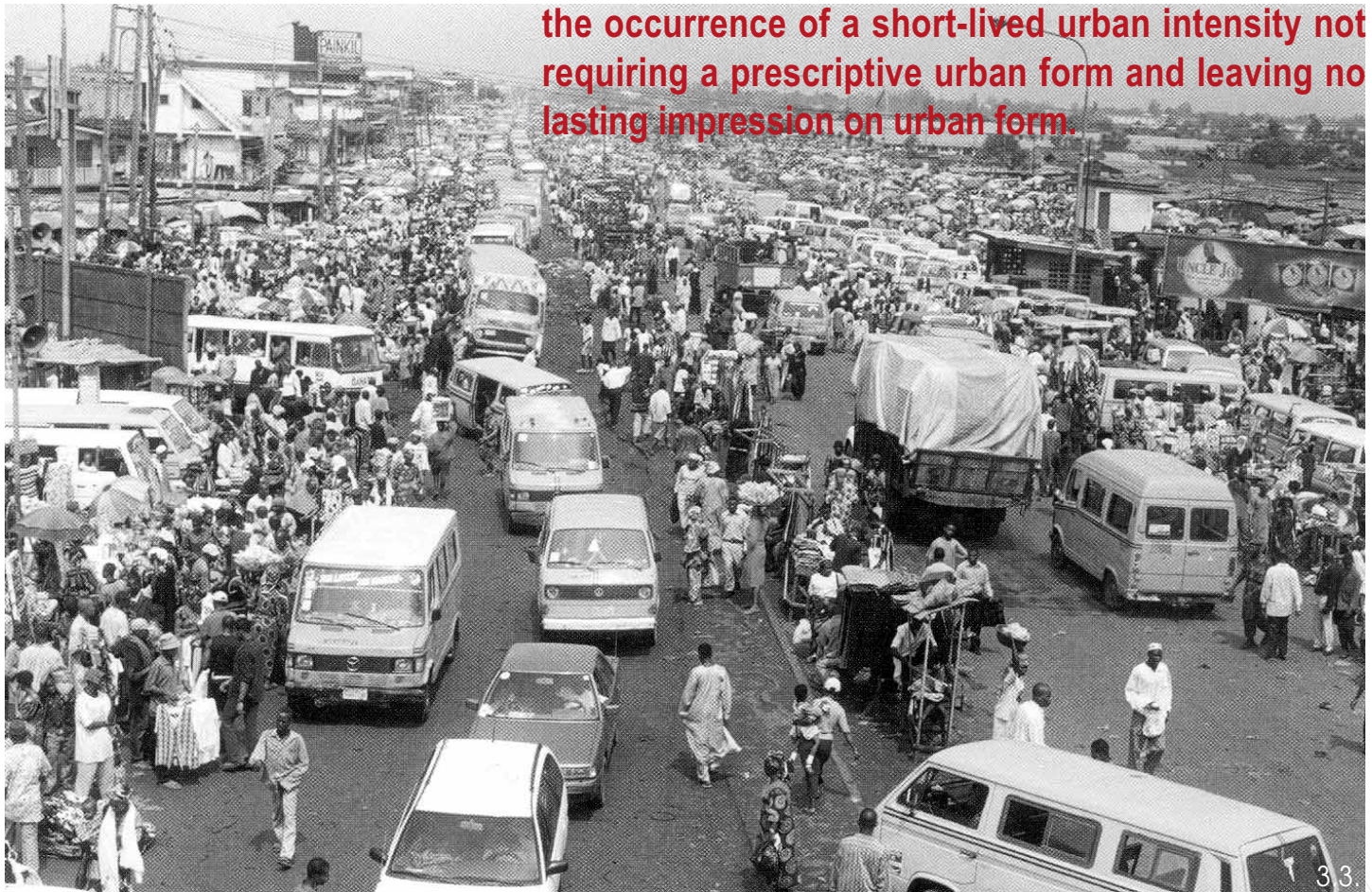
plumbers, small contractors and thousands of trucks swarming to pick up and deliver (Shepard and Comaroff 2002: 144).

According to Shepard and Comaroff (2002: 144-50), flexible infrastructures function in three manners: **Parasitic** infrastructure depends on the modification or manipulation of existing formal infrastructural systems as a basis for providing services to a larger client base than government is able to. Electricity-tapping is a common technique for illegally diverting power to a house or business. Such measures are often necessitated by municipalities' failure to provide basic services even to the elite. Virtually any electrician in Lagos can provide an electrical connection by splicing into the existing system. The Nigerian government has done little to counteract the tapping - the wire-tappers maximise the efficiency of the existing service provision while minimising demand for additional connections. The distinction between prohibited and permitted; formal and informal; effective and defective is all but erased.

Mobile infrastructure rely on cars, trucks, buses, bicycles and mammy-wagons to take care of *waste, power, transport, shopping, telephoning, factory production, judgment and prosecution* - either by trafficking or delivery. Hawkers sell the same merchandise one would find in malls or department stores by the side of major roads to drivers waiting in traffic. This has the effect of worsening traffic, making road-shopping a necessity due to lack of time and the boredom of gridlock. It can take as long as four hours to cross Oshodi Intersection [fig. 3.3], a blind eight-way conjunction and informal street-market in the north of Lagos. When it is not provided at the roadside, merchandise itself becomes mobile and is delivered or ported about for sale. As a result, infrastructure in Lagos has become unmappable, being simultaneously everywhere and non-existent.

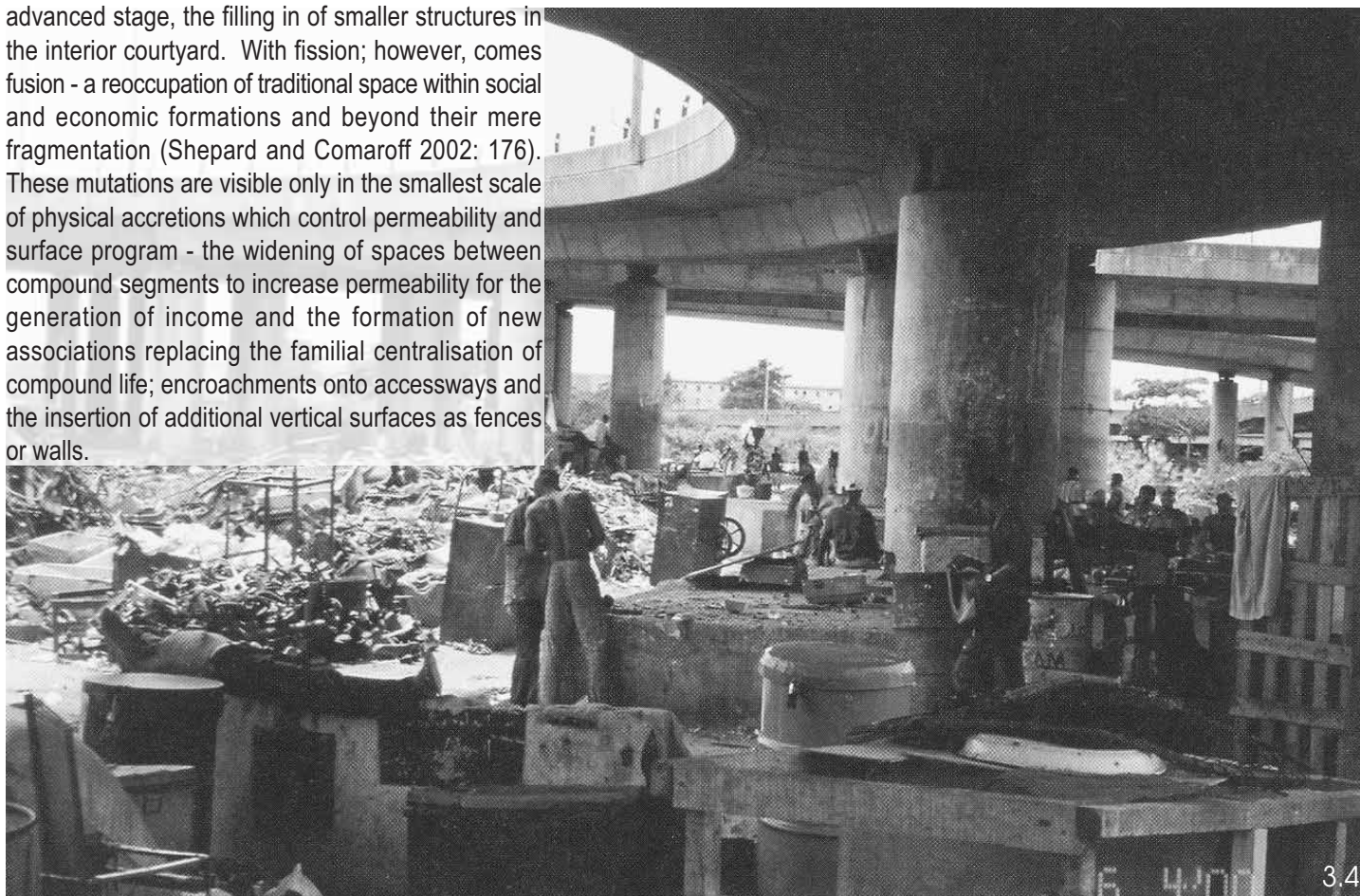
Nodal infrastructure concentrates services and goods in a compact point servicing a wider area. Communities will go so far as to clear land, build a physical structure, employ a worker and then petition the state to begin the service of a post-office, market place, school, gas station, health centre, or motor park. These nodes rely on a reciprocal relationship between the informal sector and state enterprise. Periodic markets are typical nodes - they produce a spatial concentration of demand for the full-time trader and a temporal concentration of demand for the part-time trader while distributing the little available resources over the largest possible area such that waste is minimised.

The periodic market's temporal use of space facilitates the occurrence of a short-lived urban intensity not requiring a prescriptive urban form and leaving no lasting impression on urban form.



Fission (Shepard and Comaroff 2002: 174-9) describes a social and spatial phenomenon resulting from the weakening of the traditional powers of the head of the extended family and leading to the disintegration of the compound and the individualisation of housing units. According to Mabogunje (in Shepard and Comaroff 2002: 175), the compound represents the base unit of indigenous African urbanism - a property bounded by a perimeter wall and arranged around a courtyard and a communal alley (Ip 2002: 365). Fission creates boundaries - small-scaled negotiations - hidden under the umbrella of the traditional form and, in an advanced stage, the filling in of smaller structures in the interior courtyard. With fission; however, comes fusion - a reoccupation of traditional space within social and economic formations and beyond their mere fragmentation (Shepard and Comaroff 2002: 176). These mutations are visible only in the smallest scale of physical accretions which control permeability and surface program - the widening of spaces between compound segments to increase permeability for the generation of income and the formation of new associations replacing the familial centralisation of compound life; encroachments onto accessways and the insertion of additional vertical surfaces as fences or walls.

The material world is constantly on the verge of collapse, or in a ... constant state of mobility. The activity in cementing back together, patching up, taking down the architectural substance of the city is evidence of a network of provisional tactics for finding the maximum potential for income from the most minimal establishment... [a process] completely intertwined with the complex reassessment of boundary conditions and liminal zones within which community formation occurs (Shepard and Comaroff: 179).



3.4. Lagos:industry.

Combing of streets (Shepard and Comaroff 2002: 181-5) refers to a pattern of tightly packed streets which may stretch for distances of up to 2km without defined cross streets. The lots are extremely shallow and form long two-faced bands of densely built urban fabric which often occupy less area than that dedicated to street circulation. Cross streets occur at indeterminate points without challenging the primacy of combing.

The hierarchy between private and public is virtually eliminated - a flexible relationship [exists] between the activity at any single address and the tremendous flow of commercial activity that occurs along these linear thoroughfares... Urbanisation is a process occurring at the doorstep (Shepard and Comaroff 2002: 181).

Whereas variation in terms of scale or activity in the conventional western street system is mediated by a hierarchy of primary and secondary streets, the unidirectional network in the comb system forces variations in land use, density, socio-economic status etc. to occur in a gradient manner. *Rigorous linearity facilitates a flexibility in urban hierarchies that supersedes any need for zoning and is fuelled entirely on the primacy of urban economic demand* (Shepard and Comaroff 2002: 181). The linear street acts as an armature for constant change in economic transactions and social relationships, but remains unpaved and therefore free to expand and gradually lose its definition as a road.

In Accra's case, a two-way grid of streets is imposed. The **superblock** develops as the mid-scale unit - a block is pushed to its maximum size, *its edges ripped apart to create a flexible zone at its centre* [which allows] *agglomeration in spray multiplicities that dash the modernist hopes of Accra's Department of Planning* (Shepard and Comaroff 2002: 203-7). Springing from Ghana's traditional system of land tenure - wherein an

individual acquires from the stool authorities the right to use a particular piece of land for a given purpose over a given period of time - ownership can be understood as an aggregation of legal rights. *The rights themselves being elastic, the concept of ownership is so also, making the privileges, powers and liabilities of ownership equally fluid and admittedly opaque to classification* (Ip 2002: 383). Every act of urbanism is locally negotiated. The interior of the superblock inherits *collectivisation, shared resources and capital and rituals not conducted in the home* (Shepard and Comaroff 2002: 207). Far beyond the modernist notion of flexibility at the level of system and mass-production, the West-African urban system **replaces the 'fixed core-flexible exterior' with a gooey interior allowing the Informal to manipulate scale and directly respond to need in a full realisation of the concept of multi-use** (Shepard and Comaroff 2002: 209).

Largely incompatible with the traditional system of land tenure, customary public land ownership in Accra and Lagos has necessitated the physical delimitation of property boundaries by **walls** (Ip 2002 366-7). As a result of increasing crime levels, the property line is transformed into vertical surface as a means of excluding outsiders and enforcing property. This phenomenon occurs across the socio-economic spectrum of real estate. The wall - *typically constructed of CMU blocks, barbed wire, shards of glass and pebbles* (Ip 2002:366) - has in turn become a new form of infrastructure that supports and serves a host of economies and small-scale industries. The wall becomes a shopfront - generating sidewalk activity - or acts as support for carpets, security gates or - in conjunction with a drain - a thickened zone between the plot/compound and the streets which is occupied by petty traders.

Open space in West Africa's large metropolises becomes the repository for a surprising variety of activities. Urban open space - **flexscape** as referred to by Stone and Belanger (2002: 303-7) - becomes the setting for a vibrant urbanism that facilitates a life of necessity. Flexscape may be understood as **an all-accommodating, flexible surface that is transformed over time as a result of the forces acting and demands placed upon the particular place**. Its undifferentiated surface makes no easy allowance for the permanent appropriation of public turf - through its neutrality it becomes an active mediator. Open space facilitates a *liminal economic structure* (Ip 2002: 328) - *one that operates only slightly above the level below which survival is impossible. Economic production...occurs in a minimum and specialised set of circumstances ...that is negotiated out of the matrix of existing but half complete conditions*. Every negotiation is unique: different players and contexts are involved, and the terrain is constantly renegotiated in both social and spatial terms.

As the largest reservoir of unbuilt space in West African cities, streets comprise the bulk of what can be considered flexscape, with width and location as the primary determinants of patterns of use. Lagos's roads are not *plan lines between points, but perhaps its most elastic and variable scapes; made more enabling by local modifications which deny the road's insistent linearity. Lagos has no streets... even the Lagos superhighway has bus stops on it, mosques under it, markets in it and building-less factories throughout it* (Slayton 2002: 402) [fig. 3.4.].

According to Ip (2002: 348-9), the densification of economic activity furthermore occurs at sites where multiple interests collide and economic demand peaks - such as go-slows, major intersections and railway stops. Hot spots of activity occur in an otherwise undifferentiated urban fabric. *This tendency for*

intensification and congregation of activity...points to a self-organising principle within the economic system itself - the system becomes viable and maintains a multiplicity of interests, relations and interactions. Structured on complexity, it becomes self-generating through the feedback engendered by its own actions and interactions (Ip 2002: 349).

Periodic markets thus occur by means of an aggregation of people, irrespective of the spatial coordinates of the marketplace. **A marketplace is made by the presence of one potential buyer and one potential seller.**

Two Cities

The urbanity of Lagos is one of vitality, intensity, surprises, incongruities, juxtapositions, and shortcomings. By all accounts, a dynamic public realm is a central characteristic of the urban condition found there (Slayton 2002: 319). Yet these are conditions born from necessity rather than intention.

Compounding, as referred to by Cosmas (2002: 502), once an act exclusive to the expatriate community, is fast emerging as the typology of choice to the rest of the social strata. In the new areas of expansion that have become the refuge for the new upwardly mobile class fleeing Lagos' problems, 'big man' style housing is being erected and consumed by affluent buyers who require security and exclusivity. According to Cosmas (2002: 490), businesses are similarly being fortified by the installation of walls, barbed wire, electrified fencing, gates, cameras and intercoms. Chance contact and public interaction is limited to these compounds' self-defined, homogeneous groups. The wall becomes the mechanism for guarding land against occupation by the poor masses. These suburbia are not confined to the periphery of the city - they implode the city. As a result, social disparity deepens and if there was ever

a sense of shared space, it is lost. Lagos becomes a giant assemblage of fragmented realities, fast becoming less and less aware of the truth about each another (ibid.).

I n t e r v e n t i o n

In 1975, General Murutala Mohammed initiated the project of designing of a new capital for Nigeria (Slayton 2002: 79).

At the time of the first constructions in Abuja, Air Commodore Hamza Abdullani commented: *It is impossible for slums to develop in Abuja. Every inch of the city has been predetermined. The way and manner of the structure does not allow anybody to go out of the original plan. If we give you a plot, you have a boundary for the plot and you cannot exceed that. There is what we called our land-use plan and this is our bible. We follow it carefully. There is absolutely no room for anybody to start building sub-standard structures. It's impossible* (Shepard and Comaroff 2002: 169). His statement is indicative of the military's faith in the masterplan as antidote to the inevitable manipulations of African urbanites.

Today, Abuja is billions of dollars over budget, at least 15 years behind schedule and dubiously organised. One third of the money spent on Abuja is said to be unaccounted for (Slayton 2002: 99). The geographic centre and political capital of Nigeria is a centre of gargantuan scales and libraries' worth of planning arithmetic for an almost non-existent population (Slayton 2002: 79). Abuja has failed.

It seems clear enough that no person chooses lifelong exposure to the reality of the West African metropolis. Those who have a choice retreat to the fortified strongholds of gated communities - a phenomenon only too familiar in the South African urban landscape. But the creation of another Abuja is not the answer: purist visions and a stubborn reliance on the doctrines of planning procedure will inevitably prevent the realisation of the generative urban potential the West African City .

The slum has gone but we only have to take a look at one of the new towns or a recent housing development to recognise to what extent the spirit of spontaneity has also gone into hiding. Architects left no cracks and crevices this time. They expelled all sense of place. They were fearful of the unpremeditated event, the spontaneous act, unscheduled gaiety or violence, unpredictable danger around the corner. They made a flat surface of everything so that no microbes could survive the civic vacuum cleaner. To think that architects are given to talking devotedly about space while they are actually meaning emasculating it into a void (Smithson, A. and P. in Kim 2002: 103).

Nigerian Uche Isichei (2002: 11) writes that in modern Nigeria *the traditional idea of market space has been transformed into an urban strategy*. What was once located in a specific time and place has mutated into a system of inhabitation. *Effectively, the city becomes inhabited as a market, and this enables goods and services to be taken directly to the point where they are consumed*. It is an essentially anti-structuralist and subversive approach to urbanity whereby traders gain free market space in apparent freedom from authority. Isichei (2002: 13) has criticised Koolhaas for investigating Lagos's alternative organisational strategies without investigating the quality of inhabitation, and argues for a differentiation between optimum organisation and basic survival strategies.

According to Isichei (2002: 12-13), a succession of coups and political mismanagement has crippled the Nigerian economy and created a pervading feeling of despair. The efficacy of survival strategies has encouraged Nigerians to grow insensitive to regulatory or territorial bodies. The informal markets are also a symptom of a transformation involving the fragmentation of society into smaller independent social and economic units which inhibit the development of communal projects (Isichei 2002: 14). The current manner of inhabitation is far from optimal. Isichei does not believe that there is an inherent logic in the city of Lagos that avoids building and structuring. According to Isichei, *Lagos would benefit greatly from attention to the planning of city fabric*. Whereas markets currently occupy left-over space, designers need strategies to plan public space in ways that facilitate the requirements of the traditional market.

The designer is left with the challenge of finding the balance between overplanning and underplanning.



3.6.

3.6. Lagos.

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informal

The social context study points towards the emergence in Hillbrow of a new mode of spatial regulation; driven by the subversion of the hierarchical structure of the formal socio-economy by the network of the informal socio-economy. The new spatial regime results from the inability of the formal system to support the survival of the lower socio-economic classes, which are compelled to turn to unsanctioned or illegal activities to acquire an income. Such activity is opportunistic and short-lived and operates at the smallest scale to achieve the greatest effect. The inability of the formal system to control or prevent illegal activity leads in turn to the increasing dissolution of the boundary between the permitted and the prohibited.

In addition, the emerging spatial regime is overlaid with the territorial dimension given to ethnic differences as a result of the increasing incidence of xenophobia. The resulting social and spatial system is highly complex and densely layered, requiring the designer to reconsider space as a merely architectural phenomenon: space becomes territory, the ownership of which is contested and negotiated on socio-political grounds. Its character is ephemeral; its owners nomadic.

While, in the case of Lagos, the informal has become the dominant system, the strength of the formal system in Hillbrow limits the ability of the informal to entirely subvert the traditional hierarchy. Instead, the informal lives inside of and remains greatly dependant upon the formal. Space is characterised by the constant play between the hierarchy of the static 'formal' and the nomadic 'informal'. Poised at the threshold between the formal and informal, we find the *sanctioned impermanence* Morojele (cf. p. 42) refers to.

Morojele's *baggy space* is Stone and Belanger's *flexscape* - space _which is experienced as being significant without being prescriptive; _which readily accommodates the unintended and spontaneous act; _which by its undifferentiated nature resists permanent appropriation, _and by its neutrality becomes a mediator whereby contested space becomes negotiated place. The single outstanding characteristic of flexscape or baggy space is the immense programmatic potential it acquires from the provisional tactics of the informal.

Shepard and Comaroff's investigation of the phenomena of combing (cf. p. 48) indicates a tendency of the informal to gradually eliminate the boundary between public and private domain. In the case of the Cultural Centre, the hostile surroundings however necessitate the demarcation of the defensible foreign territory with a boundary of some sort. It is argued that a 'boundary' is not necessarily an impenetrable physical edge, but may be psychological. Ip (cf. p. 47) refers to boundaries as *small-scaled negotiations*, suggesting a light-footed affirmation of ownership not requiring a prescriptive architectural expression and leaving no lasting impression on urban form.

The Centre is to contain both programmed spaces and flexscape, thereby ensuring the integration of formal hierarchy with informal network and allowing the informal to capitalise on formal activity.

The project brief and building programme is based on an interpretation of the complex socio-economic - and political systems prevalent in Hillbrow. Human activity and perception are the critical generators of an approach to the design problem and remain at the centre of the designed product. It is considered essential that the building not attempt to conquer the foreground, but instead provide a supportive background for human activity.

fragile architecture

Juhani Pallasmaa (2001: 51) has strongly criticised visually formalist 'foreground' architecture *that focuses on aesthetic effects* and that *emphasises the photogenic, instantaneous qualities of visual imagery detached from existential reality*. He argues instead for a tactile or haptic* architecture, which promotes intimacy and sensory interaction and is appreciated and comprehended gradually. Tactile architecture embraces the tectonic presence and materiality of architecture and develops from the experiential situation towards an architectural form.

Pallasmaa (2000: 81) speaks of a 'fragile' architecture, that is architecture of weak structure and image as opposed to architecture of strong structure and image.

The latter seeks a singular visual image, while the former is contextual and responsive. Strong urbanism is reinforced by the eye and a sense of control, whereas weak urbanism gives rise to the haptic medieval townscape of intimacy and participation. Fragile architecture does not aspire to a deliberate, preconceived image of beauty, but relies on *appropriateness, causality and contextuality* (Pallasmaa 2000: 84).

Strong image has minimal tolerance for change and is aesthetically vulnerable to the forces of time. It is obliged to simplify particularities in a quest for perfection.

Weak image allows weathering and decay to strengthen our experience of time, causality and reality (Pallasmaa 2000: 79). It embraces irregularities and discontinuities, which are *not only signs of life but sources of beauty* (Rushkin in Pallasmaa 2000: 83).

While vision flattens time and places us in the present tense and in opposition to the object being viewed, fragile or haptic architecture is layered and multi-sensory.

It replaces the object-viewer relationship with the bodily experience of a temporal continuum, which evokes meaning *in the acts of occupying and inhabiting space and experiencing matter, gravity and light* (Pallasmaa 2001: 52).

The objective, thus, is to create a 'background-building', a platform for human activity rather than an entity which is meaningful in itself. Depth, layering and tactility is favoured over façadism; and lyrical simplicity, material quality and honestly 'assembled' details over machined compositions and sleek finishes.

Architecture calls simultaneously for expression and restraint, innovation and a consciousness of history, courage , and modesty.

Pallasmaa 2002: 52.

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In the development of a framework, the guidelines of the Scoping Report (cf. p. 24-27) were followed as regards:

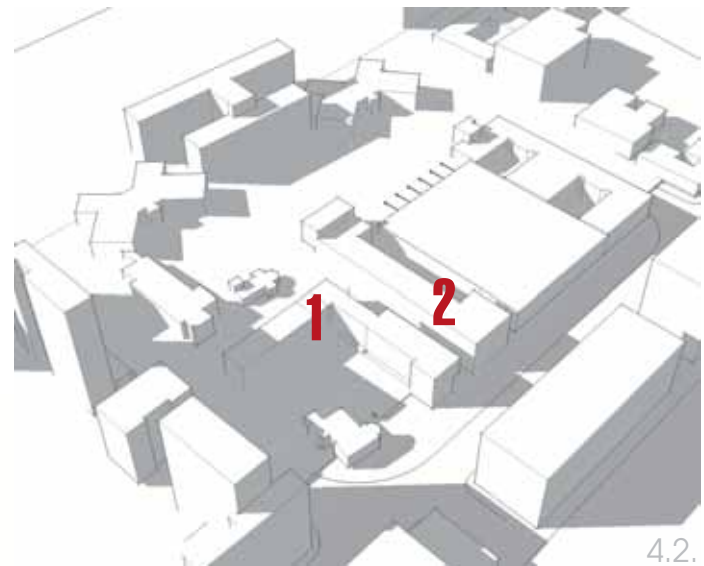
_the partial reinstatement of the street grid by the introduction of a new east-west vehicular connection and a new north-south pedestrian connection to increase accessibility and encourage pedestrian movement.

_an emphasis on active edges and the creation of a pedestrian-friendly environment

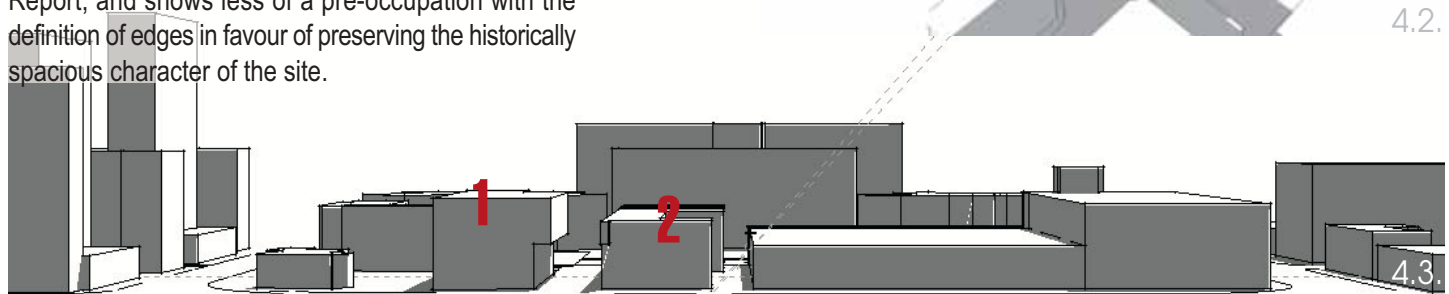
_the introduction of a mixed-use building on the site in question.

The site, being located right on the edge of the Health Precinct, represents a marginal position between the pocket of institutional land-use and Hillbrow proper, and is in this sense perhaps an especially appropriate address for the establishment of a Cultural Centre for the oft-marginalised foreign population. The introduction of a mixed-use building in a city block currently characterised by monofunctional health-related land-use could well spark the leap-frogging of functions across Smit Street and so stimulate further integration of the Health precinct with Hillbrow.

Within the dense and congested urban environment of Hillbrow, the spatially generous character of the site is a valuable commodity which is currently rendered worthless by its inaccessibility. The framework adds substantially less fabric than is proposed by the Scoping Report, and shows less of a pre-occupation with the definition of edges in favour of preserving the historically spacious character of the site.

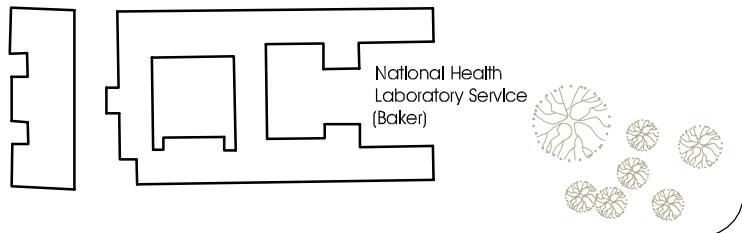


4.2.



4.3.

4.1. Development of Urban Design Framework: bird's eye from east.
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De Korte

Centralised Parking Development

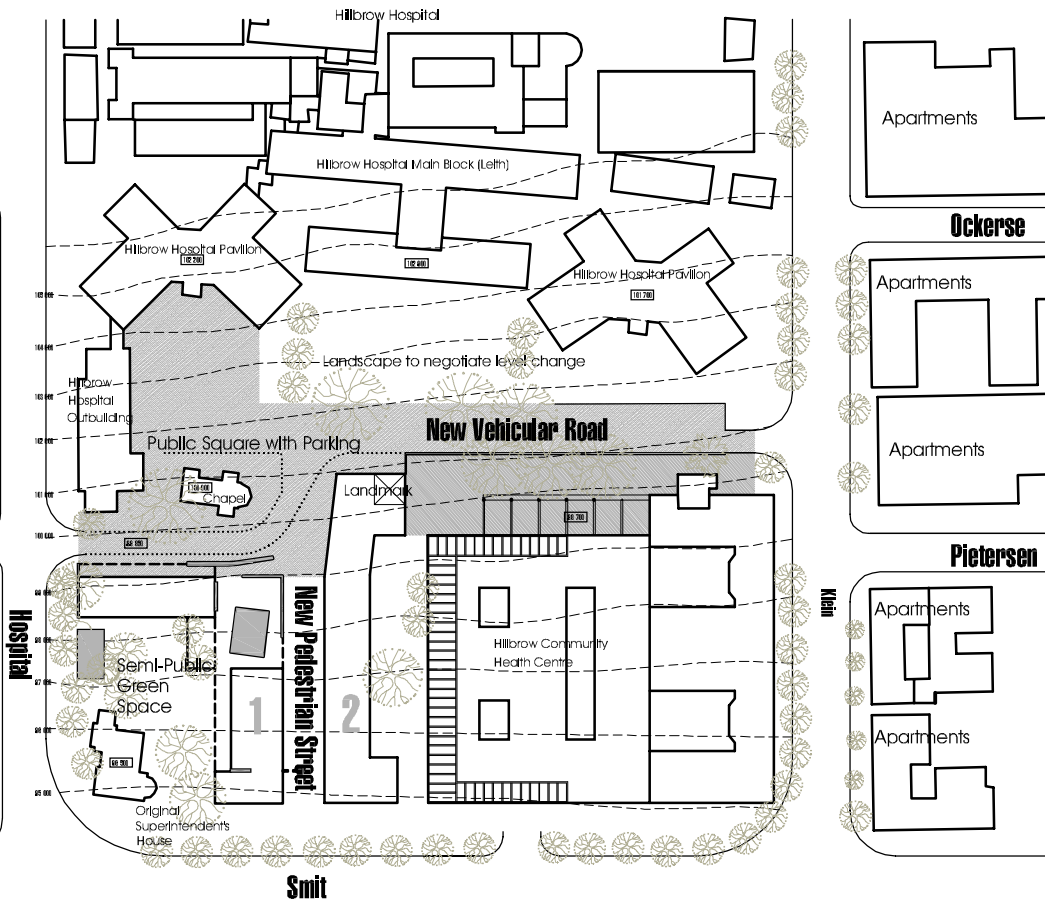
Apartments

Apartments

New Vehicular Road

Apartments

Apartments



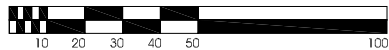
Smit

Apartments

Apartments

Apartments

Apartments



A Cultural Centre for the Foreign Community, Hillbrow

Urban Design

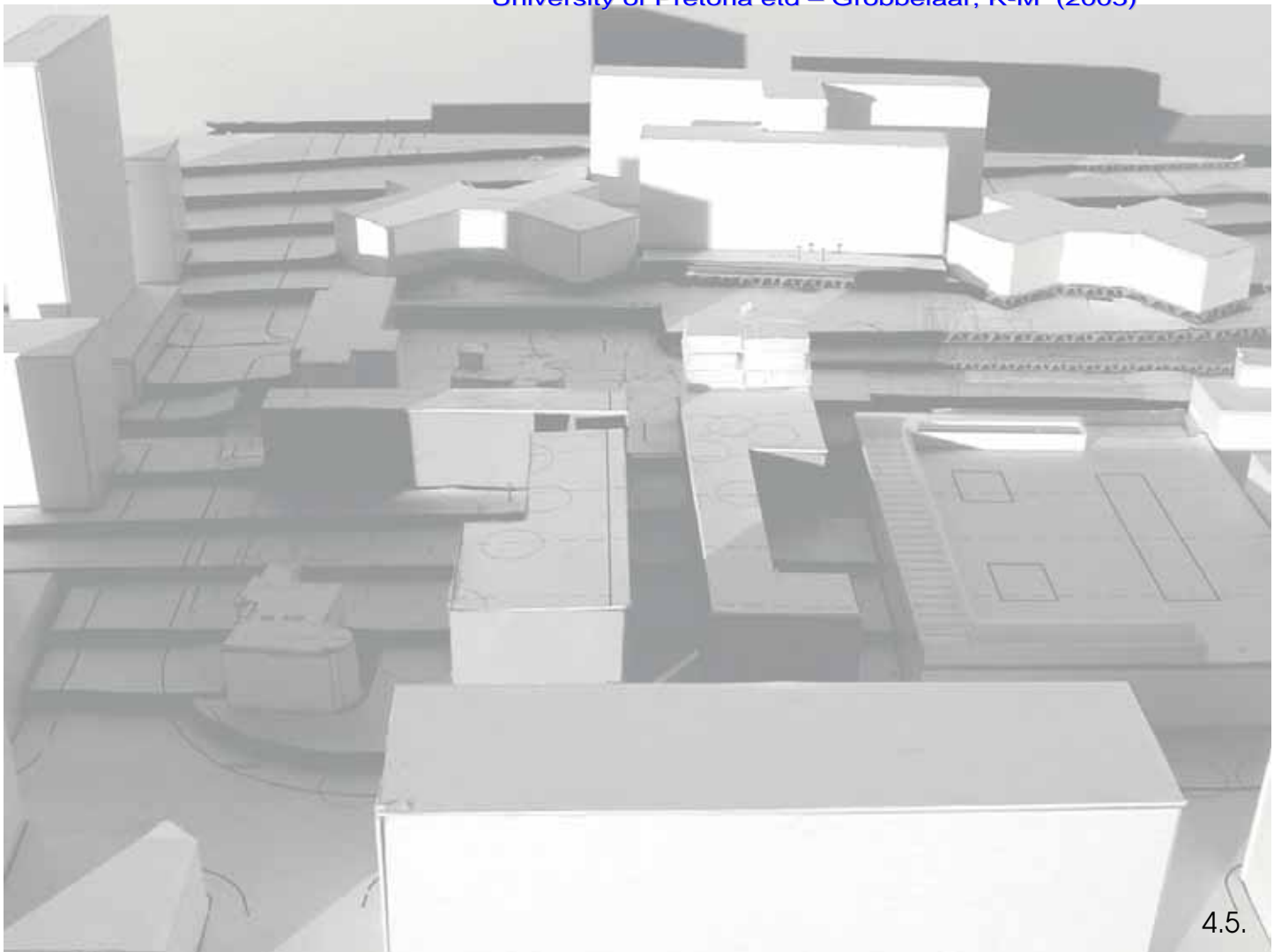


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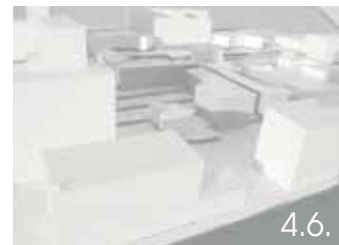
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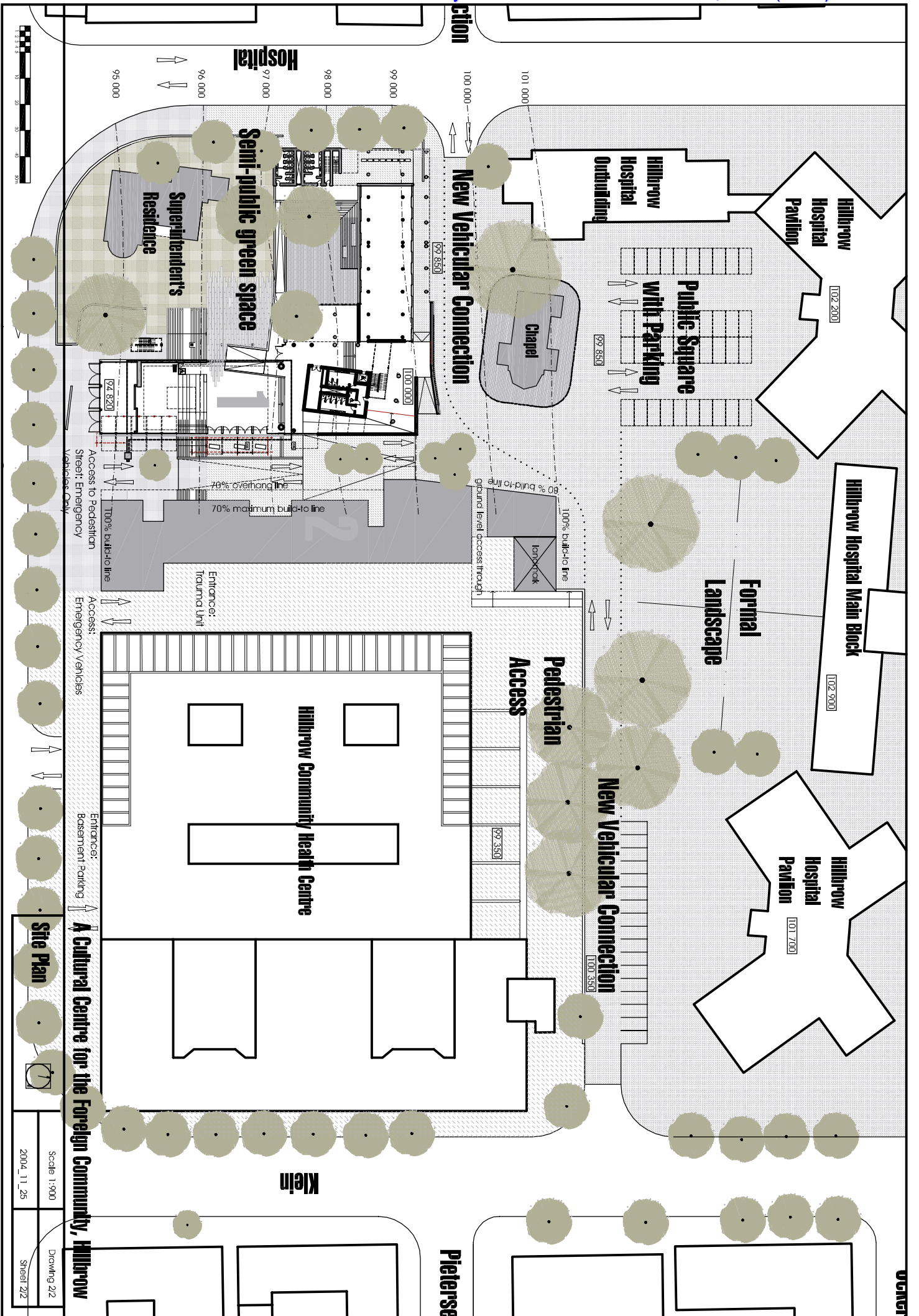
4.5.

The framework proposes the insertion of two pavilion buildings (fig. 4.1 - 4.3) as a contemporary addition to the richly layered urban fabric. In order to preserve the spatial character, the mass of the two new buildings is placed at a respectful distance from the historic volumes, while unbuilt edges of public spaces are completed with trees.



4.6.

4.5. Urban Design Framework Development Model: bird's eye from south.
4.6. Urban Design Framework Development Model: bird's eye from southwest.



Site Plan

A Cultural Centre for the Foreign Community, Hillrow

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Drawing 22
Sheet 2/2

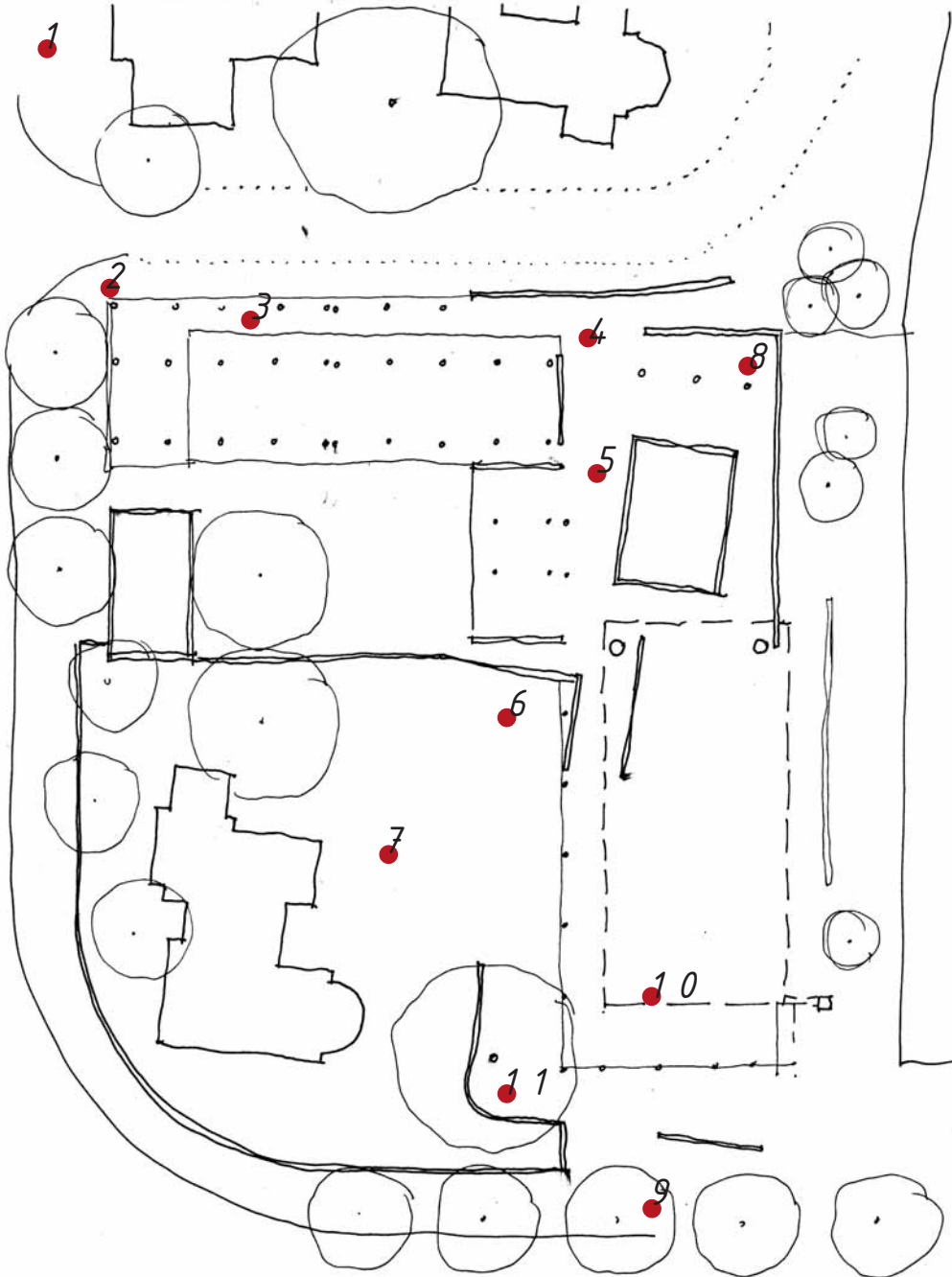
Refer to fig. 4.5. The insertion creates:

_a hard public landscape [3] around the Chapel and to the south of the Main Block, which becomes the formal centrepiece of this movement-oriented public space. While the combination of hospital buildings provides a strong sense of enclosure along the northwestern edge of the public space, the eastern edge is less defined. Trees are applied to mark the threshold between the 'square with chapel' and, in front of the Main Block, the formal landscape [4] which becomes a part of the grand streetscape along the new vehicular connection rather than an extension of the square. The Leith Building is thus once again placed on the street, and the formal landscape leading to its entrance provides adequate vantage distance as is required by the scale of this historic landmark. The square is a predominantly hard landscape, with the existing hedge serving to acknowledge the sacred character of the chapel, while the landmark element included in the framework fulfills the role of the campanile element on the prototype European square.

_a semi-public green space [5] around the historic Superintendent's Residence - a softer landscape which invites lingering and is guarded by a continuation of the existing red brick garden wall along the southwestern perimeter of the site.

A **seven degree rotation** is derived from the corresponding orientation of Leith's Main Block, the Chapel and the Superintendent's Residence – all of which are oriented exactly north and therefore at seven degrees from the predominant urban grid. The relationship between the two grids becomes an important generator of the plan form of the Cultural Centre; with the urban grid providing the datum whilst the historic grid generates slips which serve to preserve traces of a previous age in the new layer.

According to the Scoping Report, **parking** is to be provided in a centralised parking development in De Korte Street (fig 4.4). Additional parking is available on the public square; along Hospital - and Smit Street and the new vehicular street, and in the basement of the Hillbrow Community Health Centre. Considering the ready availability of public transport and the limited number of building occupants estimated to be in possession of a private vehicle, it is deemed unnecessary to provide additional parking on the site of the Centre itself. The Urban Design Framework thus provides for a truly pedestrian-oriented environment, with edge treatment determined by the scale and pace of pedestrians rather than vehicles. A six meter wide section of the pedestrian street is ramped to allow vehicular access for fire trucks, ambulances and delivery vehicles, with a series of removable bollards providing access control.



4.9.

4.10.

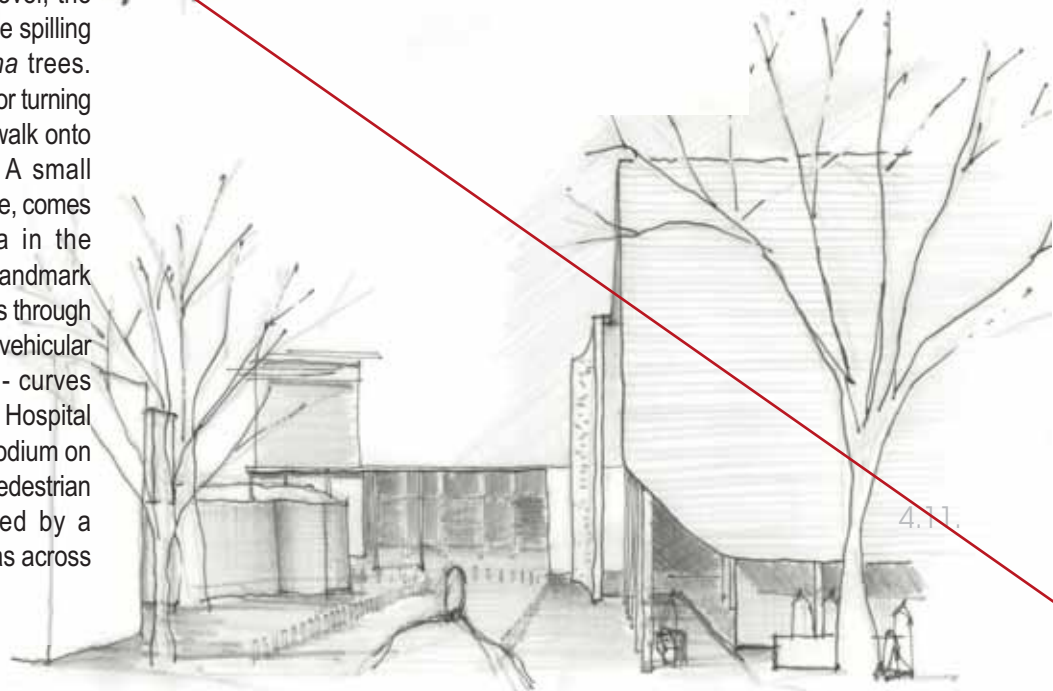


A trip from Constitution Hill to the Cultural Centre takes the visitor past the western edge of the Hillbrow Hospital, currently a largely impenetrable and unintelligible collection of historic buildings and ramshackle additions in a state of general disrepair. Passing the De Korte Street turn-off to the right, Hospital Street starts dropping steeply towards the corner with Smit Street. Some distance further, a new vehicular road crosses Hospital Street, with the southeastern corner dominated by a blank end wall in timber off-shutter concrete. Corten-finished lettering reads:

FOREIGN CULTURAL CENTRE
CENTRE CULTUREL POUR ÉTRANGERS
CENTRO DO CULTURA ESTRANGEIRO

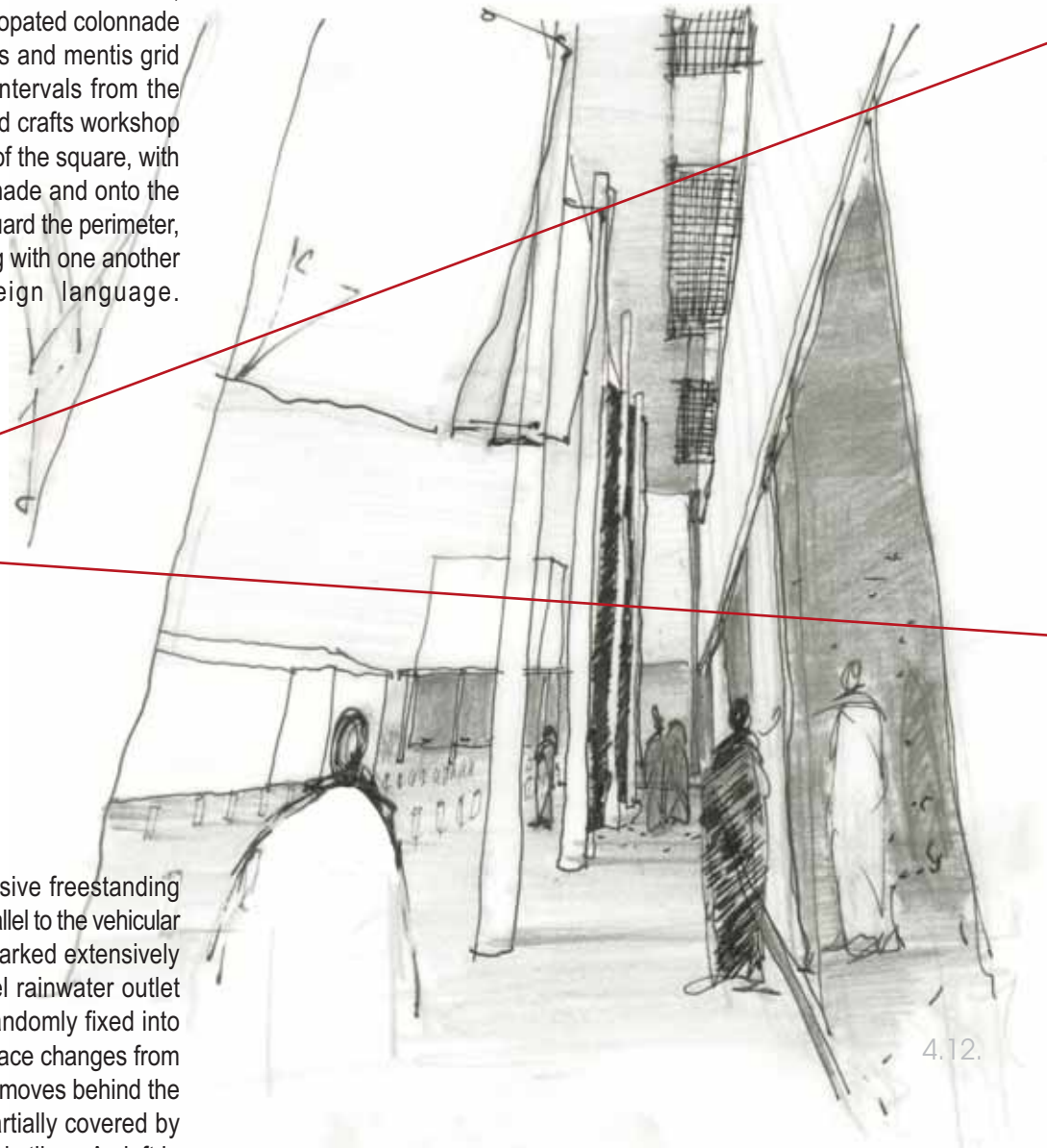
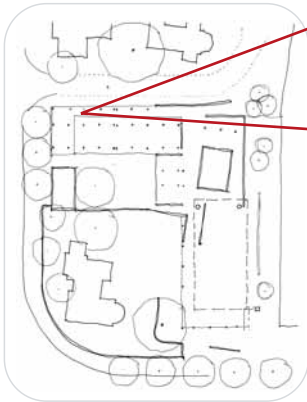


A faintly reddish stain extends from below the lettering to the bottom edge of the wall. At ground level, the façade lifts to reveal an informal cooking space spilling onto the sidewalk under the *Celtis Africana* trees. Flavours of meat and corn rise to meet the visitor turning to the left and moving from the concrete sidewalk onto the red brick paving of a public square. A small sandstone chapel, guarded by a withered hedge, comes into view beneath a massive Jacaranda in the foreground. Behind the chapel, a prominent landmark element is visible, and the line of sight continues through a double-storey arcade towards the east. The vehicular circulation route - marked by bollards only - curves away across the square towards the Hillbrow Hospital Main Block (Leith 1936), which rises from a podium on the northern edge of the public open space. Pedestrian movement predominates, and is facilitated by a generous scattering of seats and shaded areas across the square.



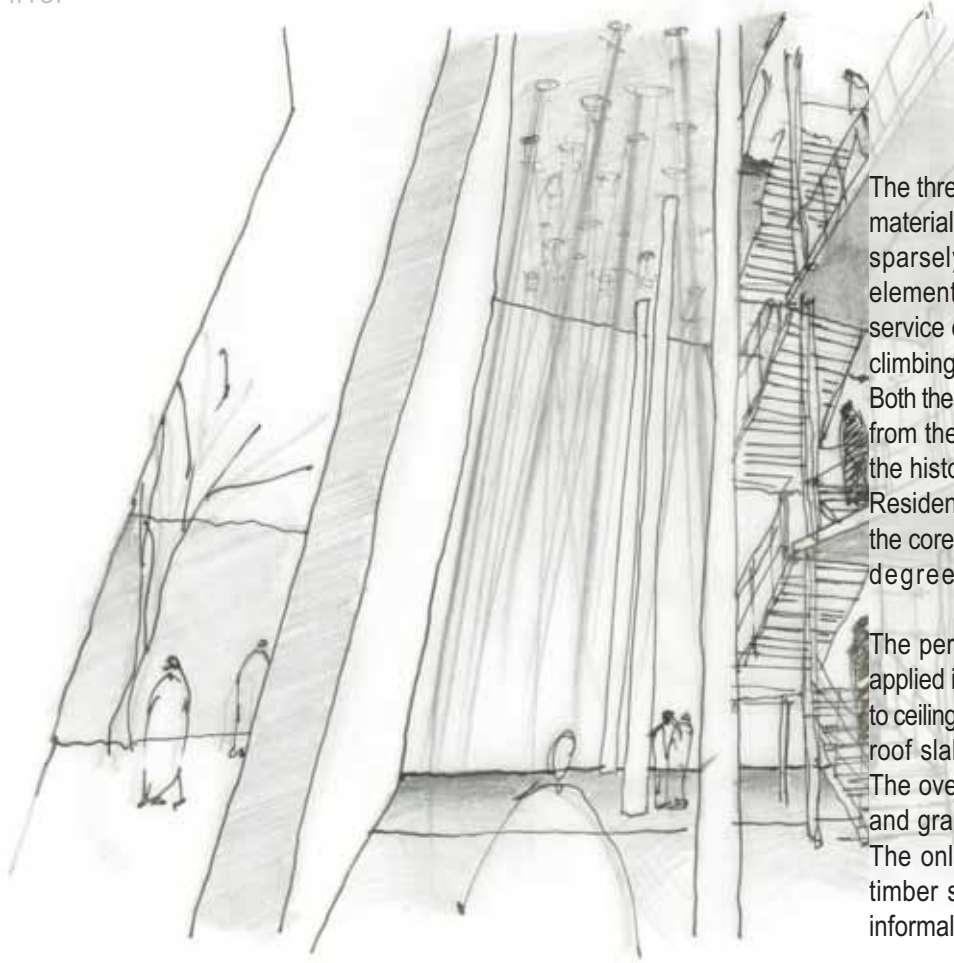
4.11.

Moving in an easterly direction and towards the Centre, the visitor slips into the slightly syncopated colonnade below a series of textile sunscreens and mentis grid balconies suspended at irregular intervals from the exposed concrete soffit. An arts and crafts workshop is located one step above the level of the square, with trade activity spilling into the colonnade and onto the square. Traders and craftspeople guard the perimeter, bartering with clients and conversing with one another in a blend of local and foreign language.



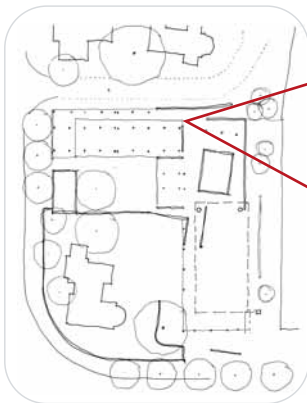
The colonnade slips behind a massive freestanding concrete wall, which curves away parallel to the vehicular movement. The exposed side is marked extensively by water released from a high-level rainwater outlet over a series of round steel bars randomly fixed into the concrete surface. The floor surface changes from brick to cool slate tiles as the visitor moves behind the wall, the interior face of which is partially covered by a vertical carpet of red glazed mosaic tiles. A cleft in the freestanding wall frames a last view of the chapel before the visitor enters the foyer.

4.13.



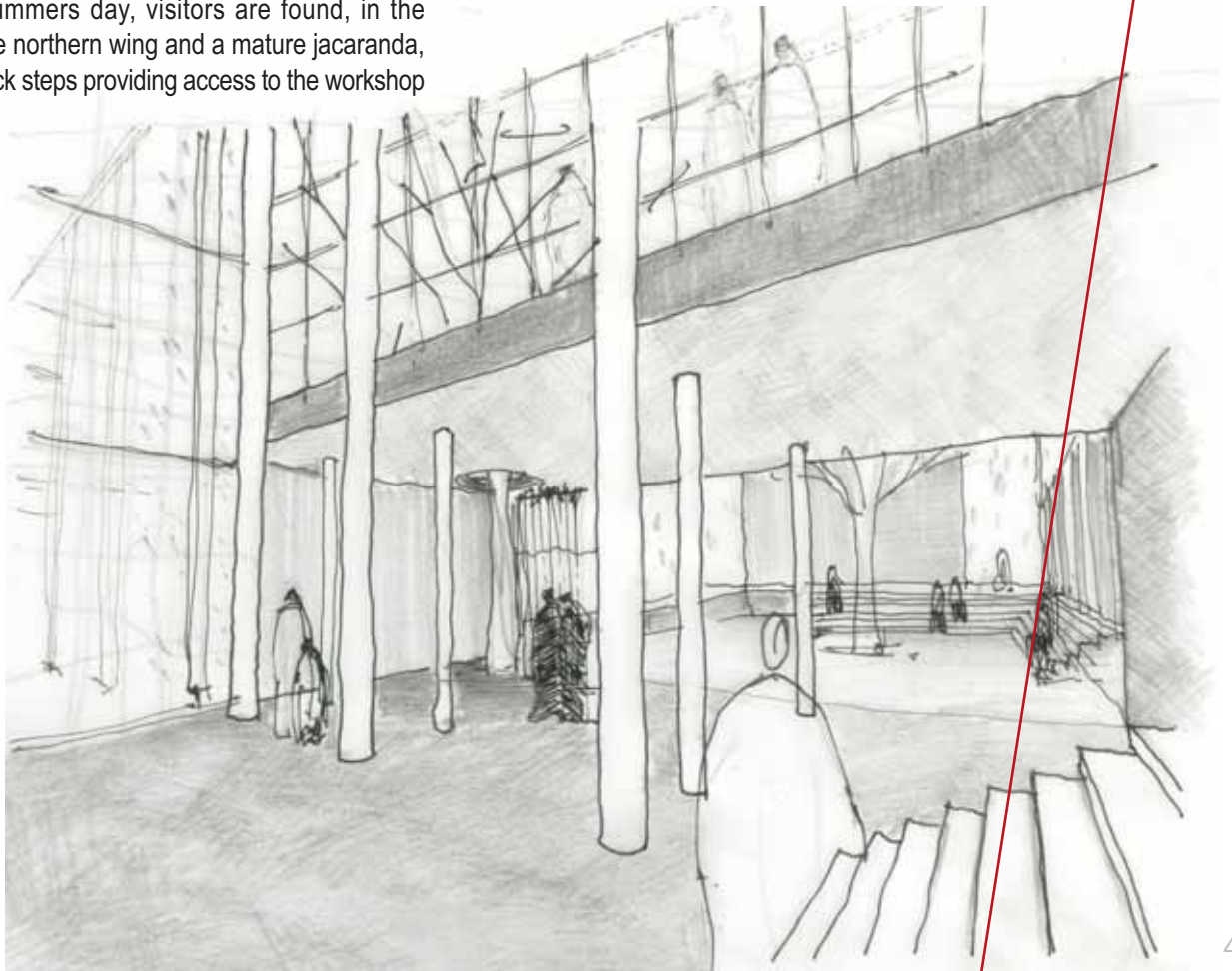
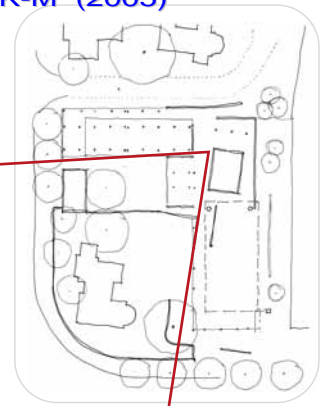
The threshold is marked by another change in flooring material - this time to a power-floated concrete screed sparsely inlaid with mosaic tiles. The dominant elements are the steel off-shutter finished concrete service core, and a skeletal timber and steel staircase climbing towards a glazed light box with corten ceiling. Both the core and staircase are rotated at seven degrees from the predominant grid to match the orientation of the historic Main Block, Chapel and Superintendent's Residence. Three columns, horizontally aligned with the core, are slanted at two degrees to echo the seven degree rotation in the vertical dimension.

The perimeter walls – with timber off-shutter pattern applied in a series of vertical carpets rather than a floor to ceiling finish - rise thirteen meters to meet the concrete roof slab floating above the top of the service core. The overbearing vertical dimension lends generosity and grandeur to the space, inviting visitors to linger. The only items of furniture are a number of mobile timber seats which allow the setting-up of different informal seating configurations.



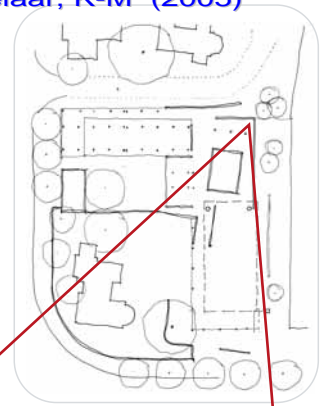
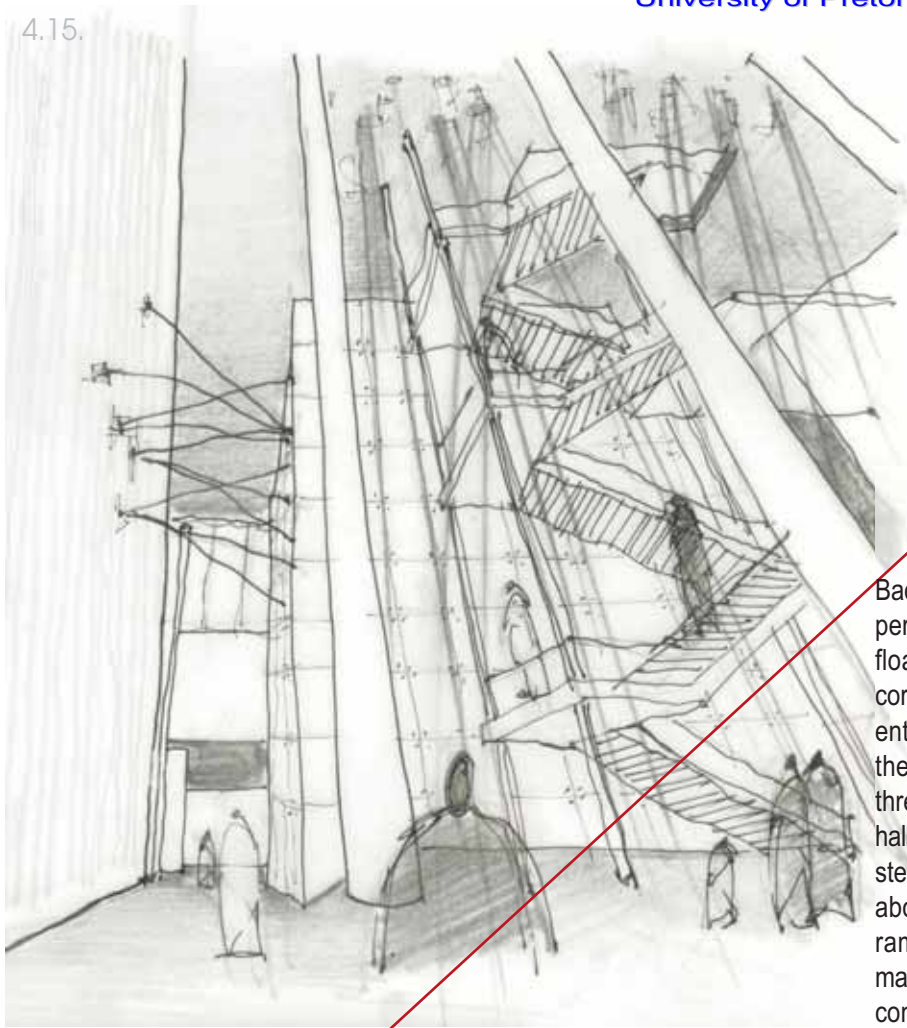
During the day, the foyer is subtly lit by daylight flooding through the light box. A series of clay pipes - the top ends sealed with plates of tinted glass - are cast into the roof slab at different angles and protrude to different lengths to create a multitude of faintly coloured light spots traveling over the surfaces of stone and concrete as the sun completes its daily cycle. At night, the foyer is softly lit by a series of tungsten halogen lights suspended between the columns to various levels in the bottom half of the space, while the upper volumes recede into darkness.

To the right of the core, a series of concrete stairs tumble into the slate-tiled café below. A jacaranda tree in the southwestern corner penetrates a roughly elliptical hole in the concrete roof slab - an opening readily permitting the occasional rainstorm into the restaurant space. The entire western façade slides away, allowing the dining area to spill unhindered onto the brick-paved terrace, which is partially enclosed by the red brick service core to the west and overlooked from the workshop to the north and the restaurant's sod roof terrace to the east. The terrace itself overlooks the garden and Superintendent's Residence to the south. On a hot summers day, visitors are found, in the shadow of the northern wing and a mature jacaranda, on the red brick steps providing access to the workshop level.



4.14.

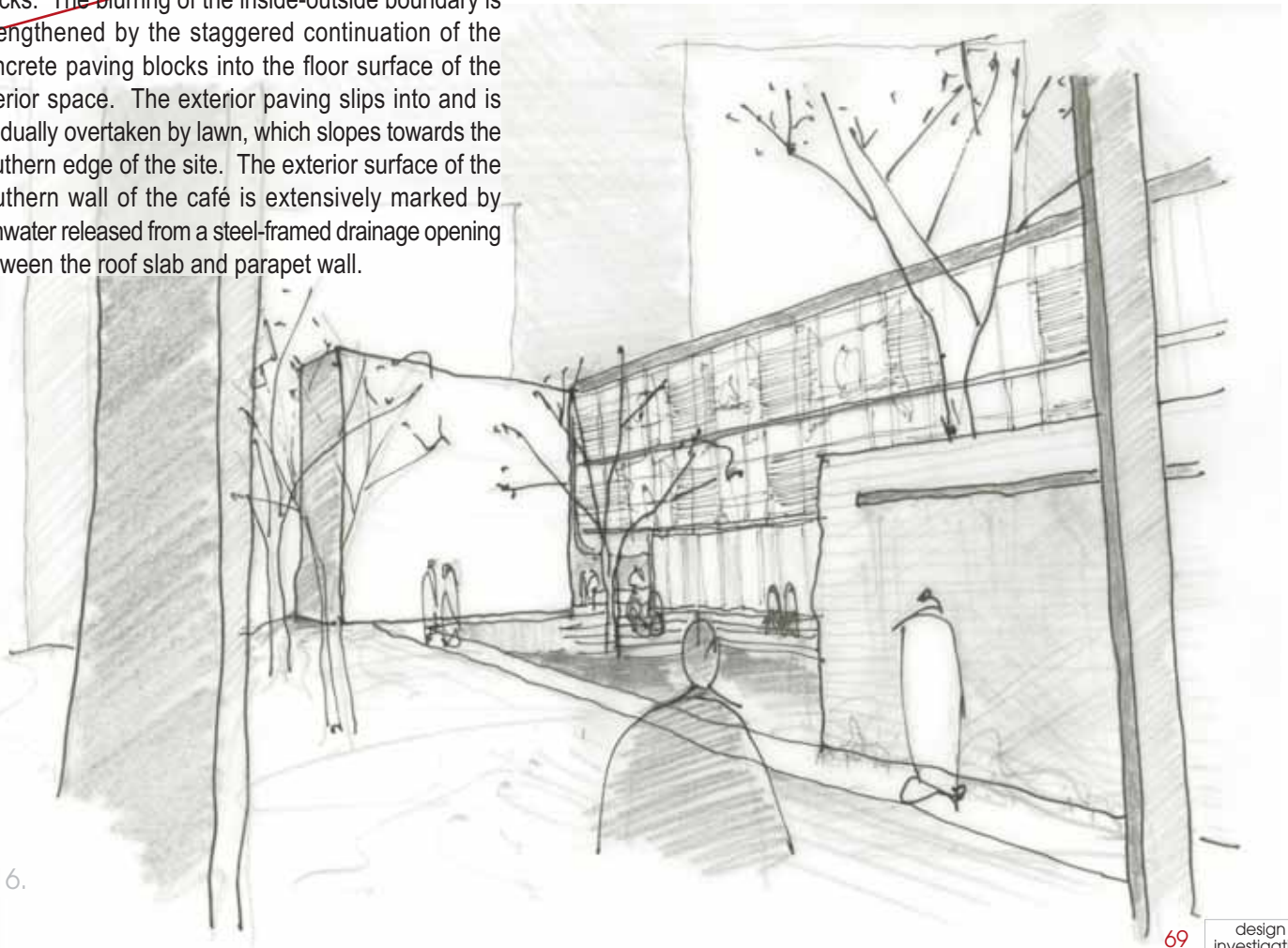
4.15.



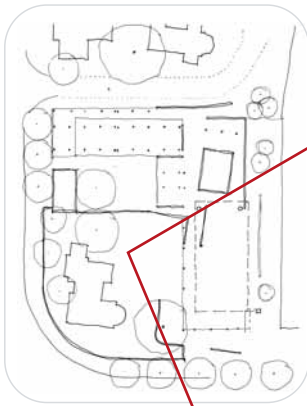
Back in the foyer, this time moving towards the eastern perimeter wall, the floor surface changes to a power-floated concrete screed gently dropping around the corner towards the multi-purpose hall. The visitor now enters the triple volume canyon, which widens from the narrow entry point to the point of exit onto the threshold level providing access to the multi-purpose hall and restaurant. A complex web of slender structural steel elements floats in the higher levels of the volume above the canyon floor. The threshold between the ramp and the multi-purpose hall is defined by two massive elliptical concrete columns supporting a tubular concrete structure hovering at first floor level over the otherwise column-free space.

A concrete ramp - again at a seven degree angle and penetrating the western curtain wall provides access to a multi-purpose surface which overlooks the performance area below. A gently curved plywood ceiling hovers over the space and drops sharply over the stage area to create an acoustically sound mini-theatre within the larger gathering space.

Access into the multi-purpose hall from the pedestrian street – situated one step above the interior floor level - is through a series of glass doors opening inwards onto the multi-purpose surface. The perimeter is marked by the overhang of the concrete box and a steel shading structure, and guarded by informal traders colonising the periphery. A series of glazed sliding doors along the western edge of the multi-purpose hall slide away to render the floor levels of the multi-purpose hall and the semi-public landscape a continuous surface, differentiated only by a change in flooring material from a power-floated concrete screed to concrete paving blocks. The blurring of the inside-outside boundary is strengthened by the staggered continuation of the concrete paving blocks into the floor surface of the interior space. The exterior paving slips into and is gradually overtaken by lawn, which slopes towards the southern edge of the site. The exterior surface of the southern wall of the café is extensively marked by rainwater released from a steel-framed drainage opening between the roof slab and parapet wall.



4.16.

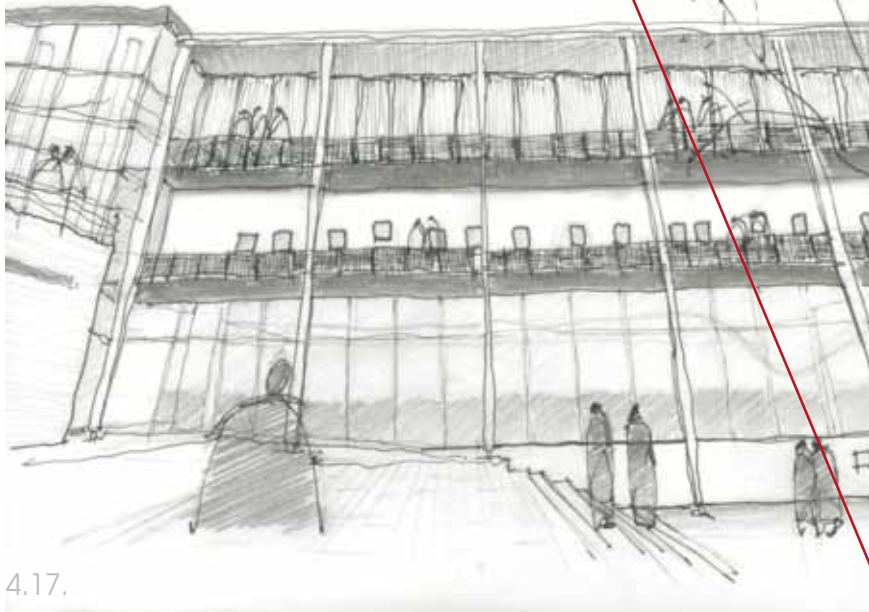


With the vantage distance provided by the garden, the western elevation clearly displays a three-tier construction: the column free and staggered plane of the ground floor level, the concrete volume - containing music studio space - hovering at first floor level and, at second floor level, the lighter steel structure of the dance studio. The steel cage wraps around the concrete box to contain a series of finely detailed timber walkways providing access to the studios while softening the

outline of the concrete 'music box'.

At night, the dark volume of the music studio floating over the brightly lit multi-purpose hall is interrupted only by a series of irregularly spaced concrete framed inset windows. The dance studio at second floor level becomes a lantern, with the silhouettes of dancers flitting to and fro behind the translucent polycarbonate skin. Occasionally, the dancers come into full view where the polycarbonate sliding panels have been slid aside.

Music spills from the dance studio into the pedestrian street to the east and the garden to the west to merge with the incessant noise of the surrounding urban environment. A low red brick wall marks the perimeter and proclaims the edge of the foreign territory, rendering the garden a semi-public space and a refuge for foreigners within the hostile urban surroundings.

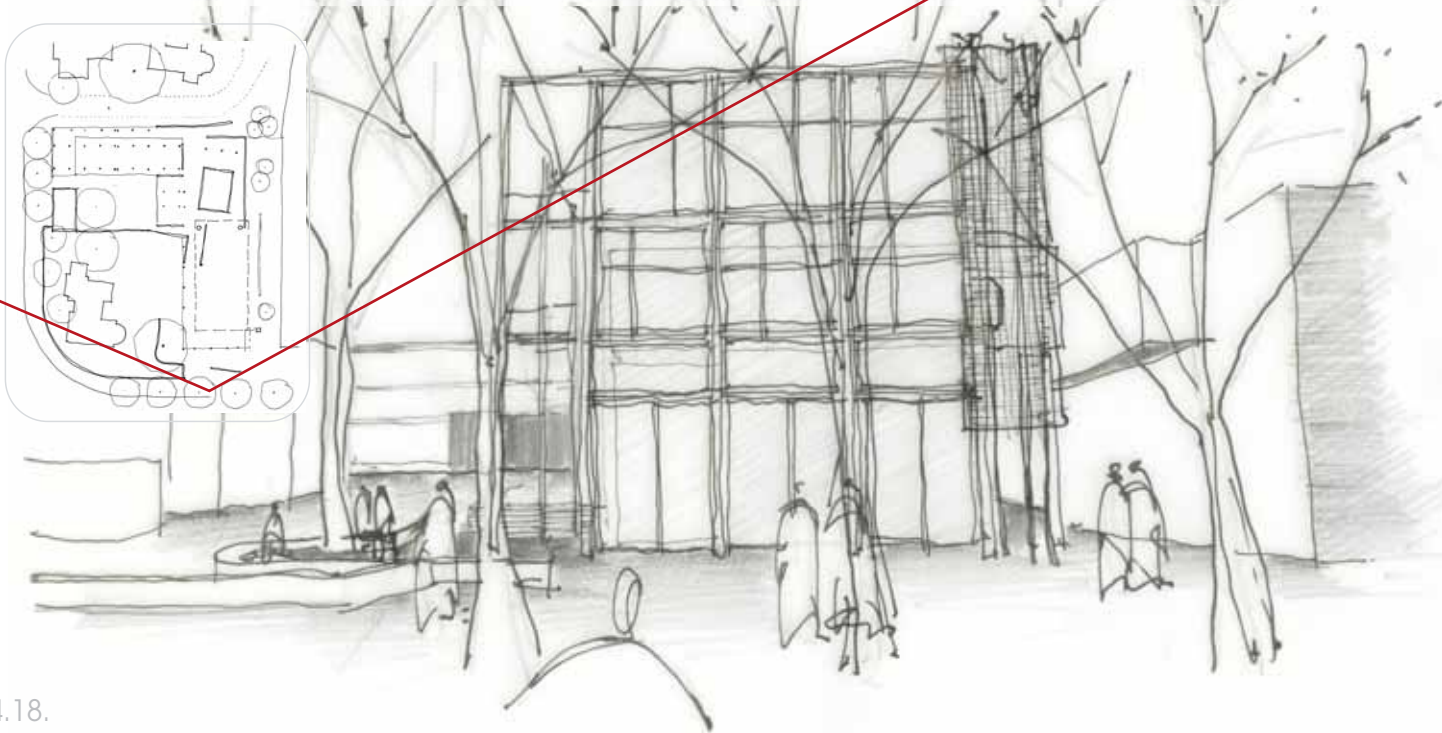


4.17.

Approaching the Centre from Joubert Park instead, the visitor's first impression is of a steel-framed and glazed curtain wall coming into view behind a row of mature London Plane street trees. The Centre is aligned with that of the Superintendent's Residence and the Hillbrow Polyclinic, thus being set back substantially from the street and providing adequate vantage distance from which to view a graphic continuously silk-screened onto the glazed sections of the curtain wall. The text and imagery frames – in both directions – views of artists occupying the studio spaces and visitors approaching the building from the south. The southern façade thus becomes a showcase for various aspects of the foreign cultures accommodated in the Centre. Apart from a perforated stainless steel sunscreen wrapped around the southeastern corner of the building, the southern façade is without protrusions or overhangs which would hamper the visual connection between the interior and exterior space.

The edges of a large concrete volume hovering at first floor level is visible behind the shallow membrane of studio space. A perforated beam protrudes from the eastern edge of the building and rests on a concrete pier to create an urban portal. The overhang of the proposed building east of the Centre completes the portal to the pedestrian street rising towards the public square north of the Centre.

Approaching the southern entrance, the sidewalk slopes gently towards the gallery space at ground level. A low red brick wall cuts across the public space at a seven degree angle and curves around the historic specimen of *Quercus rubra* located between the Centre and the original Superintendent's Residence. A number of informal traders gathered in the enclave beneath the historic tree guard access to the garden beyond while hawking a variety of everyday commodities to passersby.



4.18.

The concrete floor surface of the sidewalk continues without level change into the gallery, the transition once again marked only by a change in flooring material, this time from concrete paving blocks to slate tiles. The southern foyer presents the most public interface of the building and is experienced as being as much a part of the streetscape as of the Centre itself. The uniform light quality of the interior space is essentially similar to that of the public space south of the building, thus strengthening the continuity between these domains. Entry is through a series of glass doors along the southern edge or – along the eastern perimeter – a series of red steel doors which pivot to create a horizontal plane hovering above ground level and thickening the threshold without hindering access. A series of glazed red tiles laid in the concrete floor mark the positions of the pivot door anchors to ensure public safety.



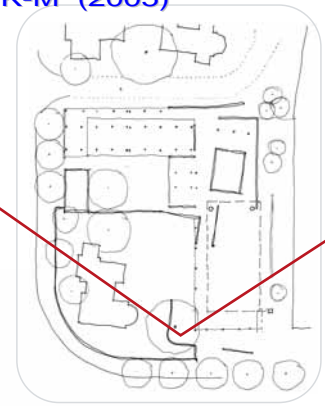
With both sets of doors in the open position, the boundary between interior and exterior effectively dissolves, allowing space to slip freely between the foyer and pedestrian street. The off-shutter finished concrete wall acting as structural support for the concrete volume overhead serves as anchoring element in the otherwise fluid space. A pair of corten-clad sliding stage doors closes the connection between the gallery and the multi-purpose hall beyond to render the gallery entirely part of the streetscape, or slip in front of the concrete wall to allow thoroughfare.

Upon entering the multi-purpose hall, the floor surface changes back to concrete, with a sprung timber floor inlaid to mark the 'stage' area. The floor rises in raked terraces to create an audience pavilion, with stairs along the eastern edge providing access to the multi-purpose surface. The sweeping curve of the plywood ceiling overhead ensures acoustical efficacy and lends a measure of intimacy to the mini-theatre. The eastern edge is glazed, with the last in the series of steel pivot doors allowing performances to spill into the pedestrian street and create the opportunity for interactive street theatre.



4.19.

Negotiating access past the traders beneath the oak tree instead, the journey leads into the western colonnade, with timber walkways overhead providing access to the music - and dance studios. A series of concrete framed inset windows in the red brick wall of the performance area provides framed views into the mini-theatre beyond. Moving over a patch of lawn and up a series of red brick stairs, the visitor reaches again the concrete-paved overflow space of the multi-purpose hall; whence ramps provide access to the café terrace and threshold level to complete the journey.



4.20.

programme

The L-shaped plan of the Cultural Centre is prescribed by the Urban Design Framework. The northern wing contains the majority of programmed spaces - offices and classrooms - with a semi-programmed workshop at ground level. The western portion of the ground floor plan is given back to the street and provided with gas cooking facilities to be used by informal traders. The southern wing contains a multi-purpose hall and gallery at ground floor level; and dance-, music - and art studios at first and second floor level. With the exception of the gallery space, which may be considered unprogrammed, the space contained in the southern wing is semi-programmed. The connecting element between the two wings contain an unprogrammed triple volume public foyer and a freestanding service core. A second service core on the western perimeter of the site services the northern wing.

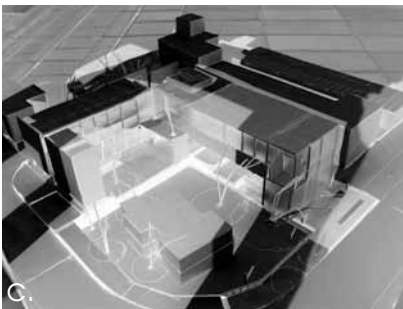
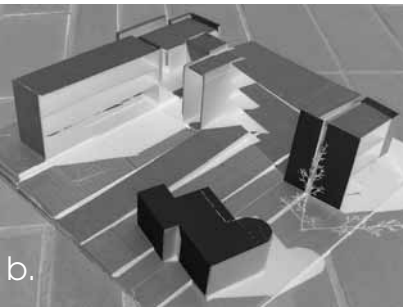
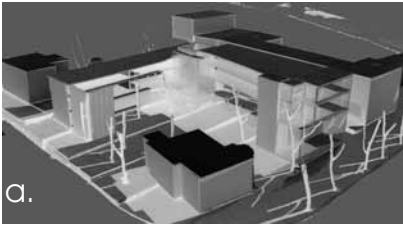
interstices

In keeping with the local patterns of informal trade - typically colonising sidewalks and street corners - a centralised 'destination' market is purposefully omitted.

Instead, the building edges are treated in such a manner as to encourage the growth of informal market places in the interstitial spaces along public circulation routes.

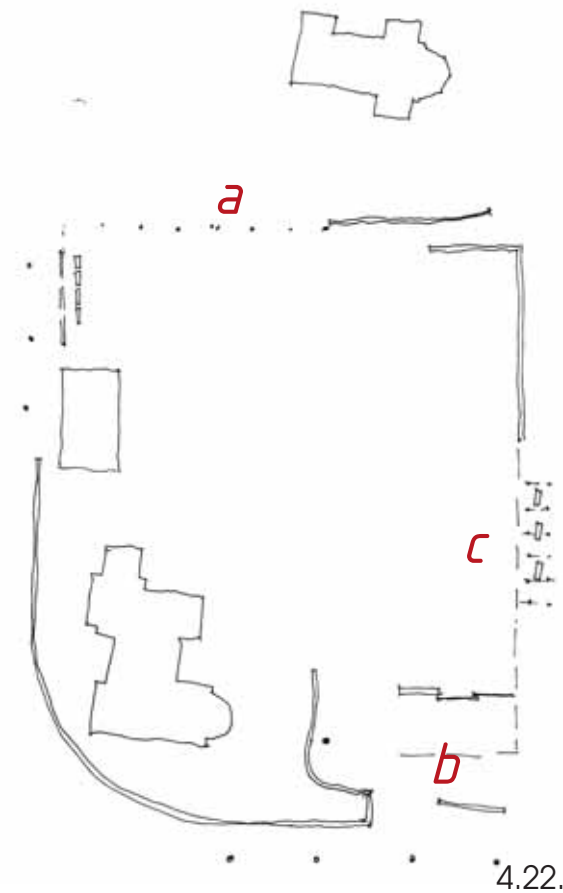
edge

The pavilion typology of the Centre requires that each of the six façades be activated in response to a different micro-context. While the Urban Design Framework requires active edges as a means of promoting security and a pedestrian-friendly environment, the Centre requires a 'boundary' to mark the perimeter of the foreign territory as has already been discussed (cf. p. 53). A solution is found in the creation of thick, flexible edges at the interface between the public - and semi-public domain. The edges are subtly marked by a

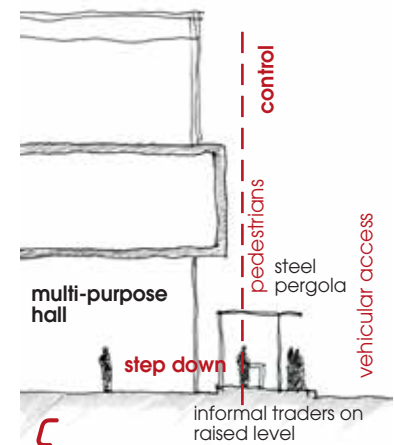
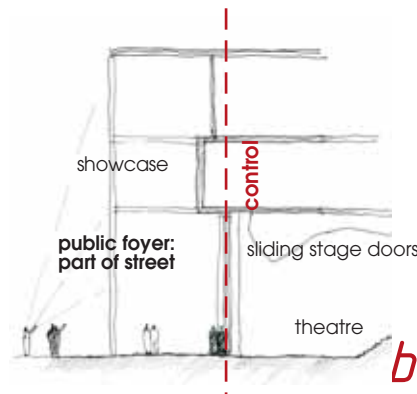
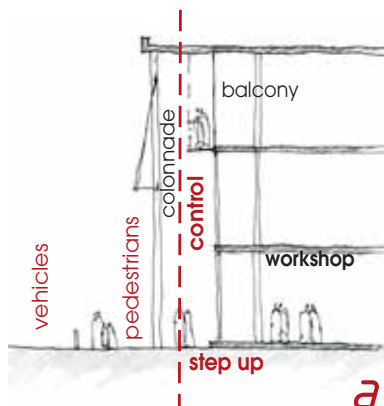


change in level or flooring material and, where direct access is allowed, contained beneath an overhang or within a colonnade to provide an incentive for its colonisation by informal traders. The threshold thus becomes the territory of the informal, characterised by a series of gradations in ownership; a series of micro-strongholds through which entry has to be negotiated. At the same time, the presence of traders along the building edges adds to the security of the surrounding streetscape. While colonisation starts at the edges, the plan does not limit the extent to which it can take place. The possibility exists that the entire ground floor be claimed by the informal.

Whereas the building shell is fixed and static, the edges are designed to permit the nomadic/informal to claim the periphery, to temporarily alter it and to subvert the hierarchical patterns of use. The informal is thus allowed to capitalise on formal activity, creating opportunities for individuals to survive by personal incentive. The network threads its way in and out of the hierarchy; the depth of its penetration into the formal system being determined by the power-relationship between the formal and informal at any given time.



4.22.



4.22. Diagrams illustrating perimeter of foreign territory and edge treatment.

robustness

The harsh character of the urban context of Hillbrow and the highly public nature of the Centre itself requires that building materials and construction be able to withstand high levels of abuse, especially at ground level.

southern wing

The ground plane of the southern wing largely follows the natural slope of the site, which descends around 5500 mm from the level of the square to that of Smit Street. The largest proportion of the level change is taken up by raked terraces effectively dividing the multi-purpose hall at ground floor level into a single large multi-purpose level and a smaller mini-theatre.

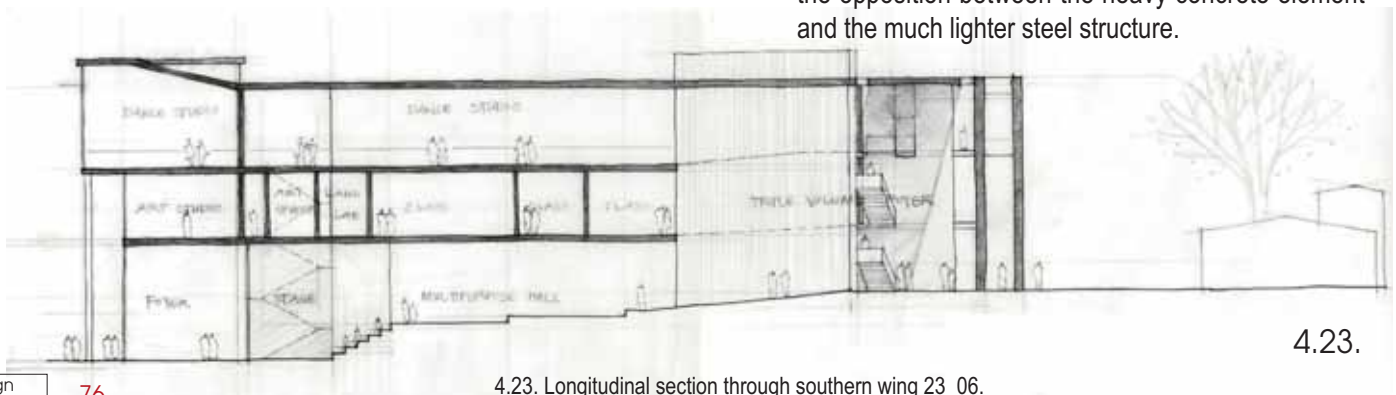
structure

The potential use of the multi-purpose hall for large public gatherings requires a column-free ground surface to avoid visual obstruction. This is achieved by the use of a post-tensioned tubular concrete structure at first floor level, with 340 mm post-tensioned floor- and roof slabs spanning between 400 mm -thick longitudinal walls acting as beams. The box-beam structure contains music studio space, which benefits from the insulative acoustic properties of concrete.

The 15 x 31 m tubular structure is supported on two massive elliptical concrete columns, which serve to articulate the threshold between the circulation space around the service core and the multi-purpose hall; a concrete wall defining the edge between the public gallery and the semi-public performance area; and a fourth concrete pier which is moved out of the continuous circulation route along the eastern perimeter of the building envelope and placed outside the building to become a part of the urban portal into the pedestrian street. The southern gable wall thus acts as a secondary beam.

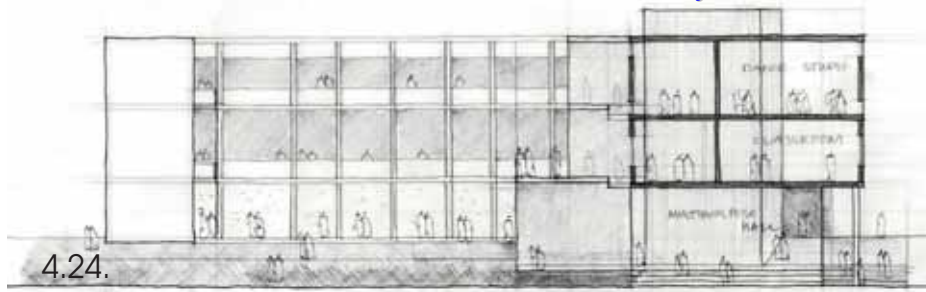
The music box is penetrated along its neutral axis by a series of double-glazed concrete framed inset windows which, by virtue of their irregularly spacing, add a measure of animation to the otherwise blank façade.

The music box supports a steel-framed structure which contains dance studio space at second floor level and folds around the southern and western edges of the music box to meet the rising ground level. The colonnade created between the western edge of the music box and the steel columns contains open walkways providing access to the music and dance studios, while the space between the southern edge of the box and the steel structure becomes a showcase for the Centre, with a public gallery at ground level and art studios at first - and second floor level. A light steel roof is provided over the steel structure to articulate the opposition between the heavy concrete element and the much lighter steel structure.



4.23.

4.23. Longitudinal section through southern wing 23_06.

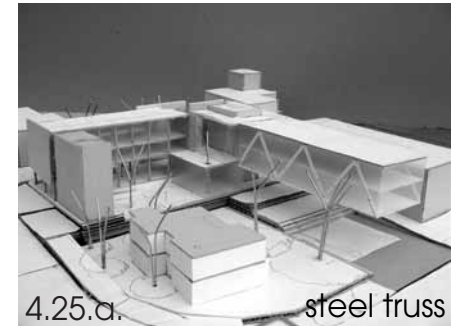


While the columns along the western periphery are spaced at intervals of 5,2 m to provide the southern wing with a slow and rhythmical modulation, the proportions and position of the music box are purposefully out of sync with the structural grid in an attempt strengthen the articulation of the box as an autonomous entity.

The post-tensioned concrete construction is an example of a what Balmond (cf. p. 112) calls a *considered unique path of structure*, which in this specific application is *more valid than the unquestioned assumption of a distributed solution, subdivided equally through a cross section or plan*. The application of the extraordinary structural solution is lent authenticity and validity by programmatic requirements; is not merely a quirky and contrived attempt at the literal expression of 'informality'. Its use is opportunistic; seizing local moment to make something of it, and in this sense conforms to the approach advocated by Balmond (Addendum C).

The structure becomes a generating path and a critical determinant of the building language. The combination of post-tensioned concrete and structural steel serves to create three levels of column-free space which provide a significant degree of flexibility and are excellently suited to accommodate the unpredictable patterns of use of the activities concerned.

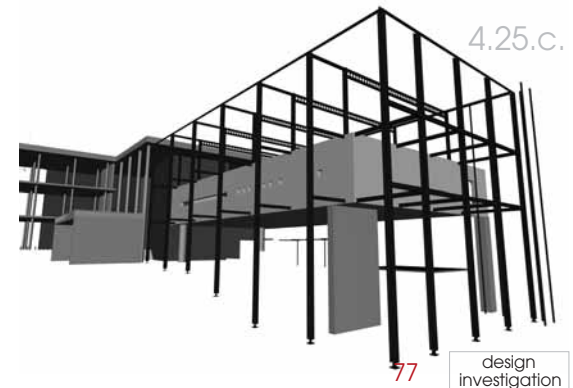
4.24. Transverse Section: Studios 23_06.
4.25 (a-c). Investigation: structural materials.



4.25.a. steel truss



4.25.b. concrete



4.25.c.

ground floor

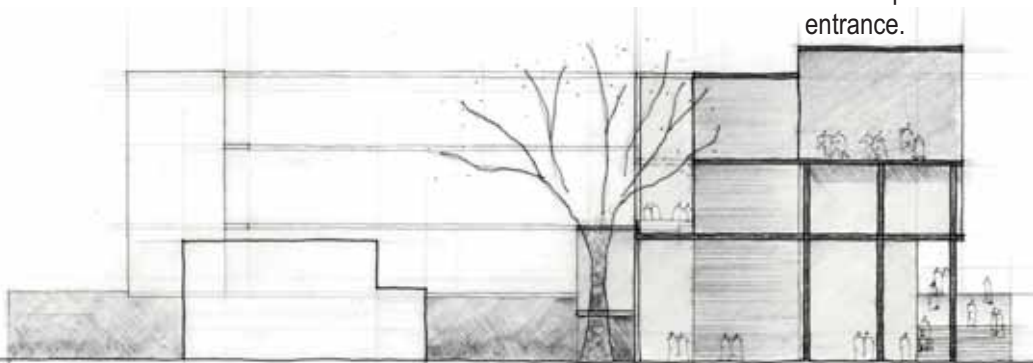
The southern edge of the semi-public domain is tentatively marked by a low brick wall cutting diagonally across the ramped approach to the building. The urban floor continues without level change from the sidewalk into the gallery, which acts as a secondary public entrance foyer and is used for the exhibition of the works of in-house artists and material produced by the Roll-back Xenophobia Campaign. Two large corten-clad sliding stage doors are provided between the gallery and the performance area beyond and provide a richly textured backdrop to the exhibition space. Another series of steel doors along the eastern edge pivot horizontally to allow direct access between the pedestrian street and the gallery. The stage doors, in the closed position, render the gallery entirely part of the streetscape and thus represent the real edge between the public and semi-public domain.

The use of steel pivot doors is continued along the eastern edge of the performance area to allow theatre performances to spill from the mini-theatre into the pedestrian street. The doors are clad in mild steel plate with galvanised and sprayed enamel finish providing an economical and hardwearing finish able to tolerate abuse without losing its aesthetic character and contributing to the semi-industrial quality of the southern wing.

With both the stage doors and the series of pivot doors along the eastern edge in the open position, the inside-outside boundary dissolves almost entirely. Space and activity flows freely between the foyer, performance area and pedestrian street beneath the canopy created by the horizontally suspended steel doors. The overflow facilitates the use of interactive street theatre as a tool to counter xenophobia.

The pedestrian street level follows that of the multi-purpose hall to allow the integration of inside/outside activity through a series of glazed doors opening onto the multi-purpose surface. The eastern edge (cf. fig. 4.22.c.) between the multi-purpose hall and pedestrian street is contained beneath the overhang of the concrete structure at first floor level and defined by a level change and the steel shading structure provided to shelter informal traders colonising the edge. The level of the pedestrian street is 150 mm above that of the multi-purpose hall, thus establishing a hierarchy which lends authority to the informal traders guarding the periphery at the higher level.

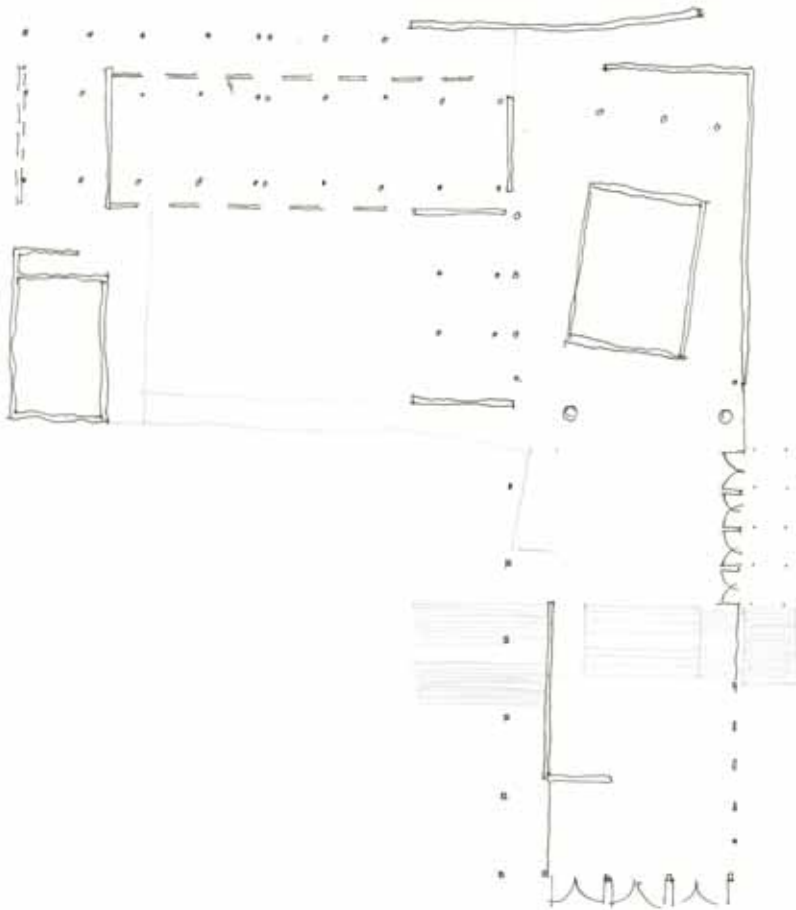
A profiled plywood ceiling is suspended from the soffit of the first floor slab - a dynamic and sculptural element lending a measure of intimacy to the mini-theatre while ensuring acoustical efficacy (cf. p. 92). With a series of sound-absorbent sliding panels between the mini-theatre and the remainder of the multi-purpose surface in the closed position, the mini-theatre can function as an independent unit accessed from the southern entrance.



4.26. South Elevation 23_06.

4.26.

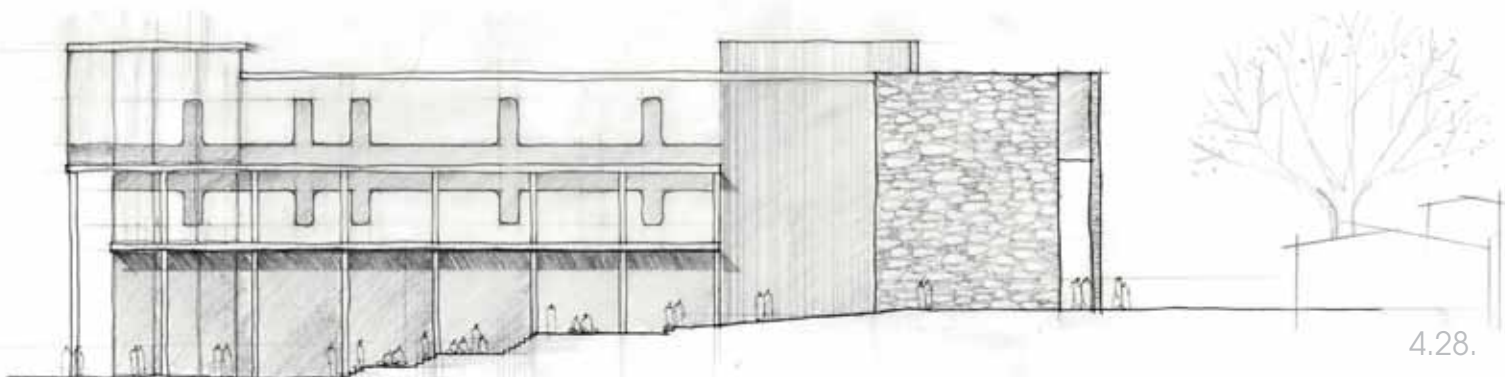
4.27.



The greater extent of the ground floor space is uniformly lit through extensively glazed curtain walls, the continuation of light quality between interior and exterior serving to strengthen the dissolution of inside-outside boundaries.

dance studio

A 13,5 meter clear span across the dance studio is achieved by the use of a 609 mm deep castellated steel I beam. Corrugated polycarbonate is used as cladding material. Despite the initial expense and high energy content, its use is considered appropriate by virtue of its lightness and integral stiffness, which eliminates the need for substructure in the panel construction. Also, recycling may redeem the initial energy cost. Two corrugated polycarbonate sheets are fixed to each other with purpose made stainless steel fasteners and slipped inside an aluminium frame to create light and highly mobile sliding panels. While the array of stainless steel fasteners add a dimension of intricacy and fine detail, the curiously soft and immaterial quality of polycarbonate contributes significantly to the articulation of the dance studio as a light volume on top of the much heavier concrete box, and especially so at night. The polycarbonate skin produces a uniform and gently diffused interior light quality. At night the studio becomes a translucent lantern on top of the dark volume of the music box, with the blurred silhouettes and projected shadows of the dancers providing animation.



4.28.

4.27. Diagram indicating dissolution of interior/external boundary with ground floor level sliding doors in open position.

4.28. East Elevation 23_06.

east elevation

The eastern edge of the dance studio is screened from morning sun by a series of perforated stainless steel sunscreens, which are manually adjustable from inside the dance studio. Both the polycarbonate sliding panels and the sunscreens can be opened/closed in a number of different configurations, thereby lending the eastern elevation a layered and highly varied composition.

scale

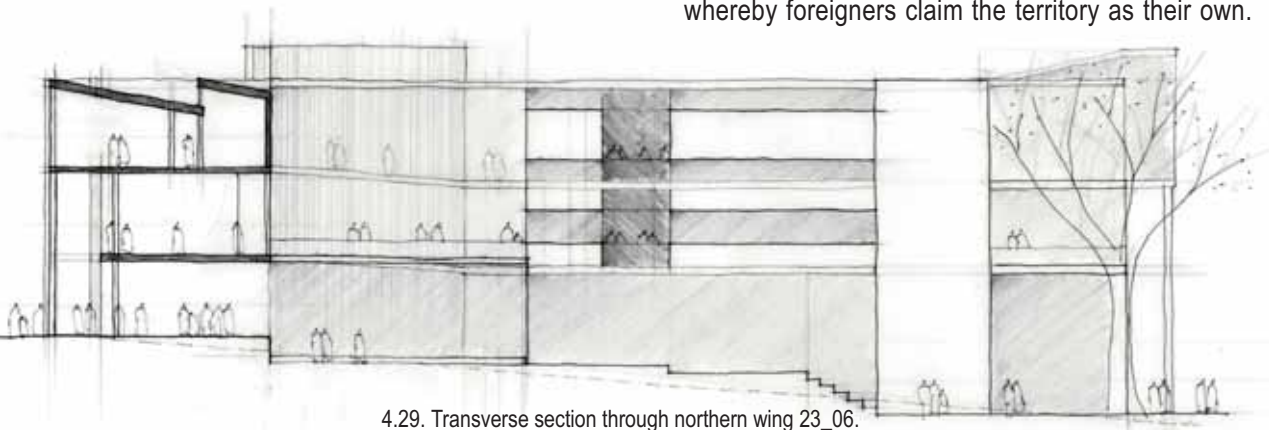
Since the site falls away towards the south, the scale of the building increases to one that lends the Centre significant civic presence on Smit Street. The scale relates directly with that of the eastern portion of the Community Health Centre, and competes with that of the apartment buildings on the opposite side of Smit Street without dwarfing the Superintendent's Residence in the manner of the high-rise buildings along the western edge of Hospital Street.

northern wing

The programmed spaces contained in the northern wing are suitably accommodated in the cellular spaces created by a concrete frame structure and dry wall partitions. A simple and economical concrete slab and column construction with flat concrete roof is thus provided. The scale of the northern wing is smaller than that of the southern wing and is determined by the hierarchical relationship between the buildings surrounding the public square. When the height-difference between the ground level of the Centre and the Hospital Pavilion on the opposite side of the square is taken into account, the scale of the building relates very closely with that of the Pavilion. The six-storey Leith building is dominant, while the Chapel by its nature remains an important place within the public space despite its smaller scale.

workshop

The structural system provides sufficient flexibility for the effective functioning of the ground-level workshop, which accommodates craftwork and light industrial activity. It is proposed that building elements such as the mosaic tiles be produced in the workshop by foreign residents of Hillbrow. Besides creating skills development - and short-term employment opportunities, such hand-made elements add greatly to the 'imperfect' and tactile quality of the Centre and facilitate the process whereby foreigners claim the territory as their own.



4.29.

threshold

The threshold between the public and semi-public domain along the northern edge is defined by a 150mm level change and contained within a 3 meter wide public colonnade [fig. 4.22.a]. The northern edge of the workshop becomes trade space, which spills into the colonnade and onto the public square, with traders and craftsmen guarding the perimeter. A number of mentis grid balconies are suspended at irregular intervals from the exposed soffit of the concrete roof slab to provide rest areas for office second floor office workers, who provide a second series of eyes-on-the-street.

façade

The northern façade is reserved and makes no attempts at capturing the spotlight. Instead, it shows respect for the historical buildings surrounding the square as regards both scale and material use, and is simply enveloped by glazed curtain walls with timber louvre panels. Column spacing is accelerated from that of the southern wing to match the smaller scale of the northern wing. Off-beat pulses are introduced into the northernmost row of columns - a slightly playful gesture to disturb the rhythm and pace of the colonnade and provide animation. A series of adjustable/removable textile sunscreens are suspended between the concrete columns to provide further animation. It is proposed that the screens be painted by in-house artists and regularly replaced to become functional exhibition pieces of the Roll Back Xenophobia-Campaign.

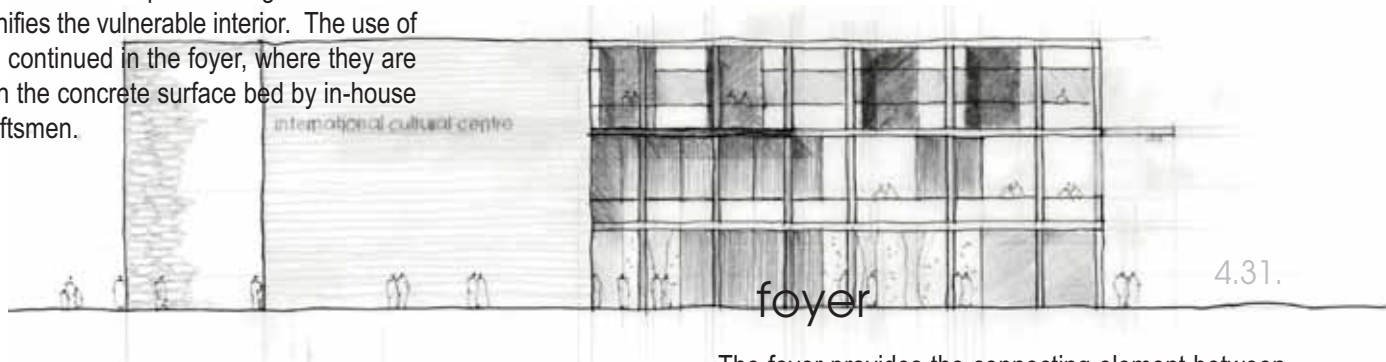
freestanding wall

The predominant feature of the northern elevation is a massive freestanding concrete wall which gently curves away from the entry point to the foyer to introduce a subtly dynamic element into the composition. A series of round steel bars of varying dimensions are randomly drilled into the concrete surface of the wall and epoxy-fixed to create a repellent, 'spiky' surface



which, metaphorically, guards the vulnerable constituency accommodated by the Centre. The steel rods will cause rainwater released from a high-level outlet to streak the concrete surface dramatically, while in time they may well rust away, leaving only the discoloured concrete surface as a record of time and circumstance.

The interior surface of the same wall is partially covered by a continuous vertical 'carpet' of red glazed mosaic tiles which signifies the vulnerable interior. The use of mosaic tiles is continued in the foyer, where they are sparsely laid in the concrete surface bed by in-house artists and craftsmen.



The foyer provides the connecting element between the two wings of the building and contains the primary public entrance to the Centre. It is entirely unprogrammed and may be used for exhibitions or events.

edge

The massive perimeter walls create a stark edge between the public and semi-public domain and provide a backdrop for the chapel as viewed from the north of the public square. By their scale, they lend the Centre the measure of civic presence it requires to stand its ground among the historic buildings surrounding the public square.

pivot

The concrete service core provides the pivot point in the connection between the two wings of the Centre. Its seven degree rotation from the grid - derived from the orientation of the historic buildings (cf. p. 61) - creates spatial tension in the circulation spaces



surrounding the core and leading from the northern to the southern wing.

A 200 mm opening between the top of the perimeter walls of the service core and the concrete roof slab, with supporting columns set back from the front edge of the walls, create the impression of the roof slab floating detached above the core and serves to articulate the core as an independent element.

slip

The three concrete columns in the central foyer space are slanted at two degrees to echo the horizontal rotation of the core in the vertical dimension. Their vertical rotation counteracts the directional movement suggested by their alignment on plan, serving to centre the space and invite visitors to linger.

The recurrent interplay of heavy - and light elements occurs once again in the opposition of the massive service core and the skeletal steel- and timber staircase rising three storeys towards a light box providing access to the roof.

light

The foyer is strongly interiorised and is lit almost entirely by roof lights. Apart from the glazed light box, a series of old-fashioned clay sewer pipes of varying dimensions and protruding to different lengths are cast into the concrete roof slab of the foyer at different angles, and sealed at their top ends with tinted plate glass and silicone. On a sunny day, these roof lights create a spectacle of coloured spotlights moving across the floor and wall surfaces of the otherwise dimly lit foyer.

By virtue of the predominant darkness, the beams of light entering through the pipes become individually discernable and dramatic elements. A series of low voltage tungsten halogen lamps with dimmer switches are suspended between the columns for nighttime- or

additional daytime lighting. At night, the upper volumes recede into darkness, and it is the acoustic quality of the space which reveals the actual volume.

A series of steel bracing rods tie the perimeter walls of the foyer to the internal core. The steel members - fixed in criss-cross fashion for the purpose of structural stability - create an intricate and seemingly random web floating at second floor level above the ramped circulation route leading to the multi-purpose hall.

tactility

Despite its bareness, the use of light, colour and texture, coupled with the aesthetics of randomness and the particular material quality of hand-made elements lends the foyer a richly tactile quality. Its spatial generosity serves to convey a sense of grandeur and slowness.

café and terrace

The café and terrace are located at the level of the threshold between the ramp leading from the entrance foyer and the multi-purpose hall itself. The café is an almost incidental space, partially slipped in beneath the ramped walkways connecting the two wings and accessible from the foyer, multi-purpose hall and the western colonnade. It is enclosed by a partial continuation of the first floor slab of the northern wing, which folds over to become the southern wall. The concrete roof is planted and provides an accessible roof terrace which is accessible from the first floor level in the northern wing. A series of timber-framed sliding doors allow the café to spill onto the terrace - a sheltered area enclosed by the workshop to the north, the café to the east and the external service core in red brick to the west; and overlooking the garden to the south.

4.30.

flexibility

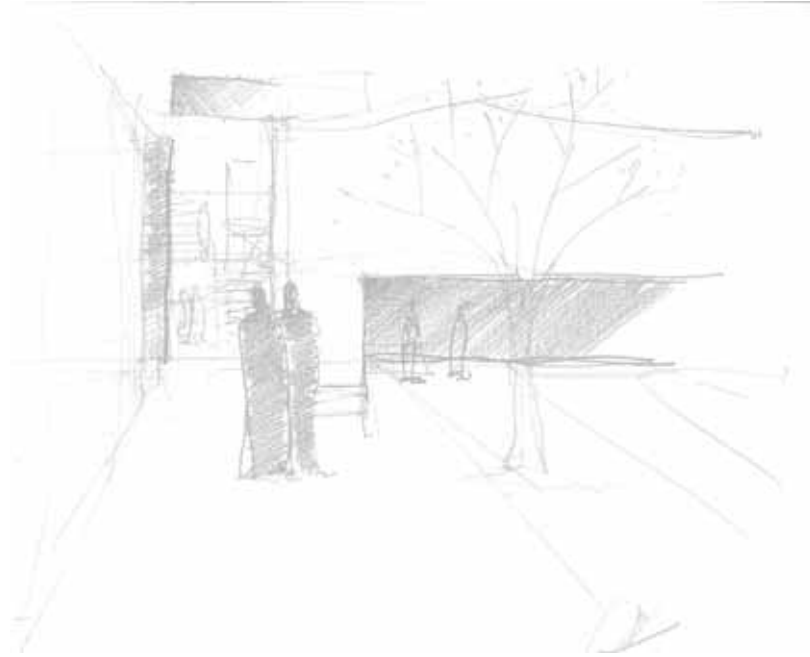
The potential for the reuse of the building shell is maximised by the grouping of service areas in one internal and one external core; and a structural system providing large open areas which may be subdivided at will by non-loadbearing partitions

hybridity

As a result a variety of structural systems, a relatively wide range of materials and the large variations in edge treatment, the character of the building tends towards hybridity. Such variations are informed throughout by programmatic requirements and/or micro-contextual conditions. Continuity is provided by the repeated application of extensively glazed curtain walls with timber louvres, and in the detailing of steel and timber elements throughout the building.

execution

The technical investigation includes references to a number of additional design considerations and should be read with the design investigation.



garden

The garden space around the Superintendent's Residence is simply landscaped around the existing trees. The low red brick garden wall around the southwestern perimeter of the site is continued around the garden to mark the edge of the foreign territory. The garden is thus rendered a semi-public domain, and the multi-purpose hall is allowed to spill unhindered into the garden space.





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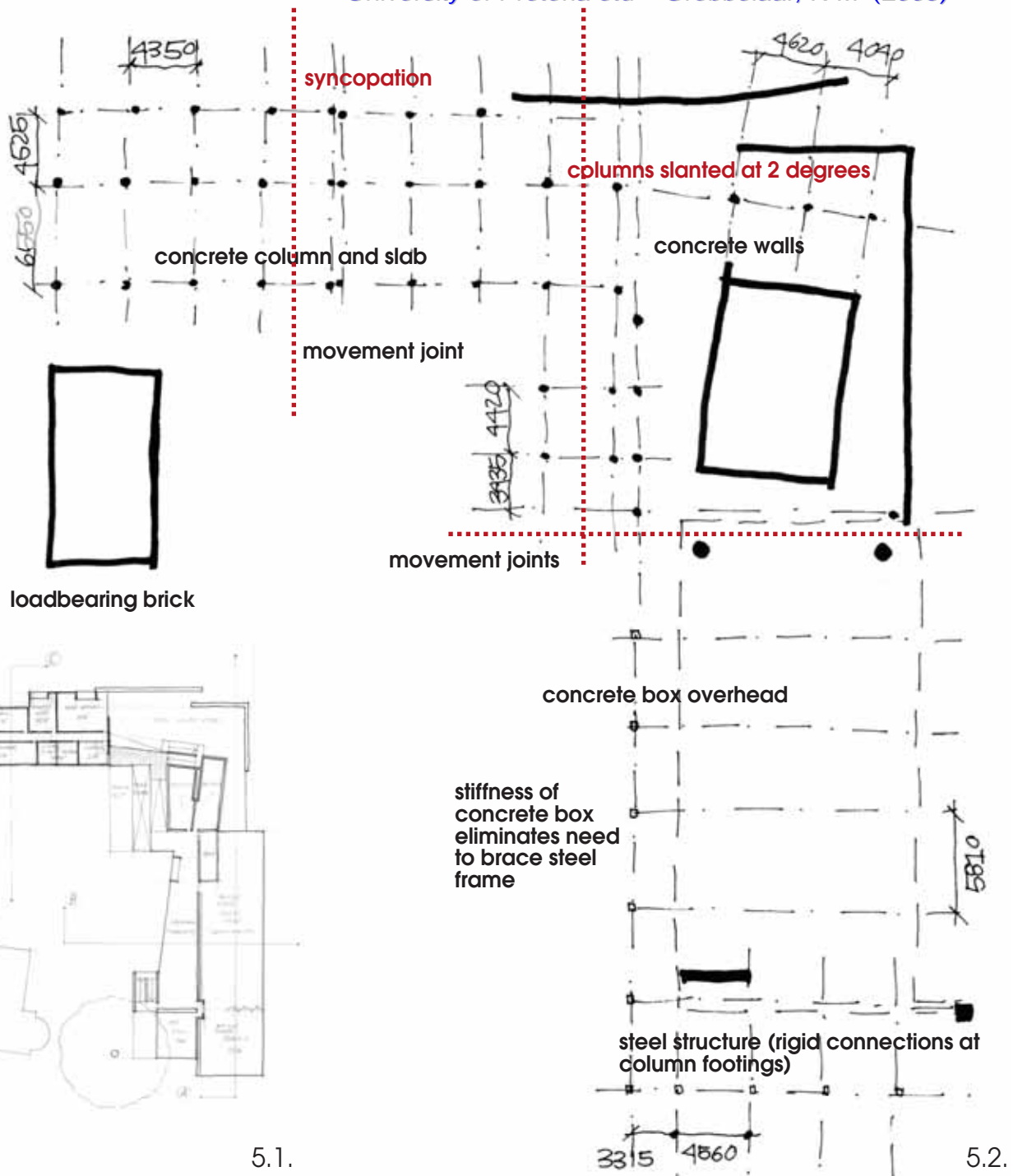
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5.1.

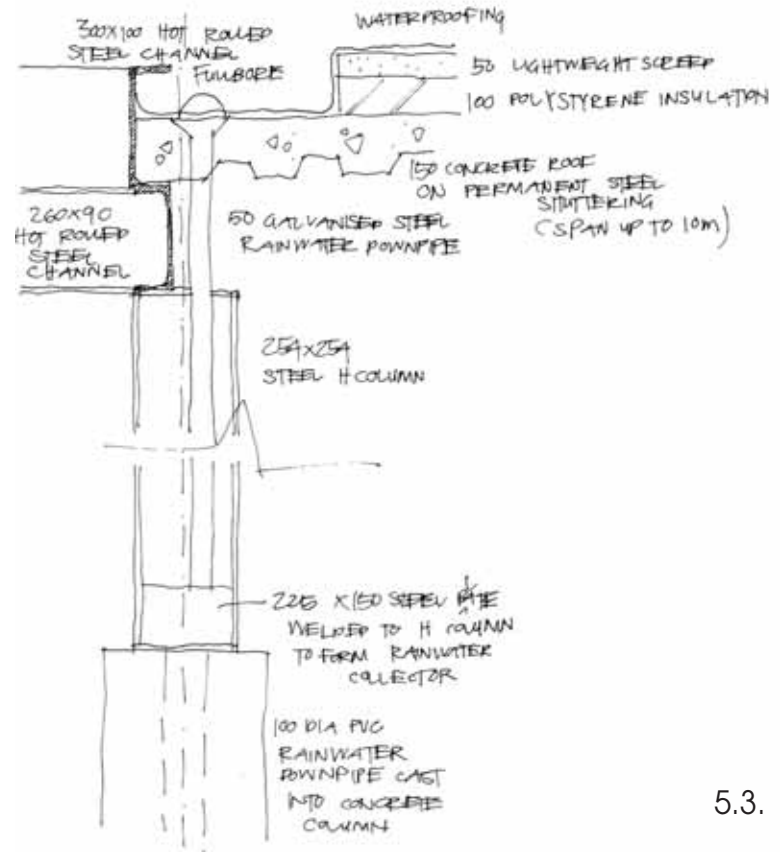
5.2.

5.1. Second Floor Plan [23_06].
5.2. Structural Layout and Materials.

While a simple flat concrete roof is provided for the northern wing, entrance foyer and restaurant, the articulation of the contrast between the concrete music box and the light steel structure of the dance studio above necessitates the use of a lighter roof construction over the dance studio. It is a further requirement of the roof construction that it provides effective sound dampening in the event of a rain -/ hail storm.

Composite roof panels (pre-coated internal and external metal facings bonded to rigid insulation core) are available in the UK for roof pitches down to 1° without end laps. The sound reduction index of typical composite roof panels is 26 dBA, which is around 11 dBA more than that of a normal steel roof. The South African counterpart of the product is manufactured in Germiston, but with a minimum roof slope of 3° without end laps, thus requiring a roof edge of almost 600 mm in this specific application.

It is thus proposed that composite roof panels are purpose-made on site. The panels consist of a patent steel roofing system (e.g. Clipdek, which can be specified for roof slopes down to 1°) fixed by means of patent roofing clips to galvanised sheet metal trays manufactured on site to fit the profile of the roof sheets. Mineral wool blankets are laid inside the trays for acoustic insulation, and the roof panels are laid at $1,5^\circ$ without end laps. An acoustic ceiling (mineral wool on perforated plywood) is installed below the roof panels for extra acoustic insulation.

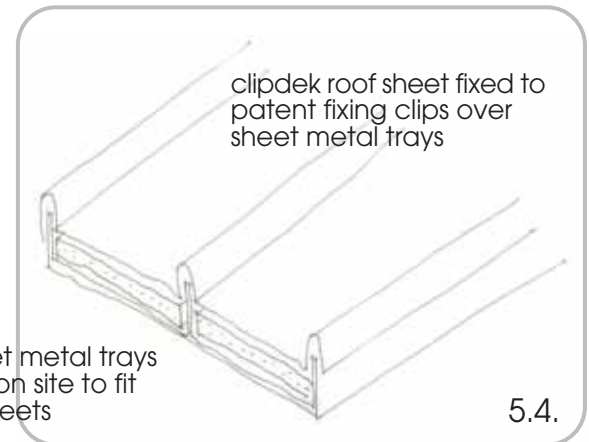


5.3.

mineral wool insulation or other recycled insulative material laid inside trays

clipdek roof sheet fixed to patent fixing clips over sheet metal trays

galvanised sheet metal trays purpose-made on site to fit profile of roof sheets



5.4.

5.3. Roof construction 08_09.
5.4. Purpose-made roof panels.

A comparison between steel and aluminium as structural materials for curtain wall construction follows:

steel		aluminium
economy lower initial energy cost larger elements can be re-used	advantages	precision ease of construction durable and corrosion-resistant minimal maintenance recyclable without loss of quality
less precision heavier members, more difficult to handle more maintenance	disadvantages	high initial energy cost expensive

From a purely pragmatic point of view, aluminium would be the logical choice of structural material for curtain wall construction. The decision is however made to use steel as primary structural material for curtain walls in the southern wing; the semi-industrial quality of the southern wing being complimented by the use of numerous bolted connections and the degree of imperfection which is characteristic of steel construction and typical of workshop-type industrial buildings. Also, because steel structural members are somewhat smaller than their counterparts in aluminium, the use of steel instead of aluminium ensures a lighter appearance.

With the exception of the steel frames in the southern façade, which are factory-made and bolted in position to the main structural steel frame, the primary steel structure for curtain walling in the southern wing is constructed in situ. Glazed sections are factory-framed in aluminium and fixed in position to the steel frames with self-cutting screws. Polyethylene-taped between steel and aluminium frames prevent the occurrence of bio-metallic corrosion.

Although the language of the northern wing departs from the semi-industrial aesthetic of the studio spaces, the system of curtain wall construction is continued so as to provide a measure of continuity. Like the southern façade, the northern curtain walls are made up of steel frames which are factory-made and fixed in position to the concrete structure. Glazed window sections are fixed in the same manner as in the southern wing.

Timber-framed louvre panels and timber doors replace selected glazed sections in both wings for the sake of ventilation and providing escape areas, while adding a measure of warmth and variation to the curtain walls. Timber in the northern façade is protected against solar radiation by a 3,2 m overhang and a series of textile sunscreens, while its use is avoided in the eastern façade, which is less protected.

The glazed sections of the southern façade are silkscreened and together contain a single image which is interrupted by the steel structure framing the art studios beyond. Despite the façade's flush surface, depth is created by the superimposition of a two-dimensional graphic and three-dimensional framed views.

Concrete surface beds at ground level receive a concrete screed which is delayed trowelled, power floated and polyurethane sealed to produce an economical and hard-wearing floor finish which relates well with both the earthy character of the northern foyer and the semi-industrial character of the southern wing and the workshop. Where an alternative floor finish is required, the surface bed is receded to receive such finish - slate tiles in the restaurant and gallery and a sprung timber floor in the performance area. These floor coverings thus read as 'carpets' laid within the continuous grano floor surface.

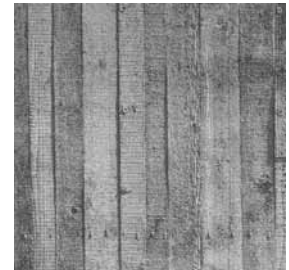
Similarly, the shuttering patterns on vertical concrete surfaces are discontinued at some distance from the edges of the surface to create a series of vertical carpets rather than continuous floor to ceiling finishes.

The floor construction at first and second floor level consists of 12mm solid timber flooring boards laid directly over a vilt layer on the concrete slabs. Sprung timber flooring for the dance studio is constructed with 19mm polymer-treated plywood laid on a 30mm-thick layer of compressible foam providing the required sponginess.

External walkways consist of exterior - or marine grade plywood boards on a steel substructure spanning between the post-tensioned concrete structure and the exterior steel columns. Although a single sheet of plywood would be structurally sufficient, a second sheet is added and the two sheets countersunk-bolted together on either side of a 15mm-thick sound-dampening styrofoam layer to create composite floor panels which are visually less flimsy and therefore relate better to the scale of the overall construction. Since the styrofoam layer is cut back from the exterior edge of the panels, the two sheets of plywood read independently and add a measure of visual complexity which provides relief from the stark outline of the concrete music box.

The construction system of composite floor panels on a steel substructure is continued in the art studios, which - conceptually - provides a continuation of the steel cage wrapped around the western edge of the concrete music box.

The use of timber is repeated in stair treads (laminated saligna) and balustrade handrails throughout the building. Timber thus becomes a recurring element serving to provide a continuation between the three units (foyer and two wings) of the building.



_ventilation

Figures 5.5 and 5.6 indicate passive air flow through the building sections. The use of electronic systems is limited to two evaporative cooler units ventilating the 'music box'. The series of inset windows along the box's neutral axis are provided with double glazed opening sections which ensure acoustic insulation, but may be opened in the event of the cooler units malfunctioning. Console units may be installed in the northern façade of the offices and classrooms at a later stage should it prove a requirement.

_thermal mass

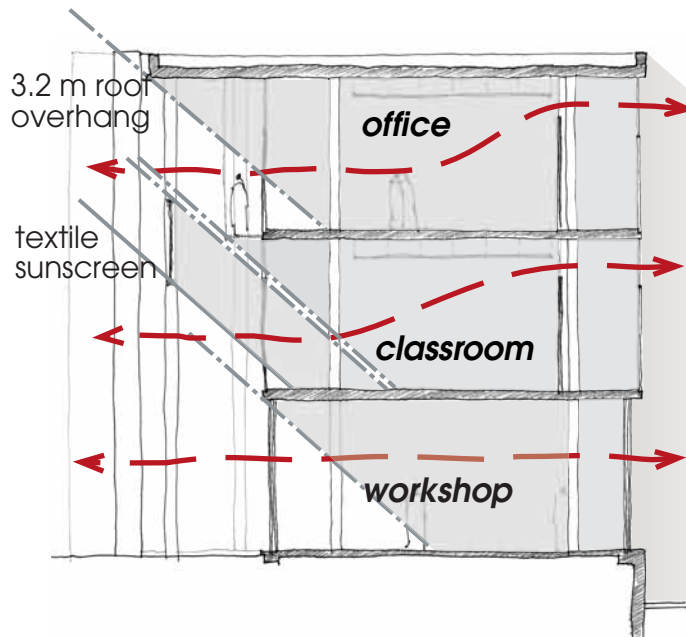
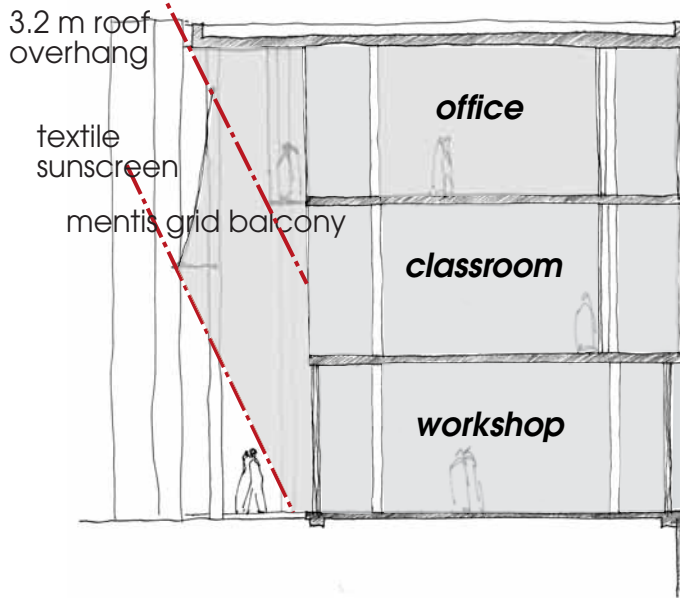
Thermal mass - provided by flat concrete roofs, exterior concrete walls and the eastern wall of the music box - absorbs heat from direct and indirect solar radiation during the day, and after a delay period which is determined by the density and thickness of the absorbent surface, radiates the heat energy to internal spaces. With the thickness of the roof and wall surfaces ranging between 230 and 500 mm, a sufficient delay period is created to ensure that internal temperatures are effectively lowered during the day and raised during the night.

_orientation, solar control, natural light

The orientation of built form on the site is determined by the Urban Design Framework, which considers the quality of the surrounding urban environment with little regard for the climatic effect of the constraints as set.

The designer's freedom is largely limited to the positioning of functions within the prescribed form.

Northern façade preference is given to the classrooms and offices, for which thermal comfort and sufficient lighting levels are a minimum requirement. The 3,2 meter overhang, mentis grid balconies and a series of textile sunscreens prevent direct solar radiation during summertime, while in wintertime allowing direct sunlight into the workshop at ground level, and a limited amount



5.5. Northern Wing: Solar Control 21 December.

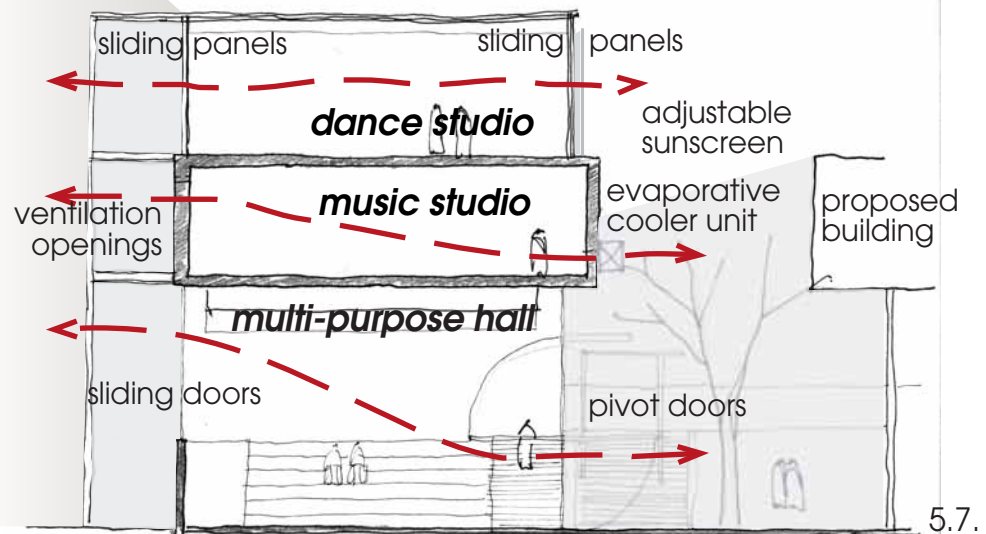
5.6. Northern Wing: Natural Ventilation; Solar Control 21 June.

of radiation into the offices and classrooms according to the position of the adjustable/removable textile sunscreens. The textile sunscreens also serve to diffuse light and prevent glare on visual media surfaces.

The gallery/foyer and art studios are positioned along the southern edge of the building and extensively glazed to make full use of the southern light.

As a result of the shadows cast by the high-rise buildings along the western edge of Hospital Street, the long western elevation presents little problems as regards solar heat gain (cf. shadow study p. 19-21). A 3,2 meter overhang contained in the colonnade provides effective protection against high-level western sun, while deciduous trees in the garden act as additional shading devices for low-level western sun during the hot summer months.

The ground- and first floor levels of the eastern elevation are protected against low level eastern sun by the bulk of the new building east of the Centre. A mentis grid shading structure and the overhang of the music box at first floor level protects against high-level eastern sun, while trees in the pedestrian street provide additional shade. The exposed polycarbonate screens at second floor level are protected from eastern sun by a series of perforated stainless steel sliding panels which are manually adjustable from inside the dance studio. Both the polycarbonate sliding panels and the sunscreens can be opened/closed in a number of different configurations, thereby lending the elevation a layered and highly varied composition. A freestanding perforated stainless steel screen shades the southern portion of the eastern façade.



5.7. Southern Wing: Solar Control and Natural Ventilation.

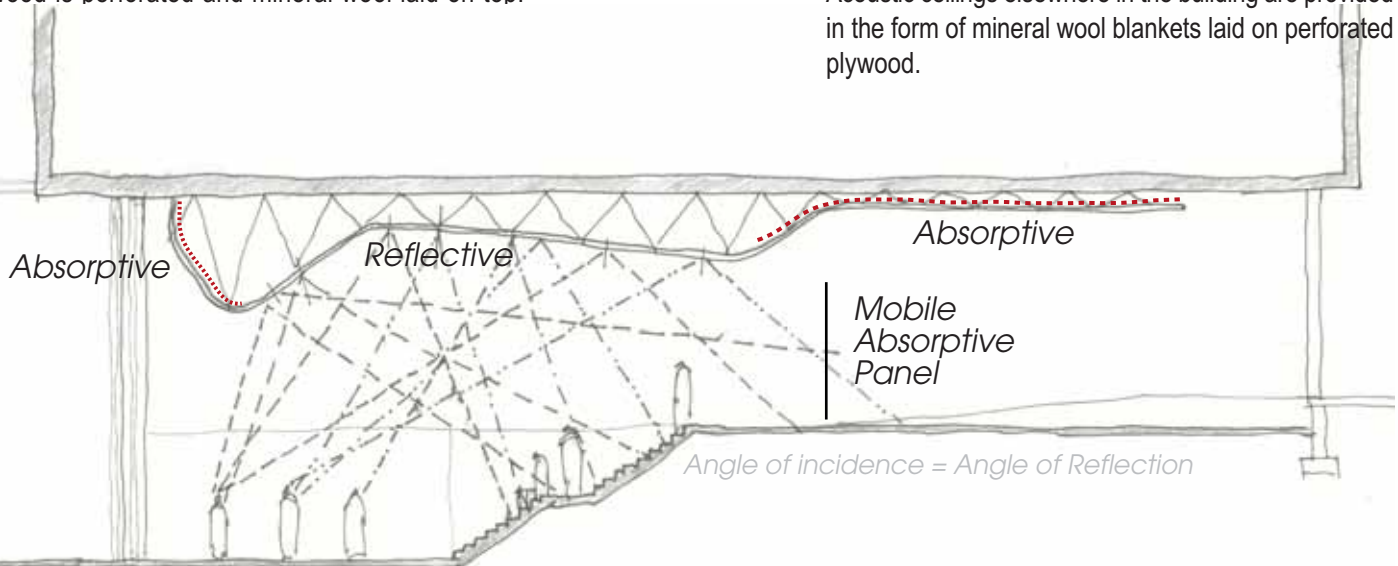
_Offices, Classrooms

Lacking the acoustic insulation of the music studios, the classrooms and offices are the most noise-sensitive areas, and are therefore located as far away as possible from Smit Street, which is the source of the highest levels of ambient noise.

_Multi-Purpose Hall

A profiled plywood acoustic ceiling is installed in the multi-purpose hall to aid the acoustic performance of the raked mini-theatre. With a series of mobile acoustic panels in place, the mini-theatre functions as a separate unit within the larger multi-purpose hall. The profile is designed to reflect the majority of sound back into the pavilion area, with a smaller proportion being reflected towards the back of the multi-purpose hall to ensure satisfactory acoustic performance during larger public gatherings.

The ceiling is fixed to a number of flat steel bars which are bent in the profile of the ceiling and welded to a lightweight steel truss. The plywood itself provides a reflective surface. Where absorption is required, the plywood is perforated and mineral wool laid on top.



5.8.

_Music Studio

The music studios - located in the concrete tube structure at first floor level - benefit from the acoustic properties of the mass concrete structure. A sound-absorbent ceiling and sound absorbent wall panels - consisting of a 100 mm air gap, 50 mm mineral wool and 5 mm perforated hardboard nailed to timber battens - are added to absorb low frequencies and prevent the occurrence of flutter echoes between parallel surfaces. The windows are double-glazed for acoustic insulation. The cost of installing an acoustic sliding door to divide the large studio space into two music studios is around R10 000 per meter - certainly not a favourable option. Instead, an acoustic curtain can be provided instead at a much lower cost should the division be required.

_Dance Studio

The dance studio is not sound proof. Being located far enough from the offices and classrooms, and with the music studio being acoustically insulated, music from the dance studio is allowed to permeate the public foyer and spill into the pedestrian street and garden.

Acoustic ceilings elsewhere in the building are provided in the form of mineral wool blankets laid on perforated plywood.

Inclusivity

Considering the proximity of the various healthcare-related institutions to the Centre, it is essential that the Centre be accessible to pedestrians, including the old and infirm. A lift is provided in the foyer for access to the first and second floor levels, while access from the foyer to the multi-purpose hall and from the classroom - and office levels to the lower levels of the music- and dance studio is provided by ramps at a maximum gradient of 1:12. A purpose-made lift platform provides access from the stage level of the performance area to the multi-purpose level 3 meters above. Toilets for use by disabled persons are provided on ground - and first floor level according to the requirements of Section S of the National Building Regulations.

Fire Strategy

According to NBR TT 16.2, where the travel distance to the nearest escape door is not more than 45m, a three storey building shall be provided with at least two escape routes, but shall not be required to have an emergency route.

According to NBR TT 7, structural elements are to have a fire resistance as follows:

Restaurant, Multi-Purpose Hall, Dance/Music Studios:
120 minutes

Educational Facilities: 90 minutes

Workshops: 120 minutes

Offices, Art Studios, 60 minutes.

The concrete structure is deemed to provide sufficient fire resistance. Steel structural members however require a fire resistant coating.

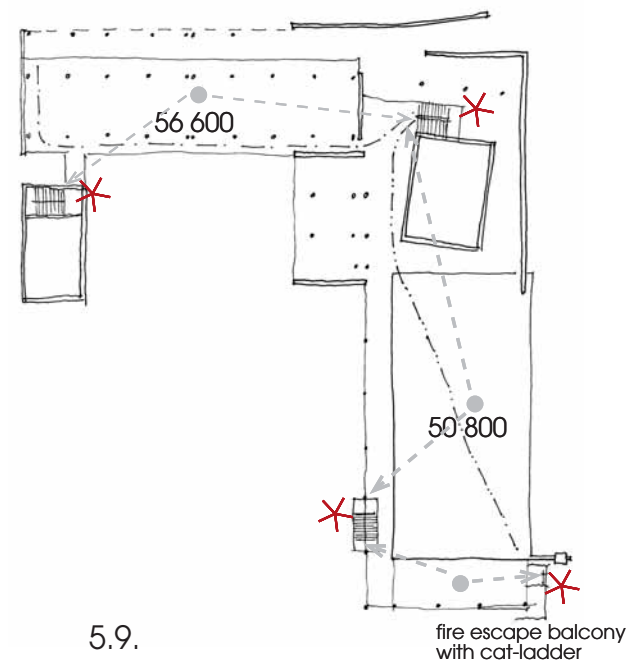
Thin-film intumescent mastic coatings generally consist of a primer, the intumescent base coat, and some type of decorative topcoat. Structural steel shapes protected

by this type of system essentially resemble painted steel with a gloss finish. When exposed to fire, the base coat expands (intumesces), to form a thick layer of foam that protects the steel by thermally insulating it and shielding it against radiation. Once exposed to flame, the mastic char must be removed and a new layer of coating applied in order to maintain the fire-resistive rating required for protection of the structural member.

In practice, a rational design by a specialist will be required to ensure the integrity of structural steel members in case of fire. Probable measures include the choice of larger members than are required for mere structural purposes, and the use of members with a greater flange and web thickness than otherwise required.

Norms and Standards

Addendum E.



5.9. Diagram indicating position of staircases; alternative escape routes; longest traveling distances.

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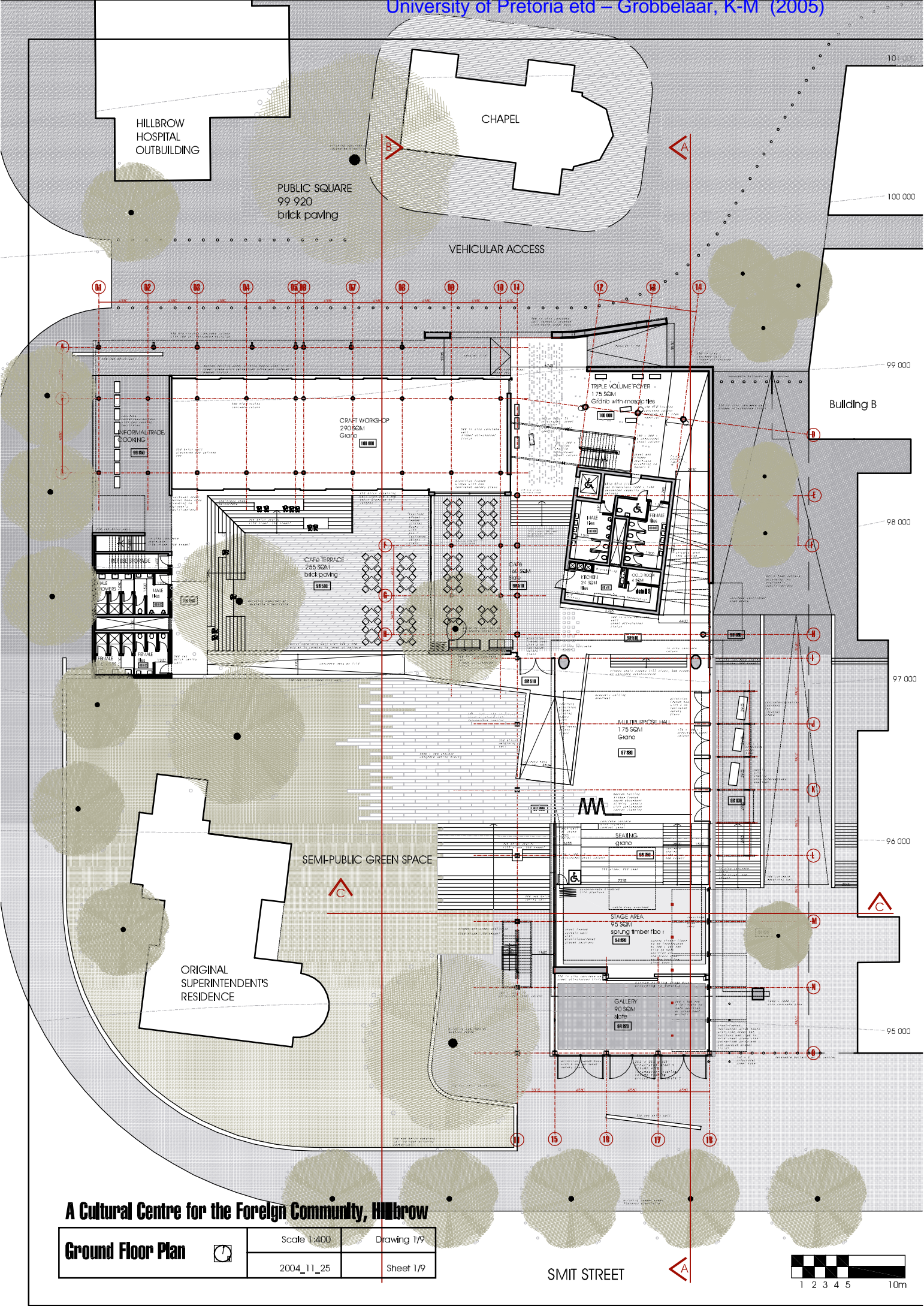
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The insertion grows from the physical site and the socio-economic context and can be considered highly contextual. It acknowledges space as a political phenomenon and is strongly influenced by the territorial aspects and power-relations of the new mode of spatial regulation currently emerging in Hillbrow.

The Centre provides a high degree of flexibility, with unprogrammed and semi-programmed spaces offering choice; facilitating rather than prescribing activity, anticipating the unintended and informal to, in turn, be shaped by these factors. It accommodates both the programme and hierarchy of the formal, and the network of the informal, which is allowed to capitalise on formal activity. The network threads its way in and out of the hierarchy, claiming edges and interstitial spaces with localised interventions which leave urban form in a continual state of flux.

Structure facilitates both programmed and unprogrammed activity; while technology is appropriate and detailing honest. The multi-layered composition and richness in material quality lends a measure of luxury to the otherwise humble construction. It is a building to be physically experienced and engaged with, not looked at.

The human element remains at the centre of the project, which aims only to provide a background for human activity. Without human inhabitation, the architecture is rendered essentially meaningless.



A Cultural Centre for the Foreign Community, Hillbrow

Ground Floor Plan



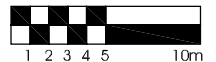
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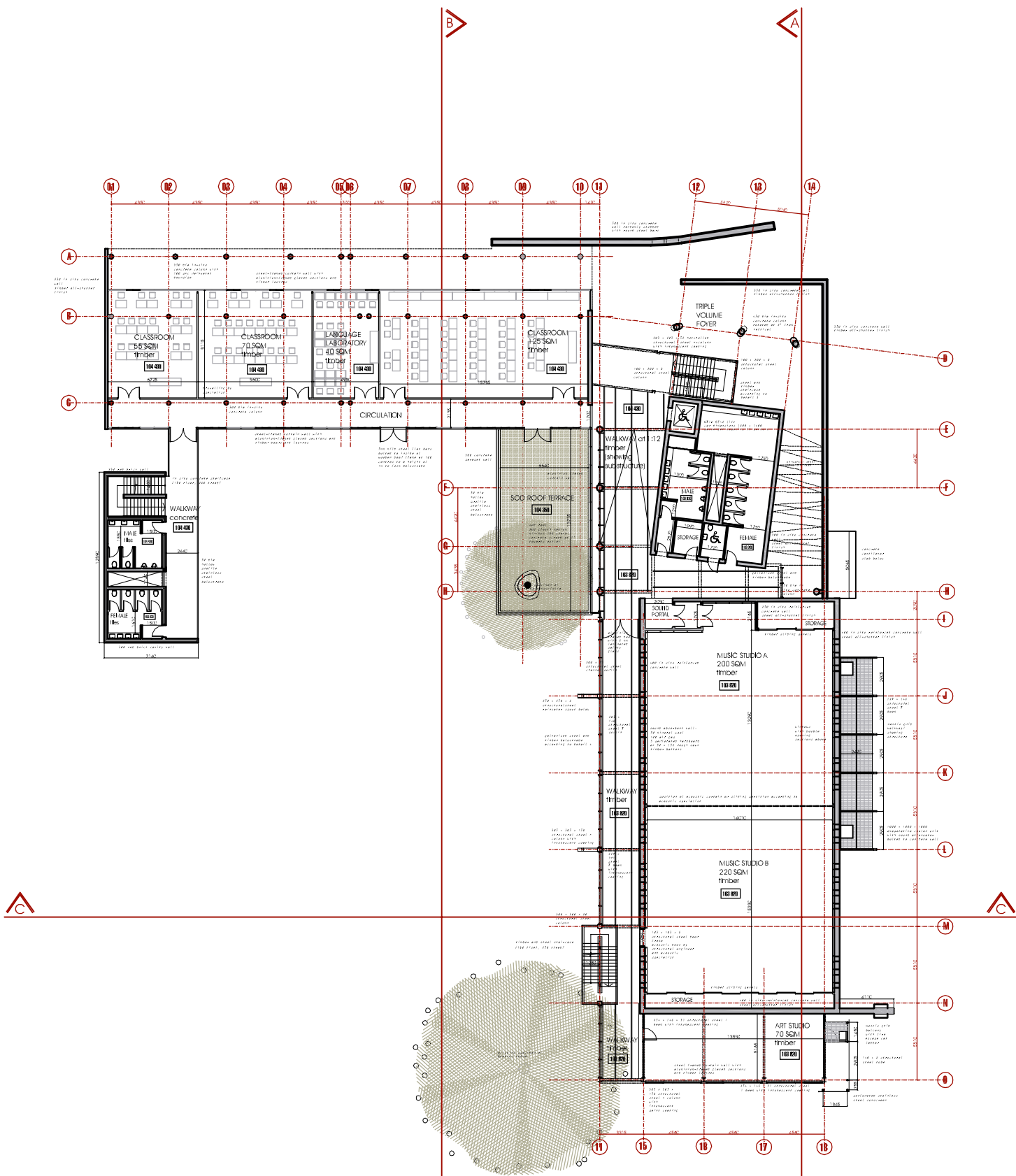
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SMIT STREET





A Cultural Centre for the Foreign Community, Hillbrow

First Floor Plan

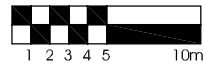


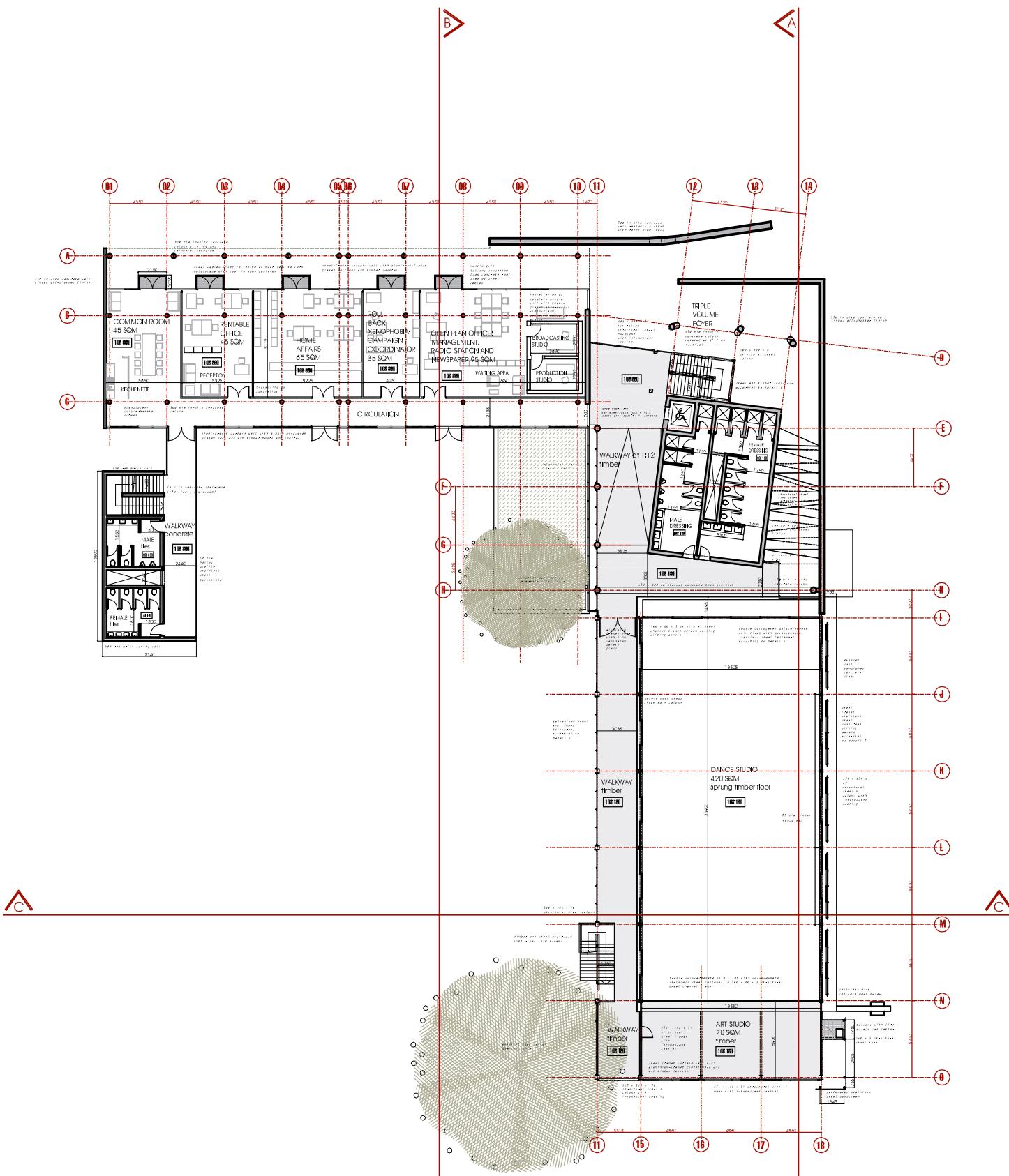
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Second Floor Plan

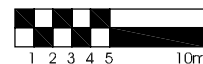


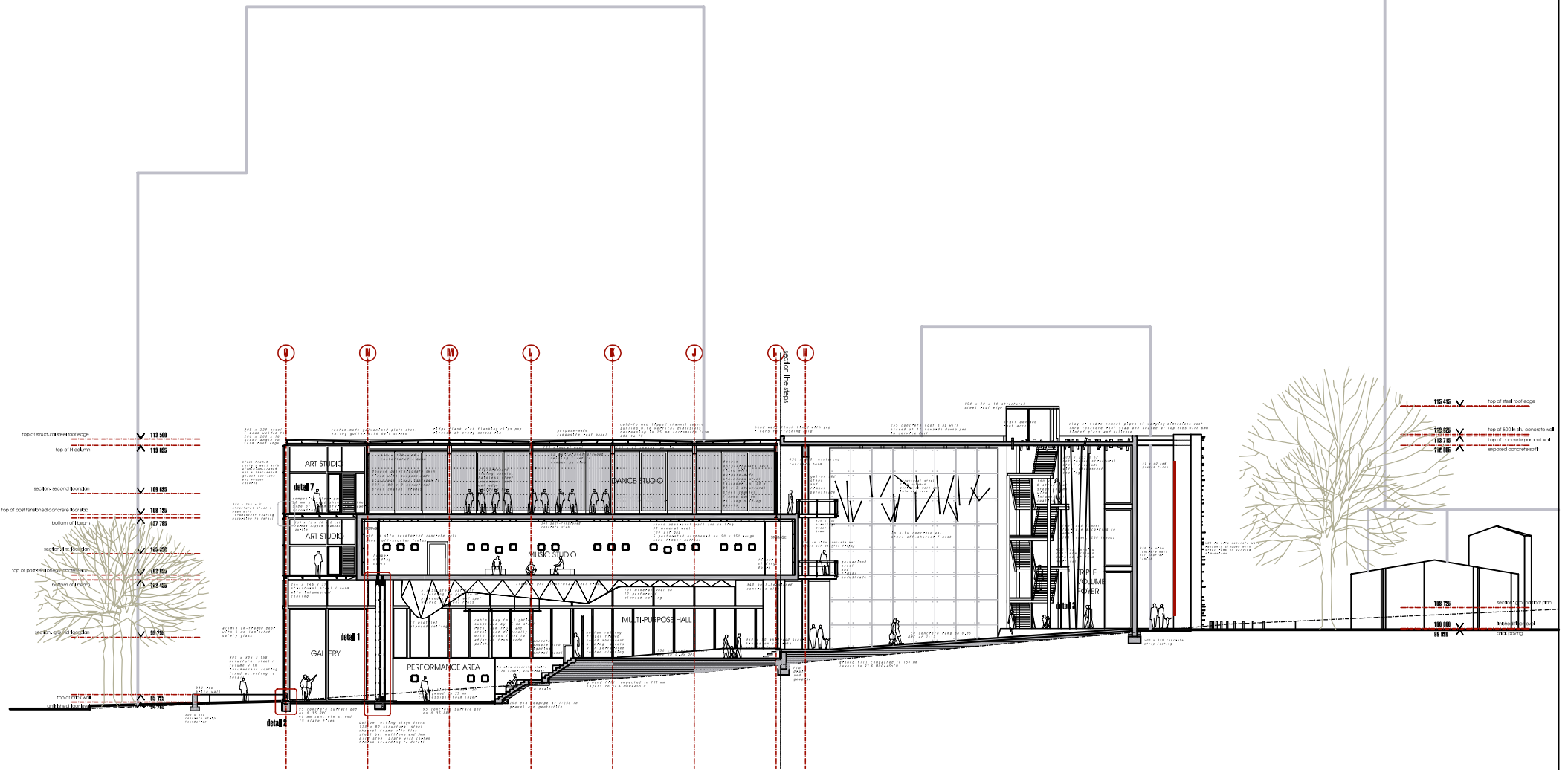
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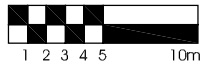
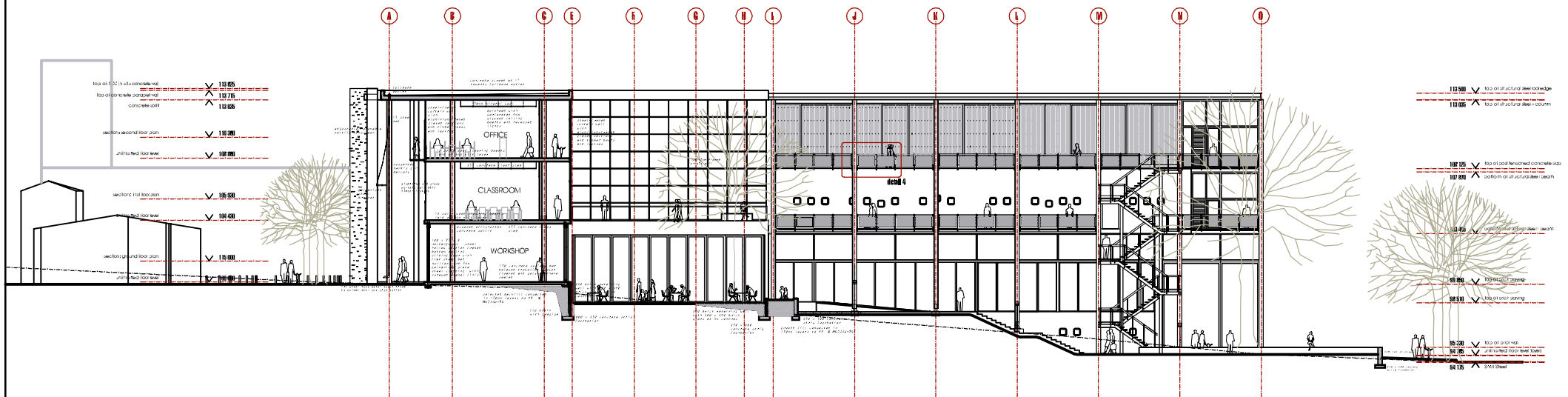
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A Cultural Centre for the Foreign Community, Hillbrow

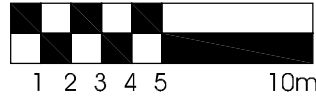
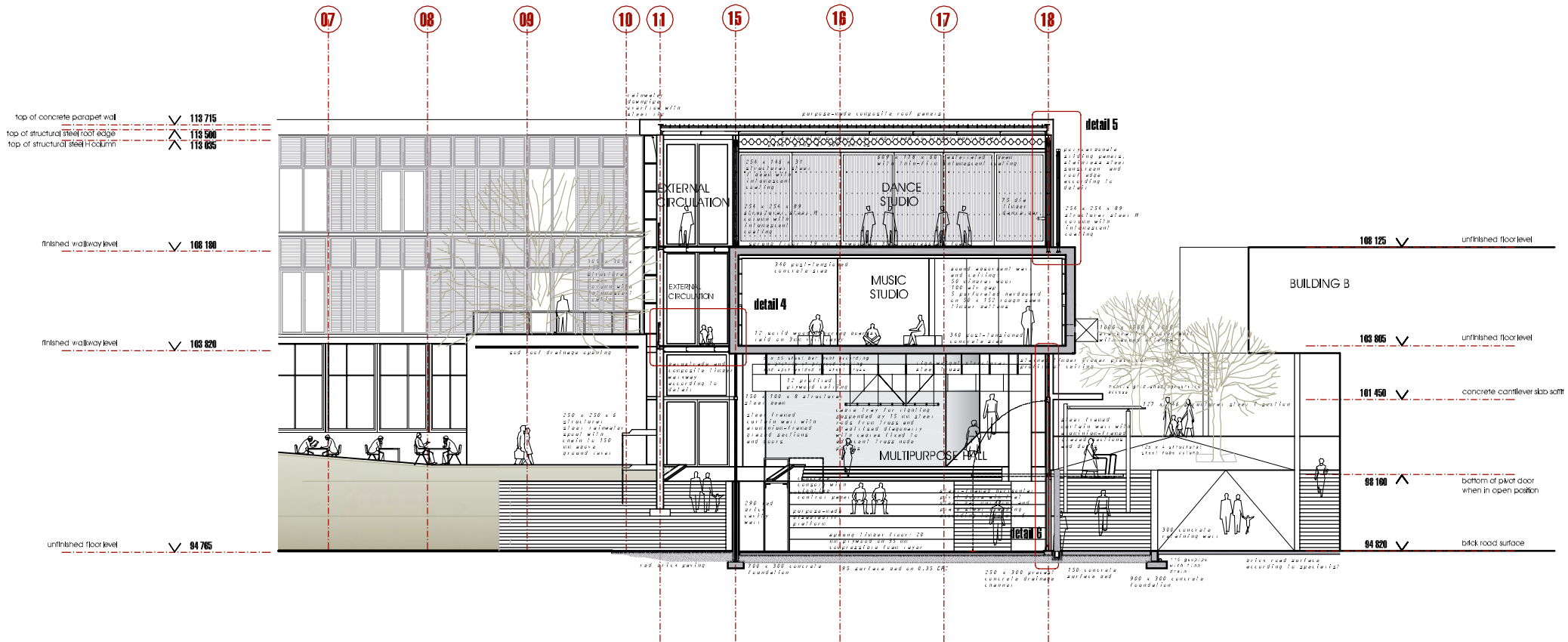
Section A	Scale 1:400	Drawing 7/9
	2004_11_25	Sheet 7/9



A Cultural Centre for the Foreign Community, Hillbrow

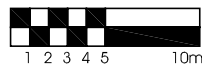
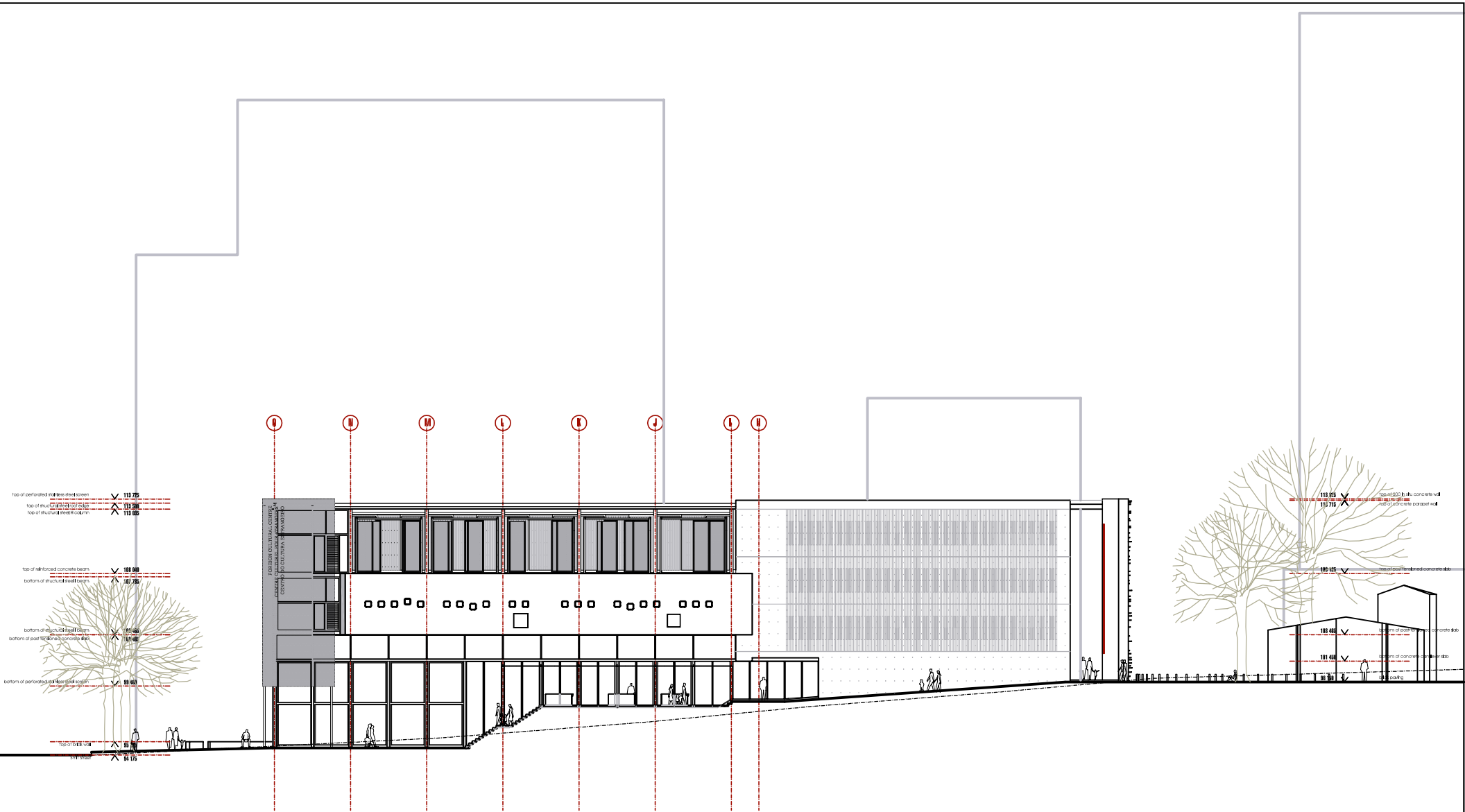
Section B

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A Cultural Centre for the Foreign Community, Hillbrow

Section C	Scale 1:250	Drawing 4/9
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A Cultural Centre for the Foreign Community, Hillbrow

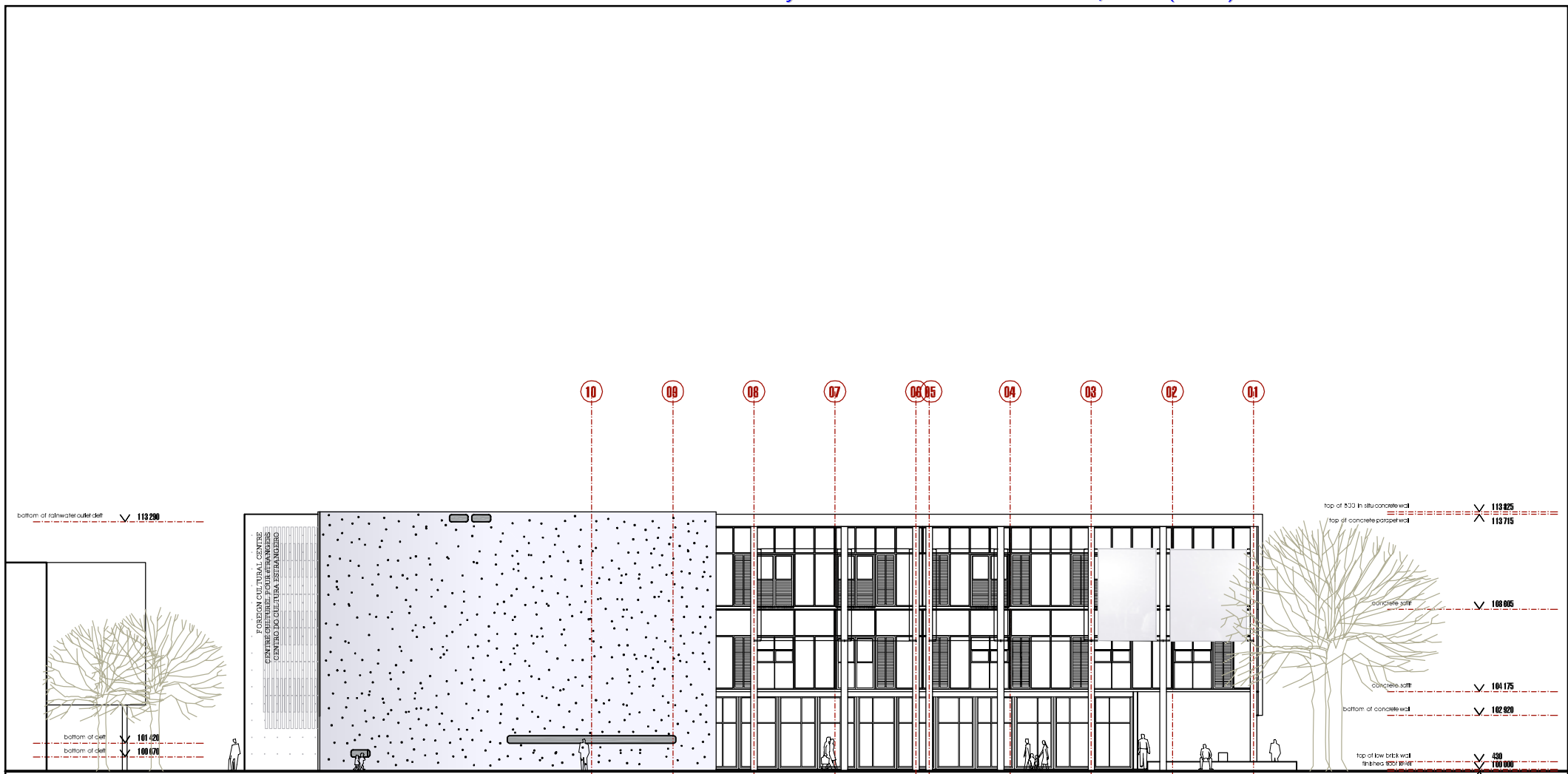
East Elevation

Scale 1:400

Drawing 6/9

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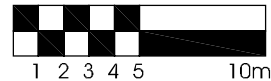
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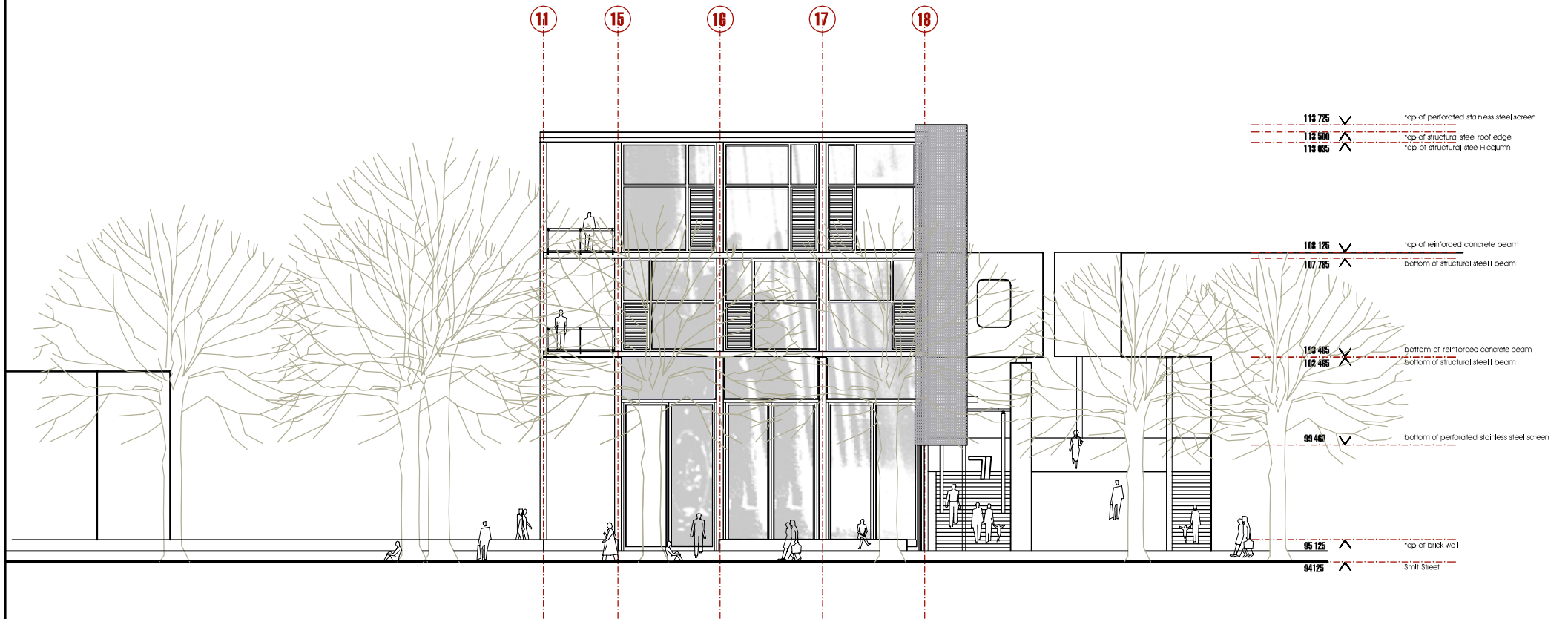


FOREIGN CULTURAL CENTRE
 CENTRO CULTURAL PARA EXTRANJEROS
 CENTRO CULTURAL PARA EXTRANJEROS

A Cultural Centre for the Foreign Community, Hillbrow

North Elevation	Scale 1:300	Drawing 9/9
	2004_11_25	Sheet 9/9





A Cultural Centre for the Foreign Community, Hillbrow

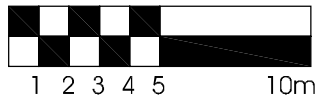
South Elevation

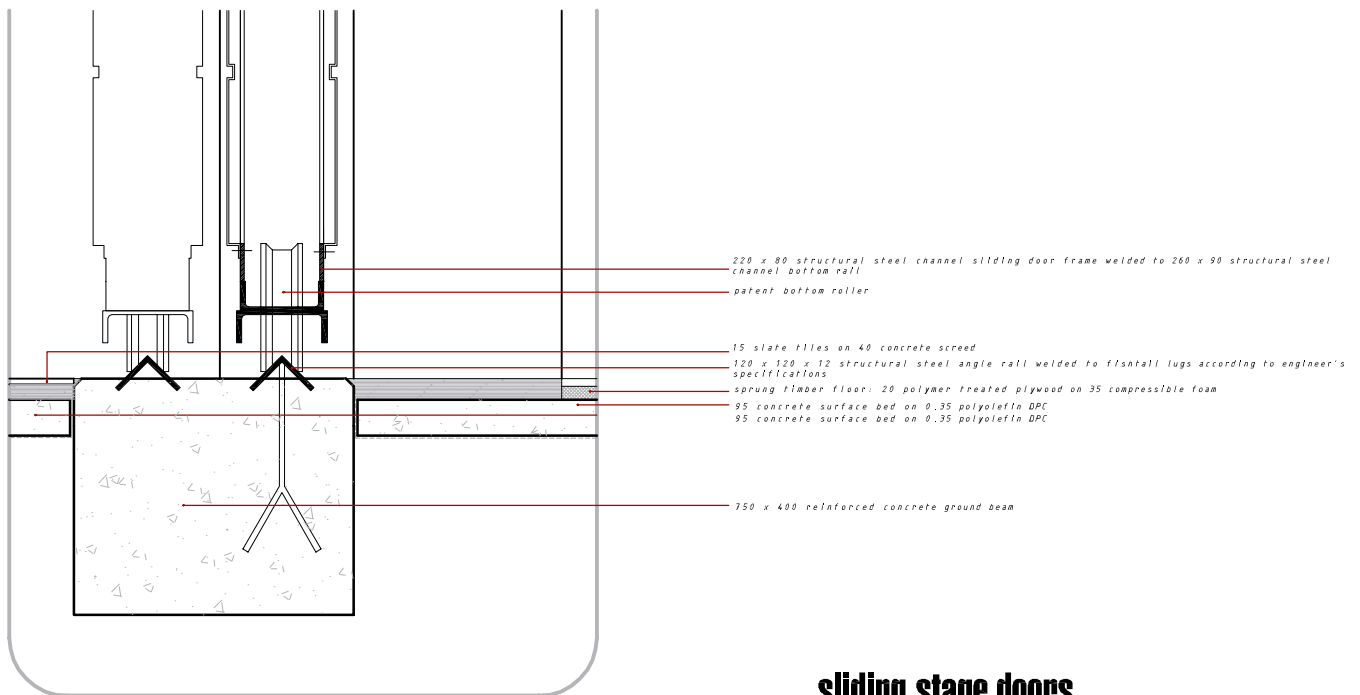
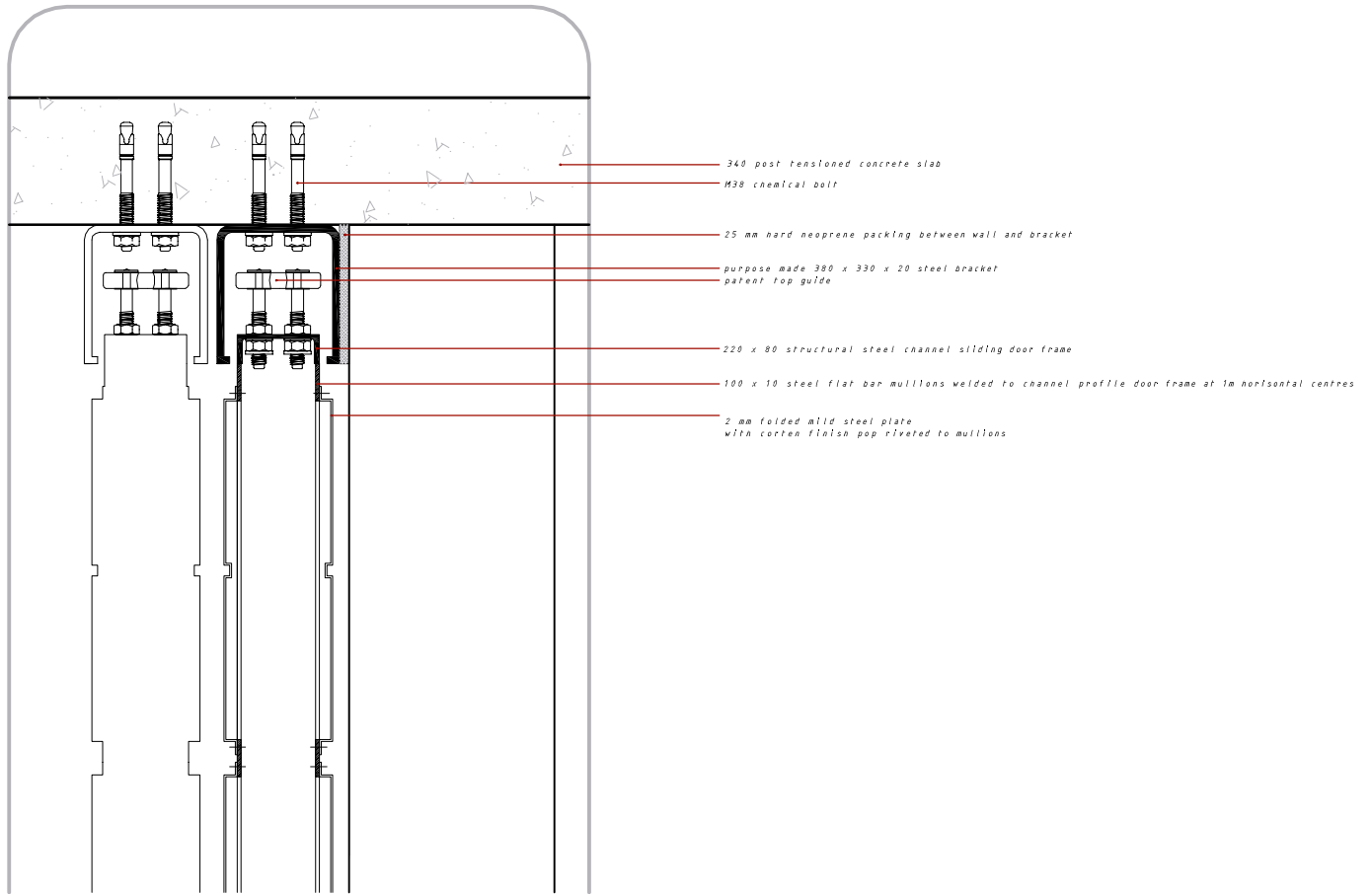
Scale 1:250

Drawing 5/9

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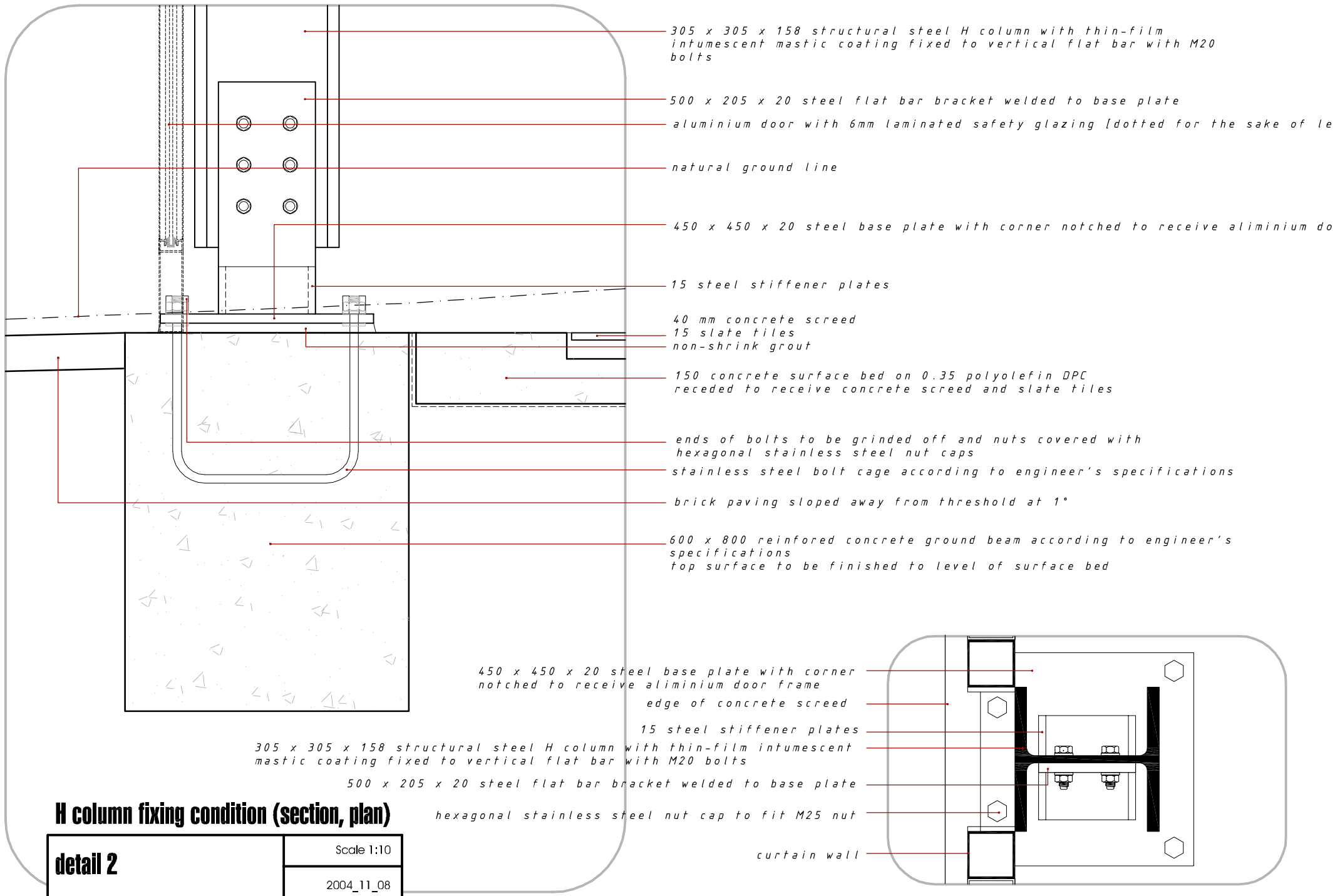


sliding stage doors

detail 1

Scale 1:20

2004_11_08

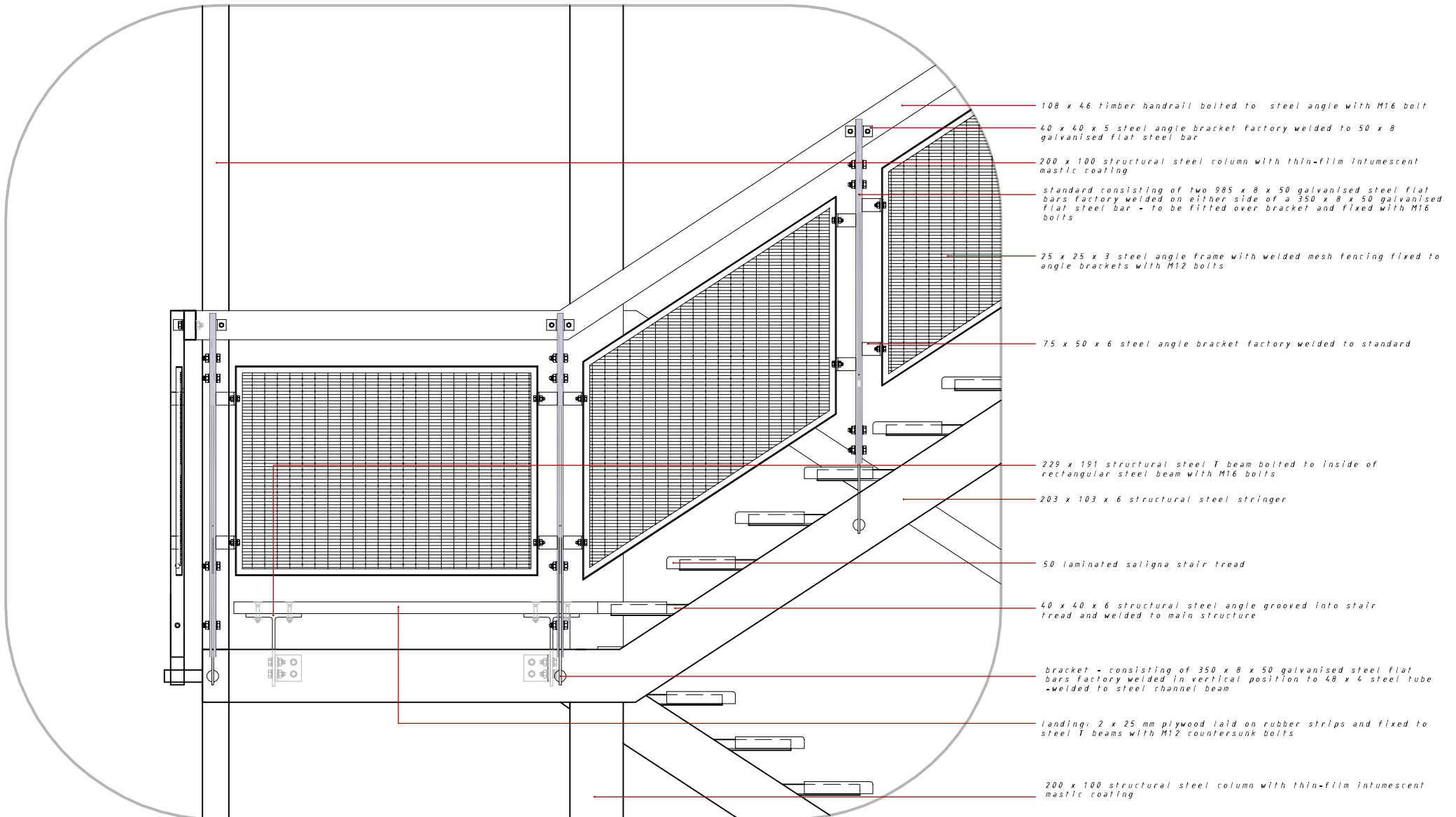


- 305 x 305 x 158 structural steel H column with thin-film intumescent mastic coating fixed to vertical flat bar with M20 bolts
- 500 x 205 x 20 steel flat bar bracket welded to base plate
- aluminium door with 6mm laminated safety glazing [dotted for the sake of le
- natural ground line
- 450 x 450 x 20 steel base plate with corner notched to receive aliminium do
- 15 steel stiffener plates
- 40 mm concrete screed
- 15 slate tiles
- non-shrink grout
- 150 concrete surface bed on 0.35 polyolefin DPC recessed to receive concrete screed and slate tiles
- ends of bolts to be grinded off and nuts covered with hexagonal stainless steel nut caps
- stainless steel bolt cage according to engineer's specifications
- brick paving sloped away from threshold at 1°
- 600 x 800 reinforced concrete ground beam according to engineer's specifications top surface to be finished to level of surface bed

- 450 x 450 x 20 steel base plate with corner notched to receive aliminium door frame edge of concrete screed
- 15 steel stiffener plates
- 305 x 305 x 158 structural steel H column with thin-film intumescent mastic coating fixed to vertical flat bar with M20 bolts
- 500 x 205 x 20 steel flat bar bracket welded to base plate
- hexagonal stainless steel nut cap to fit M25 nut
- curtain wall

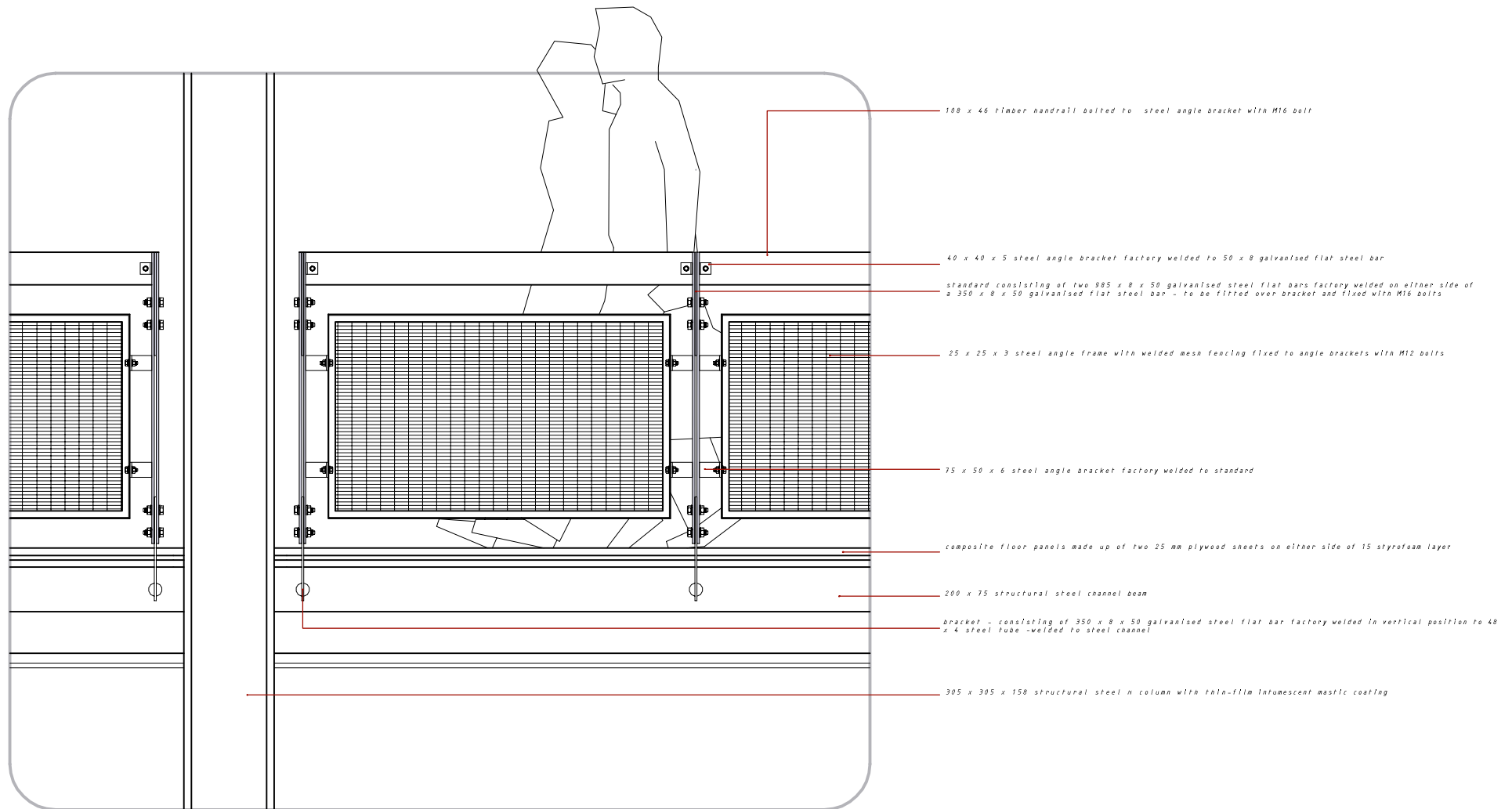
H column fixing condition (section, plan)

detail 2	Scale 1:10
	2004_11_08



steel and timber staircase

detail 3	Scale 1:20
	2004_11_08

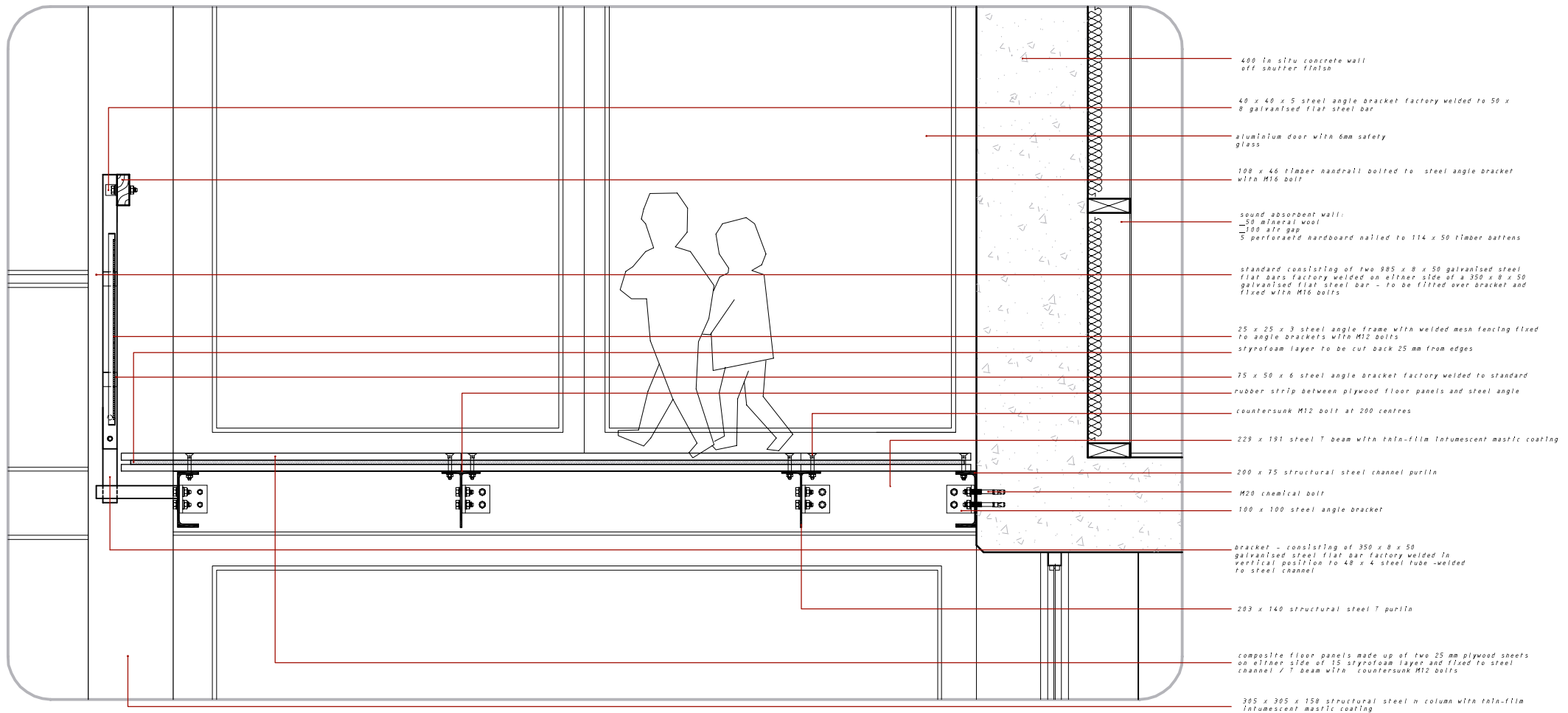


timber walkways and balustrade

detail 4

Scale 1:20

2004_11_08

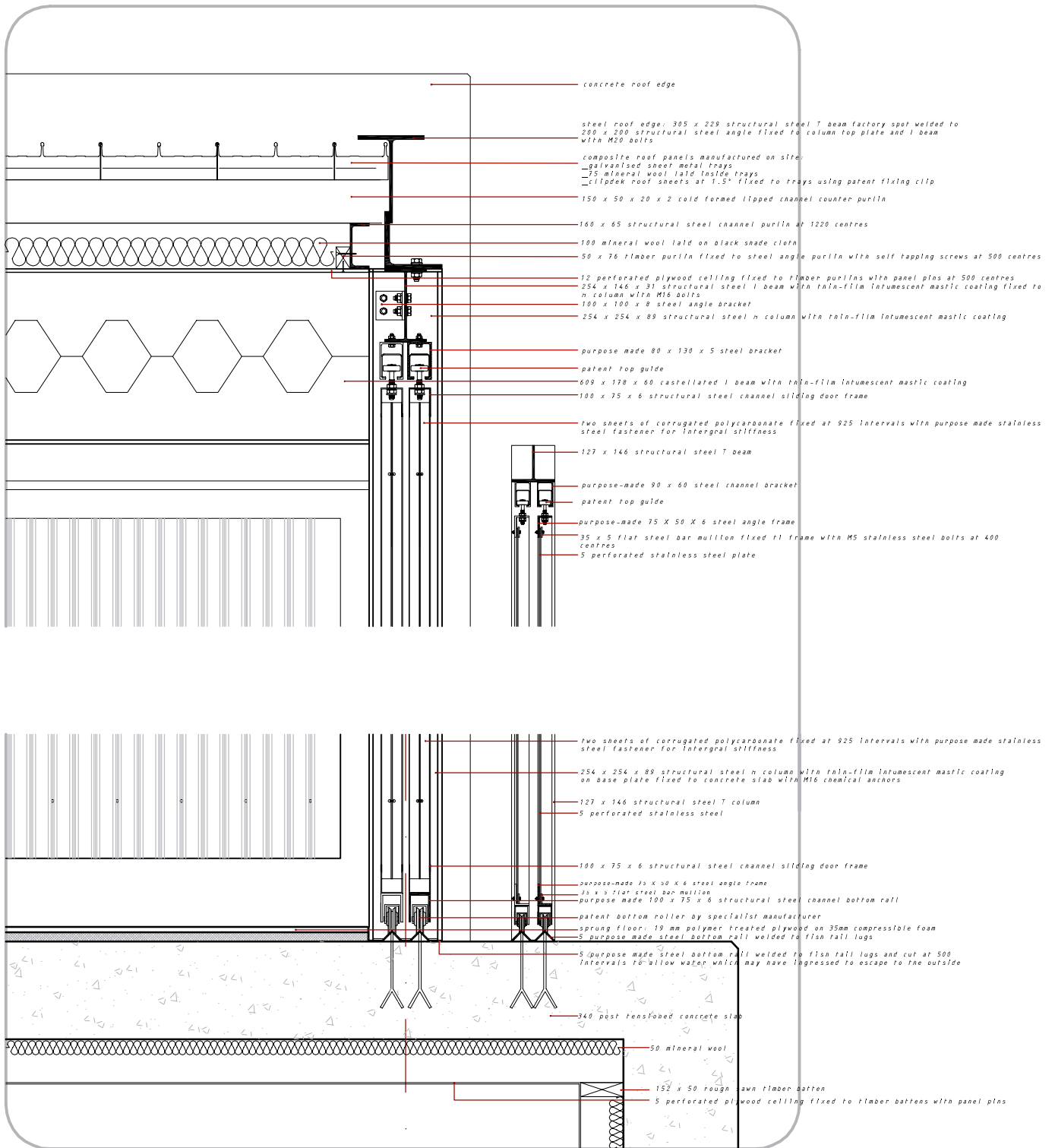


timber walkways and balustrade

detail 4

Scale 1:20

2004_11_08

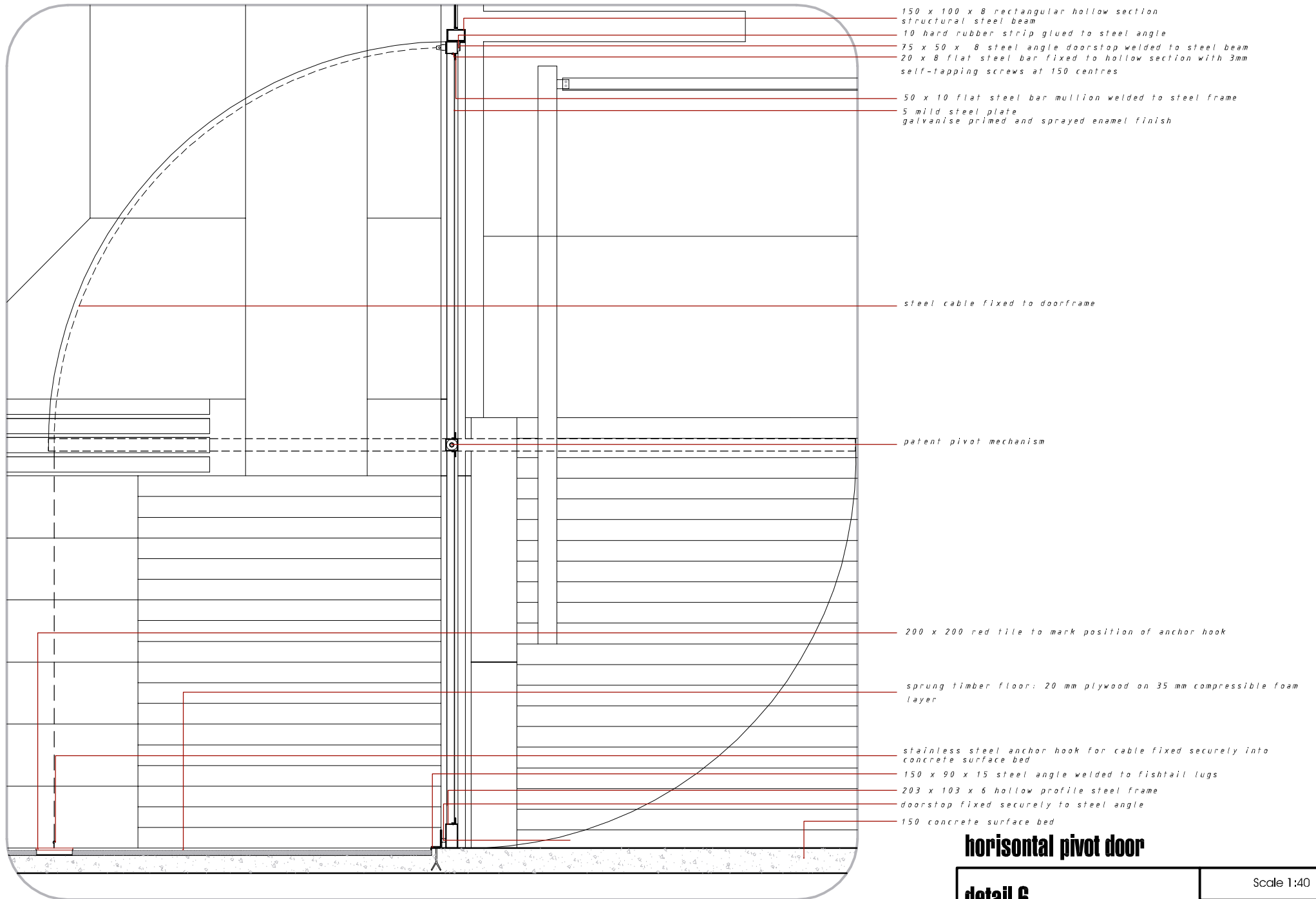


roof edge, polycarbonate sliding panel and sunscreen

detail 5

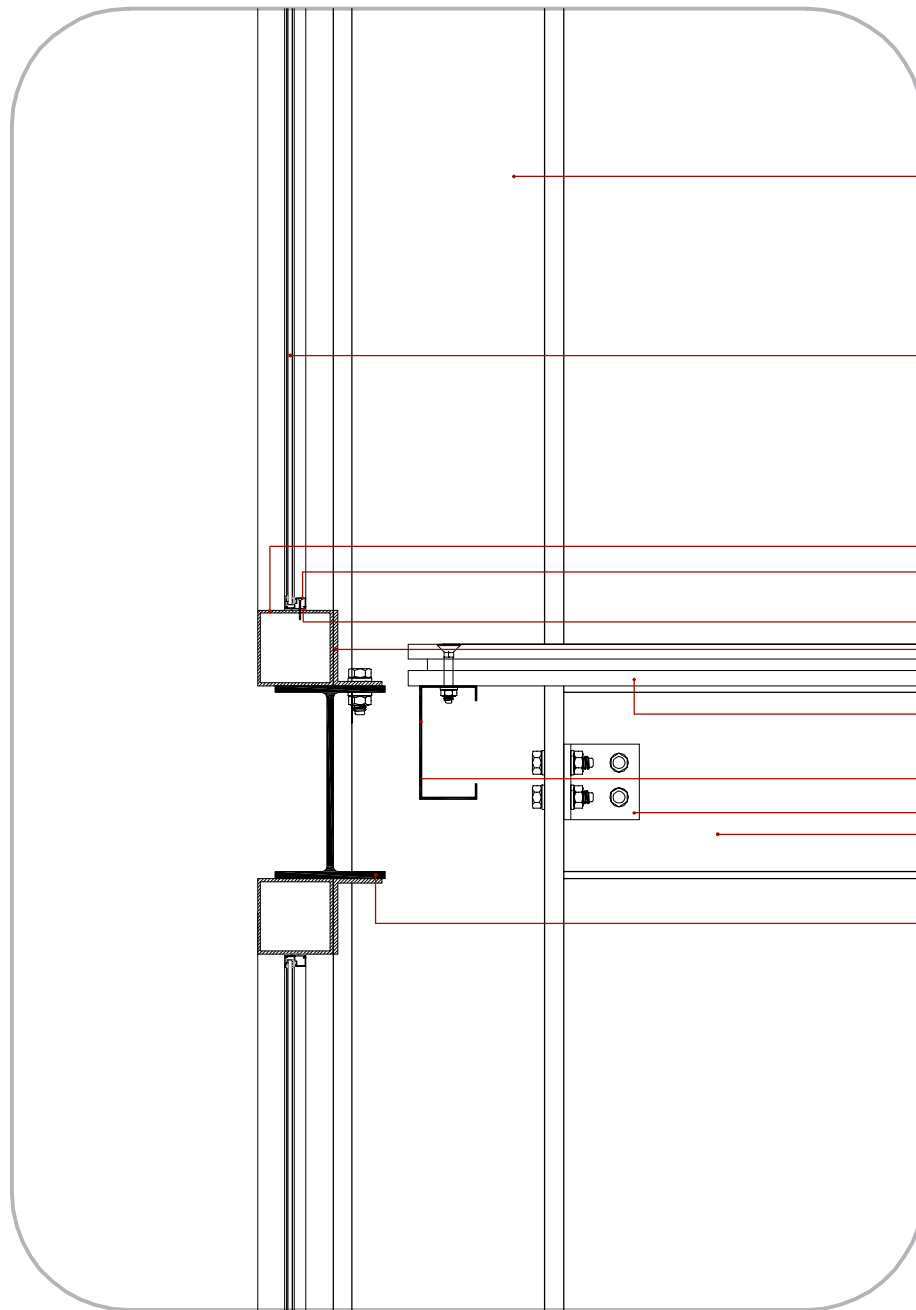
Scale 1:20

2004_11_08



horizontal pivot door

detail 6	Scale 1:40
	2004_11_08



305 x 305 x 158 structural steel H column with intumescent coating

6mm silkscreened laminated safety glass

100 x 100 x 4 hollow section steel frame
aluminium frame with expanded hollow cell polyethelene gaskets fixed to hollow section with self-cutting screws

polyethelene tape

100 x 65 x 6 steel angle bracket factory welded to hollow section frame

composite floor panel:

20 mm plywood sheet countersunk-bolted on either side of 15 mm styrofoam layer and laid on 2mm rubber strip over I beams and purlins

150 x 75 x 20 x 2 cold formed lipped channel purlin welded to H column

100 x 100 x 8 steel angle bracket

254 x 146 x 43 structural steel I beam with thin-film intumescent mastic coating

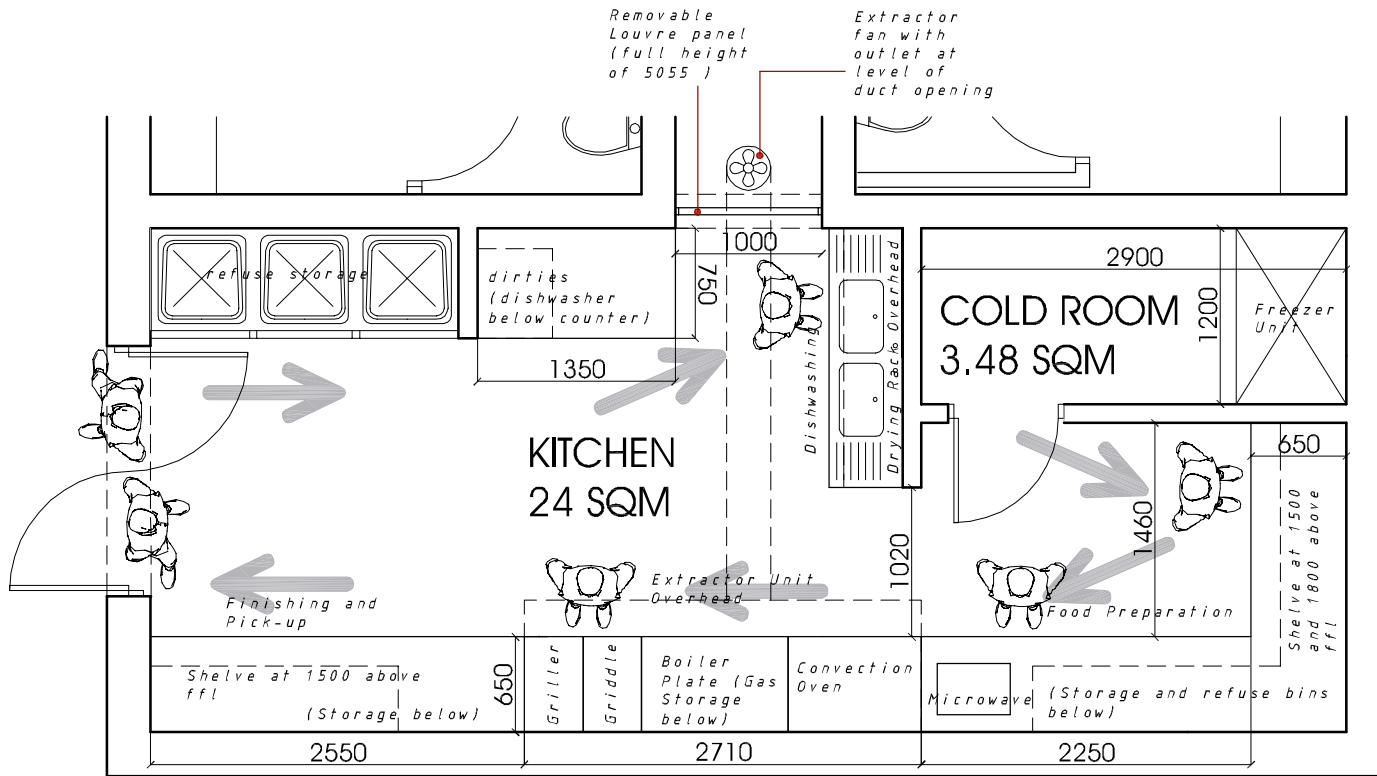
254 x 146 x 43 structural steel I beam with thin-film intumescent mastic coating
top and bottom flange cut to edge of web at meeting with H column

section: curtain wall

detail 7

Scale 1:10

2004_11_08



NOTES

Based on requirements for 75 meals served during main meal period (Lawson 1981)

- _ deep freeze 1,9 cubic m
- _ cold room 2,25 sqm
- _ dishwashing 3 m (650 deep)
- _ dry stores 7,6 m of shelving (450 wide)
- _ griller 0.2 sqm
- _ griddle 0.25 sqm
- _ convection oven 0.135 cubic m
- _ boiling table 0.7 sqm

- _ worktop and sink height_ 900 mm
- _ worktop depth_ 650 mm
- _ refuse to be removed at end of each day through restaurant to refuse storage in exterior service core
- _ deliveries early morning through restaurant, delivery vehicles to use street parking in Hospital Street

Kitchen layout

detail 8	Scale 1:50
	2004_11_08

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addendum b: historical context>>

addendum c: informal>>

addendum d: precedent study>>

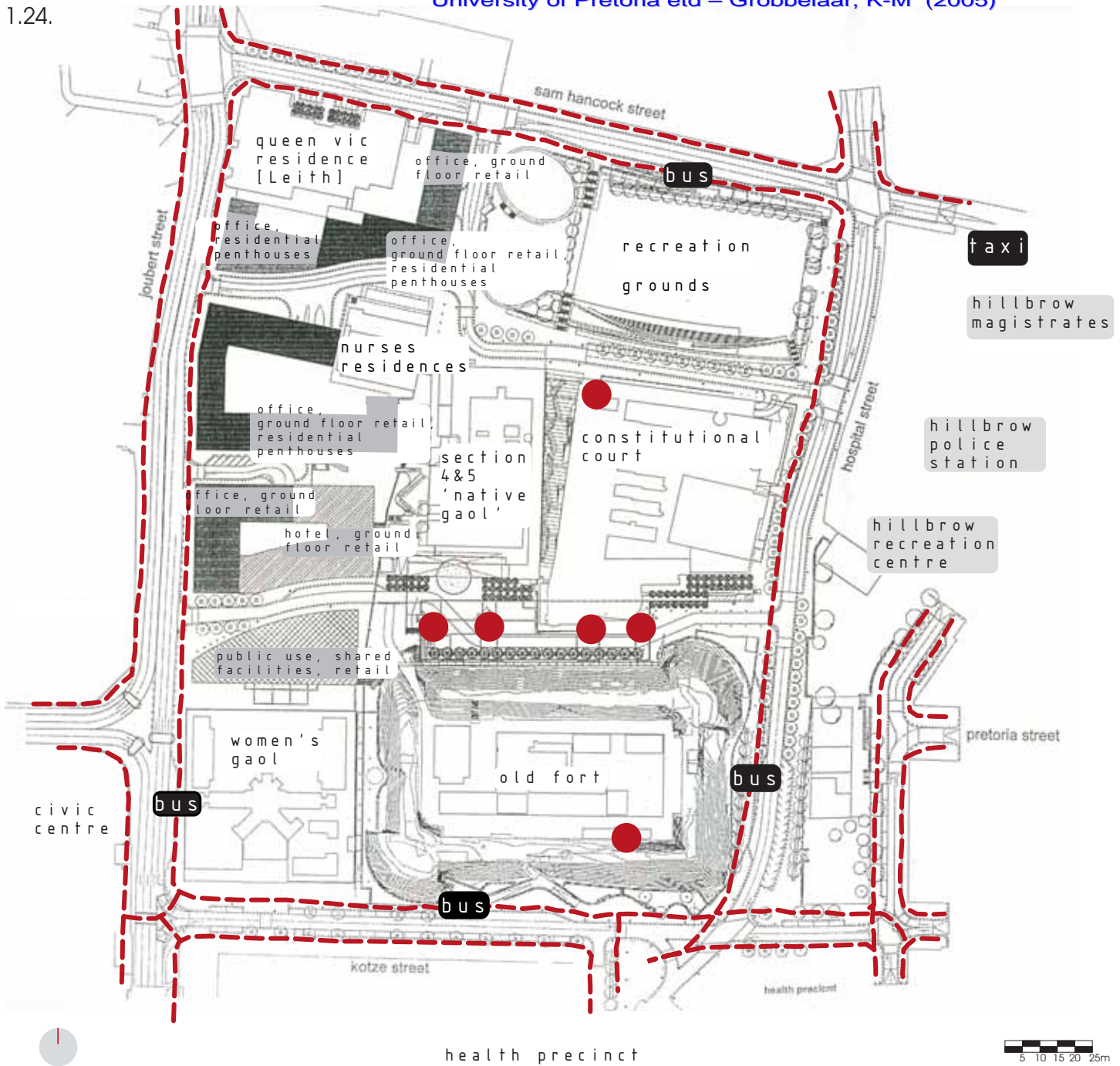
addendum e: accommodation schedule>>

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addendum g: funding>>

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1.24.



The Constitution Hill development (OMM Design Workshop and Urban Solutions) comprises 95,000 square metres of publicly owned land and properties. It hosts important heritage buildings, including Section 4 and 5 - the 'Native Gaol' - the Women's Prison and the Old Fort, which was built to control British Uitlanders and later to incarcerate Boer Rebels, white mine-workers, members of the Ossewa Brandwag and the Treason Trialists of the 1950s, and is the only prison to have held both Mandela and Gandhi. The project will develop the new Constitutional Court; accommodation for the Constitutional Commissions and other related commercial, retail and hospitality activities in 36,000 square metres of commercial space; 1860 basement parking bays; bus and taxi holding and drop-off facilities; upgraded peripheral roads and internal streets; a visitor information and exhibition centre; new museums and related heritage and tourism activities; 200 housing units; community facilities and recreation space (www.jda.org.za).



The development is located between Braamfontein and Hillbrow to the east and Parktown and Westcliff to the north. It has the potential to act as a catalyst for the integration of these highly segregated areas, as well as the upgrading and redevelopment of Hillbrow and Berea. Constitution Hill is fully accessible to the public and provides a variety of public interfaces: the historic rampart to the south, the African steps and Constitution square to the west and and a formal public colonnade to the north of the Constitutional Court. The entrance to the old Fort is located about 400m from the site on the corner of Smit and Hospital Street.



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(COPY)

Hospital Hill,
JOHANNESBURG,
21st November, 1935.

Mrs. E.M. Pemberton,
12, Van der Merwe Street,
Hillbrow,
JOHANNESBURG.

- 2 -

Dear Madam,

We understand that it is the intention of the Johannesburg General Hospital to enlarge the accommodation at the non-European Hospital, at a cost of £30,000, the additions to be carried out on the site at present occupied by the non-European Hospital.

As the owners of property adjacent to the non-European Hospital, we must register an emphatic protest against the extensions contemplated, as we consider that this step will be against the best interests of property owners in this locality.

We would point out that at the time the non-European Hospital was built it was done without the previous knowledge or consent of property owners, who we think would not have countenanced the introduction of such a large non-European population into their district.

The additional accommodation in the Hospital must necessarily increase this population, which is not confined to the patient inmates, but to numerous visitors, a staff of native nurses and orderlies, and a number of native domestics housed in the compound abutting on the Hospital.

Hospital Hill is one of the best residential suburbs in Johannesburg. Residences have always been eagerly sought by first-class tenants, but from the time of the establishment of the non-European Hospital there has been a marked change. This was particularly noticeable after the opening of the native nurses' home, prospective tenants expressing themselves as being averse to living next door to natives.

Hospital Hill is a prohibited area under the Urban Areas Act, yet the Government or Municipality see fit to arrange in such a way that a large number of natives is continually being drawn up here, to the detriment of property owners and the peace of house occupiers, for it is impossible to spend a quiet Sunday or Saturday afternoon in their own homes. We believe we are correct in stating that the vast majority of patients treated at the Hospital, both in and out patients, come from districts situated a good distance from Hospital Hill.

In this connection may we remind you that recently

- a -

a fully equipped hospital was erected in Orlando Native Township, as a gift from Mrs. D.F. Corlett. So far, although this hospital is staffed and ready to give assistance, it has had no patients.

Asking you to interest yourself in this matter, we would reiterate that Hospital Hill is a European residential locality. The properties immediately adjoining the Hospital must of necessity suffer through this additional influx of non-Europeans, and we feel that something should be done to safeguard those in this district who have invested money in properties and who constitute a not unimportant section of the tax-paying community.

We consider that if this matter were brought to the attention of the Town Planning Association they would agree that with the rapid growth of the town the proposed extensions to the Hospital would only serve for a few short years, when consideration would again have to be given to further enlargements, and we submit that arrangements should be made for the removal of the non-European Hospital to some other more fitting district.

In closing we wish to lay stress on the urgency of steps being taken to prevent Hospital Hill from deteriorating into a slum area.

(Signed) M.J. Reynders, 24 Kotze Street

and

55 Others.

JPM/11/35



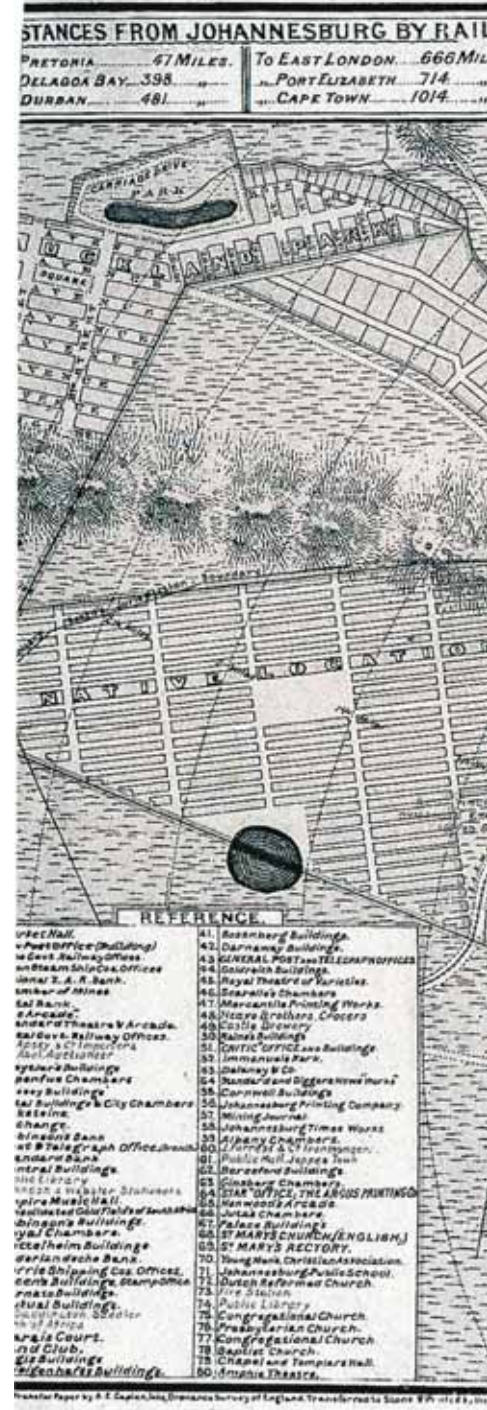
7.2 (a-b). Hospital Hill, 2004.

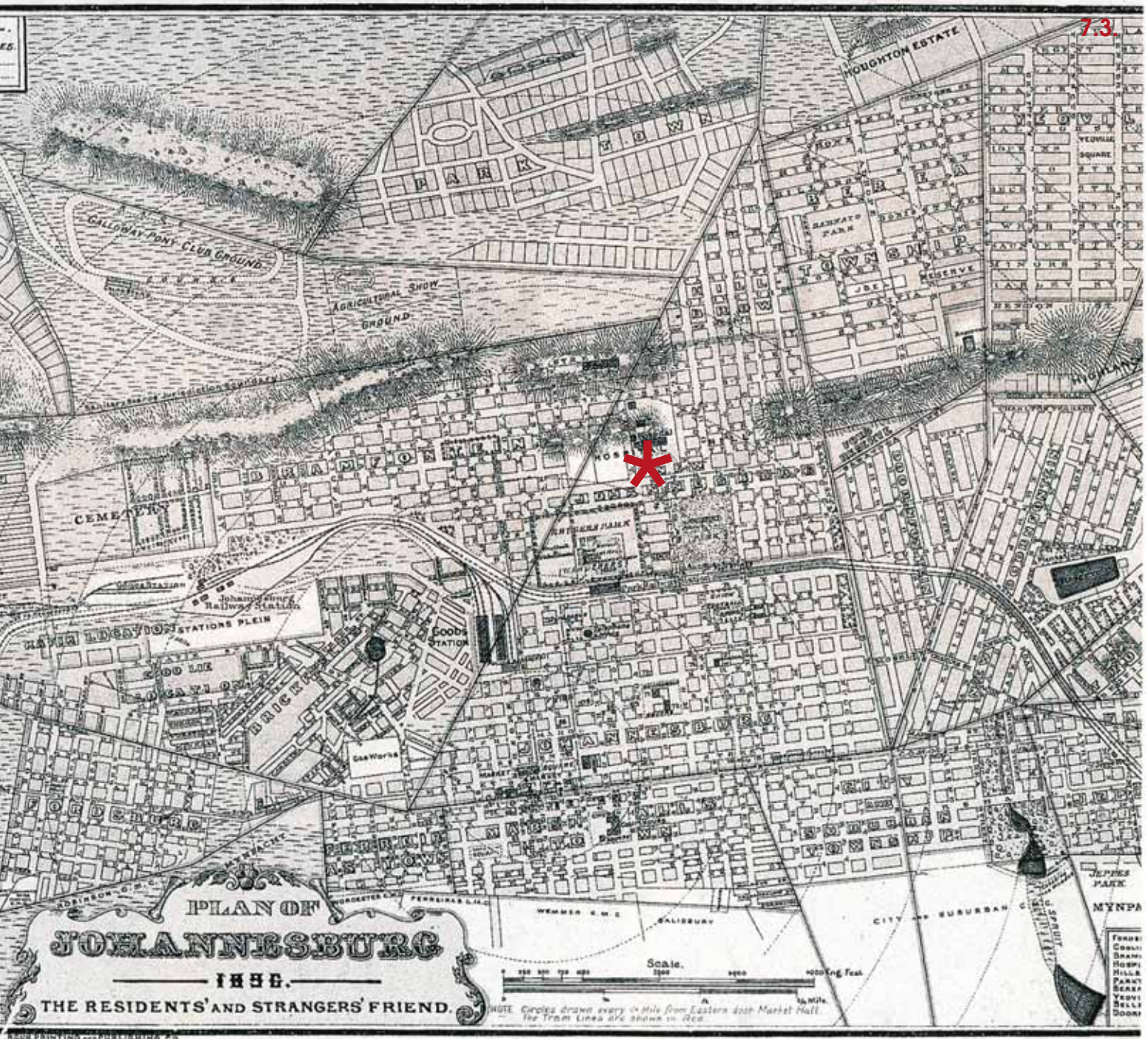
Mining Settlement

Before the discovery of the Witwatersrand gold-fields, the trade routes from the south crossed the Vaal River at the historic drifts. These recognition points in a broad featureless landscape determined the directions of the principal wagon roads leading to the Boer capital at Pretoria. After the discovery of gold in 1886, the main supply route from the mining town at Kimberley to Pretoria was diverted through the encampment at Randjeslaagte. Johannesburg was located on the central *uitvalgrond* - the portions of land remaining between the farms surveyed on horseback by the Trekkers (Holm 1998: 67) - at the crossing point of the north-south trade routes with the east-west gold-bearing conglomerate reef (Chipkin 1993: 7). Unlike the Afrikaner settlement in Pretoria, which developed around the *kerkplaats* with the church as symbolic, functional and visual centre, Johannesburg was shaped by commerce and trade.

Capitalist City

By 1888 the town had been planned into *regular broad streets and into blocks of erven 50 by 100 feet* [15.74 by 31.48 m], *street corner 'stands' being only 50 by 50* (Mathers in Chipkin 1993: 10). These were standardised units of *uitvalgrond* - mere saleable blocks of real estate. The **neutrality and open-endedness of the grid plan** represented a *tabula rasa* for the operation of the market economy and - according to Van der Waal (in Chipkin 1993: 13) - a strategy to produce an orderly democratic society devoid of hierarchical elements except white dominion. President Paul Kruger not permitting his family name to be associated with Johannesburg, the town streets were named unceremoniously after pieces of the Main Reef - Goud Street, Quartz Street, Banket Street, Nugget Street - or after Boer officials - Wolmarans, Eloff and Smit (Chipkin 1993: 10).





—COPYRIGHT—

Within a decade, Johannesburg developed into a *city of a hundred thousand inhabitants, equipped with all the advantages of modern civilisation... Not one but three Johannesburgs were built up in that time. In some streets the strata of the three periods can still be detected. First came ... the corrugated iron stage; next, the age of one or two storey brick buildings; finally, these were again demolished to make room for edifices of which any city might well be proud* (Jeppe in Chipkin 1993: 11).

The layout continued to developed along rational and functional lines, *the area being divided into mining and living areas, which again were subdivided into the land of the living, the land of the dead (cemetery), and beyond that the land of the 'Kaffirs'* (Holm 1998: 68).

It became a city showing *typical traits of our times: functionality and segregation of functional zones... streets as traffic channels; the abandonment of urban form, meaning and hierarchy; withdrawal from civic life and the privatisation of living* (Holm 1998: 72). Yet, *the maddening casualness and makeshift attitudes that emerged at the beginning of its existence have persisted through all the subsequent phases of Johannesburg's development* (Chipkin 1993: 10).

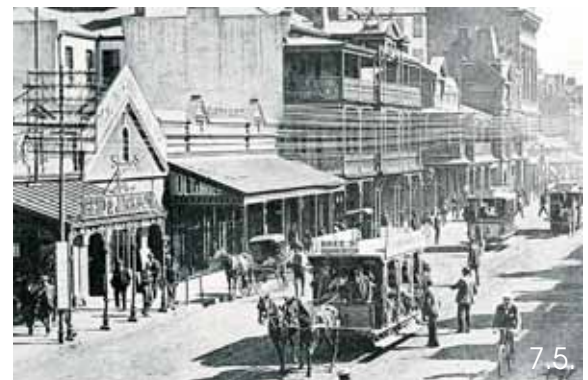
1932 was the Black Year in South Africa's economic history - the year of the rinderpest, Great Drought and world-wide Depression. On 27 December 1932, South



Africa abandoned the gold standard. According to Chipkin (1993: 93), the gold price had rocketed by 45% by 1933 and continued to rise for the rest of the decade; creating a vast inflow of South African liquid - and foreign capital. According to De Kiewiet (in Chipkin 1993: 93) *Johannesburg and the other towns of the Witwatersrand began to rebuild themselves... From the air parts of central Johannesburg began to look like Chicago or Saint Louis...* By the late 1930's Johannesburg's CBD possessed four skyscrapers approaching heights of 60 metres, with high-density blocks of flats springing up on the perimeter of Joubert Park and the tram routes of Hillbrow (Chipkin 1993: 94).

Modernism

Johannesburg, with its rentier culture and expanding technological and academic infrastructure, proved the breeding ground for Modernism in South Africa. Stanley Furner, who took up an appointment at the WITS School of Architecture in 1925, *was instrumental in introducing the ideas of modern architecture to South Africa* (Herbert in Chipkin 1993: 157). Among his students were Rex Martienssen, Gordon McIntosh and Norman Hanson - men who came to constitute the inner core of a group of like-thinking young architects that established direct links with Le Corbusier at atelier 35 rue de Sèvres.



7.4. View of Johannesburg from Hospital Hill in 1889.

7.5. Commissioner Street, looking west c. 1980: the principal east-west thoroughfare with horse-drawn trams, building rubble on the roadway, cyclists, and pedestrians on the pavements under the cast-iron verandas.

Martienssen and McIntosh went on an official university student tour of Europe in 1925. Their first confrontation with modern architecture in Holland was to prove seminal for South African architecture. In 1930, on tour again, the young graduates visited Le Corbusier's houses at Weissenhof *Siedlung* and Mendelssohn's Schocken store. They returned with Le Corbusier's *Oeuvre Complète de 1910-1929* (Chipkin 1993: 161).

In 1932 Martienssen proposed the establishment of an Alpha Club, which would be limited to an inner core of twelve members with Martienssen and McIntosh at the centre and a Beta class of membership for *lesser mortals* (Chipkin 1993: 178). Although a formal club never materialised, a loose group - including McIntosh, Martienssen, Hanson, Fassler, Cooke, Bryer, Howie and Sinclair - met frequently with a *definite unity of approach* (Hanson in Chipkin 1993: 178). Le Corbusier named them *le Groupe Transvaal*. 1933 saw the publication of the *Zerohour* manifesto: *The contemporary spirit is abroad...we should regard ourselves as drawing near to a remote future rather than receding from a historic past - indeed all living art is the history of the future...* (Chipkin 1993: 89).

In December 1933, Martienssen was in Europe again, this time to visit Delphi and, in January 1934, Le Corbusier in Paris. Le Corbusier continued to engage with the activities the Transvaal Group and regularly contributed to the South African Architectural Record, which Martienssen had converted with *modern Bauhaus typography and generous white spaces into a powerful rhetorical vehicle for new ideas* (Chipkin 1993: 164). Johannesburg in the 1930's also saw the reinforced concrete technology becoming the expertise of skilled concrete designers such as A.S. Joffe. And no sooner than Le Corbusier's ideas started taking shape on the Highveld, **the five point plan found its way into Hillbrow.**



7.6. View down Jeppe Street in the mid-1930's.

7.7. Young South African visitors in Le Corbusier's atelier, pasted into Martienssen's copy of the 1973 edition of *Oeuvre Complète 1910-29*.





7.8.

Reading Court (1936-7) - by Hanson, Tomkin and Finkelstein - in its pristine state was a narrow infill-building on a 50-foot frontage between two older buildings. The building is raised on pilotis and has large cantilevered parapet balconies to the expansive verandas, and rectangular concrete grilles with flyscreening and wired glass lower spandrels to the sleeping porches. At street level, a splayed free-plan wall is set back from the columns to create a shaded porch ante-room to the street; while a tapered column and a touch of greenery in a planter box combine to emphasise the entrance (Chipkin 1993: 169-70).



7.9.

Aiton Court (1937-8), again on a 50-foot infill site, is divided into a higher rear block separated by a cortile from a lower street-front block which allows north light into the cortile in winter. A stair - and lift-tower with curved walls links the two components. The lower block is raised nearly a metre above pavement level on *pilotis* to permit natural light into the basement parking below. The *pilotis* rest on a slate-clad podium creating the horizontal plane of the cortile - in accordance with Martienssen's description of the horizontal plane in classical architecture which *by deliberate structural means negates the irregularity of existing topographical conditions* (Chipkin 1993: 172). The area occupied by the front block is recreated on its roof level, complete with solarium.



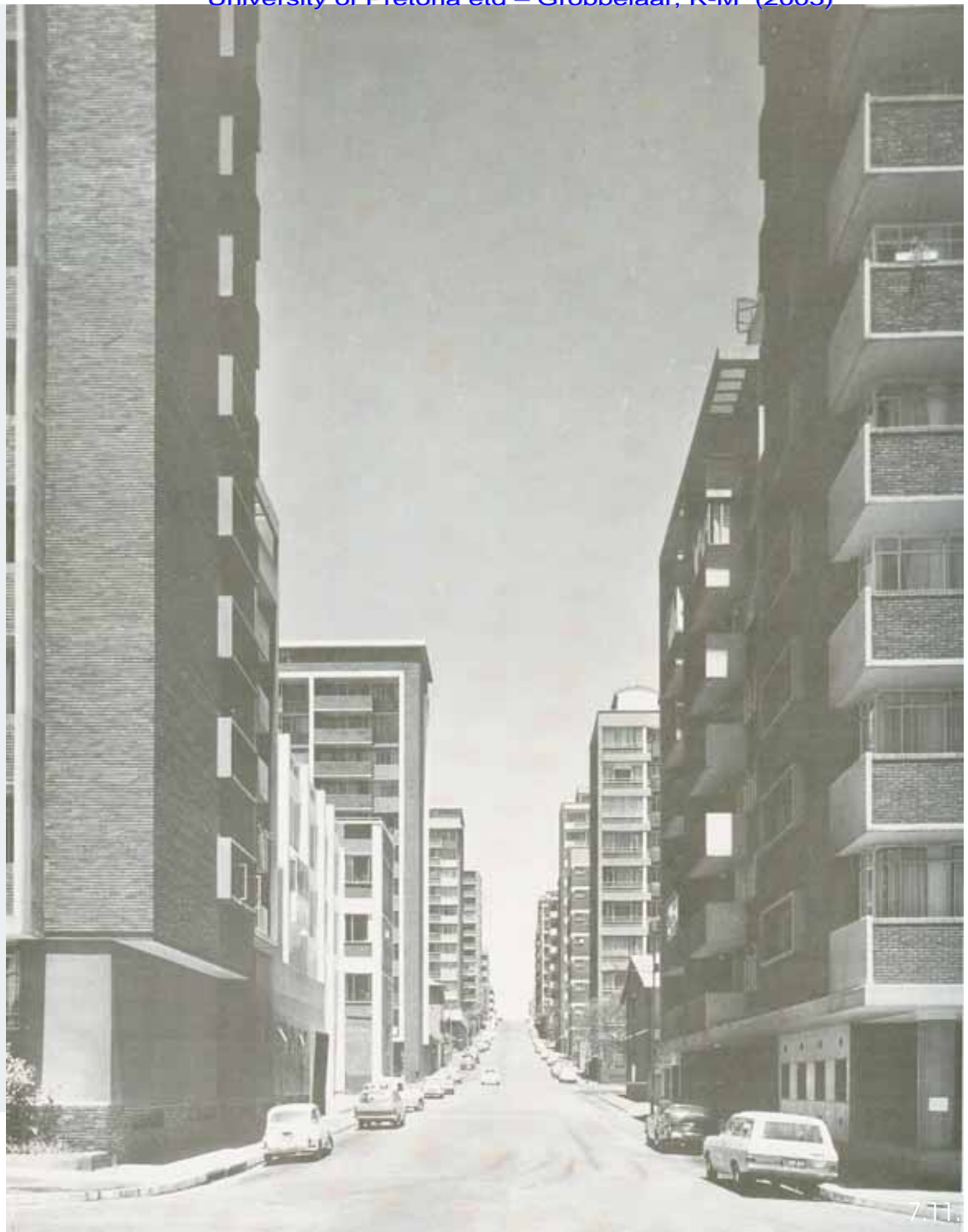
7.10.

In the post-war era, Martienssen's influence continued to pervade the commercial practices in town. Hillbrow and its environs became a vast testing-ground for speculation in building stock. Giant speculative apartment blocks were thrown up in **overcrowded neighbourhoods devoid of public open space and with streets permanently in deep shadow**. Details were raided from the Martienssen House in Greenside and Le Corbusier's *Oeuvre Complète* - creating a remarkably consistent modern vernacular which took

7.8. Reading Court, Hillbrow (1936-7), by Hanson, Tomkin and Finkelstein.

7.9. Aiton Court (1937-8), Pietersen Street, Hospital Hill, by W.R. & A. Stewart and B.S. Cooke.

7.10. Martienssen House (1940), Greenside, photographed in 1955 when it was still occupied by Heather Martienssen.



7.11. Banket Street canyon, Hillbrow, in 1965; looking south from Paul Nel Street.

foreign visitors by surprise (Chipkin 1993: 228).

The consistencies derive from a number of objective factors: the modular size of erven in 50 by 100 Cape feet units; uniformity in the height and bulk requirements of the town-planning scheme; identical accommodation requirements; the use of standard steel windows, later followed by pressed steel door-frames; the use of cheap, maintenance free cladding materials, and the ubiquitous application of facebrick. Ultimately though, the Hillbrow vernacular derived from a *shared ideology and a common pool of modern idiom* (ibid), which included freestanding rounded, cylindrical or kidney-shaped *pilotis* at marbled entrances; large projecting sun-trap balconies; extensive north-facing fenestration with framed inset windows in the facebrick end-walls; beam and column construction in reinforced concrete; and, at rooftop level, the dormitory slums of the black proletariat (ibid.).

The post-war period similarly saw many architects turning to Brazilian Modernity for inspiration (Chipkin 1993: 230). First it was Le Corbusier, now Oscar Niemeyer. Brazilian influences in Johannesburg concentrated in the apartment suburb of Hillbrow (Chipkin 1993: 237). Though the elements of the Hillbrow vernacular were largely in place before the main impact was felt, the Brazilian influence created a certain freedom within the Modernist design idiom (Chipkin 1993: 236). Brazilian attributions include the *brise-soleil* and other elements of visual enrichment, such as street murals, the abstract geometric wall decoration of Santa Barbara in Ockerse Street and the Ndebele spandrel patterns of Brow Hill in Pietersen Street (Chipkin 1993: 237).

In 1951, the Festival of Britain provided another set of influences; this time a packaged image of *instant modernity* (Chipkin 1993: 237) from the exhibition site on London's South Bank. At Von Brandis Heights

University of Pretoria etd – Grobbelaar, K-M (2005)

(1952) on the corner of Twist and Pietersen streets, all three major influences - Martienssen's House, Brazil and the Festival of Britain - meet in a single architectural statement of the 1950's. The building has Le Corbusier-inspired *pilotis*, entrance stonework and rounded shipshape roof forms, Martienssen's framed square inset windows in facebrick infill walling, Brazilian V-shaped end *pilotis*, and decorative zigzag balustrades and thin perforated balcony screens characteristic of the decorative attitude of the Festival of Britain (Chipkin 1993: 238).



7.12.

7.12. Von Brandis Heights (1952), by H.H. Le Roith and Partners. The unsigned perspective is probably by Wim Swaan.

S o p h i a t o w n - H i l l b r o w -
M a r a b a s t a d

Whereas the central business areas of Johannesburg had conspicuously failed to develop a café society, Chipkin (1993: 209) refers to two venues in Hillbrow -

the Florian Café, where refugees from Hitler's Germany had gathered to talk heatedly or ... read newspapers and journals, and Wim Swaan's Coffee House where Chris McGregor and township jazzmen had played in the early 1960s. Hillbrow became known as the 'white Sophiatown'.

Sophiatown, in turn, was the 'little Paris of the Transvaal' (Themba in Chipkin 1993: 210). Though initially laid out as a white township, the siting of municipal sewerage works and refuse dumps in the immediate vicinity of Sophiatown led to the lifting of racial restrictions. By 1913, there were approximately 700 people of all races in Sophiatown. By 1953, the population was thought to be as high as 70 000. Aggrey Klaaste (in Chipkin 1993: 208), editor of the *Sowetan*, described the post-war era as the *literature and art Renaissance days of Drum, Sophiatown [and] township jazz...* Sophiatown was overcrowded, noisy, violent, lacking in privacy; but with a special quality of neighbourliness, *the best musicians, scholars, teachers, writers...* (Chipkin 1993: 218). In the secret shanty booze-joints - reached through narrow dark alleys - a diverse culture of jazz rhythms arose, producing brilliant conversation, a literary journal and a handful of artists and writers, including the likes of Can Themba (Chipkin 1993: 209).

Sophiatown's geographical proximity to Johannesburg's white working-class suburbs and the freehold rights giving homeowners permanent possession - in conflict with Apartheid ideology - proved its downfall. In 1951, the government commenced its strategy to eradicate 'black spots' on the western periphery. In February 1955, removals to Meadowlands began, and by 1960 Sophiatown was *completely cleared of heaps of rubble and reminders of the past, erased from the map, rezoned, rebuilt as a white working class suburb* and renamed Triomf (Chipkin 1993: 218).

Marabastad, Pretoria's oldest location, dating from c. 1880 (Junod in Chipkin 1998: 153), suffered a similar plight. It was situated adjacent to the inner city, only four blocks away from Church Square, but like Sophiatown adjacent to the sewerage works. According to Chipkin (1998: 153-4), a noticeable literate class emerged from Pretoria locations such as Marabastad. Can Themba was born there in 1924 and the writer Jay Naidoo in 1941, and both Mokgatle and Mphalele spent formative years there in the 1930s.

During the 1930's, Marabastad was the centre of the vibrant *marabi* culture described by Koch as the *African slumyard dweller's whole way of life, the class position they adopted, the music they played and the way they danced* (Koch in Friedman 1994: 152). Mphalele (in Chipkin 1998: 154) writes of *reverberating jazz extravaganza...* every night at the Columbia Dance Hall, while just around the block the latest American films were showing at the Star Picture Palace (Chipkin 1998: 154). Friedman (1994: 148-9) describes *a cultural milieu of shebeens, dance parties and tea meetings with spirited music*, within an environment otherwise ridden by overcrowding, unemployment, crime and prostitution.

Marabastad also provided a centre for political activity. By the late 1930s, its proximity to the white areas had sparked agitation for its removal under the pretext of slum eradication. Removals to Atteridgeville and Laudium began under the Smuts government, until in the 1950s the whole location was declared a white area under the Group Areas Act (Holm 1998: 155).

The 'white Sophiatown' survived eradication precisely because of its white status, and today provides a cultural setting rather similar to that of the erstwhile Sophiatown and Marabastad. To romanticise the cultural worlds of Marabastad and Sophiatown is to forget the conditions of oppression and extreme poverty within which they developed. Essop Patel (in Chipkin 1993: 210) explains that *the creative and artistic impulse in a fragmented society often comes from the ghetto rather than from the affluent strata of society...*

Though it has to be considered that the particularly dynamic quality of the cultural activity of the erstwhile Sophiatown and Marabastad and Hillbrow can at least partially be ascribed to the illicit nature of such activity, Hillbrow's slum conditions may yet prove a prolific breeding ground for creative endeavours.



7.13.

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Cecil Balmond, engineer for Ove Arup, has cooperated with Koolhaas on the Kunsthal (Rotterdam 1992), Congrexpo (Lille 1994) and the Maison de Floriac (Bordeaux 1998); with Alvaro Siza on the Portuguese Pavilions for Expo 1998 (Lisbon) and Expo 2000 (Hanover); with Daniel Libeskind on the Imperial War Museum (Manchester 2001) and the Victoria and Albert Museum (London 2005), and with Ben van Berkel on the Arnhem Exchange (2003).

In his publication titled *Informal*, Balmond (2002) presents a series of ideas on the 'informal' as an approach to structural design within the current scientific paradigm of complexity and non-linear dynamics.

From ancient Egyptian and Chinese times to the present, space and structure have traditionally been understood in terms of Platonic solids and regular grids within Cartesian space to produce expressions of a formal, rational order. Most of the natural world; however, shows non-linear organisation characterised by patterns that are fractal and dynamic. Feedback produces slight variations or sudden jumps in organisational forms. Nobel laureate and scientist Philip Anderson said 'more is different' - denoting the phenomenon of emergence, whereby the addition of mass, energy or info to a system causes the system to reach a critical point and allow a new pattern of organisation to emerge spontaneously (Jencks 2002: 7).

According to Jencks (2002: 8), the problem of old patterns, and particularly formal ones, *is not that they are ugly but unchallenging*.

Order is endorsed as the safe fortress. But it misses the point: that the nature of reality is chance and that 'order' may only be a small, local, steady state of a much larger random (Balmond 2002: 115).

Balmond (2002: 14) reconsiders structure as reduction and regulation - *necessary evils out of a Cartesian logic* - and proposes instead of line - surface; instead of equi-support - scatter; instead of fixed centre - a moving locus, and instead of points - zones. His work has common characteristics: *in each case the intervention that influences the design is a local forcing move, or a juxtaposition that stresses rhythm, or two or more events mixing to yield hybrid natures*. Effects are multiplied by extension or overlapping to produce surprising and ambiguous answers that rely on interdependence rather than traditional hierarchy.

According to Balmond (2002:72), *a considered unique path of structure is often more valid than the unquestioned assumption of a distributed solution, subdivided equally through a cross section or plan... Dedication to the limited language of high-tech mast and cable, or subservience to orthogonal post and beam, needs questioning. Such configurations say explicitly: 'I am machine. I am reduced skeleton.' Better to claim: 'I am the thread propelling a story' and have structure as a generating path, rather than lay an unthinking grid map of columns and beams over the subdivision of space*.

manifesto

Berlin June 1995

The *informal* is opportunistic, an approach to design that seizes local moment and makes something of it.

Ignoring preconception or formal layering and repetitive rhythm, the *informal* keeps one guessing. **Ideas are not based on principles of rigid hierarchy but on an intense exploration of the immediate.**

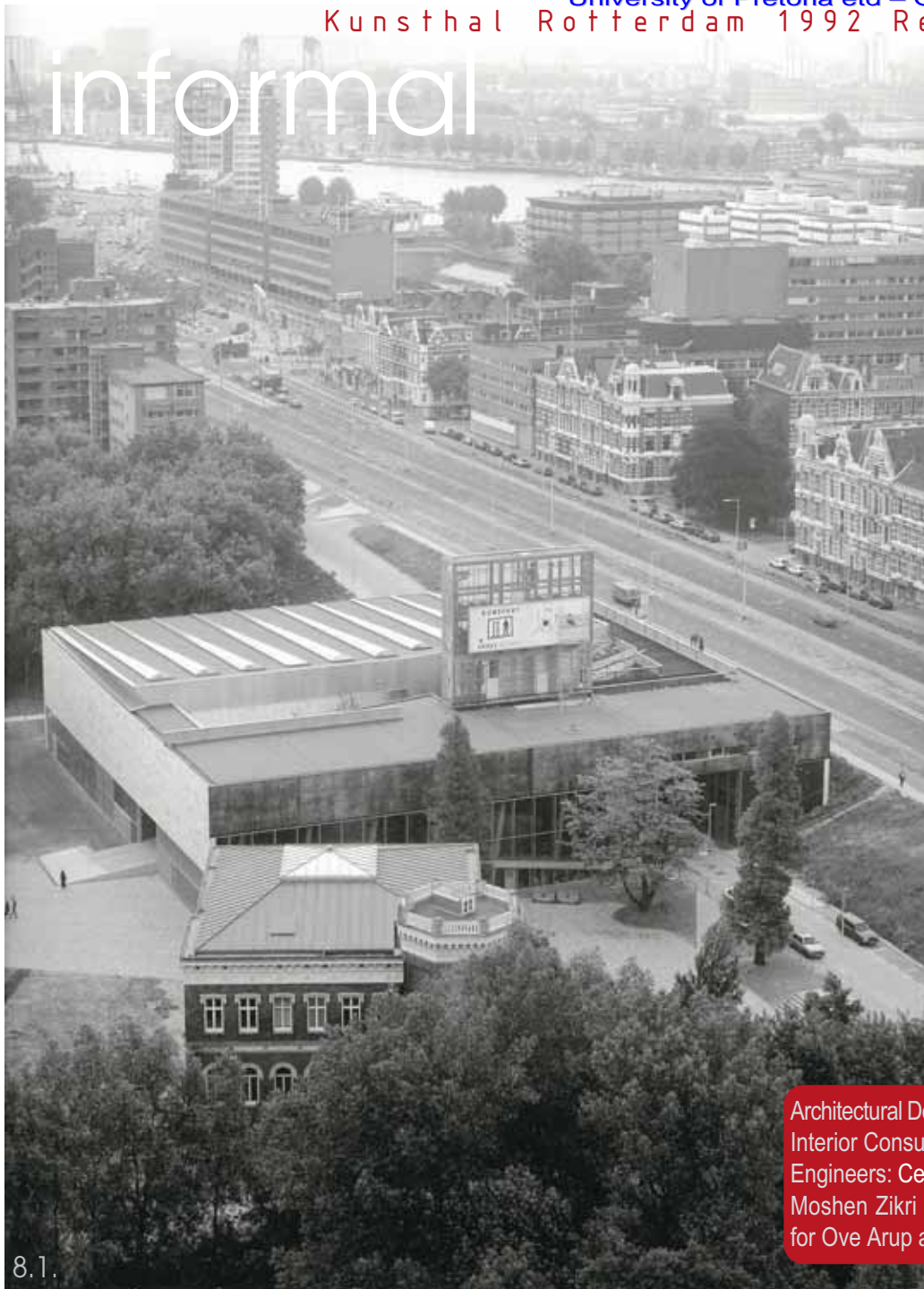
The more subtle approach is to seek the notion that chaos is a mix of several states of order. What is an improvisation is in fact a kernel of stability, which in turn sets sequences that reach equilibrium. Several equilibriums coexist. **Simultaneity matters, not hierarchy.**

It is not an ad hocism, which is collage, but a methodology of evolving start points that, by emergence, creates its own series of orders.

When we attempt to trap chaos and convert it to our preconceptions, **Order! becomes an enormous effort.** We try to eliminate fault or error. We try hard but the effort turns to dullness and the heavy Formal.

The *informal* has three principal characteristics: local, hybrid and juxtaposition. They are active ingredients of an animate geometry that embraces the linear and non-linear. Both Cartesian and post Einsteinian geometry are encompassed by it. **The *informal* gives rise to ambiguity. This means interpretation and experiment as a natural course of events.**

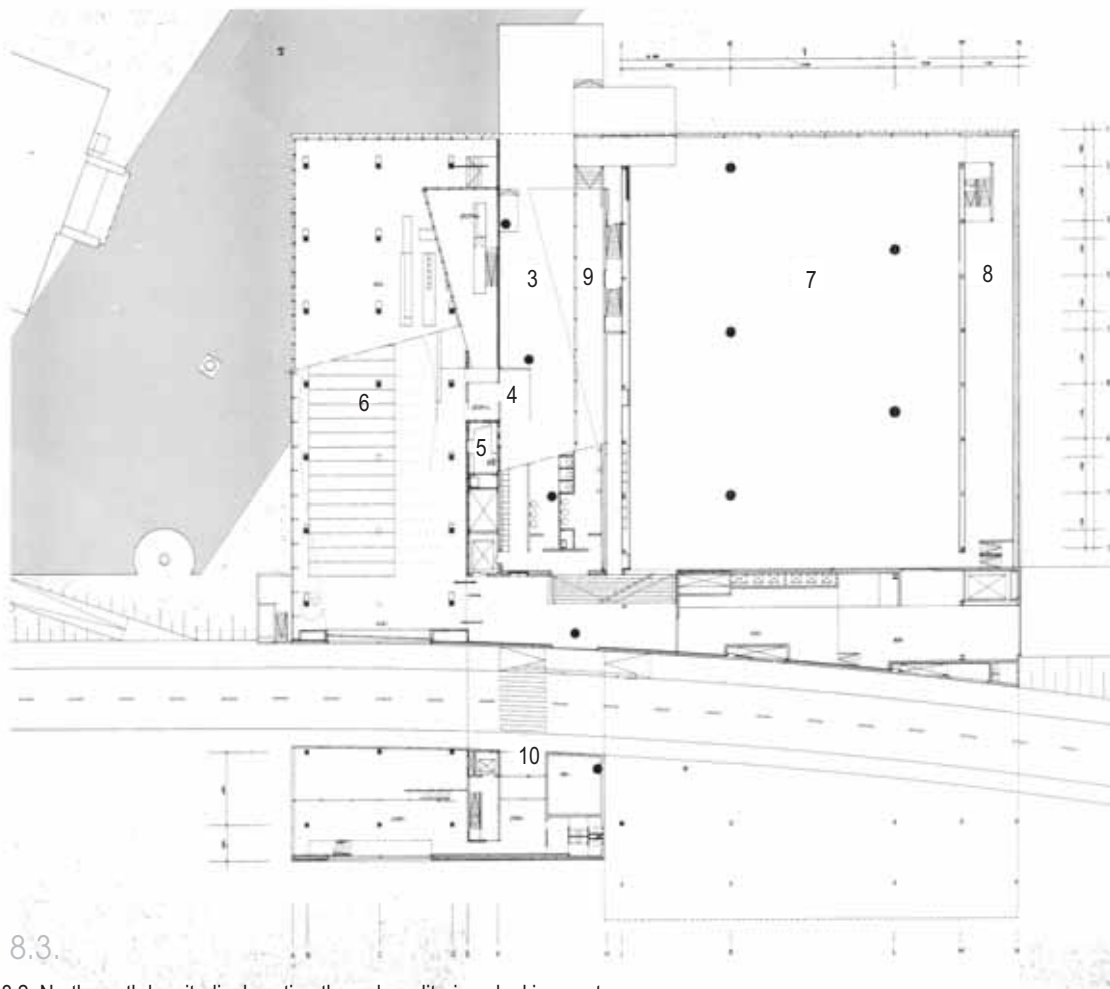
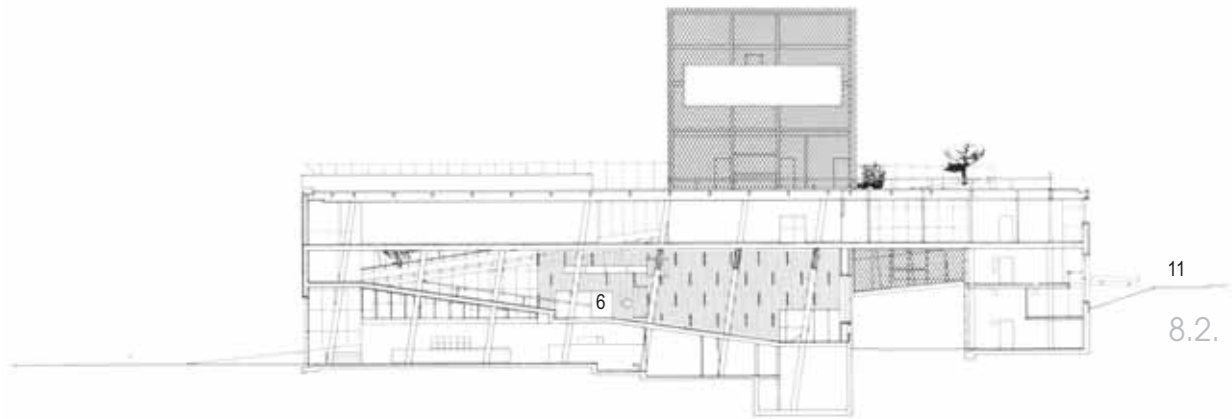
informal



Architectural Design: Rem Koolhaas, Fuminori Hoshino
Interior Consultant: Petra Blaisse
Engineers: Cecil Balmond, Mirvat Bulbul (structural);
Moshen Zikri (mechanical), Mike Booth (electrical)
for Ove Arup and Partners.

8.1.

3. Ramp outside.
4. Main entrance.
5. ticket Office.
6. Entrance Hall.
7. Hall 1.
8. Lower gallery.
9. Ramp inside.
10. Staff entrance.



8.3.

8.2. North-south longitudinal section through auditorium, looking east.
8.3. Interior cross road level plan.

I investigate Balmond's approach in the Kunsthall, Rotterdam (Rem Koolhaas/OMA 1992). The program demanded three major exhibition spaces - to be used jointly or separately - an auditorium, and an independently accessible restaurant. The Southern edge is bordered by the Maasboulevard, a highway on top of a dike, while the northern side faces the Museum Park. The building was conceived as a square crossed by two routes: a road running east-west, parallel to the Maasboulevard, and a public ramp extending to the north-south axis of the park. The crossings divide the square into four parts. The concept is a continuous circuit - a sequence of contradictory experiences in a continuous spiral comprised of four separate squares.

The pedestrian ramp is split with a glass wall, separating the outside - a public space - from the inside - which forms part of the circuit. A second ramp, running parallel and reversed, is terraced to accommodate an auditorium, and beneath it the restaurant. On the level where the two ramps cross, the main entrance is defined. From there the visitor enters a second ramp which goes down to the park level and up to the dike level. Approaching the first hall, one confronts a stairway and an obstructed view which is gradually revealed - a landscape of tree-columns with a backdrop of greenery framed. From there the visitor follows the inner ramp leading to hall 2, a wide skylit space facing the boulevard. A third ramp along a roof garden leads to a more intimate single-height hall and further on to the roof terrace.



8.4.



8.5.

Hall 1 of Kunsthal was initially conceived as a symmetric and four-square partitioning of space and column support; creating an inner enclosure surrounded by an outer promenade. Then one row of columns was allowed to slip past the other - a small syncopation that undid the containment to allow each column to become an independent and timber-clad entity within a single unified space that travels through an end glass wall to melt into the park outside (Balmond 2002: 76-79).

At the Kunsthal's street entrance, three columns are juxtaposed: one square in concrete, one a steel I section, one a castellated I section. The configuration arises due to separate roof loads being supported directly and not ironed out in hidden transfer structures to give a single point of support (Balmond 2002: 82).

There is no pretence of neatness; instead: animation, a slight disturbance, an off-beat pulse.



8.6. Ramp with auditorium above, restaurant below.
8.7. Entrance.

About the ramp, Balmond (2002: 101) writes:

A ramp is a luxury. It travels through time, collecting moments of arrival and departure, its line through space touching all parts and mixing adjacencies. By nature it is an open vessel that defies containment...

Columns are placed obliquely to the ramp's line of travel to provide release and a continuous mode of instability. The resultant overturning force is countered by the inclined slab of the ramp and lecture theatre to produce a self-sustaining network of bending and direct forces. Short stiff and long flexible elements are juxtaposed above and below the sloping plane (Balmond 2002: 80-1). On ground level, the ramp columns impede the journey, forcing visitors to dodge them and meet changing perspectives.



8.8.

The informal steps in easily, a sudden twist or turn, a branching, and the unexpected happens - the edge of chance shows its face.

Delight, surprise, ambiguity are typical responses; ideas clash in the informal and strange juxtapositions take place. Overlaps occur. Instead of regular, formally controlled measures, there are varying rhythms and wayward pulses.

Uniformity is broken and balance is interrupted. The demand for Order! in the regimental sense is ignored: the big picture is something else.

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Warwick Junction is comprised of Berea Road Rail Station, Victoria Street Bus Terminus, taxi ranks and numerous formal and informal markets; bisected by urban freeways and the N3 Eliat Viaduct overhead, and now accommodates two-thirds of all informal traders in the inner city. Recently formalised facilities include the Hazrath Badsha Peer Shelter on Brook Street (Kooblal and Steyn); the Herb Traders' Stalls on the vestiges of the Victoria Street on - and off-ramps (OMM Design Workshop); the Market Road Bridge, gateway and connecting bridge to the on- and off-ramps; the Traders' Stalls on the Leopold Street Pedestrian bridge (Langa Makhanya & Associates); a facility in Warwick Avenue for cooking bovine heads, and facilities in Lorne Street for cooking mealies and selling beads and pinafores. Warwick Junction provides an outlet for around 8000 traders and their suppliers in the rural hinterland.

Formalised facilities were superimposed on existing informal patterns of economic activity, either in-situ or, in the Herb Traders' stalls' case, at a higher level to relieve pressure on ground level circulation areas - but always with respect for the existing networks of organisation. Warwick Junction reminds of Lagos and probably represents the South African extreme as regards the occupation of interstitial spaces by the informal economy. Not surprisingly, annual turnover is estimated at between R750 million and R1 billion (Dobson 2001: 6). A comparison with the annual turnover of the Pavilion shopping Mall - around R1,2 billion - provides an indication of the essential role the informal sector plays in Durban's economy.



9.1.

interstices



9.2.



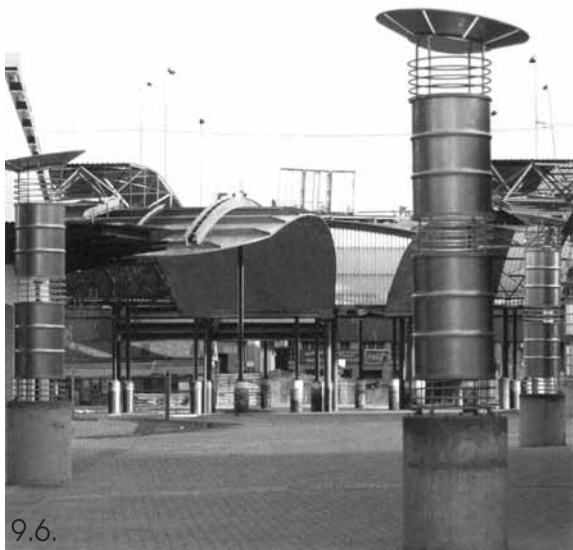
9.3.

9.1. Herb Traders' Stalls: OMM Design Workshop.

9.2. Traders' Stalls on Leopold Street Pedestrian Bridge: Langa Makhanya & Associates.

9.3. Herb Traders' Stalls: OMM Design Workshop.

The **Faraday Precinct** (Albonico and Sack with MMA Architects), situated along the Eloff Street extension in the south-eastern sector of the Johannesburg CBD, has been identified as one of the city's major multi-modal transport and informal trading hubs. An established multi-market has existed under the elevated M1 motorway for 10 years.



Old industrial buildings and sheds were refurbished to accommodate the centre management and trading and consulting activities of traditional healers. Other market buildings were designed to *recreate street conditions under cover* (Albonico and Sack 2004: 32) and to be flexible in terms of future changes in use. A distinctly internalised zone, disguised by an edge of conventional retail spaces, provides privacy and discretion for traditional healing activities. The 'recreated streets' are reasonably well used and fill with busloads of buyers sporadically, especially at month ends. Activity along the streets surrounding the Faraday Precinct is severely low; however. Retail spaces along the original street edge with more private traditional healing facilities behind them could have provided similar accommodation while contributing activity to the external streets.

The new taxi rank is a large permeable covered area. It is noteworthy that taxis continue to rank under the motorway and draw informal traders towards them, while the new rank stands empty and unused. It seems that **taxi drivers prefer the cooler, 'unintended' spaces beneath the M1 to the new formalised facilities, and a question is raised as to the futility of providing new facilities when existing interstitial and unplanned spaces can suffice.**

The **Metro Mall Development** (Urban Solutions) has been identified as a catalytic project to link Braamfontein in the north and the Newtown Cultural Precinct in the south. It provides ranking facilities for 25 buses and 2000 taxis; trading facilities for 800 traders and retailers, and facilities for management, storage and ablution. Formal roller-shuttered, lock-up cubicles are located along Bree Street, which is most used by pedestrians; while stalls with concrete counters are located along internal circulation streets used by commuters to access the taxi-loading areas. A number of fully-serviced outlets are provided to accommodate hairdressing salons, fast-food services and the like.

The development completes the street grid to enable continuity of movement and stitch together the surrounding urban fabric. Traders are located along external and internal street edges to ensure adequate exposure of traders to customers without having to 'recreate street conditions' or redirect pedestrian movement. Furthermore, the street is acknowledged as a public space and provided with active edges. The enormous success of the development can be ascribed to its designers having **identified localised patterns of use and designed facilities** - in situ - around such patterns, rather than expecting existing networks to move and adapt to imposed patterns of organisation.

The designers avoided the stereotype ephemeral ranking structure and designed a decidedly permanent building which dominates the streetscape and presents itself with a sense of pride and arrival; **with a deep interior and a series of defensible spaces to create a definite sense of ownership.**

The Metro Mall represents to the new African City what the station represents to the traditional European city. Murals, mosaics and other artworks by thirty South African artists add to the distinctly African character of the development.

9.7. Metro Mall, Johannesburg.

9.8. Sculpture: Bree Street.



The **Rockey Street Market** in Yeoville (Urban Solutions), was opened in 1999 to provide formalised facilities for informal traders then occupying the site between Rockey - and Hunter Street. It is comprised of roofed market spaces around a number of courtyards, with a number of separate trading cubicles along the side streets and in the food courtyard, and a pay-on-entry bathhouse. The perimeter is entirely permeable and provided with a covered walkway providing shade to traders and customers alike. The market is bisected by a covered walkway connecting Rockey Street with Hunter Street. Management is stationed in an office next to the bathhouse. The monthly rent for a covered trading space is around R200.

Perimeter traders have a definite advantage over traders occupying the centre of the market, especially considering that no incentive is provided to draw passers-by into the central areas. Traders obviously favour the perimeter, while the central 'destination' areas are rather less densely occupied.

The market's significance to the study is its social organisation: it is a foreign territory. Its traders - of which around 70% are from African countries outside of South Africa - are ingenuous businessmen who know one another by name and are quick to direct visitors to other traders who can supply their needs. Precise organisation and internal support structures quickly become apparent, and so does the higher-than-usual standard of hygiene in and around the market. Although some traders are unable to speak more than a few words of English - limiting interaction with South African customers to bartering - traders converse freely with one another in French, Portuguese and other African languages. According to a trader from Uganda who had been trading on the site before the market was erected, conflict between local and foreign traders has abated considerably since the market's completion. This territory on Rockey Street has been claimed by foreigners and turned into a highly and economically profitable **cultural stronghold**.



Despite such efforts to formalise the street-trading community of the inner city, a new generation of informal traders occupies street corners and sidewalks throughout the inner city. While traders in centralised facilities benefit from shelter and infrastructure, mobile street-corner traders are able to reach their customers on their doorsteps, avoid competition and save overhead costs. No amount of 'formalisation' will remove the informal from the streets of South African cities: as soon as one trader moves into formalised facilities, his place on the street is taken by an entry-level trader. This pattern will remain a feature of the South African City for many years to come. Continuous formalisation will however remove an ever increasing segment of retail activity from traditional shopping complexes to markets such as Warwick Junction and the Metro Mall, which exist on the threshold between the formal and informal.

opportunism



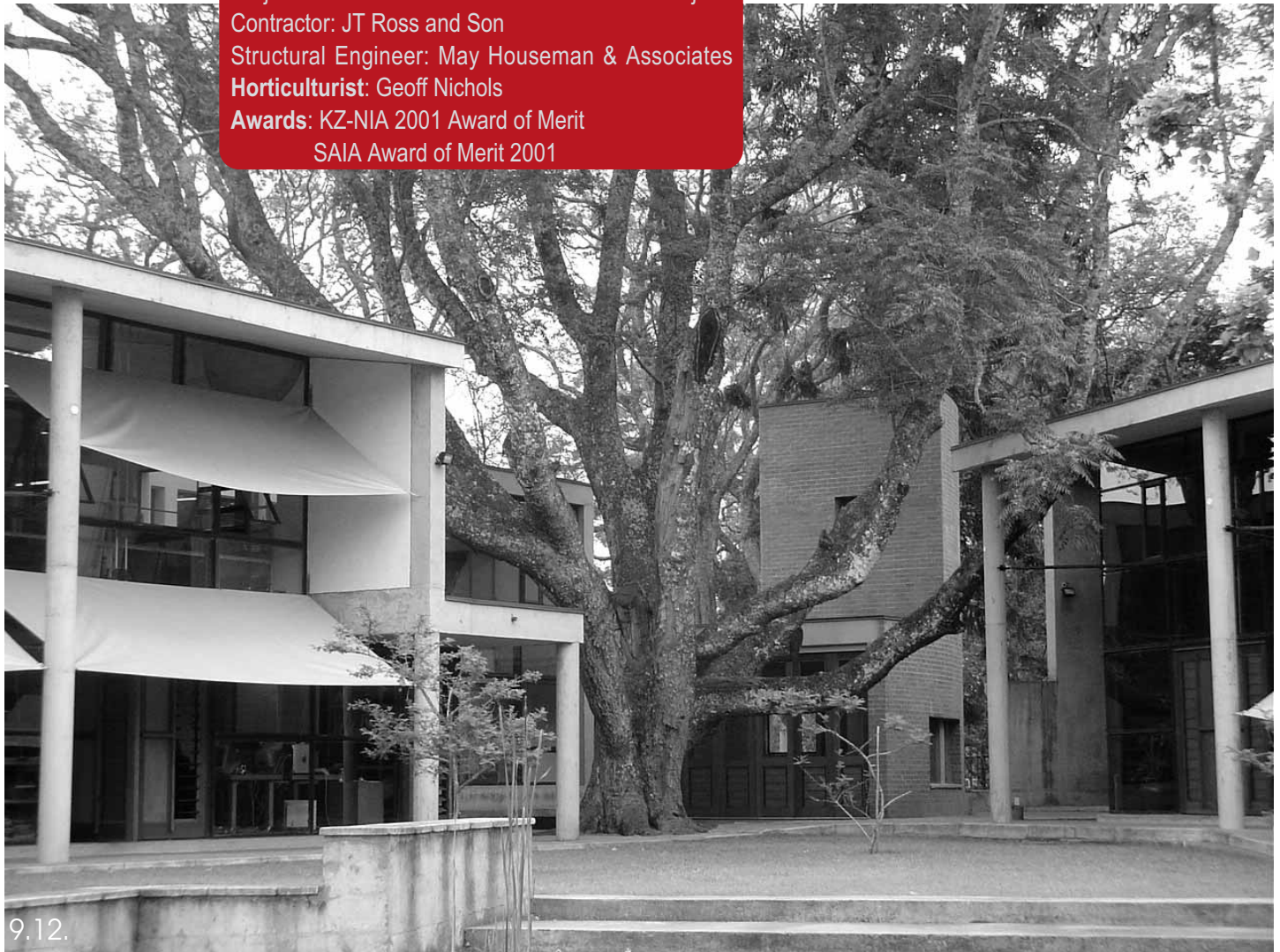
9.11.

9.11. Informal trade: Kapteijn Street, Hillbrow.



Bellevue Road Campus, Kloof 2002 OMM Design Workshop.

Architect: OMM Design Workshop
Project Team: Andrew Meiken and Janina Masojada
Contractor: JT Ross and Son
Structural Engineer: May Houseman & Associates
Horticulturist: Geoff Nichols
Awards: KZ-NIA 2001 Award of Merit
SAIA Award of Merit 2001



9.12.

The **Bellevue Road Campus** for Electric Ladyland Properties (OMM Design Workshop) was commissioned by the International Trend Institute, an agency which follows and predicts international tendencies in the visual arts, fashion, design and lifestyle concepts in order to provide advise on their local application.

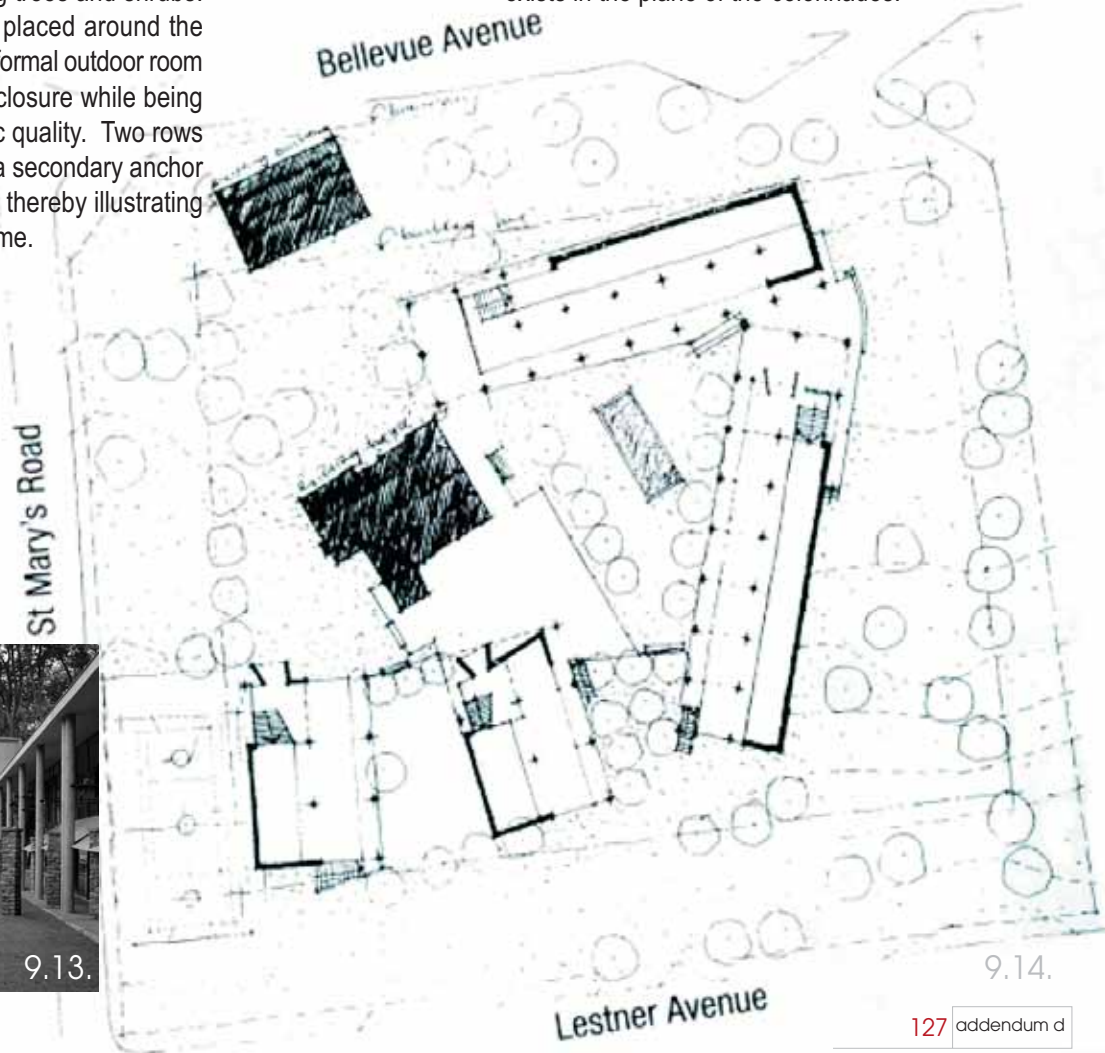
An existing house on the site anchors the composition of three new buildings around a shallow water pond - originally the swimming pool - the orientation of which corresponds with that of the original house. After consultation with a horticulturist, the new buildings were carefully inserted between existing trees and shrubs. The new buildings are informally placed around the formal water garden to create an informal outdoor room that enjoys a definite sense of enclosure while being imbued with a particularly dynamic quality. Two rows of original stone columns provide a secondary anchor and intersect the new geometries; thereby illustrating a layering of building fabric over time.

A series of thresholds establish distinct gradations of privacy. A first threshold is created by the entrance gate and existing trees along the perimeter fence. Visitors enter a graveled parking area to which the complex presents a soft but impenetrable façade that is broken by two controlled undulations and a series of anonymous windows. Orientation is clear – a single entrance and second threshold is announced by an in-situ concrete portico that is adorned by a sculptural element on the courtyard's side. Orientation remains clear throughout the campus – entrances are announced, but never proclaimed. A third threshold exists in the plane of the colonnades.



9.13.

9.13. Existing house: South Elevation.
9.14. Site Plan



9.14.



Despite the high level of accessibility within the campus a visitor, once inside the central courtyard, is passively surveyed from four sides and subtly dissuaded from wandering too far astray. A series of secondary outdoor rooms are created between the ends of the slender volumes, each providing a distinct level of privacy and intimacy. Projecting concrete surfaces and terraces are small gestures that invite the use of these rooms. The buildings present no backsides: spaces between the buildings and the perimeter fence seem coincidental, but do not read as redundant or leftover. The campus allows continuous exploration and present many surprises around its corners.

The palette of materials is mostly limited to in-situ concrete, wood, aluminium and glass. Concrete roof slabs were chosen for structural purposes: steel-and-timber floors are suspended from the roof slab by steel rods that allow floors sections to be raised to establish thresholds between 'separate' offices. The length of the building volumes defies the depth of the roof slabs [400mm to accommodate a gutter] – the slabs float effortlessly while maintaining a substantial quality. Columns are round and finished off-shutter to eliminate the costs associated with plaster and paint work. A limited budget similarly ruled out the use of factory-produced aluminium office fronts. Façade sections were factory-glazed but bolted together and sealed on site. Timber façade sections are neatly crafted and seem to be weathering well. Plastered surfaces, timber finishes and white textile sunscreens provide softer feminine elements against the in-situ concrete and face brick elements. Balustrades and smaller structural elements are 'made' in galvanised steel with simple and honest connections to concrete surfaces and aluminium sections. The workmanship is not flawless – the in-situ concrete tends towards the familiar patchy character and steelwork is messy in places – yet the result is delightfully tactile and has a markedly 'assembled' quality.

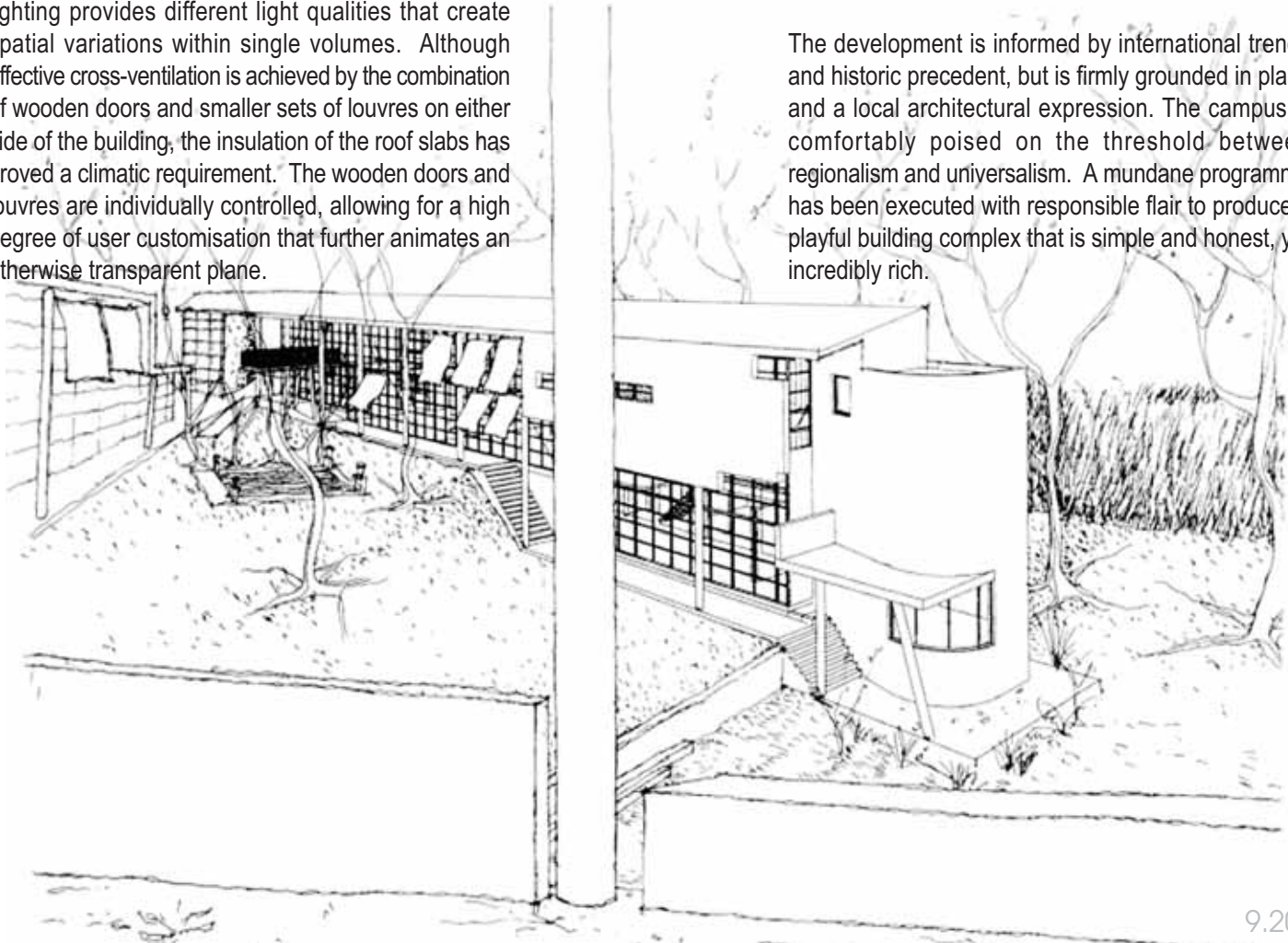
9.17-18. Integration of buildings and existing trees.
9.19. View of interior: ITI Building.



In section the three new edge buildings are almost identical and characterised by solid edges along the perimeter contrasted with the transparency of full curtain walls facing the courtyard. A projecting roof slab and the series of canvas screens shade the nearly fully glazed curtain wall. The section depth is a function of natural light penetration from the envelope sides. A twelve meter section depth is illuminated naturally from two sides, while a split in roof slab levels ensures the mid-section introduction of soft natural. The configuration of louvres, windows, sunscreens and top lighting provides different light qualities that create spatial variations within single volumes. Although effective cross-ventilation is achieved by the combination of wooden doors and smaller sets of louvres on either side of the building, the insulation of the roof slabs has proved a climatic requirement. The wooden doors and louvres are individually controlled, allowing for a high degree of user customisation that further animates an otherwise transparent plane.

Remarkable flexibility is achieved by the simple yet innovative use of basic materials in standard sizes and profiles. For example: the unapologetic cable trays suspended from the spinal concrete frame also serve as anchors for standard fluorescent lights that can be moved, extended and multiplied as lighting requirements vary. Mid-section staircases and walkways can be moved and extended at will to allow flexibility according to varying circulation requirements. Walkways of wooden slats allow ventilation and the filtering of natural light between first and ground floor.

The development is informed by international trends and historic precedent, but is firmly grounded in place and a local architectural expression. The campus is comfortably poised on the threshold between regionalism and universalism. A mundane programme has been executed with responsible flair to produce a playful building complex that is simple and honest, yet incredibly rich.



9.20.

Competition Design: Zaha Hadid Markus Dochantschi
Local Architect: KZF Incorporated, Cincinnati
Construction Manager: Craig Preston, Bill Huber for Turner Construction Company.
Structural Engineers: Shayne Manning, Murray Monroe for THP Limited, Inc.
Acoustic Consultant: Andrew Nicol, Richard Cowell for Ove Arup and Partners.

public space

Rosenthal Center for Contemporary Art Cincinnati
1998-2003 Zaha Hadid.

9.21.

9.21. Eastern Elevation.

The Contemporary Arts Center is committed to programming that reflects "the art of the last five minutes". It has earned a reputation for introducing new ideas into the community, fostering a dialogue on important issues, and supporting free inquiry by presenting the work of diverse artists in various media from around the world. In 1998, Zaha Hadid was selected from a list of 12 architects, including Herzog & de Meuron, Steven Holl, Toyo Ito, Rem Koolhaas, Daniel Libeskind, Eric Owen Moss, Jean Nouvel, Antoine Predock, Wolf Prix and Bernard Tschumi, to design the Rosenthal Center for Contemporary Art on the corner of Walnut and East Sixth Streets in downtown Cincinnati's backstage district.

As the Center has no permanent collection, its programme made provision for the unpredictable nature of temporary exhibitions. According to Hadid, artists have over the past thirty years been engaged in a sometimes covert, always critical relationship to the institutions that ultimately house their works. Instead of a 'neutral box' to exhibit objects in space, Hadid proposed that multiple perceptions and distant views could create a richer, more perplexing experience, taking the body through a journey of compression, release, and reflection. **It is a public institution, located in a burgeoning downtown cultural district. As such, Hadid believes it to have responsibilities to the passerby as much as to private clients. She therefore sought to create a vibrant and active ground floor.**



The existing city grid is pulled into the Center at ground level and allowed to curve slowly upward. Upon entry, it seems that the ground is rising to become the back wall of the Center - there is one continuous surface between the street outside and the wall inside, which Hadid refers to as the 'Urban Carpet'.

The lobby of the Center is envisioned as an artificial park - an open, daylit, 'landscaped' expanse. The Urban Carpet, developing directly from the existing pedestrian flow at Sixth and Walnut, becomes public space, a circulation system, and a partition to provide for both movement and static spaces for meeting.

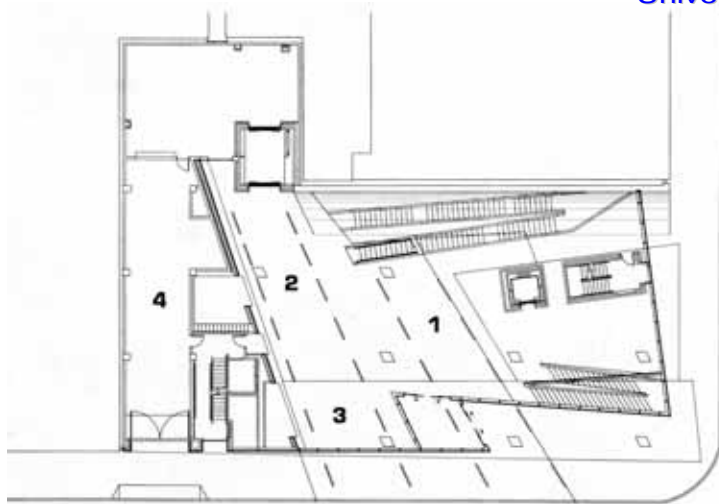
The carpet rises and turns to lead visitors up a suspended mezzanine ramp through the full length of the lobby, to the point where it penetrates the Carpet Wall and becomes a mezzanine landing. Another ramp leads from a cut in the lobby floor space to the lower level. Movement is transformed into space which rises and falls, cutting back and forth.

The lobby, museum shop and lower level café are 'free' public spaces that can be used independently from the rest of the Center for receptions or film screenings when the rest of the Center is closed. Ticket control is located where the Urban Carpet penetrates the wall and becomes a mezzanine landing. Although the 'free' zone ends here, the ceiling of the lobby is perforated to allow visitors glimpses of the galleries above and of the visitors flowing up and down the ramps.



9.23. Lobby with Urban Carpet.

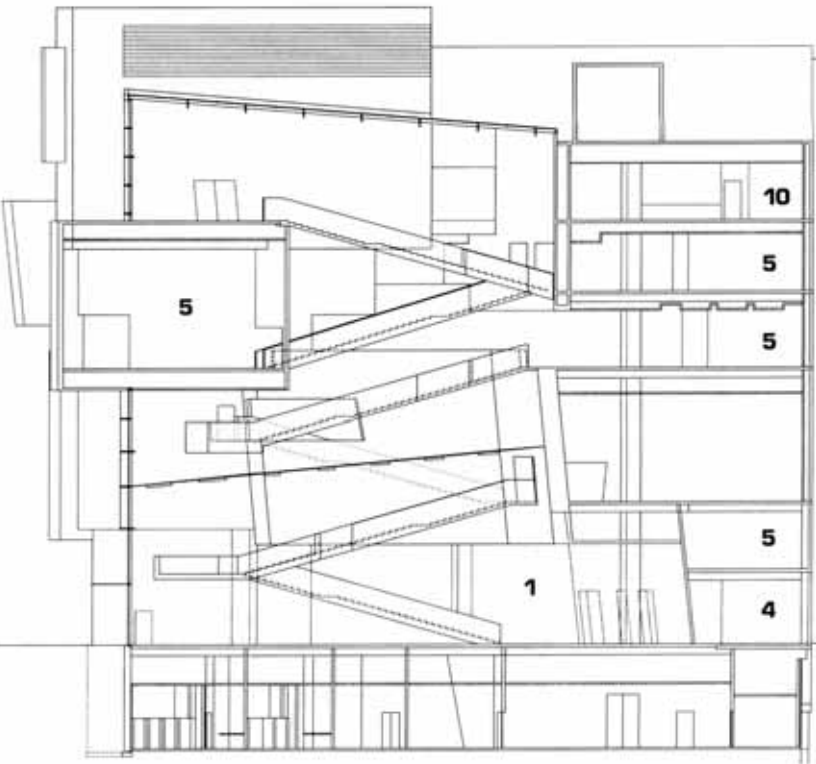
In contrast to the Urban Carpet, which is a series of highly polished, undulating surfaces, the galleries seem raw, carved from a single block of concrete and floating over the lobby space. As the stair-ramp zig-zags upward through a narrow slit at the back of the building, visitors confront unpredictable views of the galleries. The varying galleries interlock like a three-dimensional jigsaw puzzle of solids and voids, with flexible wall elements serving to subdivide larger spaces.



9.24. ground-floor plan ——— 24'

The UnMuseum sits on top of the two floors of galleries, and is given a sense of independence, while the staff facilities are treated as translucent objects, forming an undulating skin along the East Sixth Street side of the building and providing daylit working environments and city views. The two façades are distinct but complementary. **The south façade offers an animated and irregularly inhabited skin with gallery spaces as billboards for art and offices to put civic life on view.** The east façade is a sculptural relief that provides an imprint, in negative, of the gallery interiors. (www.contemporaryartscenter.org/newbuilding)

The scheme's relevance to the study lies in Hadid's treatment of the public aspects of a building in an urban context similar to that of Hillbrow.



9.25. east-west section ——— 20'

- Lobby 1.
- Reception 2.
- Shop 3.
- Loading 4.
- Gallery 5.
- UnMuseum 10.

Laban Centre for Movement and Dance 2003 Hertzog & De Meuron.

Architect: Hertzog and De Meuron
Project Manager and Specialist Consultants: Ove Arup
Structural and building services engineer: Whitby Bird.

programme

9.26.

9.26. View of foyer.



9.27.

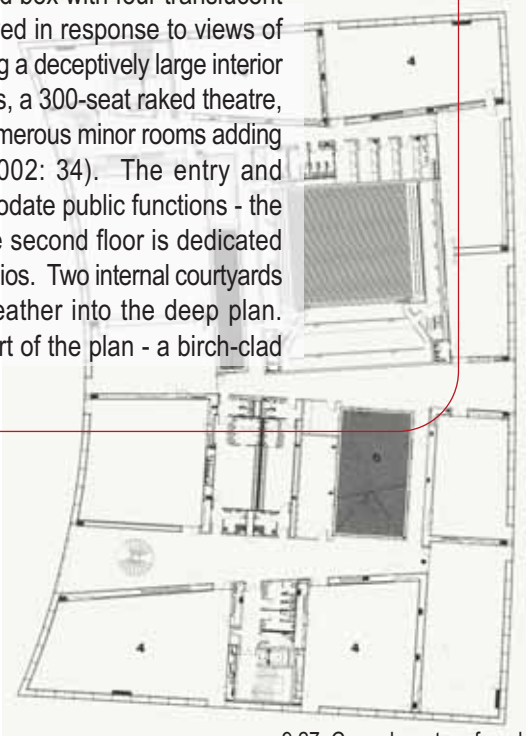
The **Laban Centre for Movement and Dance** (Hertzog & de Meuron) is set on the banks of the muddy Deptford Creek in Deptford, an industrial suburb written off as the heart of southeast London's industrial wasteland (Reid 2003: 66).

The structure is an inflected box with four translucent façades - the western curved in response to views of a nearby church - concealing a deceptively large interior containing 13 dance studios, a 300-seat raked theatre, a library, public café and numerous minor rooms adding up to 9000 m² (Spring 2002: 34). The entry and mezzanine levels accommodate public functions - the café and library - while the second floor is dedicated to the less public dance studios. Two internal courtyards introduce air, light and weather into the deep plan. The theatre lies at the heart of the plan - a birch-clad

shed within a shed - with the fly-tower hidden under the roof apex to downplay the tower's rhetorical potential to signify the building from a distance (Ryan 2003: 67).

Upon approach from the highway, the building first appears to be another industrial shed not all that different from its neighbours.

Two different circulation schemes are immediately established at the entrance: a spiral staircase in bush-hammered concrete and painted in gloss black lacquer, and a series of ramped streets (Reid 2003: 70). The internal streets are wedge shaped; wide enough to allow students to mill around without obstructing other people, and terminate in fully glazed openings framing wide vistas of the surrounding landmarks. They are accompanied by wavy birch handrails and colour-coded in vivid magenta, forest green and lime green to match



6.28.

9.27. Curved western façade.
9.28. Longitudinal Section.



9.29.



9.30.

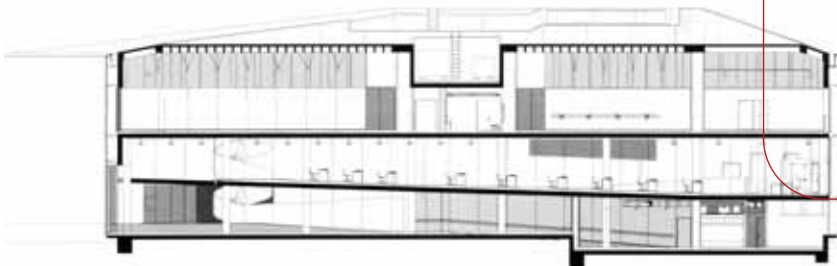
the fainter colours of the façade and facilitate navigation through the labyrinth.

The library sits on an elevated stepped ramp that is highly reminiscent of Koolhaas's Kunsthall Rotterdam (1992). The structure is not a supershed with portals as suggested from the outside, but a concrete frame which provides a meta-narrative by means of an uneven grid. According to Ryan (2003: 78), *the odd column or beam makes an appearance contingent on the feel of each space*, again invoking the strategy Koolhaas explored with Cecil Balmond at the Kunsthall.

The dance studios were fitted with a sprung flooring system consisting of 2 x 2 m plywood panels laid on compressible foam pads and covered in a fleece-backed vinyl sheeting. The total thickness is 40 mm,

which provides sound insulation and the required sponginess. The concrete studio walls were covered in gray sound-absorbent rockwool panels stapled to battens on the concrete and lined with gray Spider fabric, which resembles the concrete below (Spring 2002: 33).

The volume is wrapped in a double-skin - an outer sheet of polycarbonate and an inner layer of translucent glass which is fixed to the concrete frame and brick walls of the building proper - containing an acoustic and thermal buffer with vents top and bottom. Doors from the rooms behind allow occupants to introduce or release heat (Reid 2003: 67). The polycarbonate panels were delivered to site at the full 14m height of the building and clipped together using a hidden waterproof tongue and groove joint (Spring 2002: 33). They are



9.31.

9.29 - 30. Interior views of stepped library and internal street.
9.31. Cross Section.

1. Theatre
3. Café
4. Dance Studio
5. Office
6. Void
7. Meeting Room



9.32.



9.33.

tinted in lime, turquoise and magenta to create blurry swatches of washed-out colour.

During the day, light passing through the polycarbonate provides a coloured backdrop to the translucent glass walls of the dance studios. At night, the entire building glows like a Chinese lantern as the backlit glass becomes transparent and the dancers' moving shadows are projected onto the coloured polycarbonate surfaces.

Windows punctuating the polycarbonate are mullionless mirror-glass. In daytime, these windows obscure views of the interior from passers-by to reflect the surroundings while, at night, they frame dancers moving in the luminous interiors. The internal partitions between the studios and internal streets are in clear glass to fully reveal dancers to staff and students circulating through the building.

The double-skin cladding system, in addition to being pragmatic and relatively inexpensive (Reid 2003: 67), creates a powerfully ambiguous and ever-changing

relationship between spectator and spectacle. The overlays of transparency, translucency and reflection creates a light quality which renders even flat surfaces and hard edges curiously insubstantial (Spring 2002: 36).

Although external landscaping still awaits funding, the site's decontaminated excavated soil has already been shaped into massive berms, indicating the intention to use the outdoor spaces as amphitheatres (Reid 2003: 78).

The project was funded by an arts lottery grant and additional grants from a network of local and public authorities (Spring 2003: 38). The Centre comes with goals to reach out to the local community through dance classes for children, teenagers and mothers with babies.

While Deptford has gained a vibrant focus for its local community, the sponsors of the development are pinning their hopes on Laban to act as a catalyst for regeneration of the greater Deptford area.



9.34. Daytime view of Dance Studio.

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**Ground Floor
Craft Workshop**

Area
Projected Uses
Classification of Occupancy
Population
Sanitary Fixtures (Required)

290 m²
Craftwork, Light Industrial Activity, Trade
B2
60
Male: 1 WC's, 2 Urinals, 2 HWB's
Female: 3 WC, 2 HWB's
400 lux SABS 0114: Part I-1973
Robust floor and envelope
Maximum flexibility
Maximise public interface for commercial purposes
Passive climate control to minimise overhead costs
Disabled access

Foyer

Area
Projected Uses
Classification of Occupancy
Required Lighting Level
Critical Aspects

175 m²
Events, Exhibitions, Lingering
A1
50-100 lux SABS 0114: Part I-1973.
Generosity, grandeur
Adjustable lighting levels
Flexibility
Disabled access

Multi-purpose Hall

Area
Projected Uses
Classification of Occupancy
Population
Sanitary Fixtures (Required)

350 m²
Public Gatherings, Performances (variety), Street Theatre, Market Space.
A2
200
Male: 1 WC, 2 Urinals, 1 HWB
Female: 3 WC's, 2 HWB
250 lux SABS 0114: Part I-1973
Maximum flexibility
Acoustic performance for both large and small gatherings
Overflow space
Controllable indoor-outdoor connection
Storage for props, chairs etc.
Sprung Floor in Performance Area
Disabled access

Required Lighting Level
Critical Aspects

Café

Area
Classification of Occupancy
Population
Sanitary Fixtures (Required)

160 m² indoor, 275 m² overflow space
A1
60
Male: 1 WC, 2 Urinals, 2 HWB's
Female: 3 WC, 2 HWB's
Finishes
Circulation
Overflow onto outdoor terrace

Critical Aspects

Kitchen

Area

25 m²
Work Area: 14 m²
Cold Room: 3 m²
Scullery: 5 m²
Indoor Waste Storage: 3 m²

Required Lighting Level
Critical Aspects

200 lux SABS 0114: Part I-1973
Ergonomics
Adequate ventilation
Hygiene

Gallery

Area
Projected Uses

90 m²
Entrance Foyer, Art Exhibitions, Roll Back Xenophobia Campaign

Classification of Occupancy
Required Lighting Level
Critical Aspects

C1
200 lux SABS 0114: Part I-1973
Indirect, diffused light for viewing of artworks
Flexibility
Disabled Access
Maximum public exposure

First Floor Classrooms

Area
Projected Uses
Classification of Occupancy
Population
Sanitary Fixtures (Required)

255 m² (subdivisible), 40 m² Language Laboratory
Adult Education

Required Lighting Level
Critical Aspects

A3
120
Male: 2 WC, 3 Urinals, 3 HWB's
Female: 5 WC's, 3 HWB's
400 lux SABS 0114: Part I-1973
Natural Lighting
Adequate Ventilation
Flexibility for future use
Acceptable noise levels
Disabled access

Music Studios

Area
Classification of Occupancy
Population
Sanitary Fixtures (Required)

420 m², subdivisible by acoustic sliding door or acoustic curtain
G1

Required Lighting Level
Critical Aspects

120 persons
Male: 2 WC's, 3 Urinals, 3 HWB's
Female: 5 WC's, 2 HWB's
400 lux (estimated)
Acoustic Performance: Insulation, especially absorption of low frequencies, prevention of flutter echoes
Adequate Ventilation
Disabled Access

Art Studio

Area
Projected Uses:
Classification of Occupancy
Population
Sanitary Fixtures (Required)

70 m²
Shared Studio Space

Required Lighting Level
Critical Aspects

G1
7 persons
Male: 1 WC, 1 HWB
Female: 1 WC, 1 HWB
500 lux SABS 0114: Part I-1973
Diffused light
Visual connection between indoor and outdoor
Access to escape areas

**Second Floor
Offices**
Area

245 m²
 Management 40 m²
 Local Radio Station 35 m²
 Broadcasting Studio 15 m²
 Production Studio 15 m²
 Music Library 5 m²
 Local Newspaper (writing only) 35 m²
 Roll Back Xenophobia-Campaign 35 m²
 Rentable Office Space 55 m²
 Common Room (plus lounge and kitchenette) 40 m²
 G1
 20
 Male: 1 WC, 1 HWB
 Female: 1 WC, 1 HWB
 500 lux SABS 0114: Part I-1973
 Natural Lighting
 Adequate Ventilation
 Prevention of Glare on visual media surfaces
 Acceptable noise levels
 Access to escape areas
 Disabled access

Classification of Occupancy
 Population
 Sanitary Fixtures (Required)

Required Lighting Level
 Critical Aspects

Dance Studio

Area
 Classification of Occupancy
 Population
 Sanitary Fixtures (Required)

Required Lighting Level
 Critical Aspects

420 m²
 A2
 120 persons
 Male: 2 WC's, 3 Urinals, 3 HWB's, add 3 showers
 Female: 5 WC's, 2 HWB's, add 3 showers
 250 lux (estimated)
 4250 minimum headroom
 Adequate ventilation
 Natural Lighting
 Visual Connection: indoor/outside connection
 Disabled Access
 Sprung Floor

Art Studios

As above

Total Sanitary Fittings Required

Male: 12 WC's, 15 Urinals, 17 HWB's
 Female: 27 WC's, 16 HWB's

Additional Bathing Facilities

Male: 3 showers, 3 HWB's
 Female: 3 showers, 3 HWB's

Total Sanitary Fittings Supplied

Male: 11 WC's, 15 Urinals, 22 HWB's
 Female: 25 WC's, 24 HWB's

Ownership/Security

The prevalence of criminal activity in Hillbrow makes security an essential requirement. The public interface should be designed to encourage control of small areas of defensible territory by individuals or small groups; thereby creating micro-strongholds from which 'insiders' can passively survey and regulate the movement of 'outsiders'. All exterior spaces should be visible from at least one vantage point and provide some incentive to be claimed by an informal trader or other watchman; thereby eliminating parcels of unsafe, unkempt no-man's land. If the building is to contribute to the creation of a safe and vibrant urban environment, the public facilities which will be most frequently used, especially for nocturnal activities, should ideally be located along street edges. Outdoor areas are to be well-lit after sunset.

The following critical performance indicators are loosely based on Jeremy Gibberd's Sustainable Building Assessment Tool (SBAT) and considered to have a direct influence on design decisions. Issues related to building management and - operation or otherwise covered by legislation such as the National Building Regulations have been omitted.

Social**Community Building**

The primary objective of the development is the creation of a cultural stronghold for Hillbrow's foreign communities. The development will create a 'foreign domain', accessible socially and economically only by South Africans who are willing to discard their xenophobic sentiments. The boundary of the domain effectively becomes the threshold between the public and semi-public domain.

The building should be programmed to multiply chance encounters between strangers and facilitate interaction

_between foreigners - to build cohesive foreign communities able to withstand marginalisation - and
_between foreigners and locals - to encourage South Africans to develop an understanding of foreign cultures and foster a tolerance for the presence of foreigners in Hillbrow.

In order to achieve maximum interaction, public spaces should invite lingering; while circulation routes should be wide enough to allow small groups of persons to pause and interact without creating congestion.



the others

Education

Besides containing a number of educational facilities, the proposed development has an educational function in terms of counteracting xenophobia. The building is to provide both direct and indirect points of contact between the public and semi-public domain to create a platform for awareness campaigns and a showcase for various aspects of Hillbrow's foreign cultures.

Occupant Comfort

Thermal Comfort

As far as possible, comfortable indoor temperatures are to be achieved by passive means in order to save on HVAC costs and avoid the creation of an unhealthy artificial environment.

Lighting

Maximum use is to be made of natural lighting by giving façade preference to spaces requiring high levels of lighting for extended periods of the day.

Additional artificial lighting is to be provided where necessary to achieve adequate lighting levels according to the standards set in SABS 0114-1973.

Glare on visual display surfaces from direct sunlight or radiation from reflective surfaces should be avoided by adequate screening.

The mix between direct and diffuse light and the resultant light quality in individual spaces should remain a consideration throughout.

Ventilation

Cross sections are to be designed to make effective use of natural cross-ventilation. Where necessary, natural ventilation is to be facilitated by the use of mechanical systems; while the use of air-conditioning systems should be limited as far as possible.

Interior-external connection

The proposed development is not intended as a fortress within the hostile urban landscape, but rather a place of meeting and interaction. Visual connections between inside and outside, besides having obvious benefits in terms of natural ventilation and daylight, promote the mental health of building occupants and allow interaction between foreign 'insiders' and xenophobic 'outsiders'.



TO.2.

Access to outdoor rest spaces should be provided at regular intervals and at all floor levels.

Noise

Although the development will inevitably sustain high noise levels due to its location in a busy urban environment, reasonable acoustic comfort should be ensured by

- _locating the least noise-sensitive areas closer to the sources of ambient noise to act as noise screens,
- _grouping noisy functions, and
- _adequate insulation of noise-sensitive areas such as music studios, classrooms and offices.

Hygiene

Areas to be used for informal trade or cooking should be easily cleanable to ensure satisfactory hygienic conditions.

Inclusive Environments

The building and facilities are to conform to the standards as set out in Section S of SABS 0400-1990. Considering the proximity of a number of health-related facilities, all public spaces are to be designed to prioritise pedestrians, especially the old, infirm and children, with wide pavements, level crossings etc.

User Participation and Control

Occupants should have a reasonable measure of freedom to individualise their environments by opening/closing windows or adjusting lighting levels or internal layout. Although one should not be over-optimistic about users' willingness to manually operate passive climate control systems, user participation in systems requiring

Access to Facilities

Banking, communication and retail facilities are available within walking distance from informal traders and in Kotzé Street. Public transport by minibus taxi is available throughout Hillbrow, while long distance bus and taxi ranking facilities are provided within walking distance from the site around Park Station. The design of the public interface should encourage colonisation by informal traders providing a range of consumables to the building occupants.

Economic

Local Economy

Local economic development is a primary objective of the proposed development; to the benefit of both the



Informal

foreign communities and South Africans who are willing to co-operate and interact with these groups. While providing a number of formal cultural facilities, the building must accommodate the informal sector to enable individuals of varying economic status to survive by personal incentive. In order to allow informal economic activity to capitalise on formal activity, formal and informal economic activity should be integrated, with informal activity occupying interstitial - and

circulation spaces rather than being centralised in 'destination' areas.

Considering the wide range of expertise, skills, materials and products available around central Johannesburg, the specifications should be limited to locally available technology and building materials so as to contribute to local economic development and minimise the building's embodied energy content; unless a well-founded motivation for the specification of such material or process can be provided.

Capital Costs

Although the cost of initial construction should be limited, high quality materials and construction is a requirement if the building is to become a 'long life-loose fit' project which can act as a catalyst for the regeneration of its urban context and in time adjust to a different pattern of use.

Although high-tech assembly and finishing procedures should be avoided, detailing should remain elegant.

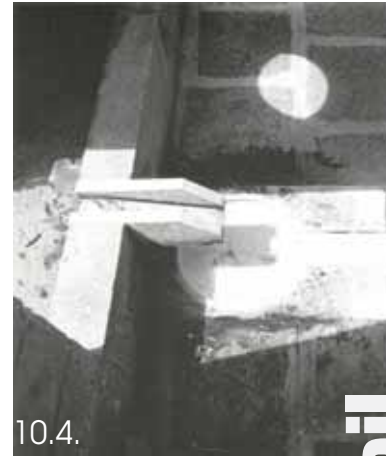
Ongoing costs

Maintenance

The building fabric is to be designed to withstand high levels of abuse and human contact, especially at ground level and along circulation routes. Because different materials decay at different rates, building layers e.g. skin, services, and structure should be 'loosely' connected to allow maintenance work on or replacement of individual layers.

Adaptability and Flexibility

The building should offer a high level of flexibility to allow adaptation to a variety user groups and patterns of use. Spaces are to offer choice, facilitating rather than prescribing activity, anticipating the unintended and informal to, in turn, be shaped by these factors. The potential for reuse of the building shell should be



10.4.

detail



that the site not entirely lose its spatial quality. Where possible, mature trees should be conserved for their aesthetic value and microclimatic benefits. The specimens of *Quercus rubra* have historic value and must be conserved.

Neighbouring buildings

The development should respect the functioning of the adjacent Hillbrow Community Health Centre and other health-related institutions and not in any way impact negatively upon the activities of these facilities. The historically significant buildings, including the Main Block (Leith 1936), the Chapel and the Superintendent's Residence should be respected.

Materials and Components

The choice of materials and components is to be informed by the following considerations:

- _embodied energy
- _material/component source: renewable or not?
- _environmental impact of manufacturing process of material or component
- _possibility to use recycled or pre-used components
- _waste during construction process
- _reuse/recycling potential of material or component.

Energy

Location

The development's highly accessible inner-city location is in accordance

maximised by

- _careful consideration of vertical dimensions in terms of future subdivision,
- _the use of non-loadbearing partitions, and
- _grouping services to promote flexibility of the remaining floor area.

Exterior spaces should be highly flexible to accommodate informal economic and social activity.

Efficiency of use

The building should be adaptable for use by various users over a 24 hour period. Facilities should therefore be separately accessible to ensure security while maximising efficiency of use.

Environmental

Site

Although the site has not been built on previously, it is currently paved and can be considered a Brownfield site. Considering the value of open space in a dense urban environment such as Hillbrow's, it is important

with sustainable development guidelines as regards providing public facilities within walking distance from residential areas or accessible by public transport within short distances of such areas.

Passive climate control

Passive control of the interior environment should be maximised to limit the economic and environmental impact of ongoing electric heating/cooling and ventilation.

As far as possible

- _high-density building mass should be applied to make positive use of the flywheel effect,
- _heat gain by solar radiation should be controlled by adequate overhangs and adjustable sunscreens,
- _cross-ventilation should be applied as additional cooling mechanism, and
- _natural cross ventilation should be maximised through window and door openings.

Water

Runoff

Runoff into stormwater systems is to be limited by the use of permeable paving or planting in areas not to be traversed by vehicles.

Rainwater

Rainwater for the irrigation of landscaped areas should be harvested from the roof of the building.

Water use

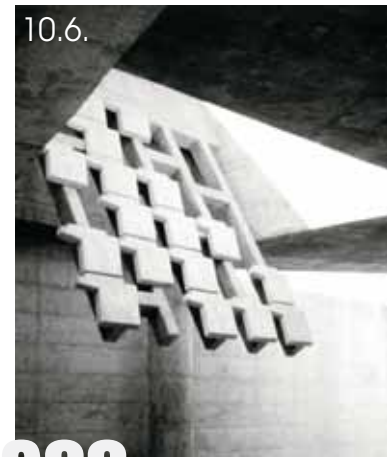
Dual flush toilets WC units are to be installed throughout the building.

Planting

Any new vegetation should be indigenous and selected to minimise the water requirements of the landscaped areas of the development.

Appliances and Fittings

Low energy consumption light fittings are to be specified throughout the building.



mass

The table which follows contains performance requirements which were listed for individual spaces at the commencement of the design process. Prescribed lighting levels were included to enable the designer to make comparisons, but are by no means considered to be restrictive. Other quantitative prescriptions for air change rates etc. have been omitted in favour of an intuitive, common sense approach and the input of specialist consultants.

Funding and Procurement

The Seattle-based **Bill and Melinda Gates Foundation** was established in January 2000 with an endowment of approximately \$26 billion through the personal generosity of Bill and Melinda Gates. The project areas of focus are Global Health, Education, Libraries and the Pacific Northwest. The foundation favours preventive approaches and collaborative endeavours with government, philanthropic and not-for-profit partners. Priority is given to grants that leverage additional support and serve as a catalyst for long-term, systemic change. Grants in 2003 were awarded to, amongst many others, the West Central Community Development Organisation, the Centre for Career Alternatives, and the Urban League of Metropolitan Seattle - a membership agency dedicated to ensuring racial, economic, political and social equity for people of colour in King County, Washington (www.gatesfoundation.org).

The **Ford Foundation** is an independent organisation and was created in 1936 **with** gifts and bequests by Henry and Edsel Ford. The Foundation aims to encourage initiatives by those living and working closest to where problems are located; to promote collaboration among the non-profit, government and business sectors, and to ensure participation by men and women from diverse communities and at all levels of society. The Asset Building and Community Development program helps strengthen and increase the effectiveness of people and organisations working to find solutions to problems of poverty and injustice. Grants support vibrant social movements, institutions and partnerships that analyse contemporary social and economic needs and devise responses to them. In 2003, grants were awarded by the Asset Buildings and Community Development Program to, amongst others, the Family institute of South Africa, the Neighbourhood Development Centre, Inc., and the South African Institute for Democracy (www.fordfound.org).

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