

Interfacing Marabastad

A public facility generated from the rituals associated with transport interchanges.

INTERFACE: *The place where independent and often unrelated systems meet*

(Tschumi, 1994:270)

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Submitted in fulfillment of part of the requirements for the degree of March(Prof) in the faculty of Engineering, the Built Environment and Information Technology, University of Pretoria, South Africa.

November 2005

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A public facility generated from the rituals associated with transport interchanges

inter- (in'-ter) *prefix.* between, among, with, amid

Most South African cities bear the mark of Apartheid planning; with large sectors of society being geographically isolated from job opportunities. Tshwane is one such city; developing over time from a system of segregation and social exclusion, to a policy of integration under the formation of the Government of National Unity in 1994. Countless commuters travel to the city over distances reaching as far as Soshanguve and Khadubeng. Unsurprisingly “many new projects built with post-apartheid public funding work around points of mobility such as transport interchanges” (le Roux, 2003:17). Improving public transport facilities is the most apparent symbol of integration.

This dissertation aims to exploit the concept of social integration and advancement of previously disadvantaged people through designing an adequate public transport facility. Situated north-west of Pretoria (the Tswane CBD area), Marabastad is an area that presents the opportunity for a development of this kind. Aligning with important nodes and major routes passing through the city, not only poses potential for development in the public transport sector but also the promotion of Marabastad as a significant symbol of the rich cultural heritage of South Africa. The current precinct is extremely run down and viewed as a slum by its inhabitants and visitors alike. Public open space is deficient, no facilities are provided for hawkers and homeless people and basic services such as water and sanitation are non-existent. The Pretoria ISDF (1999:2) identifies Marabastad as an area in need of “*urgent urban intervention*”.

The building will be designed to accommodate evolving functions, generated from the rituals associated with transport interchanges. Acting as a gateway to the city, the building is functionally diverse. It offers access to public toilets, opportunities for informal trade, an informal overnight sleeping area, formal taxi ranking facilities, and a social gathering place. The development will also include a community hall, storage facilities, rentable office space, an eatery, mechanics workshop, and other public amenities associated with taxi ranking.

A program is generated for a building through the superimposition of existing rituals and processes occurring on and around the site. A sense of place is naturally spawned from existing fabric over time. This process of creating place can be directed by designing facilities that offer opportunities for evolution and appropriation. The project will focus simultaneously on the formal and informal aspects of places for social gathering, such as transport interchanges. The challenge lies in the incorporation of the formal and informal to create a social facility with a sense of place for the community, as well as a sense of permanence and integration. The building acts as an envelope creating spaces which allow activities to develop unofficially and spontaneously while bearing a great sense of formality and certainty.

The site acts as a catalyst for future development of this in-between that is Marabastad

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This dissertation aims to exploit the concept of **social integration** and advancement of previously disadvantaged people through designing **an adequate public transport facility**. Situated north-west of Pretoria (the Tswane CBD area), Marabastad is an area that presents the opportunity for a development of this kind.

The building will be designed to accommodate evolving functions, generated from the rituals associated with transport interchanges. A sense of place is naturally spawned from existing fabric over time. This process of creating place can be directed by designing facilities that offer opportunities for evolution and appropriation. The project will focus simultaneously on the formal and informal aspects of places for social gathering, such as transport interchanges. The challenge lies in the incorporation of the formal and informal to create a social facility with a **sense of place** for the community, as well as a sense of **permanence and integration**.

Marabastad, sited on the border of the CBD, can in itself be seen as an interface; a crossing point, an edge and a boundary. Acting as a gateway to the city, the building ought to be **functionally diverse**. It should offer access to public toilets, opportunities for informal trade, an informal overnight sleeping area, formal taxi ranking facilities, and a social gathering place. The development will also include a community hall, storage facilities, rentable office space, an eatery, mechanics workshop, and other public amenities associated with taxi ranking.

The intervention should aim to satisfy the basic requirements of a public facility

intervolve

1 context

2 precedents

intervolve (in-ter-volv') *v.t.* to wind, involve, or compromise one within the other

*Functioning not as an end point, but rather as a momentary pause along multiple routes, the **INTERFACE** also generates new events for this part of the city. Programmatic collisions will be encountered as mass movement intersects other functional requirements.*

(Tschumi, 1994:267)

t s h w a n e t s h w a n e C B D / p r e t o r i a m a r a b a s t a d **site** of the proposed development

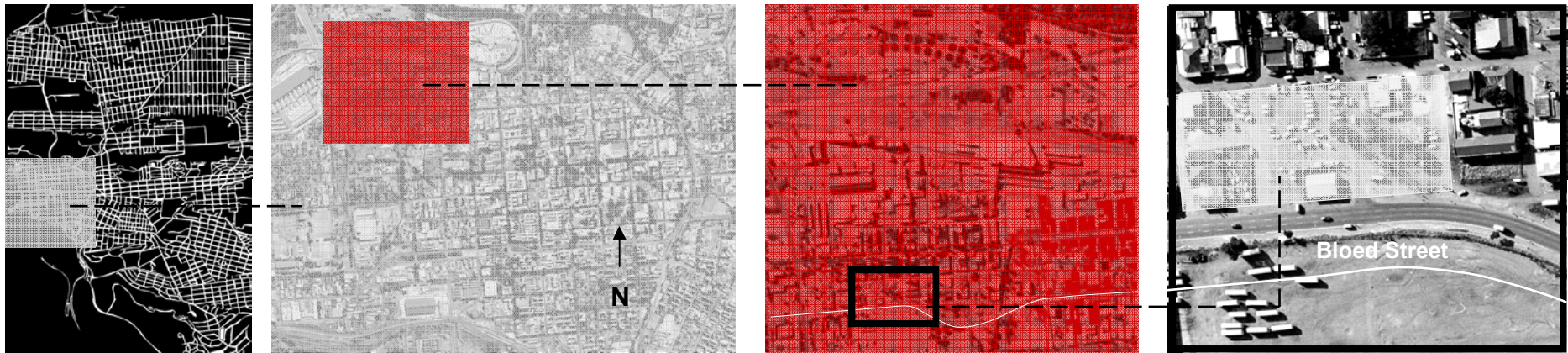
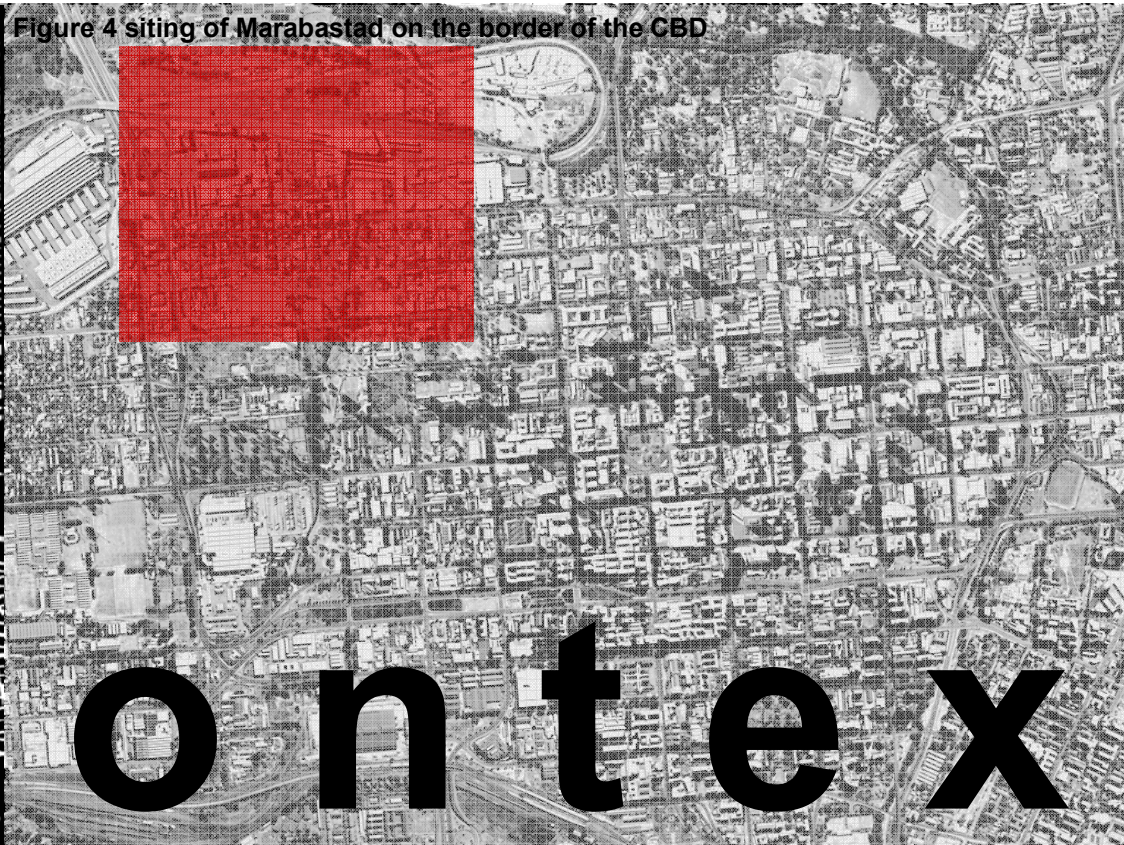
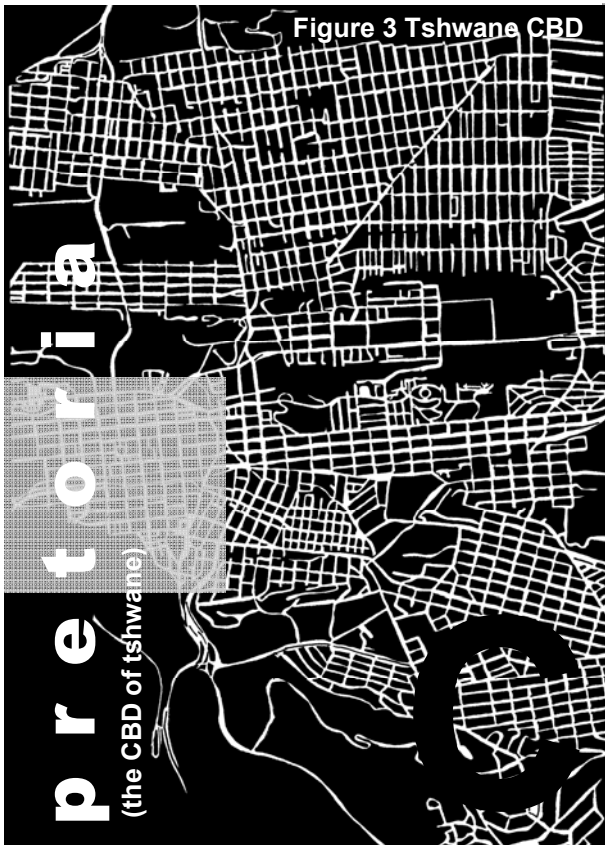


Figure 2 context



1:1

pretoria (the CBD of tshwane) context

The present city of Tshwane is a product of severe historic- and cultural change. Events surpassing the considerations of the city's original planners transform the city in ways unforeseen. History has shaped a territory for accommodating vastly differing cultures and social groups. For many, the city centre has become a debased version of an ideal, some perceive the CBD to be a dangerous slum; detached from their suburban utopias. For a large sector however, the city means financial income and social interaction. People travel to the city in search of choice and financial freedom; leaving the security and kinship of their families and communities. Residing far from the inner city is a matter of choice for some, but for others, forced upon them by the apartheid regime. Suburban sprawl and decentralisation from the CBD by choice can be credited by two main reasons: *“firstly; middle class families seeking larger personal and intimate territories and secondly; fears of overcrowding, parallel to the fear of the poor and racially different people”* (Madanipour 2003:47).

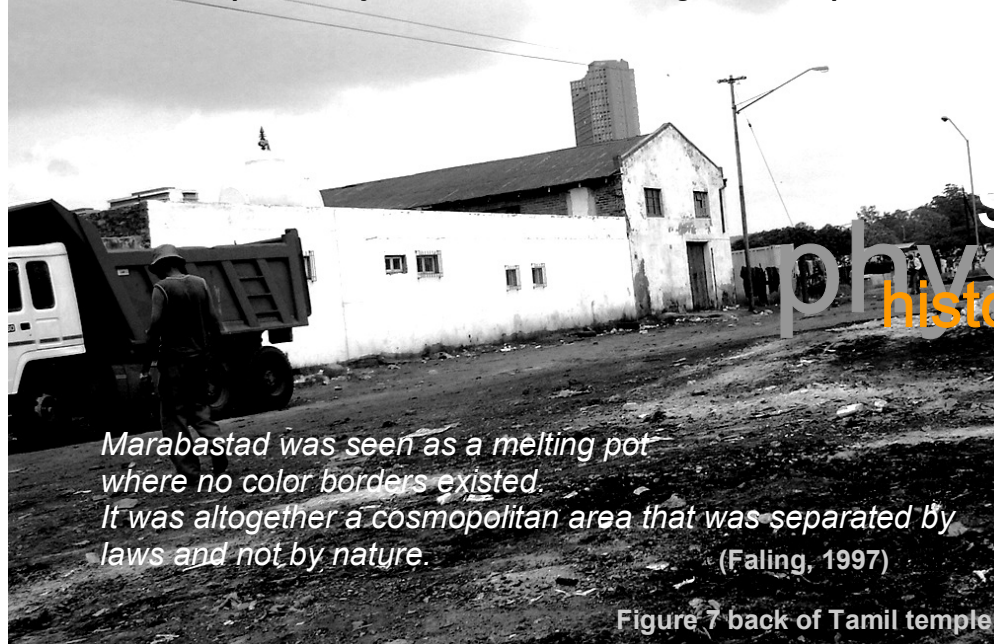
An urban formation influenced by the reverberations of past social and racial indifference governs the city. Countless commuters travel to the city over distances reaching as far as Soshanguve and Khadubeng. These commuters rely on public transport for their daily travels. Under commuters one should include people travelling from the suburbs to work in the CBD. The use of private vehicles, often carrying only a single individual, is a major cause of traffic congestion in and around Pretoria. There is a definite demand to upgrade the existing public transport system.



This dissertation aims to upgrade existing transport systems, to promote public transport and to provide legible, more organised facilities through focusing on interfaces. The main intervention involves the design of an interchange, housing a taxi rank, hawking facility and various other public and private building functions. The choice of site for such an intervention was greatly determined by existing transport systems, major thoroughfares, social appropriateness, critical nodes and interchanges, accessibility, existing movement through the CBD and various other factors. From the various sites deemed suitable for the development, the precinct of Marabastad was chosen as the focus of this study. Marabastad lies on the northwest edge of central Pretoria, enclosed by the Steenoven Spruit to the east and Daspoortrant, one of the ridges of the Magaliesberg, to the north.

Since the establishment of Pretoria in 1855, Blacks from rural areas began moving to the town looking for work. *“Some families found accommodation at the village of Maraba, a local headman, situated west of the confluence of Steenoven Spruit and Apies River “* (Pretoria Inner City Partnership, 1998:5). Overpopulation of Schoolplaats, Pretoria’s first Black township, forced the government to survey and proclaim a second Black township in 1888 called Marabastad. Its plan consisted of long blocks running north-south (figure 6) .

Marabastad was near the hospital, near the school, near the shops and the bus. Today it is a throughfare for commuters to the surrounding areas. Where little houses were previously clustered together in a colorful chaos, the air is now polluted by busses or dust over large undeveloped land that was demolished.



Marabastad was seen as a melting pot where no color borders existed. It was altogether a cosmopolitan area that was separated by laws and not by nature. (Faling, 1997)

Figure 7 back of Tamil temple



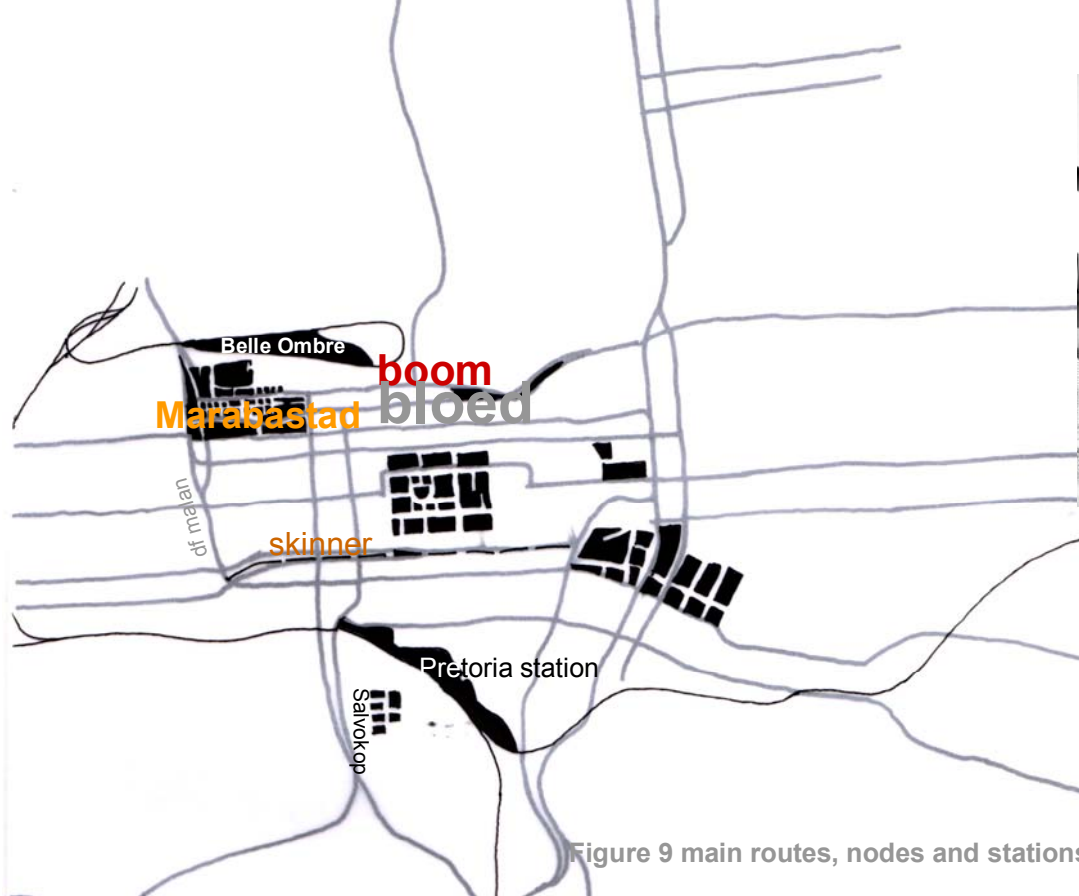
Figure 8 unveiling of the Paul Kruger statue after the construction of the station building

social
physical context
historic

Marabastad

In 1893 an Indian township, the Coolie Location was proclaimed and in 1894 the southern part of this Location, the area between Bloed and Struben Streets, was proclaimed a separate township for the Colored community, known as Cape Location. *“Before the Group Areas Act, that demolished the soul of Marabastad together with the buildings, it was the local hang-out place for Coloreds as well as Indians and of course, black people”.* (Faling, 1997) Various social and historic events had aggravated the effects of overpopulation and housing shortages in the area since the 1890’s. In 1939 Atteridgeville was established as the new municipal township to which the Black population of Marabastad was to be moved. *“In 1959 the townships of Claudius and Ladium had been proclaimed a Group Area for Indian resettlement and in 1962 Eersterust was proclaimed a Colored Group Area”* (Pretoria Inner City Partnership, 1998:10).

From July 1940 the first group of Blacks were resettled in Atteridgeville and in 1950 the last of the Marabastad community had been removed. *“Several tenants were happy enough to be able to live in a three-roomed house with electric lighting, sewerage lavatory, a small coal stove and fenced yard...Those who owned houses in Marabastad were most grieved because compensation was utterly low...and they had owned their houses, which they wouldn’t be allowed to do in the new location. **Tenants and landlords both complained about the distance they would have to travel to and from work, using very bad wartime bus transport. The lengthening bus queues were doing the people’s tempers no good.**”* (Mphahlele, 1959:151) Forty five years later, little has changed in terms of transport.

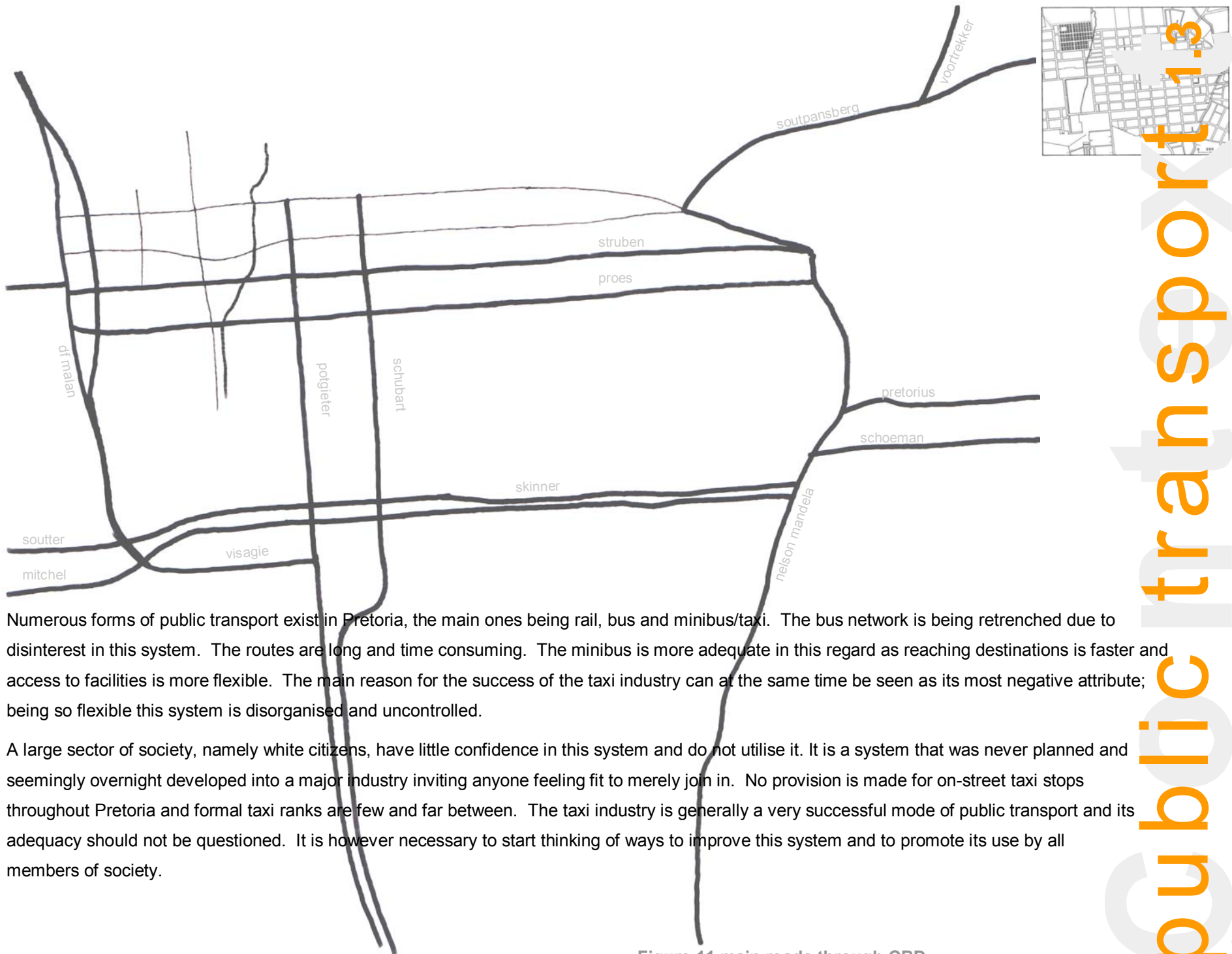


Aligning with important nodes and major routes passing through the city (figure 9), not only poses potential for development in the public transport sector but also the promotion of Marabastad as a significant symbol of the rich cultural heritage of South Africa. The current precinct however is extremely run down (figure 10) and viewed as a slum by its inhabitants and visitors alike. Public open space is deficient, no facilities are provided for hawkers and homeless people and basic services such as water and sanitation are non-existent.

The Pretoria ISDF (1999:2) identifies Marabastad as an area in need of “urgent urban intervention”.

Development in Marabastad is slowed down by different people laying claim to the same land. The Department of Land Affairs will be responsible for developing and implementing a policy of land reform in order to address current land claims and implementation of positive development strategies.

This dissertation aims to find solutions that will improve quality of life for the residents, users and visitors of Marabastad. Interventions should provide social upliftment and respect the cultural diversity of the area. An urban intervention should be provided to enhance the unique social, cultural and historical attributes that are Marabastad, so that it may be transformed into a vibrant urban landmark for the city of Pretoria. Transport related facilities have to be upgraded to exploit this area as an important destination for tourists, inhabitants and above all; the commuters to the city.



Numerous forms of public transport exist in Pretoria, the main ones being rail, bus and minibus/taxi. The bus network is being retrenched due to disinterest in this system. The routes are long and time consuming. The minibus is more adequate in this regard as reaching destinations is faster and access to facilities is more flexible. The main reason for the success of the taxi industry can at the same time be seen as its most negative attribute; being so flexible this system is disorganised and uncontrolled.

A large sector of society, namely white citizens, have little confidence in this system and do not utilise it. It is a system that was never planned and seemingly overnight developed into a major industry inviting anyone feeling fit to merely join in. No provision is made for on-street taxi stops throughout Pretoria and formal taxi ranks are few and far between. The taxi industry is generally a very successful mode of public transport and its adequacy should not be questioned. It is however necessary to start thinking of ways to improve this system and to promote its use by all members of society.

Figure 11 main roads through CBD



Figure 12 images of public transport throughout Marabastad



Bordered by the Belle Ombre railway station to the north, Marabastad is a critical junction in the Tshwane transport network. However, no direct link between the station and central Pretoria exists, “leaving the estimated **47 000 daily commuters** to search their way between private cars and hooting taxis on uneven surfaces” (Pretoria Inner City Partnership. 1998:29). Marabastad lacks the facilities of a major throughfare for commuters to the city. Pedestrian and visual links between the station and the Marabastad area are weak, a result of the lower-level bus station which separates the station from Marabastad by a retaining wall (figure 16). A pedestrian ramp links the station to the corner of Bazaar and 7th Streets, and a staircase provides a weak pedestrian link to the northern end of 11th Street. The physical integration between the station and Marabastad needs to be improved to activate social integration.

During most hours of the day the station building at Belle Ombre is deserted (figure 13). The street corners and taxi ranks of Marabastad however, allowing opportunities for informal street sellers, are vibrant nodes of activity and social interaction. This critical interplay between transport, social interaction and trade in everyday city life needs to be recognised. The informal trade sector has to be incorporated in the proposed development. Marabastad, the city centre and its transport related functions need to be linked through extended design interventions on a larger scale throughout the city to provide continuity and legibility to the public transport system. The proposed intervention is intended to act as a catalyst for future development in the public transport sector.



Figure 13 Belle Ombre station

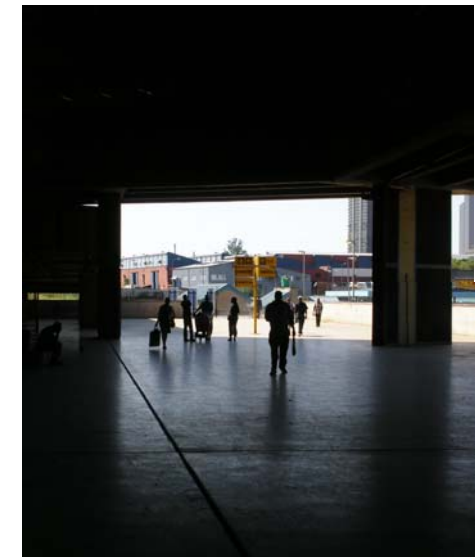




Figure 14 Belle Ombre station bus rank



Figure 15 bus rank west of Maraba shopping complex



Figure 16 retaining wall at Belle Ombre and informal taxi rank (corner of Bazaar and 7th)

Two Bus ranks are present in Marabastad:

1 bus rank west of the Maraba shopping complex (figure 15), this bus rank is in a state of neglect and requires upgrading by the City Council.

This rank is highly utilised, with its informal market providing a pleasant node of activity. More formal facilities for hawkers should however be provided.

2 Belle Ombre Station bus rank (figure 14), the station is of inhospitable character, and upgrading should be considered for both the station building and bus rank.

Inside Marabastad **no formal taxi ranks are provided**, and taxi traffic operates on ad hoc arrangements. No formal taxi-halts are provided in the streets.

An informal taxi rank has sprung up at the foot of the Belle Ombre pedestrian ramp (corner Bazaar and 7th Streets, figure 16) as well various other sites.

Other taxis operate in the streets of Marabastad, again without proper provision of stops. *“Modal integration of the various public transport systems suffers from the lack of properly serviced infrastructure, and formalised ranks for taxis. This aspect of Marabastad however provides a strong opportunity to re-activate the suburb by careful placement of new facilities, to optimise pedestrian movement through the area, and stimulate commercial activity”* (Marabastad ISDF, 1998). Links between transport-related functions need to be strengthened throughout the precinct. Links can be established in the form of “follies”. These follies will provide continuity while at the same time presenting opportunities to accommodate adequate public facilities and open space.

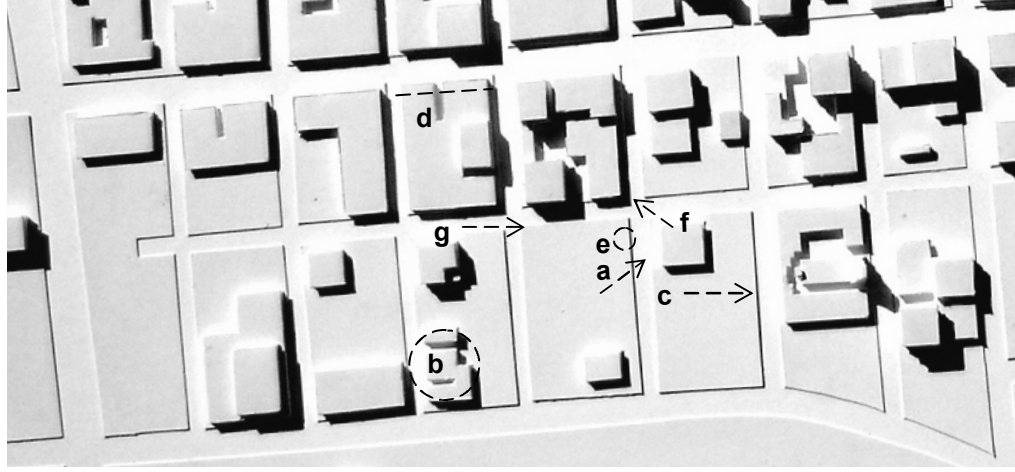


Figure 17 shebeen on the corner of Seventh and Bloed.

Figure 18 Site and surrounding city blocks

The site chosen for the proposed transport interchange is situated in present Marabastad, over three blocks bordered by Grand Street to the north and Bloed Street to the south, with Fifth– and Third Streets bordering the site to the east and west respectively with Jerusalem– and Fourth Street intersecting the three blocks (see figure 18). Situated just to the east of the site The Mariammen Temple, an acknowledged heritage site, will greatly influence the development as neighboring development should be sensitive to this valuable artefact. The site currently houses an informal taxi rank. A first pre-feasibility report for the Pretoria Tamil League (June 2000:7) states that, *“although this site is not part of official planned transport nodes, it is foreseen that the existing use pattern will not change until acute development pressure forces otherwise”*. Other unofficial land uses include taxi repairs, illegal shacks, informal trade and a large restaurant located in a temporary tent-like structure. These land uses will have to be incorporated into the new development. Permanent structures on the sites include: Lallie’s restaurant, ladies’ bar & disco, a medical practice and run-down vacant buildings.

It is proposed that the run-down vacant buildings be demolished. The medical practice will be accommodated in the new development and therefore can also be demolished. Adjacent land uses consist predominantly of retail and wholesale outlets and vacant, undeveloped pieces of land, with limited entertainment and religious activities. Due to heavy pedestrian and taxi traffic in Bloed Street, the proposed site is ideal for a taxi rank and public facilities.



- a** corner of Jerusalem and Grand looking north-east, note building heights
- b** run-down vacant building and illegal shacking on site
- c** from Jerusalem looking east towards the Mariammen Temple
- d** typical Marabastad sidewalk; covered walkways and trade
- e** inadequate ranking- and hawking facilities leads to unhygienic circumstances in Marabastad
- f** north-west corner of Jerusalem and Grand, note land use; motor spares, taxi rank and informal trade
- g** view to the east down Grand Street, note city skyline to the right

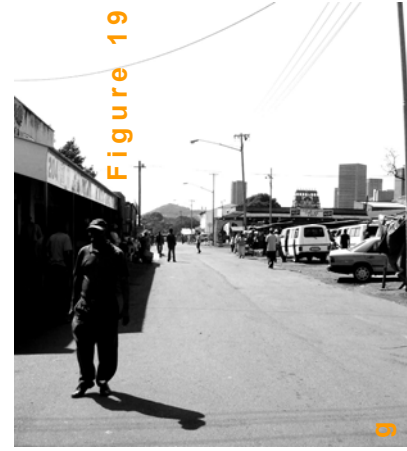


Figure 19 existing site and surrounding land use

Chapter 3 of the ISDF (1998) for Marabastad states the following:

Natural environment

Slope _ Marabastad has a gentle slope from the south-west to the north-east at about 1:36. The slope places no constraints on development.

Climate _ Marabastad is characterised by generally high temperatures. Relatively high local humidity frequently combines with high afternoon temperatures in summer. Rainfall is seasonal (summer rains), with an average of 741mm per year. Mostly precipitation occurs in thunderstorms with rates of around 90 to 100 mm per hour. Hailstorms are fairly common and can be severe.

Wind _ Prevailing winds are calm, and blow from the north-east in the morning, backing to north-west in the afternoon. During winter occasional cold snaps bring winds from the south, while in the summer thunderstorms are accompanied by turbulent wind patterns.

Climatic factors must be addressed through efficient climatic design of buildings and spaces, with emphasis on building mass that counters temperature variations, shade and shelter against heat and precipitation (e.g. covered sidewalks) and the use of materials resistant to hail.

Electrical services

A municipal substation is located north of Boom Street, between Potgieter and 11th Streets. The Pretoria IDP report lists the Boom Street substation as having a capacity of 110MVA, of which 55,3% is currently used. The spare capacity should be adequate for rebuilding and re-activating those areas of Marabastad that are currently vacant.

General

The following development constraints should apply: Coverage: 80%

Floor area ratio 2

Height restriction 3 storeys.

Recommended minimum parking requirements are: Business: GLA under 1 000m² Nil, GLA above 1 000m² 1 bay per 200m² of the total GLA.

Residential: Single residence: Nil

Multiple residence: 1 bay per residential unit.

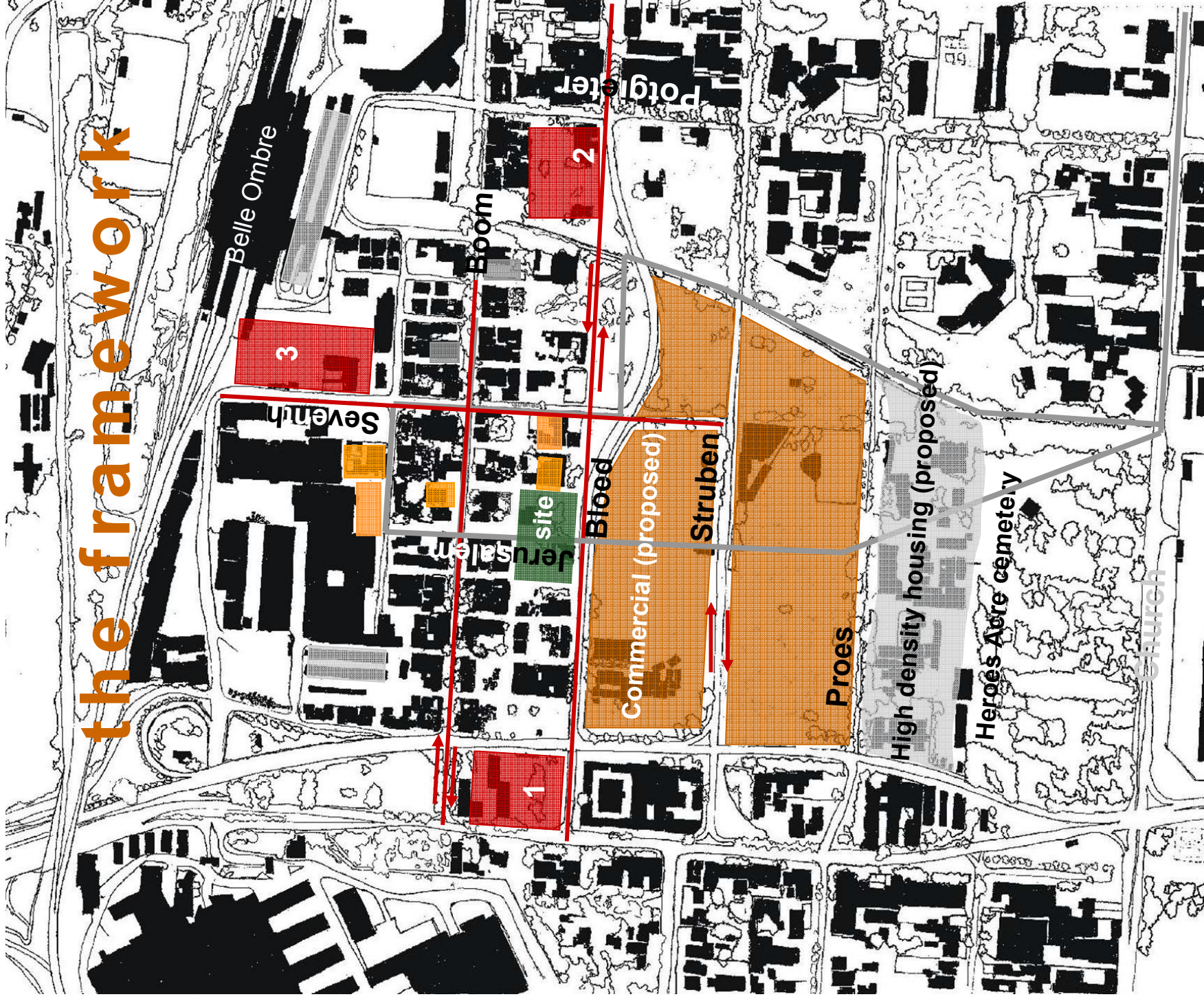
No building line setbacks are required, provided that developments meet statutory regulations concerning lighting and ventilation.




Windows fronting on a neighboring erf must be set back at least 1m from the boundary.






Figure 20 the corner of Jerusalem and Bloed looking east

the framework



-  two lane, two way streets
-  high volume activity streets
-  historic tourist route

-  proposed taxi ranks
-  Religious (existing)
-  The orient- and empire cinema to be restored as community halls

-  existing bus terminals
-  proposed public squares

↑ N

1.5

For the purpose of this dissertation an Integrated Spatial Development Framework for Marabastad will be used as background to the study. The framework compiled by Meyer Pienaar Tayob Architects and Urban Designers, in 1998 for The City Planning and Development Department of the City Council of Pretoria, will be adapted for this purpose. The ISDF (1998, section 1.2)) states that it is a core-document for “*embarking on an urban upliftment program in Marabastad*”, that redresses past injustices and “*truly has the interest of the hitherto ill-fated community of the suburb at heart*”. It is based on a holistic study of social, economic and physical conditions in Marabastad, past and present, and makes concrete proposals on all matters pertaining to the redevelopment process. The diagram on the previous page communicates proposals deemed relevant to this study and will be continuously referred to.

Section 3.3 of the framework distinguishes between four precincts or zones within Marabastad. These areas are not legally defined but rather zones of distinct character. The chosen site falls within The Asiatic Bazaar precinct. Comprising the north-eastern quadrant of Marabastad, this zone lies between D F Malan Drive in the west, Struben Street to the south, Steenhoven Spruit and 11th Street in the east and the railway line in the north. The area has been in existence for close to 100 years and is described in the ISDF as the main Indian trading area of the Pretoria CBD. The framework views this area as extremely important to the character of Marabastad and stresses sensitivity of all new development in this regard.

“*In order to protect the core of old structures which lend a particular visual and social character to Marabastad, and help to anchor the reestablishment of Marabastad in its history and tradition*” (ISDF section 9.4), the framework proposes that the National Monuments Council declare a provisional Conservation Area within this precinct. Situated adjacent to this proposed Conservation Area the chosen site will play a key role in this “reestablishment of Marabastad in its history and tradition”.

The framework further proposes a historic tourist route from Church Square via the Kruger House to the Heroes’ Acre and Princes Park, and beyond the Heroes’ Acre down Jerusalem Street or along the park on Steenhoven Spruit into Marabastad with its various attractions and monuments (diagram p22). Being one of the proposed high volume activity streets, Jerusalem Street forms a very important south-north vista. The framework sets certain parameters for the treatment of Jerusalem, Bloed, and Boom Street in terms of streetscapes.

Proposed for Boom– and Bloed Street (figure 22):

- shaded walkways in front of shops and trees along the street
- a taxi-halt on each small city block, alternating between blocks for east-and west bound traffic,
- diagonal off-the-street metered parking, and
- two established hawker stalls per small city block, on the island created by taxi-stop slipways.

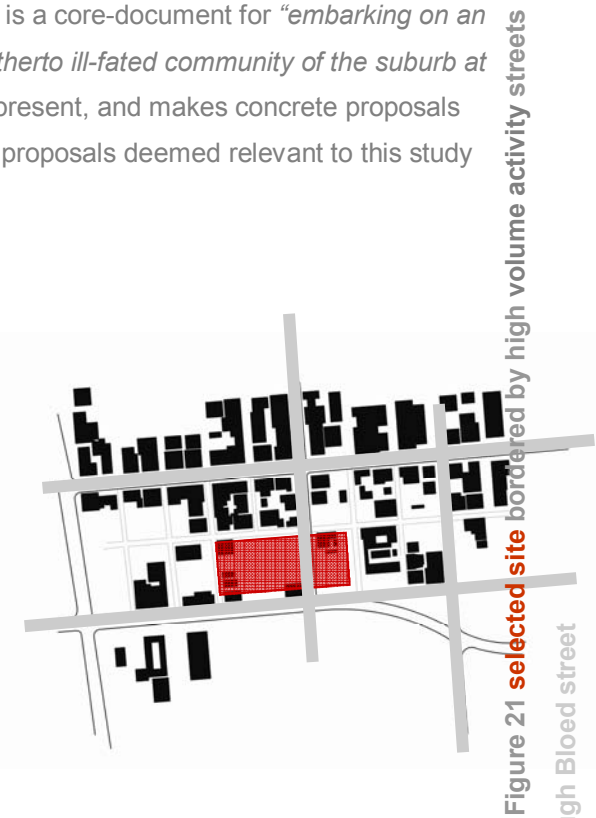


Figure 21 selected site bordered by high volume activity streets

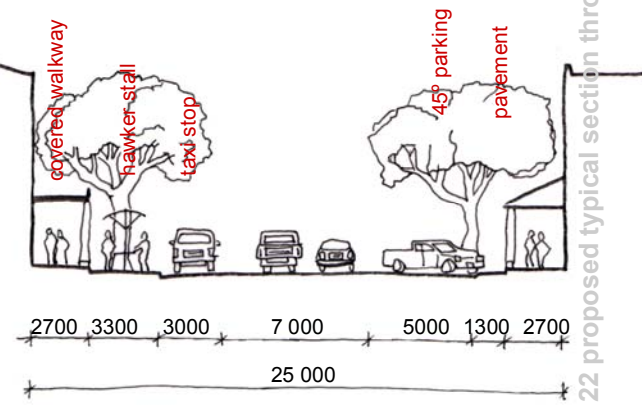


Figure 22 proposed typical section through Bloed street

Bloed- and Boom streets being converted to one way streets, running west and east respectively, greatly influenced the character of the area. Previously these streets were high-activity urban streets. The higher-speed traffic no longer permits the former drop-off, mixed traffic- and pedestrian flows, significantly reducing the viability of commercial activities still located in the area. The narrow streets running in a north-south direction are extremely congested due to these one-way streets running in a east-west direction. The report highlights the importance of re-instating these two streets as high-volume, low-speed, mixed-use activity streets with strong pedestrian flows and proposes Boom- and Bloed Street both be converted back to two-way streets.

Jerusalem Street is expected to carry less through-traffic and should be pedestrianised to some extent to form the symbolic north-south axis of the Marabastad urban grid.

Proposed for Jerusalem Street (figure 23):

- shaded walkways in front of shops,
- trees along the street,
- metered parallel parking along the side of the street, and
- provision of established hawking stalls on the pavements.

The site of the proposed interchange faces onto Jerusalem- and Bloed Streets. These proposals will indeed influence the design of the building facades and streetscapes. The design will promote the re-integration of slow-moving traffic and strong pedestrian flows, it will accommodate formal trading activities spilling onto covered walkways and pavements housing informal trade, supporting the premise of the street as social space. The design will incorporate and promote the cultural context of Marabastad.

The street will once again form the core of the vibrant mixed-use community life of Marbastad.

The ISDF further recommends that proper public ablution facilities as well as hawking stalls be provided at all bus and taxi ranks already existent or to be established, to serve shoppers and commuters in Marabastad. These facilities will be included in the design to act as generators of activity, linking public spaces and transport-related functions.

The Framework proposes three new taxi ranks in the Marabastad area (diagram p22):

- 1 On the island between D F Malan Drives East and West and Bloed Street (located next to the existing filling station on vacant land),
- 2 On vacant land zoned for taxi facilities between Grand, Potgieter and Bloed Streets, and
- 3 On vacant land currently used as an informal rank southwest of the Belle Ombre Station (corner Bazaar and 7th Streets).

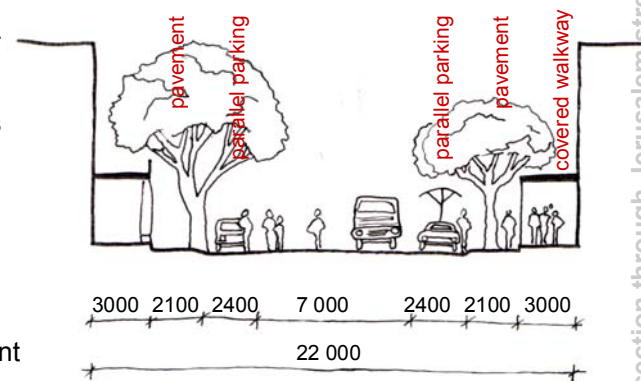


Figure 23 proposed typical section through Jerusalem Street
Figure 24 D F Malan a high-volume arterial route

The taxi ranks on either end of Bloed Street will promote east-west pedestrian flow down the two main activity streets. This study however questions the proposed rank on the island between D F Malan East and West as pedestrian access to this site is complicated; D F Malan being a fast-moving arterial route (figure 24). Locating this rank on Jerusalem street instead would still promote east-west flow through the precinct, while at the same time allowing pedestrian access and a node closer to the hub of activity. The two existing bus ranks will remain to operate in their current locations (see diagram p22). Links between these bus ranks and the proposed taxi developments have to be enhanced. Interventions can be applied at different scales of the city. At the smallest scale, the site itself serving its specific functions can be extended on a larger scale throughout the precinct and perhaps on a larger scale, the entire city. Solutions on an urban scale will intend to provide continuity and legibility to the public transport sector. The design of extensions to the public transport premise can be achieved through “nodes” distributed throughout Marabastad. These follies can take the form of elements in the public domain such as benches, ablution facilities, hawker stalls, dustbins, street lights or public signage. The message however, will be clear: the signal of an integrated public transport network. The sites of bus ranks, public squares, markets and taxi ranks proposed in the framework, are identified as places of intervention for this dissertation.

Temple square

The Mariammen Temple, situated just to the east of the site, is one of Marabastad’s finest cultural treasures. The siting of the Gopurum on the pavement edge poses the threat of full concealment once surrounding development takes off. The ISDF (section 9.4) therefore proposes the creation of a small square on the site across the street from the Gopurum (diagram p22). This accentuation of the Temple’s Eastern façade is supported as the elevation facing the proposed rank will become less sensitive in terms of neighboring development. A second public square is proposed by the framework (diagram p22) at the northern end of Jerusalem street. Currently the end of the street is marked by a small parking lot in front of the Maraba Shopping Complex, and to the west of Jumma Mosque. This important vista will contribute positively in integrating the proposed taxi rank with the future plans to transform Marabastad into a vibrant urban landmark. The site selected for the rank is ideal for the purpose of preserving the distinct character of the precinct, as well providing adequate services for its users. Situated in the hub of proposed development, the site, with its related functions, can easily be accommodated in the integrated plan and the general vision for the future of Marabastad.

Figure 25 illustrating views down present Jerusalem and Fifth Street





The research involves investigations within the context of transport as ritual. This premise will be studied and defined to influence decision making during the design process. De Coppet (1992:13) sees ritual within “a hierarchy of organised skills and processes” which include “formal repetitive behaviour, small encounters, and large-scale ceremonies”. As with transport, physical progression towards one’s destination exists, rituals too involve metaphysical movement from one state to another. Just as the language of anthropological theory is based on metaphors of spatial direction, progress, and conquest, De Coppet concludes that

“ritual can only be described, by either observers or participants, as movements between points and places”.

Furthermore, one could distinguish between: sacred- and secular ritual as well as personal- and public ritual. In the same way travel can range from the private everyday routine of walking to work, to the ceremonial type journey of a public bus trip. “Ritual need not fulfil a stated aim in order to continue and be believed in. But what I do regard as fundamental to this ambiguity and tension between a ritual’s performance and assertion is its formulaic spatially, namely, the capacity to create and act through idioms of passage and movement, including exchange, journey, axis, and up-and-down directions” (De Coppet 1992:18). Throughout the daily ritual of transport the individual is continuously confronted with interchanges between journeys; as soon as a preliminary destination is reached, the journey ends and another begins.

Rituals involve passing through metaphysical thresholds and crossing boundaries. These transitions are symbolised by physical movement in space. The circumcision ritual comes to mind, as the transition between physical spaces reflects the symbolic passing from one world to another: the metaphysical world the boy is leaving behind to be received into the world of men. The design intervention will involve public and private journeys through physical space while at the same time metaphysical movement in the mind of the individual, through the ritual of public transport. The two symbolic worlds/spaces that will be interplayed are the public and private realms. Ranging from the inner space of the self to the outer space of the world, individuals will take on journeys and undergo transitions between these two differing worlds. Through the ritual of transport, individuals will at times be stripped of their personal sphere into the public, forced to interact socially. The idea of the self being rooted in a social context and the suggestion of an interdependent self will be exposed. The building will involve functions ranging from facilities for the extremely public realm of transport and public ritual, right through to private building functions, for the most intimate personal realm of the self and private ritual. Building functions will promote further interplay between public and private ranging from the design of a community hall, public toilets and facilities to accommodate informal street sellers, to formal retail and private accommodation. **Ritual manifests itself through various activities that take place on a daily basis in Marabastad ranging from sacred to secular, public to private.**



Figure 27 daily rituals

Privacy is defined as “an interpersonal boundary-control process, which paces and regulates interaction with others” (Madanipour 2003:23). Madanipour identifies a direct link between the permeability of this boundary and the levels of privacy or on the other hand, interaction, that can be achieved. The observation of personal space is closely related to the situations in which social encounter takes place. The size of personal space also depends on age and development, gender, and cultural differences. In Marabastad, the boundaries between public and private are generally blurred; like public streetscapes that become homes for the homeless, demarcating a certain sense of private space. To describe the non-Western notion of self, Madanipour uses the term “interdependent self”, where the boundaries between individuals are fuzzier and they are more dependant on group characteristics. This is definitely the case in Marabastad where traditional cultures argue that the human subject is far more constrained by society and nature and the notion of an independent self is not developed. The design process will adhere to this idea of the self being developed through interaction with others. The intervention should instigate public interaction with the least amount of intervention. The continuous efforts of urban planners and designers to idealize and promote communities, are feeble attempts to create community. Bernard Tschumi (1994:13), believes that one should “design conditions, rather than condition design”. The leftover spaces (voids), between the existing and the designed, become public spaces to be appropriated by the user.

These “voids” become the place of potential “events”. Events being an “indeterminate set of unexpected outcomes” (Tschumi, 1994:13).

Tschumi recognizes rituals as having “relations between space, movement and action”. He argues that rituals are “ceremonies that determine space” and that they “regulate these spaces” (Tschumi, 1994:19). The design should take temporary events, as opposed to permanent functions, and merge them in architectural spaces. “Un-programmed space” can be activated by “generators” (Tschumi, 1994:514).

These generators will be located in the areas earmarked for intervention. Simple interventions can create the potential place of the occasional event.

Spaces will be created for appropriation and the intermingling of functions.



Spaces will be created for appropriation and the intermingling of functions, accommodating existing rituals occurring on the site.

Simple interventions can create the potential place of the occasional event.

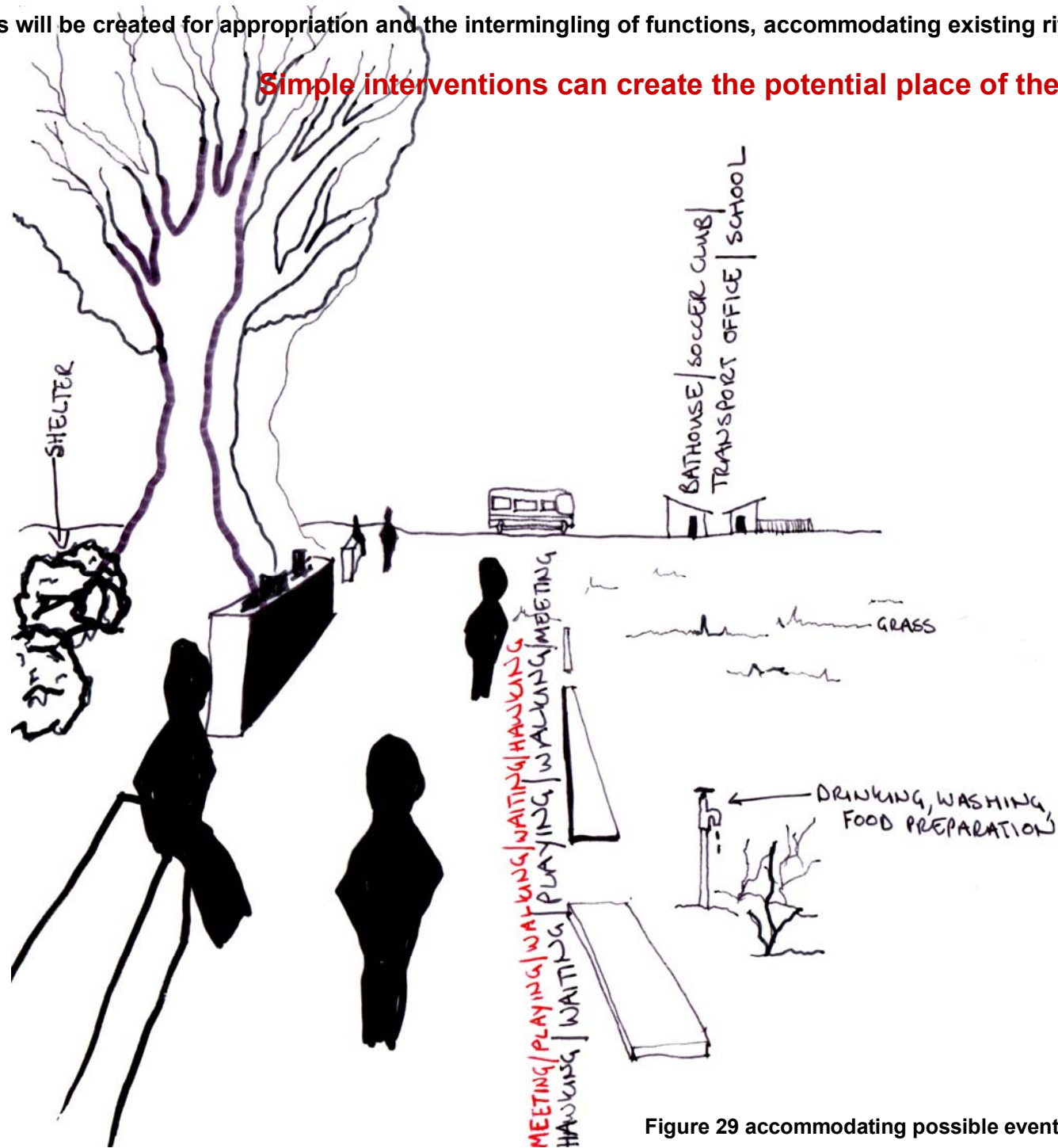


Figure 29 accommodating possible events occurring on the same site

2

precedents

There are urban patterns which do not rely on any kind of formal structure, but which develop an immediate degree of informality and nevertheless have a very high and intense form of organization.

So what we are looking for are forms of intervention that orchestrate urban life. (Koolhaas, 2000)



marginal \ trivial \ insignificant
 informal \ casual \ unofficial
 illegal \ criminal \ illegitimate

Figure 30 Esselin Street, Pretoria. Simple interventions can accommodate traders while creating opportunities for interaction and appropriation

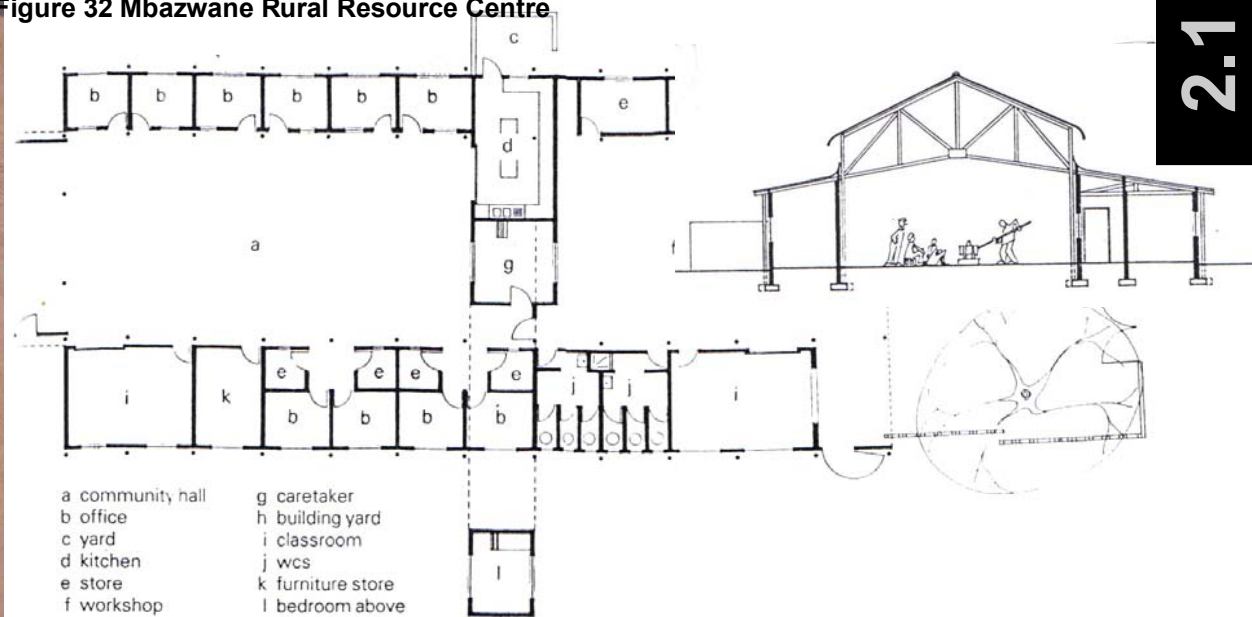
“A recently published excerpt of the ongoing study of the Nigerian city of Lagos by Rem Koolhaas’s Harvard GSD studio, *Project on the City*, challenges current thinking, arguing that Lagos is neither dysfunctional nor terminally ill” (Isichei, 2002:11). Koolhaas and his students explore the city as a case-study of the “efficacy of systems considered **marginal, informal or illegal**” (Isichei, 2002:11). The published excerpt focuses primarily on a commercial complex known as Alaba, a huge marketplace located between Lagos and Badagry. Alaba seems to have materialized without any government or regulatory influence. These systems grow by themselves; organizations and structures that emerge primarily as a result of economic and social forces, free of control or planning. Private spaces are usually defined and public or communal spaces become the spaces left over, or excluded from private ownership. In many cities, public or communal space was not built. The most common public space in these societies is in fact the market space. They allow individuals to remain mobile and sell in limited quantities or to become fixed and take on bigger roles.

Markets become social spaces that allow for communal interaction and play critical roles in linking different organizational elements. In modern Nigeria, the traditional idea of market space has been transformed into an urban strategy. **Spaces are not assigned permanent functions**, streets may become markets and taxi or bus terminals may become barber salons. Like other aspects of market, the use and demarcation of space remains negotiable and is constantly reassessed. “*This seems to be the key to Lagos’s survival*” (Isichei, 2002:13). Lagos remains flexible and its organizational structures reconfigure as different possibilities and situations require. The proposed intervention for Marabastad will share this approach to public space allowing users to adapt facilities for specific needs, for instance, allowing trade to spill out from demarcated areas into the surrounding streets. Market place in Lagos, like Marabastad, uses leftover space, which is the way public space has traditionally been approached. The intervention will try and package space in ways that facilitate the requirements of the traditional market: a space that is adaptable, with minimum intervention, accommodating community interaction and unexpected outcomes and allowing ritual to determine and regulate space.



Figure 31 community architecture

Figure 32 Mbazwane Rural Resource Centre



Community buildings “allow people to position themselves not only as individuals, but as a community” (le Roux, 2003:16).

“Community architecture provides places where people can go to be themselves, to meet others and to do things” (Jekot, 2003:32).

Buildings should provide open shelters for learning and community activities. Spaces should be **integrated with the surrounding environment**. Cultural and physical context should inform architecture. Interventions should be of a **high standard with a long-term vision** that will allow users to continue creating their own well being. A project by Harber, Masson and Associates provides a successful case study of community architecture. The Mbazwane Rural Resource Centre is a non-government organization providing a focus for community education and development and is situated near the Mozambique border in Maputoland. The brief proposed “a **flexible, loose-fit plan with a wide central space for public assembly and instruction**” (Slessor, 1995:42). The facility houses a community hall and workshop, surrounded by classrooms, storerooms, a kitchen and offices (figure 32). An open courtyard extends the workshop to the exterior of the building. The building was designed to demand **minimal input from professional consultants**, the entire process being directed by a committee representing the community. The timber roof trusses were built by community builders from a basic template and explanatory models. “When the timber frame was roofed over, it formed a protective canopy under which blocks were manufactured and used in the assembly of the freestanding walls” (Slessor, 1995:42). The idea of an **open courtyard** to extend the building interior, also providing a threshold between inside and outside, is extremely suited in a African context and will be considered for the intervention for Marabastad. Furthermore, the intervention should acquire a high level of **public participation**. The building will contain open structures to accommodate a vast number of activities. The taxi rank will house multiple community facilities and should function as community architecture.



Figure 33 hawking facilities at Mansell Road



"Rodney Harber and his architectural practice represent a singular force in the architectural profession; where there exists a consistent attempt to engage the project of transformation through all dimensions of architectural production. This endeavor has been realized through persistence and a dedication to the social dimension of architecture that appropriates the exigencies of the everyday in a productive and imaginative way" (Low, 2004/2005:148). This project is the result of a response to pressure from the influx of chartered busses of rural shoppers, who had begun to establish semi-permanent sidewalk homes for their weekend shopping sprees. The intervention involves a range of **semi-permanent structures** (figure 33) to accommodate trade and lodging for its users. The temporariness of the structures **provide flexibility for a variety of uses**.

The Mansell Road project realizes the opportunities inherent in urban problems, particularly in relation to **empowering** marginalized people and providing **viable inner-city housing** for poor families. "By re-using wasteland, **urban renewal** has generated activity for both dwelling and trade. This project demonstrates the possibilities of recognizing and redirecting urban conditions unique to African cities" (Low, 2004/2005:148). It is however evident that implementing facilities such as these, in the proposed transport interchange, will have to be firmly managed. The possibility of job creation could be explored e.g. employing a facilities manager to oversee and maintain the use of public facilities, such as the bathhouse or hostel, in exchange for a salary and lodging.

Public participation is evident and critical to the success of community projects, as seen in most of Harber's work. Integrating the community at all phases of the development will play a key role in the proposed development. Through input and choice, the community will feel an immediate ownership of the facility, which will bring about pride and conservation of their 'property'.

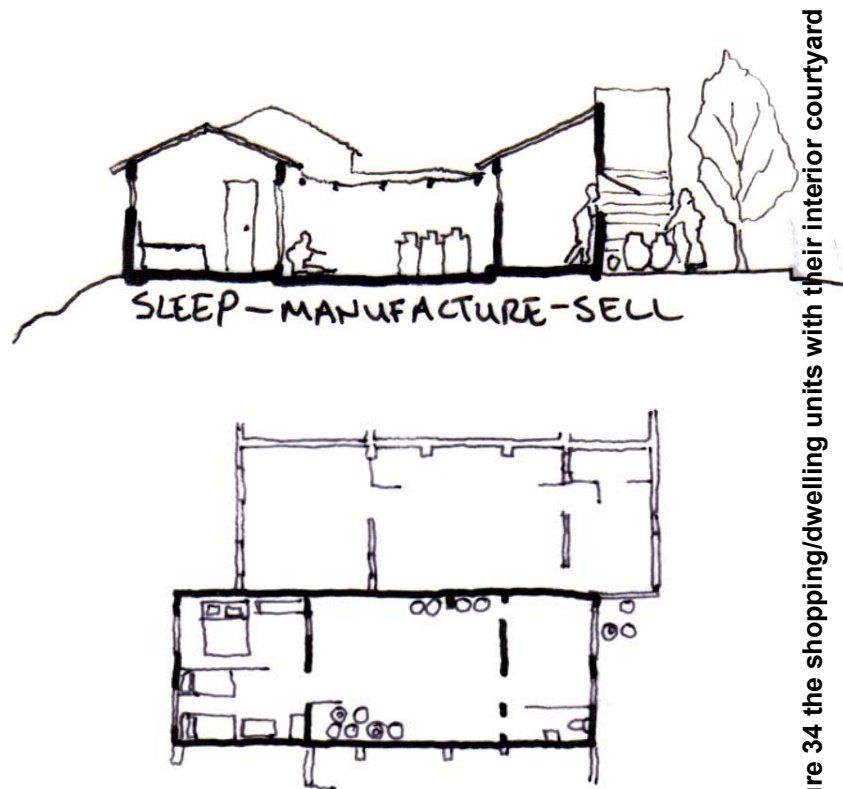


Figure 34 the shopping/dwelling units with their interior courtyard

Mansell Road, Durban

Harber, Masson and Associates; Kirk White, Jo Lees, Michael Krause
Durban City Council
1994

This project is rich in appropriate design responses and innovative arrangements for the successful cross-programming of a **variety of functions** including: public bathhouse with a commercial shop, and the shopping/dwelling units with their interior courtyard. *“This combination of accommodation, trade and public facilities reconciles the public and private life of the family”* (Low, 2004/2005:148). Other innovative interventions include:

- bathhouse with self-flushing, unblock able toilets
- accommodation for 44 drum ladies, with a small commercial outlet and plumbing, separated from two bedrooms by a courtyard with a pergola
- car-boot salespeople for operators on beachfront parking lots at night
- open sheds for informal traders
- transitional housing.

The Marabastad transport interchange will accommodate a wide variety of functions. Combining functions into versatile units (see figure 34) will be explored in the design process. **Sustainable solutions** have to be applied; designing buildings to fulfill a variety of functions over time and the possibility of personalization by the user.

“With the formation of the Government of National Unity in 1994, a more vigorous commitment to the provision of services in poorer areas took root at local government level. There was also a national commitment to creating a culture of paying for services” (Louw, 2002:24). There was however a lack of dignified and convenient places to pay rates and service levies. Having “no place to pay” would be used as an excuse for non-payment by local residents. With this in mind, the Tygerberg Municipality embarked on a program of creating service centers and pay-points. These would also act as sites of contact between local government and the public.

The solution posed the creation of multi-purpose buildings to satisfy a range of community needs like much needed **social space and a sense of integration**. “The buildings had to contribute to activities that take place around them, particularly trading and playing for children as well as waiting and queuing” (Louw, 2002:24). In response to this challenge, a variety of elements were incorporated. These include a covered external space (offering shade and shelter from the elements), the provision of public toilets, the use of ramps and steps to provide informal seating and general spaces to congregate and trade. **Water tanks** are also provided in courtyards to collect rainwater from the main roofs for **storage and re-use**.

These pay-points are located close to other public and community facilities and spaces in order to **reinforce and integrate places of civic significance**. Five sites were identified for the buildings within Khayelitsha. Extending the intervention throughout the entire satellite city, provides legibility and continuity. This concept could be applied in Marabastad to **extend interventions** throughout the public transport sector to create an integrated public transport network.

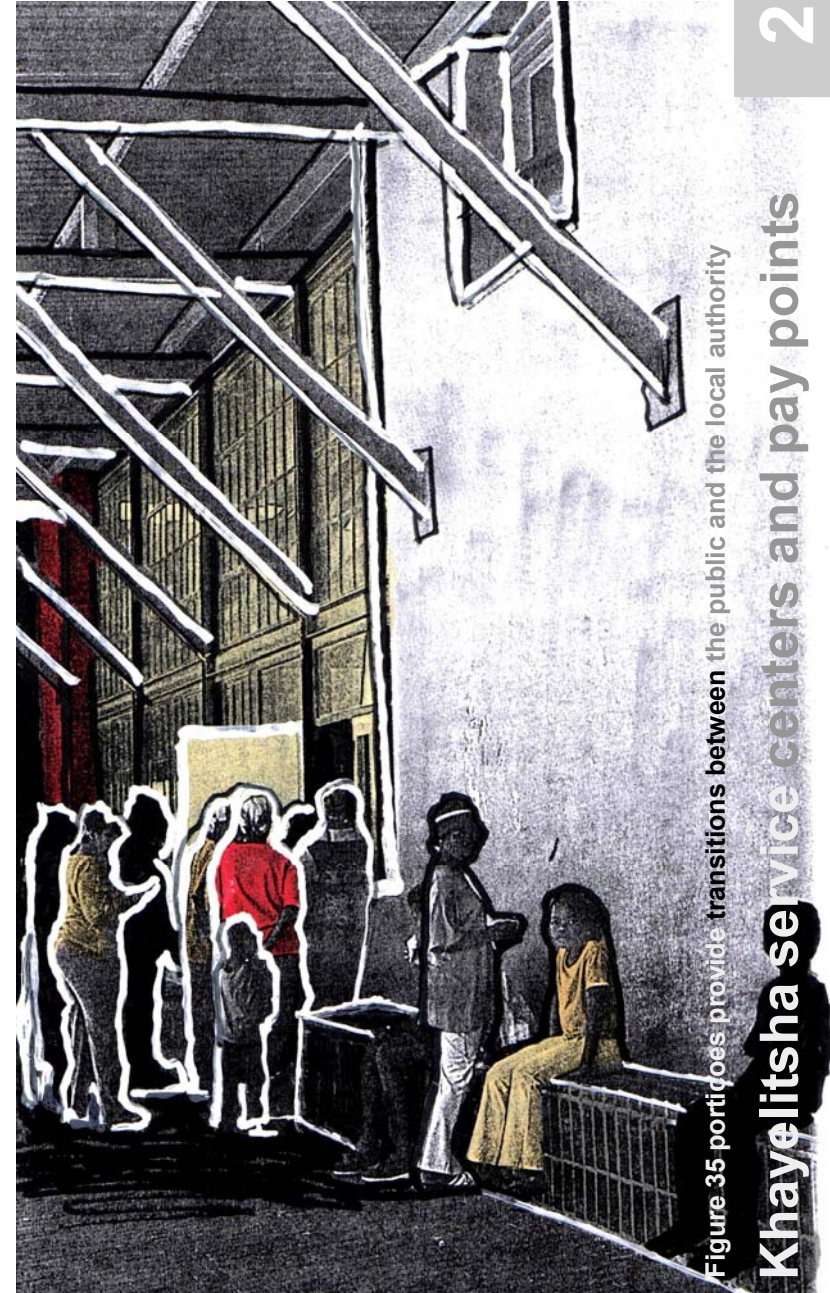


Figure 35 porticoes provide transitions between the public and the local authority

Khayelitsha service centers and pay points

The service centre buildings are used as defining elements to announce public space. The public façade creates a sense of height, rising above the predominantly low-rise shack townscape, thus forming bold elements that are legible and visible from some distance. Like the intervention for Marabastad, important thresholds exist in the building; the **use of porticoes to provide transitions** between the public and in this case, the local authority. A section through the building (figure 36) illustrates further differentiation between the extremely public portico, the semi-public foyer and pay-point zone, and the secure area inaccessible to the public. Further interplay between two realms is expressed in the building elements. The elements of civic scale like the buttresses, walling, brick paving, steel structure and roof, etc are of hard and precise quality. *“The internal domestic lobbies, stair, working spaces and meeting rooms are of soft quality and have plastered and painted walls throughout with carpet and vinyl floor finishes”* (Louw, 2002:28). Construction procedures have extended the balance between the formal and informal. *“The steel structure, reinforced concrete slabs, the security work area all specialist work, as opposed to the informal component comprising brickwork, plastering and painting done by local laborers”* (Louw, 2002:28). The use of local labour enables the community to take part in the construction process, once again promoting public participation in- and ownership of facilities.

The intervention at Khayelitsha is valuable to this dissertation as it provides examples of dealing with public spaces, as well as transitions between these spaces and more private facilities to be housed at the Marabastad transport interchange. The challenge lies in the incorporation of different related functions to create a social facility with a sense of place for the community, as well as a sense of permanence and integration.

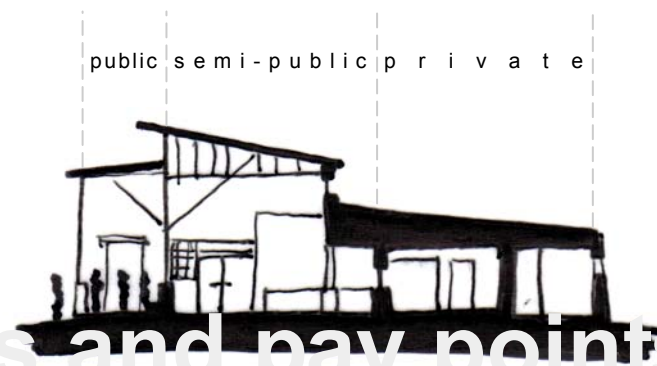


Figure 36 A section through the building illustrates differentiation between the extremely public portico, the semi-public foyer and pay-point zone, and the secure area inaccessible to the public

Khayelitsha service centers and pay points

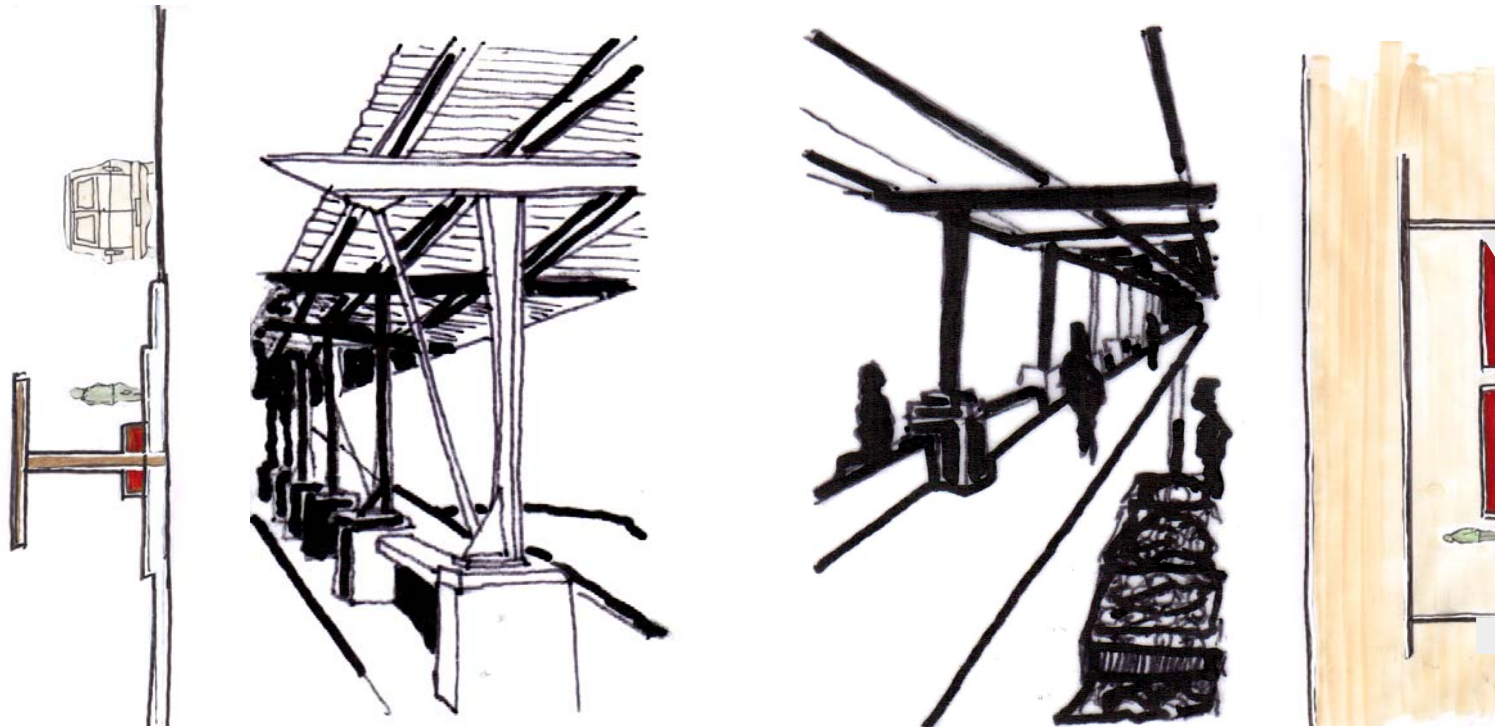


Figure 37 interventions at Eersterivier, Kuilsrivier and Melton Rose stations

transport related facilities 2.4

“It is not surprising that many new projects built with post-apartheid public or government funding work around points of mobility such as transport interchanges” (le Roux, 2003:17). Beyond their role in easing the circulation of goods and people, these projects offer services to marginalized people. Where apartheid was a system of segregation, transport interchanges become symbols of integration. New transport interchanges were constructed at the Eersterivier, Kuilsrivier and Melton Rose stations. All these stations are situated along the Oostenberg Metrorail line, which runs along the eastern edge of the old Cape Metropolitan area. “In each case, transport authorities identified the stations as areas in great need of investment and Development” (Digest of South African Architecture, 2002:39). Like Marabastad, basic facilities were either not provided or in a state of despair. The community was involved throughout the design and construction process and **local labour** was also used. At the start of the project, it was not clear how many stations would be redeveloped, so a prototype design was developed that could be altered within each context. **Providing continuity** throughout the transport sector can be achieved by **extending interventions** throughout Marabastad in a similar way. Interventions were simple (figure 37); sheltering steelwork canopies supported on low, unpainted concrete walls. These bases provide seating and in the case of Marabastad, could provide areas of informal trade.

At a new taxi rank and trading facility in Randburg, the trading activities remain separate from ranking facilities to **promote safety and efficient movement of vehicles**. This allows “autonomy of traders over the market precinct and affords the representative taxi associations jurisdiction over the ranking zone” (Darrol, 2001:30). This can be implemented in Marabastad to some extent to provide safety and control. The facilities will however be more integrated and situated closer together with various smaller market areas situated between ranking areas. The trade areas will act as thresholds between various facilities: between outside and inside, ranking and the street and, public and semi-public areas.

*“This project forms part of the ‘dignified urban places’ program of the city of Cape Town. Conceived to transform the ‘black townships’; by **redressing the urban poverty** established by the impoverished spatiality of apartheid’s policy of segregation. This program intends to improve these environments by bringing them to the standard enjoyed by the privileged white areas. Essentially, what has evolved is a contemporary public realm. Whereas the principal spatial agenda of apartheid was (racial) segregation, the spatial agenda for the new democratic era is obviously one of integration. Transport interchanges therefore become an obvious place for integration, affording the possibility for a range of human encounters” (Low, 2004/2005:150).*

Philippi is situated in the south-east sector of the Cape flats. It is synonymous with the South African ‘township’.

A context, like Marabastad, of limited resources, lack of investment and dire poverty. This project exploits the potential of human encounters by incorporating a range of commercial opportunities. These have been designed to address the scale and level of enterprise that pre-exists in the townships. *“The architectural component of the built works attends to this through two complementary strategies. Firstly, by thoughtful programming of the site, the design disperses functions across the area to establish nodes of attraction and lines of activity. These are complemented by the secondary design strategy, which seeks to **extend the boundary between public and private** to engage the passerby more effectively” (Low, 2004/2005:150).*

The interchange area has an extraordinary liveliness and reminds one of Marabastad’s sidewalks covered with diverse trade activities and street intersections that become the place to hang out and see and be seen. *“Philippi is the third largest station in Cape Town where approximately 30 000 commuters pass through on a daily basis” (Digest of South African Architecture 2002:29).* Comparing this station to Marabastad’s 47 000 commuters one could assume Belle Ombre as being one of the largest stations in South Africa.

“Due to the large amount of human activity passing through Philippi station, traders had over the years established a 200mx70m outdoor space as an informal market resembling an urban forecourt to the station” (Digest of South African Architecture 2002:29). The intervention aimed to

adhere to existing movement and functions on the site. Therefore merely filling the forecourt with trees, to provide relief against prevailing winds, *“to retain the scale of the urban rooms”* and to support a variety of activities within this court.



Figure 38 low walls can serve a variety of functions

The proposed intervention, like this project will be underpinned by the understanding that the architect intervenes in a short time interval after which the space is layered and defined by a number of people over time. The intervention should be flexible in its use and provide room for a number of readings and interpretations. As with the Marabastad site, a dense network of day-to-day interactions occur within the site. *“The general urban activities of waiting-watching-moving-talking-trading-eating needed to be accommodated”* (Digest of South African Architecture 2002:30). Thus, the proposed Marabastad interchange will also not focus solely on transport requirements. The design will focus on the outdoor areas where the opportunity for interactions is maximized. At Philippi, components such as seats, taps and braais have been applied to form a cluster of outdoor living rooms.

“People have appropriated these spaces because they are not prescriptive in their associated uses”

(Digest of South African Architecture 2002:32). The most important lesson to be learnt from this case study is the potential of spaces and surfaces to become reflections of the remarkable ability of communities to respond to space.

“Various actors begin to claim turf and daily patterns of trade and meeting find logic within the site”

(Digest of South African Architecture 2002:32).

Philippi Public Transport Interchange, Cape Town

Du Toit and Perrin, Architects in Association
(former) Municipality of Cape Town and Cape Metropolitan Council; Departments of Transport, Economic
Development and Design Services Branch
2000



Figure 39 spaces are not prescriptive in their associated uses





Metro Mall, Johannesburg

Urban Solutions Architects and Urban Designers
Blue IQ, Johannesburg Development Agency, Metro Trading Company
2001/2002

Figure 40 images of Metro Mall



Metro Mall, Johannesburg

Urban Solutions Architects and Urban Designers
 Blue IQ, Johannesburg Development Agency, Metro Trading Company
 2001/2002

*“Employing density and strategic cross-programming, Metro Mall has brought together a difficult set of design demands into a coherent and cross-programmed urban world. This is enriched through the functional **combination of taxi transportation with living, shopping and entertainment.** The beginnings of a model for integrated urban development have been established and demand attention by a government that 10 years on still conceives and delivers projects within the segregated silos of the apartheid era.*

Effectively it offers an infrastructural amenity that contributes to the public life of the city through considered design interpretations that promote interaction. In an increasingly mobile society, intermodal transit has become the common experience for all citizens. This is of particular significance in the South African situation where the redress of apartheid’s spatial legacy of segregation demands more than utilitarian responses to integration”. (Low, 2004/2005:138)

The ranking facility is **organized in lanes** according to destinations, seemingly an organized system. Across the road from this huge facility, an informal taxi rank has sprung up, once again illustrating community response and adjustment of designed facilities.

The Marabastad interchange should allow flexibility in this regard to allow public interpretation and adaptation of facilities.



Figure 41 ranking facilities at Metro Mall





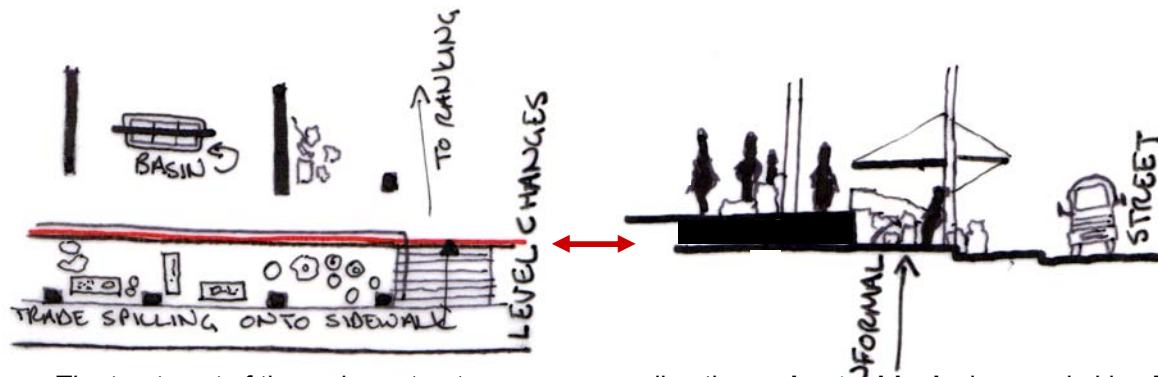
Comprising two city blocks, the Metro Mall **combines various building functions**; informal markets, more formal retail, housing, commerce, as well as taxi- and bus ranking. Formal facilities for hawkers such as basins and preparation areas are provided. Sanitation and running water is also provided. In the proposed development for Marabastad, these basic provisions have to be made. Furthermore, water could be recycled, as potable water should not be wasted on washing vehicles etc.

Aesthetically the building is pleasing; brick concrete and steel with organic material used for shading. The **materials are robust** and very effective for a public facility of this kind.

The **integration of urban art** at Metro Mall, created by local communities and artists, provides colorful alternations to the building's neutral palette of materials. Including the local community encourages participation and community ownership of the buildings.

The interventions for Marabastad should launch various community projects for this purpose.





The treatment of the various streetscapes surrounding the **perimeter blocks** is remarkable. Ranging from solid walls with critical penetrations, to open facades with informal trade spilling over onto the sidewalk. The **permeability** of the urban block integrates the surrounding fabric while at the same time introduces complementary functions. The transitions between sidewalk and building create **a variety of thresholds**, sometimes blurring the boundaries between the two spaces. This treatment of various streetscapes can provide valuable in the design of the Marabastad transport interchange. Transitions between public and private space can be achieved through applying boundaries with varying levels of permeability and interaction:

solid walls completely separating the two realms,

formal retail enclosing the interior,

barriers with visual throughfares, promoting interaction to a certain extent,

changes in level to provide physical division without separation,

covered walkways and colonnades to promote moderate levels of public interaction, and

hawking stalls lining the perimeter, linking the interior with the streetscape.

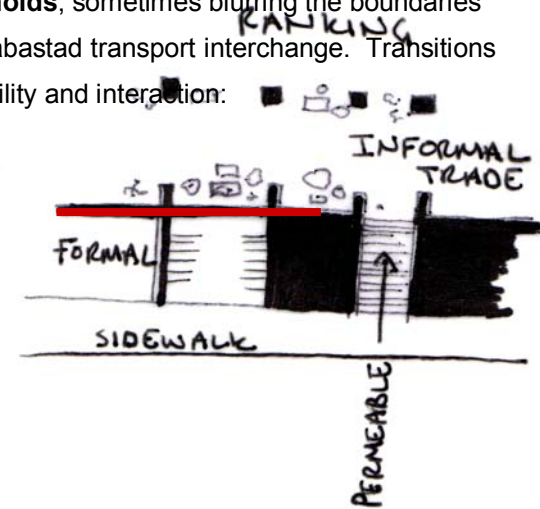
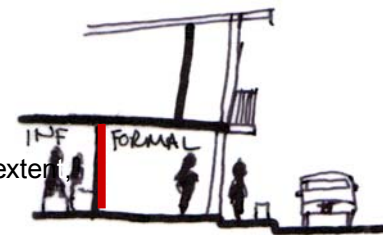


Figure 43 various streetscapes (diagrams and photographs)



solid walls completely separating two realms



changes in level to provide physical division without separation



covered walkways and colonnades to promote moderate levels of public interaction



reinforce and integrate places of civic significance

empowering marginalized people

redressing the urban poverty integrated urban development

urban renewal extend interventions

social space and a sense of integration providing continuity

Markets become social spaces that allow for communal interaction

Sustainable solutions

perimeter blocks

integrated with the surrounding environment

robust materials

high standard with a long-term vision

promote safety and efficient movement of vehicles

Sustainable solutions

semi-permanent structures provide flexibility for a variety of uses.

Spaces are not assigned permanent functions

adhere to existing movement and functions on the site

summary

adhere to existing movement and functions on the site

combination of taxi transportation with living, shopping and entertainment

semi-permanent structures provide flexibility for a variety of uses.

a flexible, loose-fit plan with a wide central space

public participation

extend the boundary between public and private

a variety of thresholds minimal input from professional consultants

use of porticoes to provide transitions

local labour

interpret

3 design development

interpret (in-ter'-pret) *v.t.* to explain the meaning of; to put a construction on; to translate for the benefit of others; to render or represent

An **INTERFACE** as an in-between, functions as un-programmed space;
a point where interaction occurs between systems, subjects and processes.
The intent is to generate a program for a building
through the superimposition of existing rituals and processes occurring on and around the site.
The site should act as a catalyst of this in-between that is Marabastad.

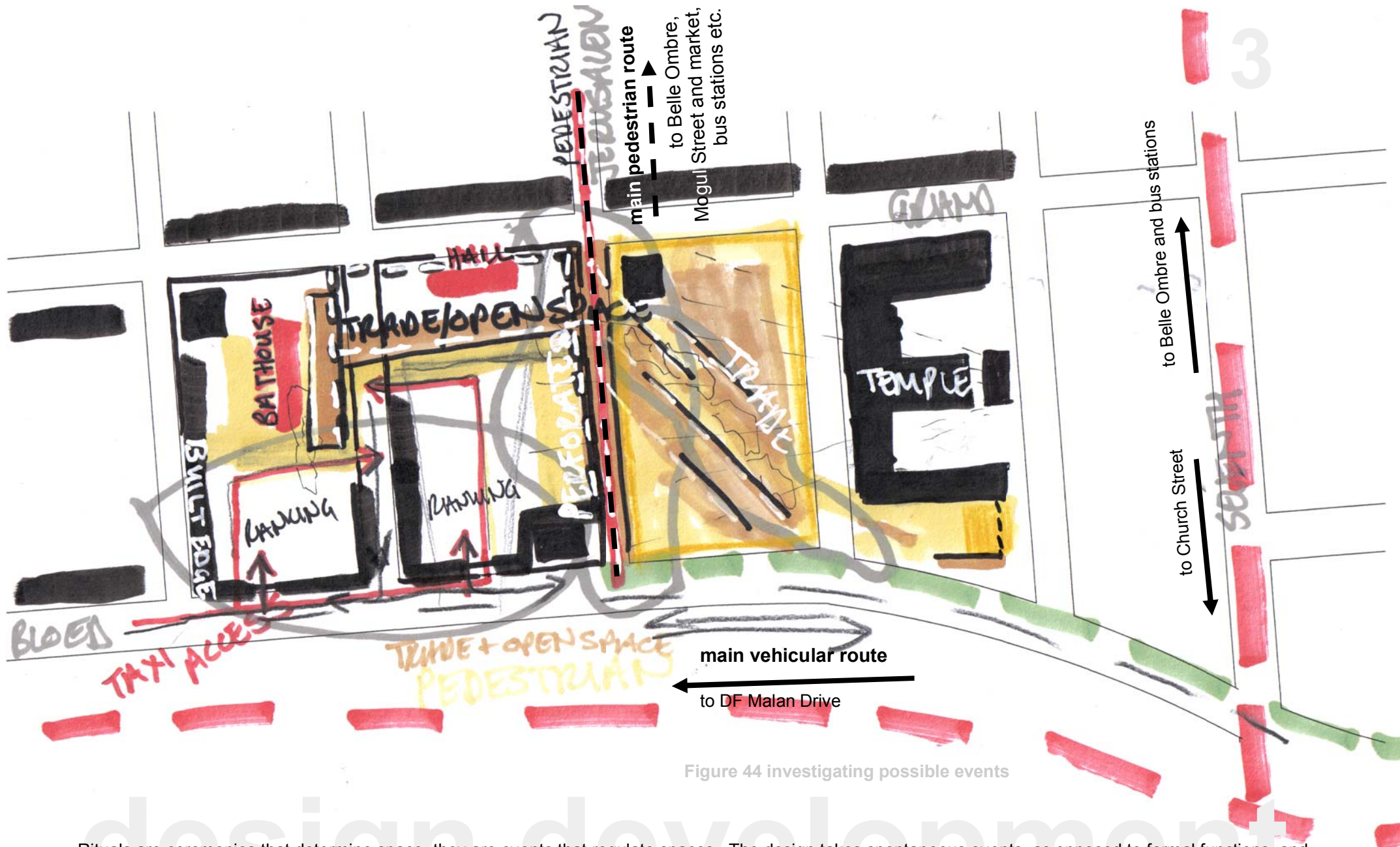
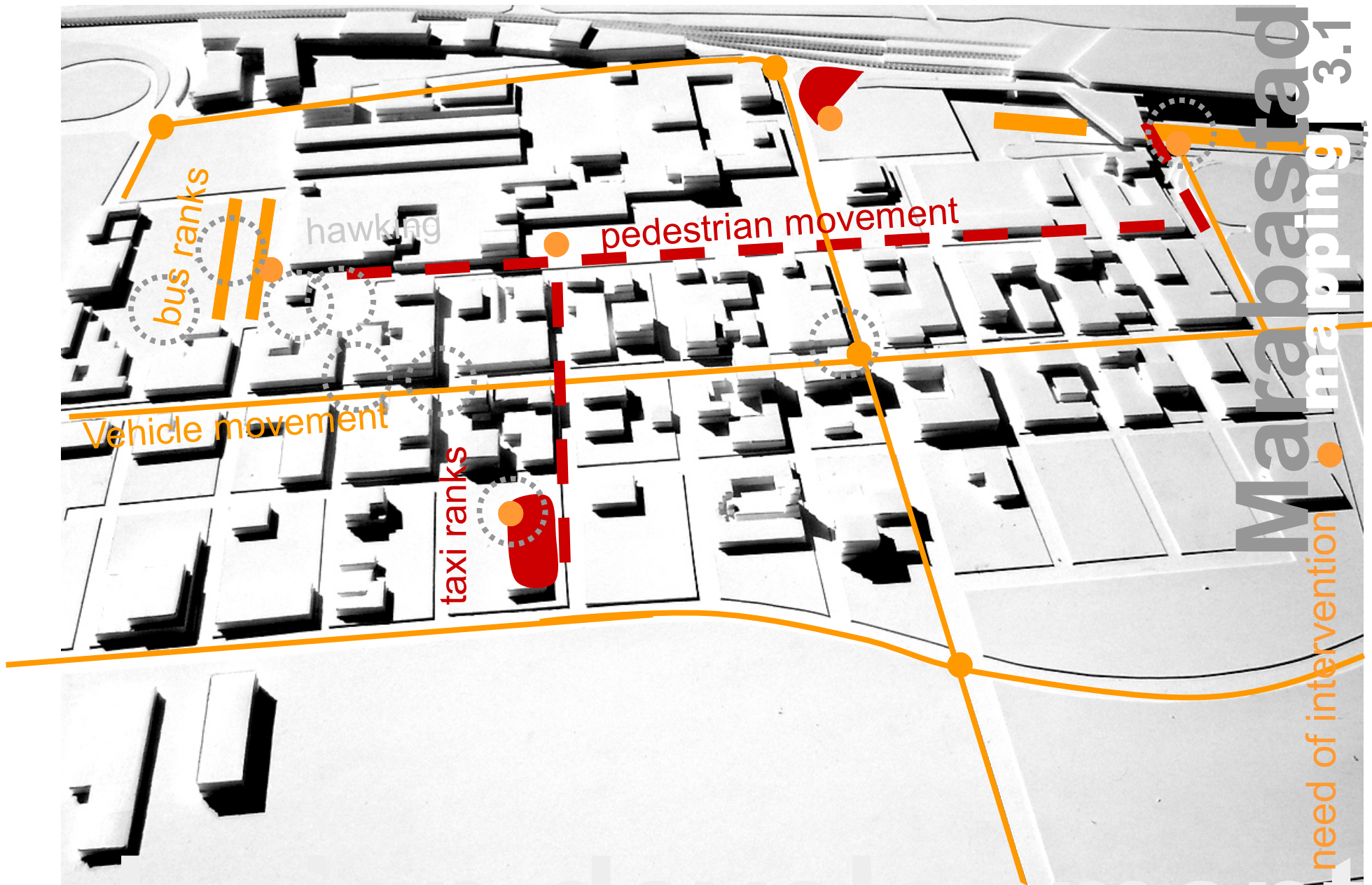


Figure 44 investigating possible events

Rituals are ceremonies that determine space, they are events that regulate spaces. The design takes spontaneous events, as opposed to formal functions, and merges them in architectural spaces. Spaces will be created for appropriation and the intermingling of functions, accommodating existing rituals occurring on the site.

By mapping the existing site in relation to the precinct, one can establish the place of the possible event.



Informal trade is scattered throughout Marabastad, mostly near transport-related facilities. Instigating the main pedestrian routes through the precinct, these areas become “generators” of activity. These are recognized as nodes in need of intervention, where adequate facilities should be provided. A second set of nodes can be established on the main vehicular intersections. These form a second layer of generators which should aid in connecting transport-related facilities.

Figure 46 mapping Marabastad



Bloed, Boom, and Seventh Streets comprise the main vehicular movement through Marabastad.

Jerusalem and Mogul Streets are the main pedestrian routes; connecting Belle Ombre, bus stations and markets.

There is also a strong pedestrian link, connecting the three sites of the proposed development

Streets running from north to south are slow moving and congested due to Bloed- and Boom Streets moving west and east respectively.



Figure 47 mapping the site: movement



Two axes are formed by existing trees on the site.

Besides the run-down vacant building to be demolished, there are three other existing buildings on the site

Site of demolished building

Figure 48 mapping the site: objects



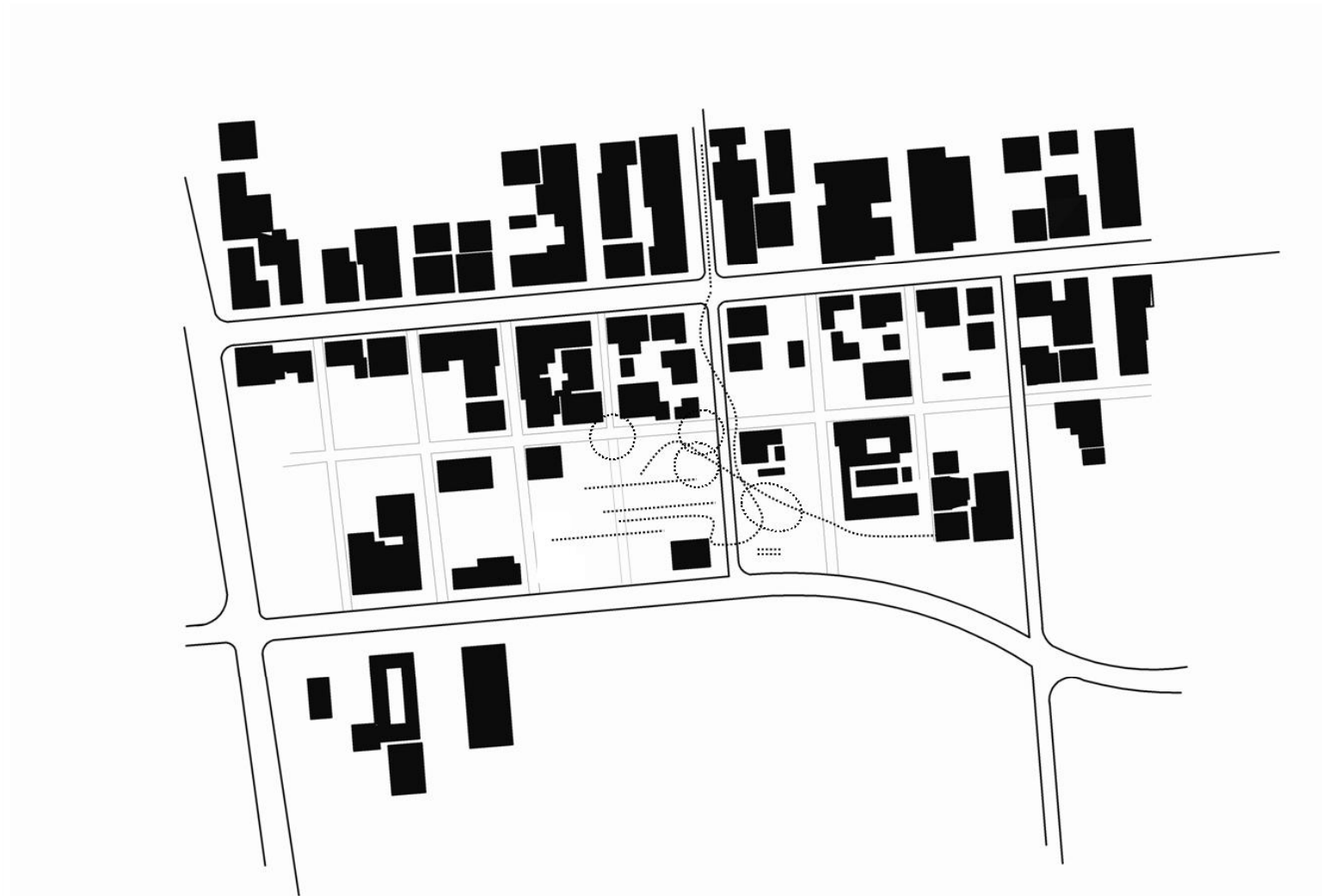
Views from the site toward the Gopurim of the Mariammen Temple will play a role in the design development. _____

Approaching the site from the North along Jerusalem Street forms important views. _____

Figure 49 mapping the site: views



Figure 50 mapping the site: activity



Rituals like buying, selling, ranking, taxi repairs, walking, eating and meeting take place on a daily basis on the site.

rituals • the site
the mapping

Figure 51 mapping the site: rituals

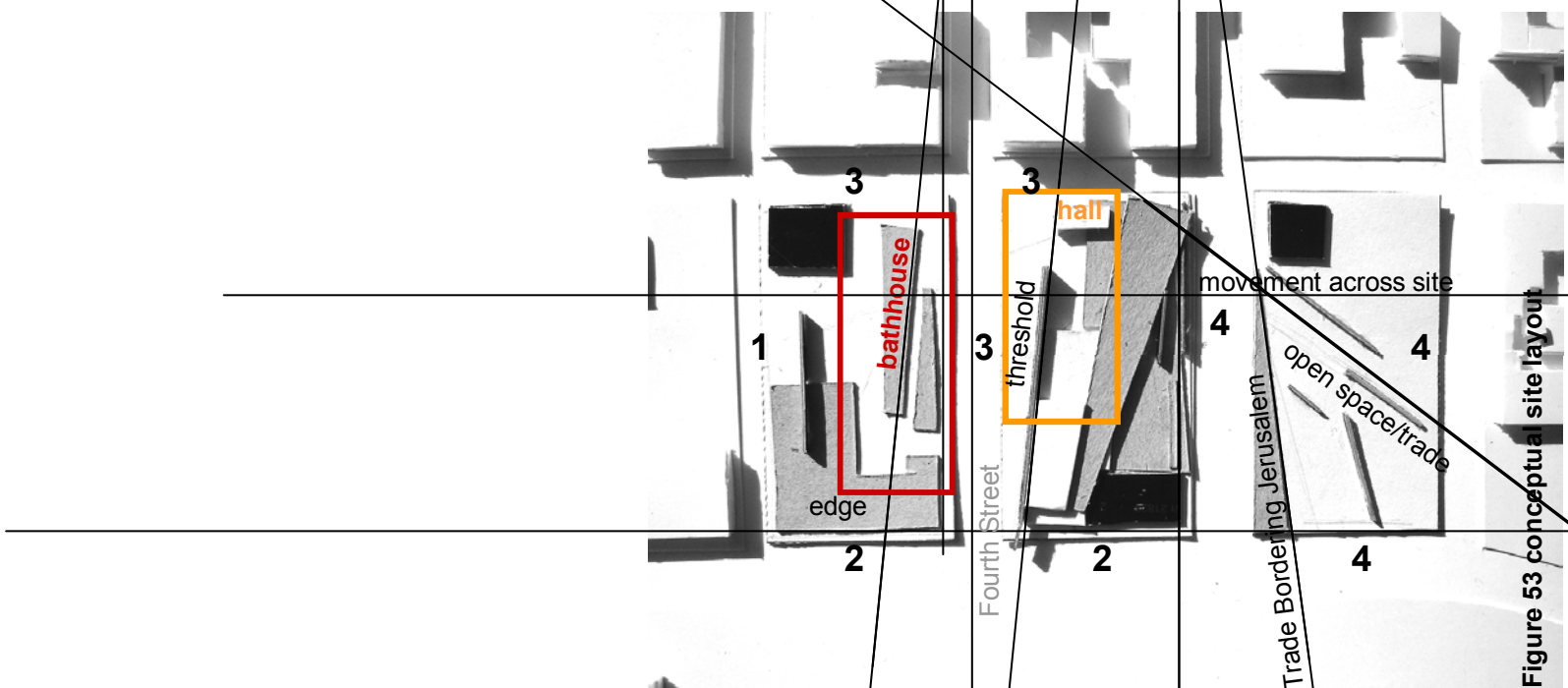


the place of the possible event • the site

By mapping existing objects, movement, views, activity and rituals, the place of the possible event is established (figure 52).

The site will function as an interface where various systems meet. The interface also functions as a threshold/boundary. The site therefore becomes an interchange; combining various functions while acting as a stop-over and node of exchange.

Figure 52 mapping the site: the place of the possible event



Through mapping the site in relation to Marabastad, a conceptual layout of the three sites was created.

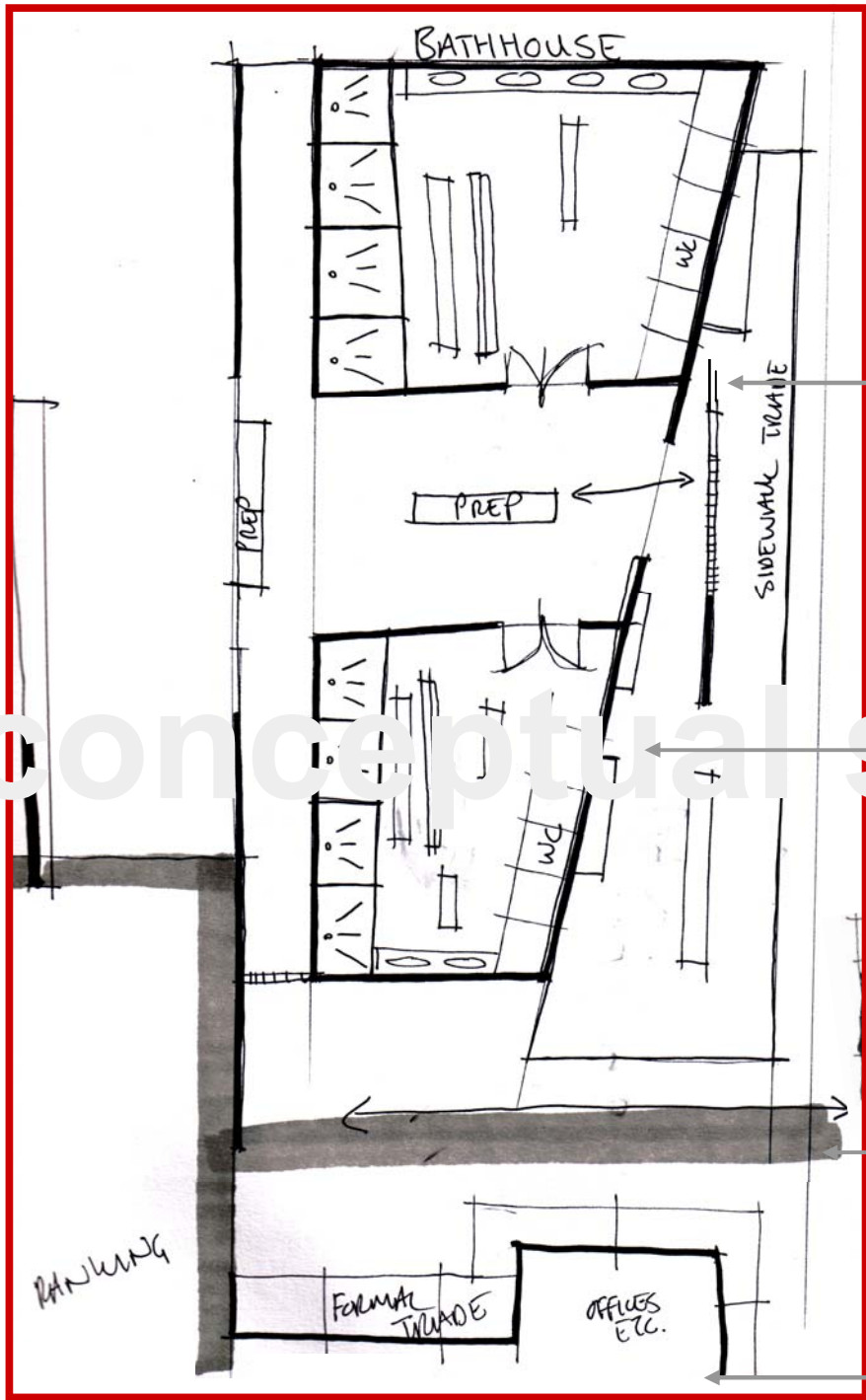
Streetscapes are ranked from 1 to 4, expressing different levels of public interaction: no/private, moderate/semi-private, high/semi-public, and completely transparent/public. Spaces with high levels, allow maximum community appropriation.

Boundaries and built form will be designed in accordance to these levels.

These levels will greatly influence the design in terms of thresholds, placement of functions, and the treatment of facades.

(figure 53) The block between Jerusalem and Fifth is reserved for informal trade with minimal intervention. Jerusalem is bordered by informal trade, with subtle interventions taking the form of walls and permeable boundaries defining thresholds between the street and ranking facilities. Ranking facilities will be accommodated in their current location in the centre of the two blocks bordering Fourth Street, with definite edges facing Bloed Street. Main vehicular access will be accommodated from Bloed Street with alternative exits into Fourth Street. An adaptable community hall is situated in the middle block (see also figure 56), with its facilities extending outwards to the south into an open public space. The western block will house a bathhouse facility (see also figure 54) separated from the street by a buffer of informal trading space.

Built form will be kept to a minimum to allow adaptability. Maximum open space should be left for appropriation by the community. The formality of the geometry is deliberately in contrast with the informality of surrounding buildings, to announce public space. The buildings create a sense of permanence that plant the seeds for future development and investment.



The **bathhouse** will be designed as a unit accommodating male and female restrooms with showers, waiting areas, water closets, washing basins, safety lockers, and storerooms for cleaning equipment. The two restrooms will be separated by a courtyard housing preparation areas and basins for hawkers. The **courtyard** will be screened from sidewalk trade by a **visually permeable boundary** (figure 55). Municipal servitudes running through the centre of blocks are kept in mind through all stages of the design process



The sidewalks bordering Jerusalem Street will be reserved for informal **trade** with maximum community appropriation.



Pedestrian movement will be promoted between blocks within a strip running between Third and Fifth Street. Pedestrian areas of ranking zones will align with this axis.

Bloed Street will be lined with definite building edges containing **commercial functions** like rentable office space and retail.

Figure 55 conceptualizing trade facilities and boundaries

Figure 54 conceptualizing the bathhouse in relation to ranking facilities

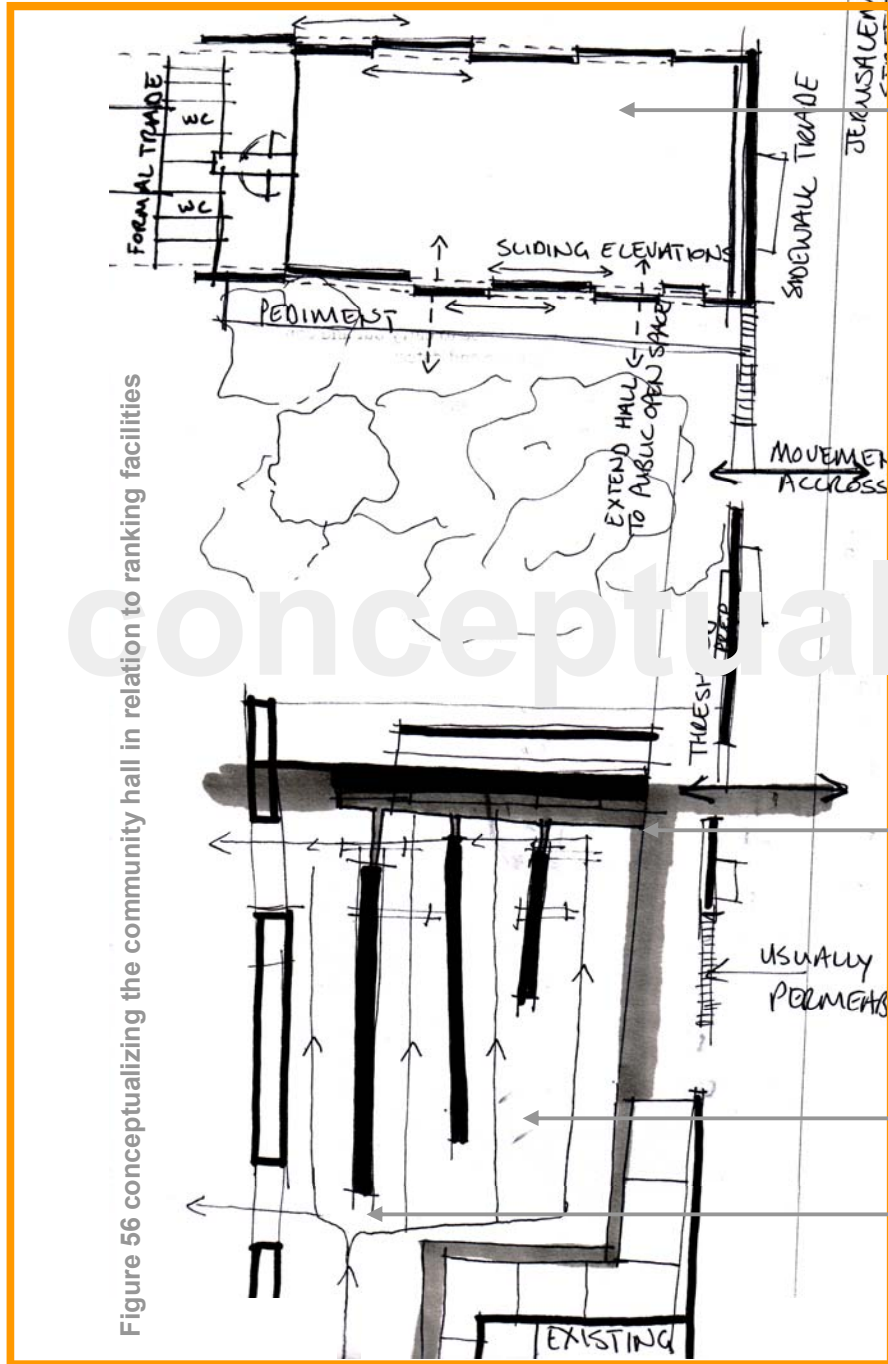
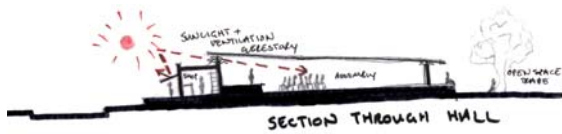


Figure 56 conceptualizing the community hall in relation to ranking facilities

The **community hall** will be designed as a multi-functional facility. The hall will house facilities to cater for functions ranging from small meetings, to community events. The façade of the hall will be designed to slide open (figure 57), extending the interior into a forecourt. The sliding “walls” will create variations of the building’s façade. The hall with its forecourt will function as public **open space** to be appropriated by the community.



Pedestrian movement will be intercepted regularly with **thresholds**, varying in permeability and height, visually dividing different areas. Sidewalk elements will be applied for accommodating hawking stalls and seating. Pedestrian areas will be reserved to create transitions between ranking– and hawking facilities.

Taxi **ranking** will be accommodated on the southern side of the block. Main vehicular **access** will be gained from Bloed Street through critical permeations of the perimeter building. Buildings housing commercial activities facing onto Bloed Street, will enclose the ranking facility.

Figure 57 conceptualizing the community hall as a multi-functional facility



Figure 58 conceptual site layout

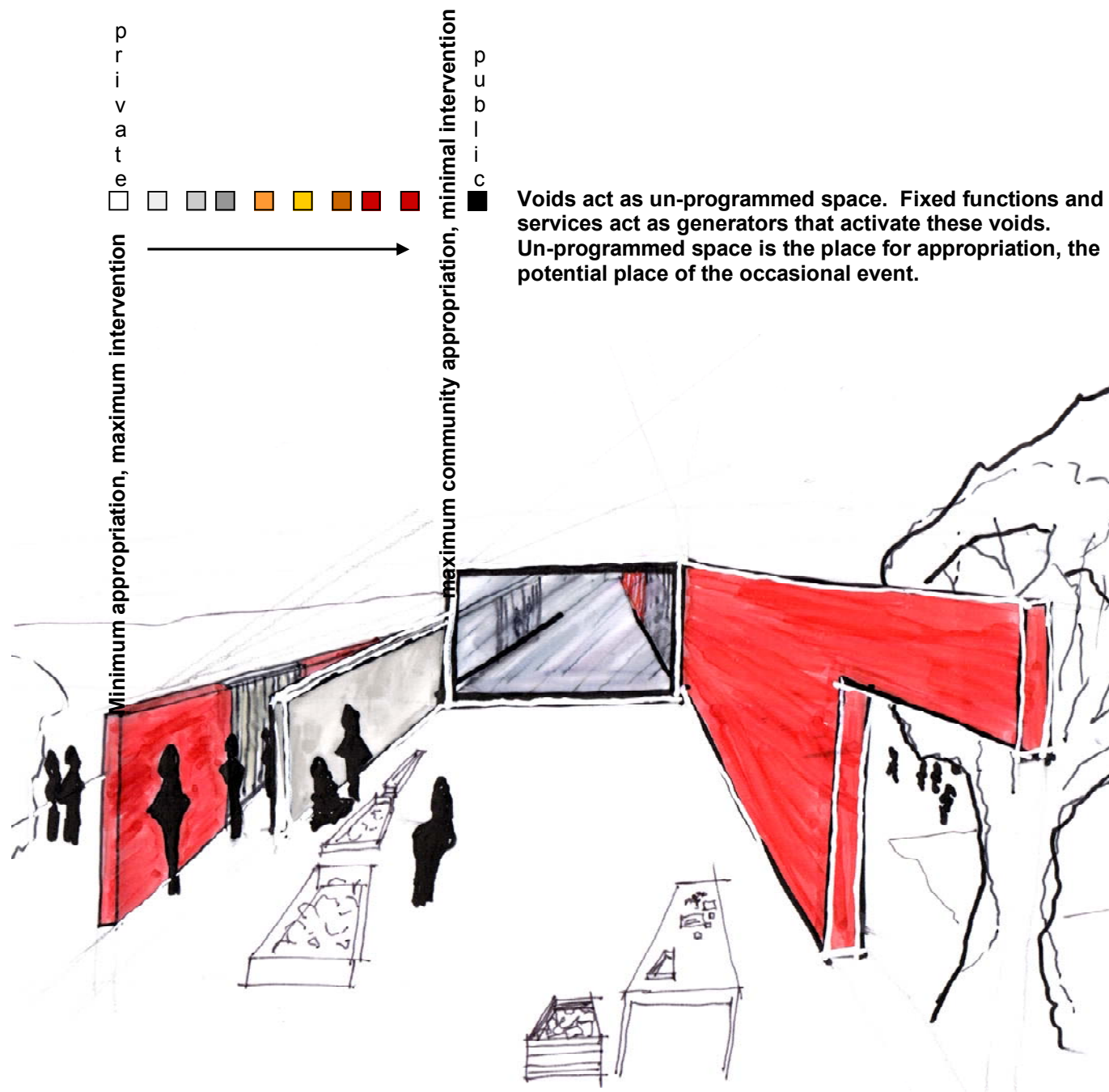
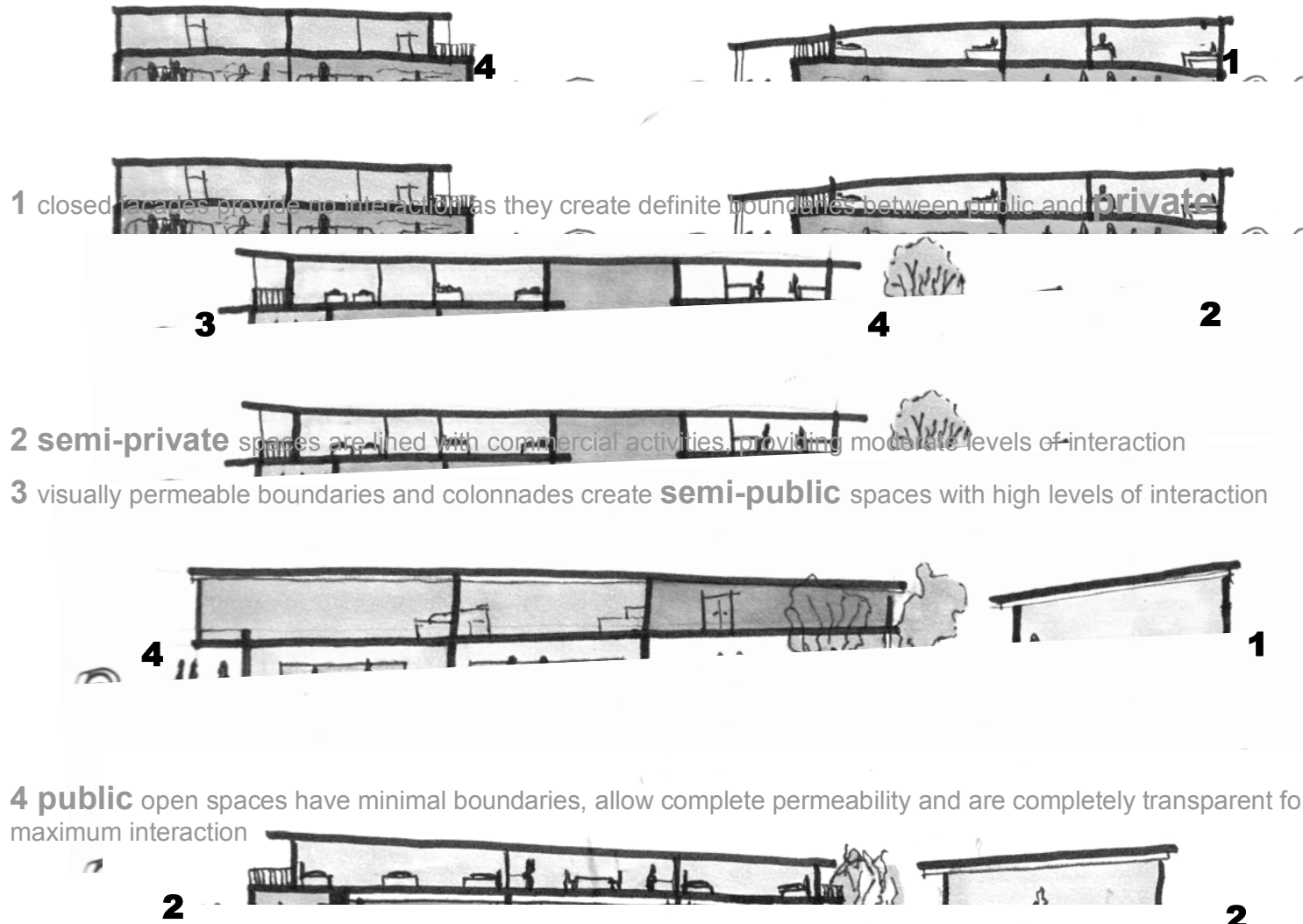


Figure 59 voids become the place for appropriation

Figure 60 conceptual sections—public and private realms

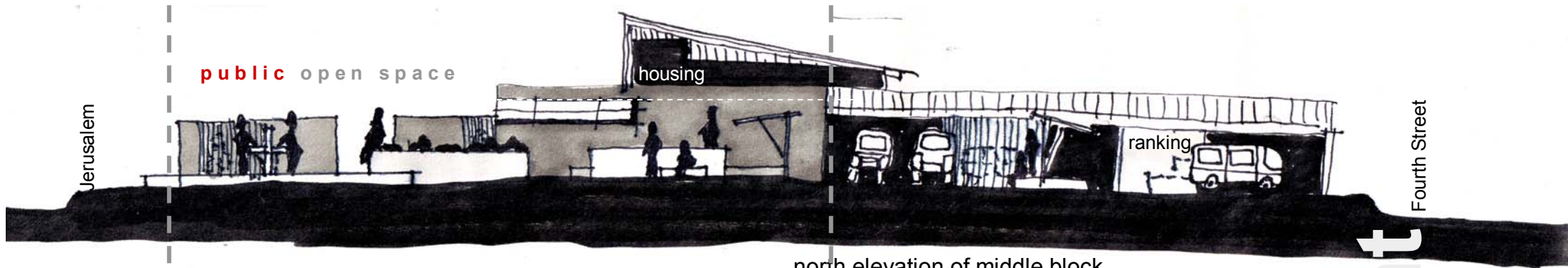


Tschumi (1994:13) distinguishes “program” from “event”. A program is “a determinate set of expected occurrences, a list of required utilities, often based on social behavior, habit, or custom. In contrast, events occur as an indeterminate set of unexpected outcomes. Revealing hidden potentialities or contradictions in a program, and relating them to a particularly appropriate spatial configuration, may create conditions for unexpected events to occur”. The building’s program creates conditions for unexpected events, brought about by user appropriation.

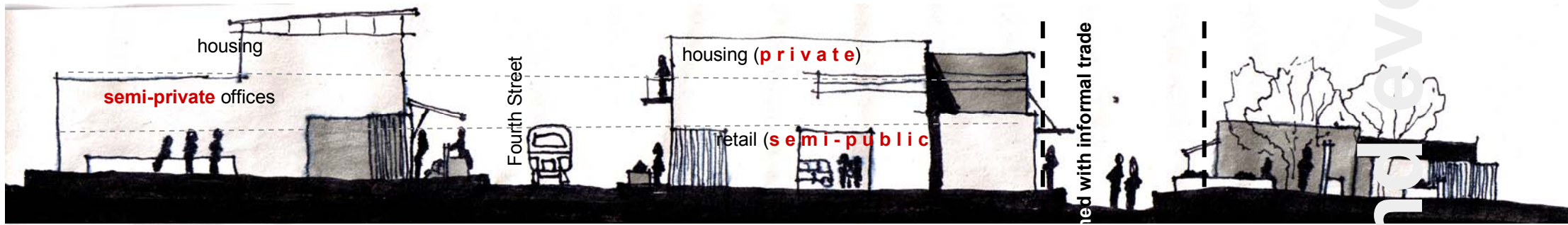
The building will contain event-seeking, multi-purpose communal spaces.

The section of the building (figure 60) should enhance this concept; differentiating between public and private realms

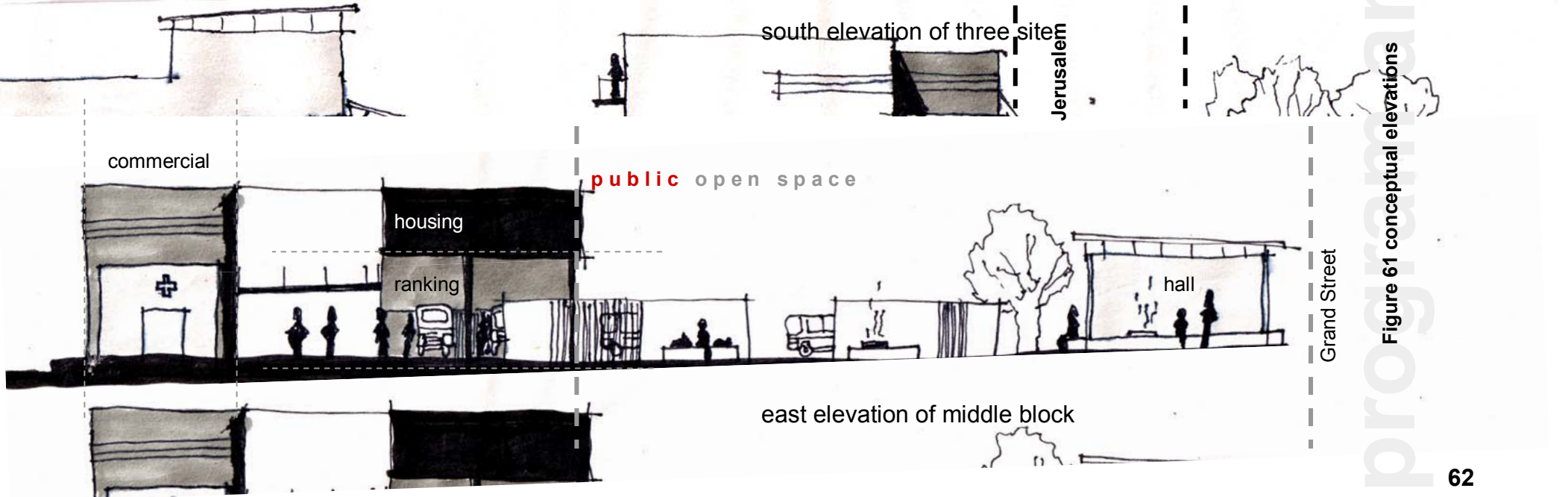
PROGRAM: a determinate set of expected actions
 EVENT: an indeterminate set of unexpected outcomes
 (Tschumi, 1994:324)



north elevation of middle block



south elevation of three sites



east elevation of middle block

project event
 Figure 61 conceptual elevations

Figure 62 buttress walls create opportunities for informal trade



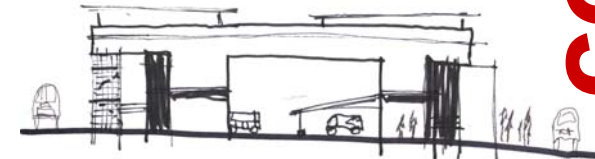
Due to high value of property in Marabastad, the three sites should be densified. A perimeter block building (figure 65) surrounding ranking facilities will accentuate the street - block relationship. The streets of Marabastad form a unique grid which distinguishes it from the rest of the CBD

This grid needs to be reinstated to restore the historic character of the precinct.

The building façade should announce a public facility of an urban nature while portraying the fine grain that distinguishes Marabastad. Municipal servitudes run through the center of blocks, adding some constraints to the development. Ranking facilities will therefore be located to the center of the blocks in a north-south direction. Vehicular access will be gained from Bloed and Grand Street, accommodating a two-way ranking facility (figure 64). The perimeter building will enclose ranking facilities with functions ranging from permanent shops and overnight sleeping area to flexible public space. The perimeter will vary in permeability according to public and private building functions. **Buttress walls** can create opportunities for informal traders as well as visual permeability to ranking facilities (figure 62). These 'booths' can be fitted with lock-up gates for storage of goods.



Figure 63 conceptual section and elevation illustrating vehicular access



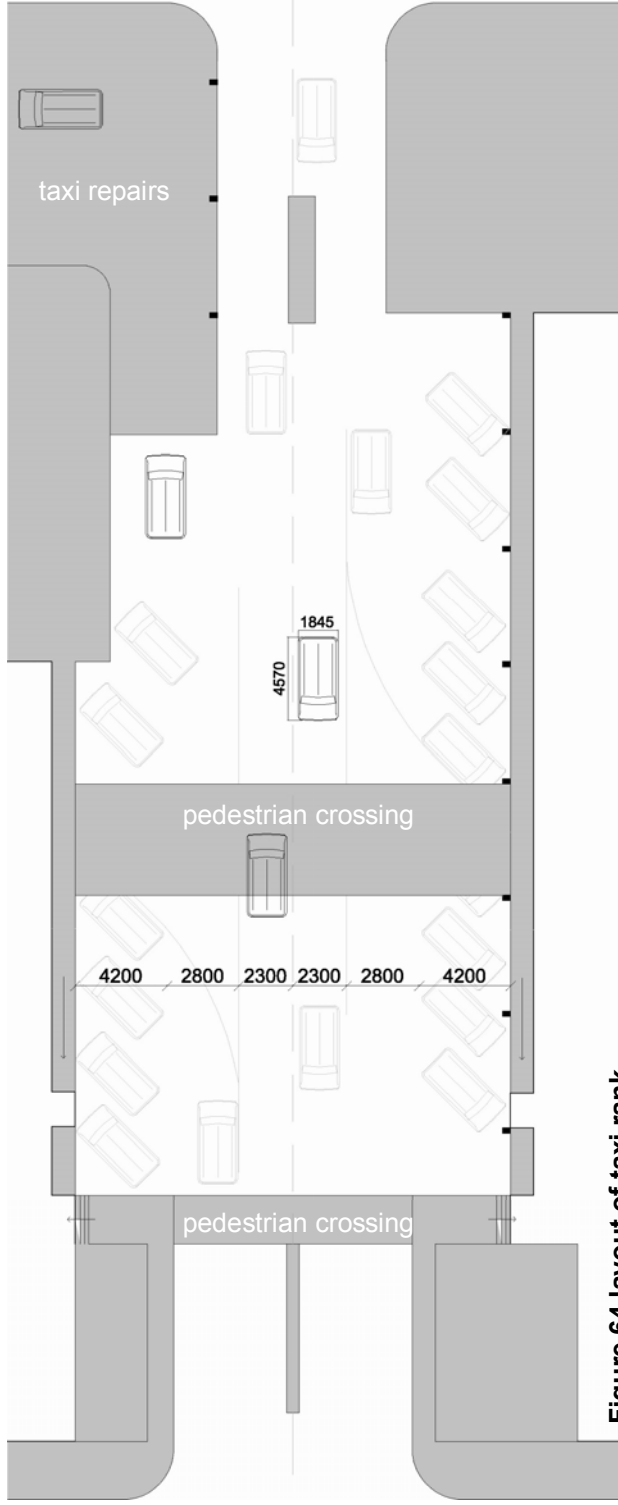


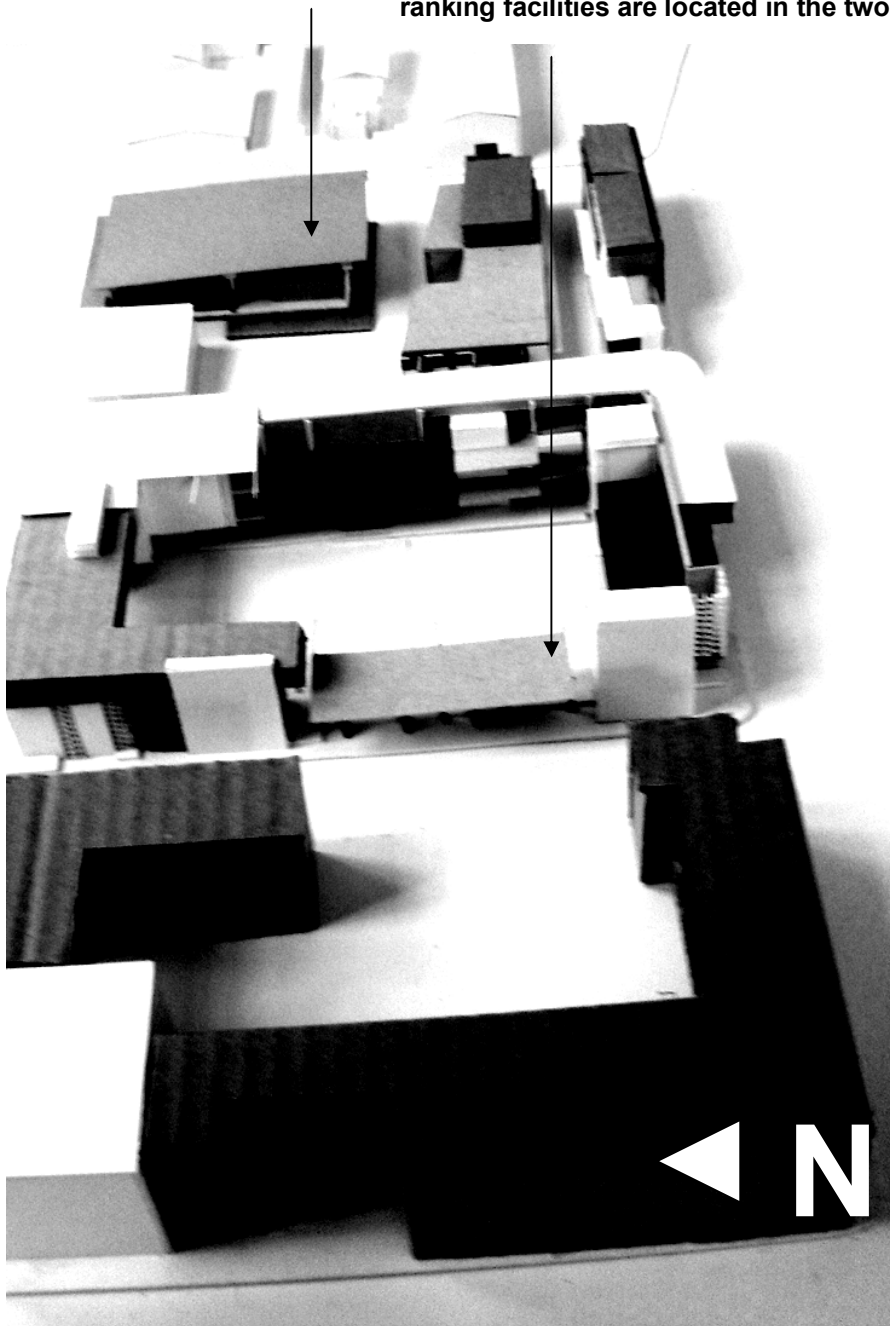
Figure 64 layout of taxi rank

conceptual designs

Figure 65 perimeter block buildings to reinstate the unique historic grid of Marabastad

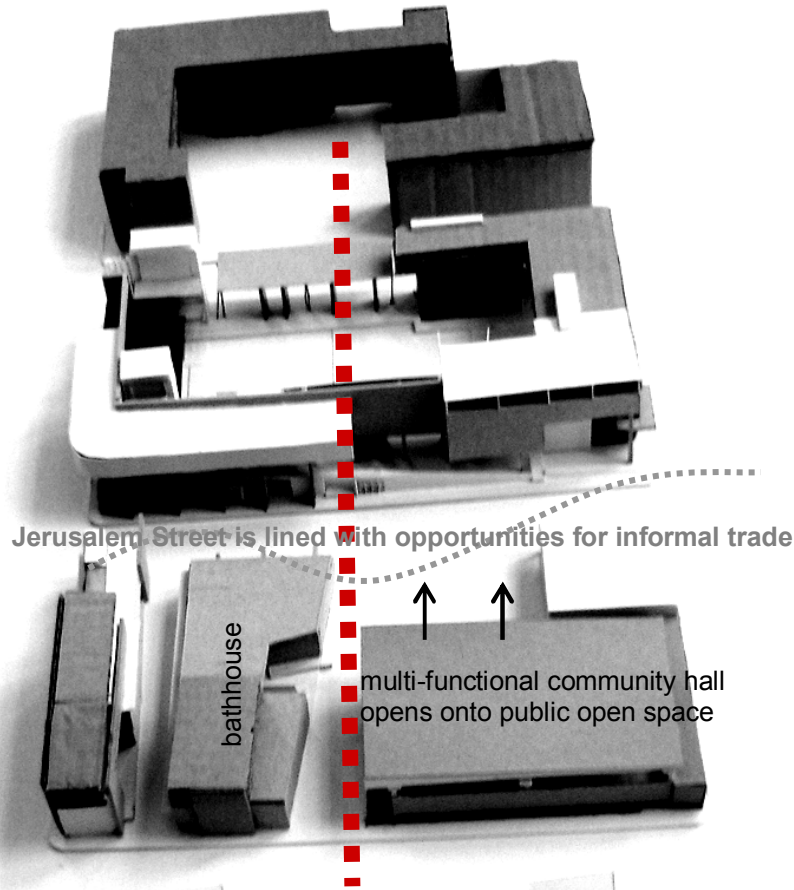


Figure 66 **site layout** with the bathhouse and community hall situated to the east of Jerusalem Street, ranking facilities are located in the two blocks bordering Fourth Street.



conceptual designs

The axis between the three blocks is strengthened through physical and visual links. These links connect the various facilities while promoting pedestrian movement between blocks.



Jerusalem Street is lined with opportunities for informal trade

bathhouse

multi-functional community hall
opens onto public open space

Figure 67 site layout

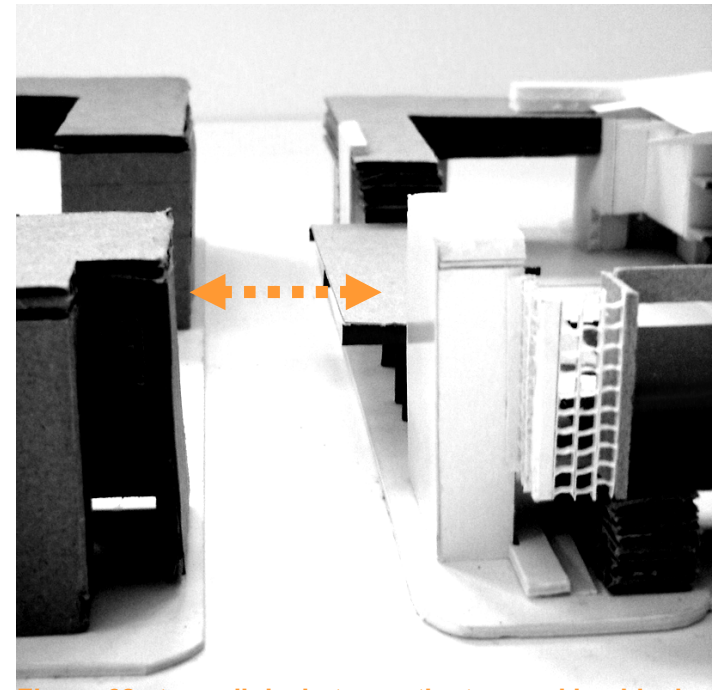


Figure 68 strong links between the two ranking blocks

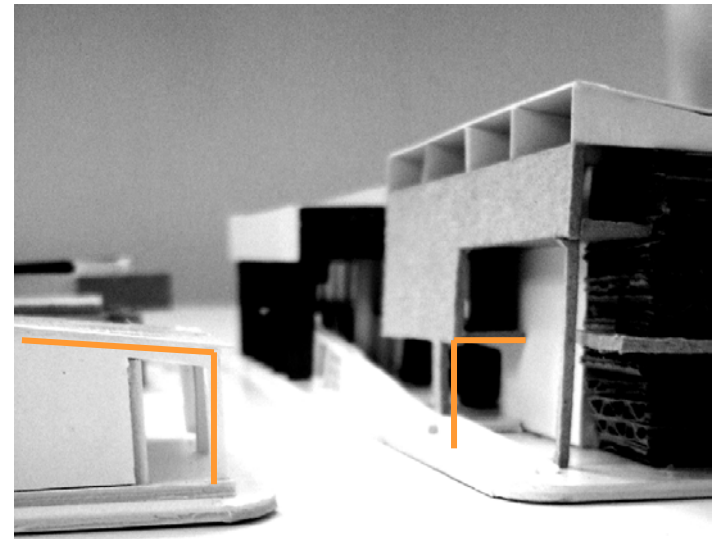


Figure 69 the building corresponds to the scale and character of surrounding buildings

Figure 70 east elevation of ranking block with buttress walls

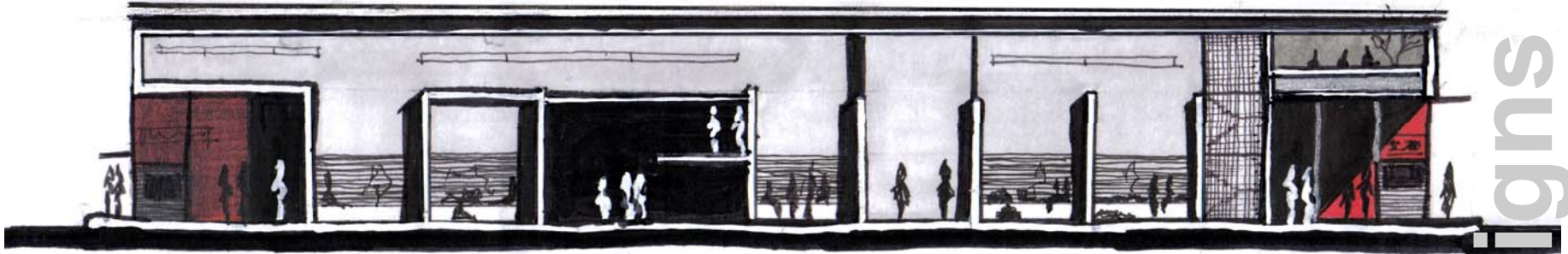
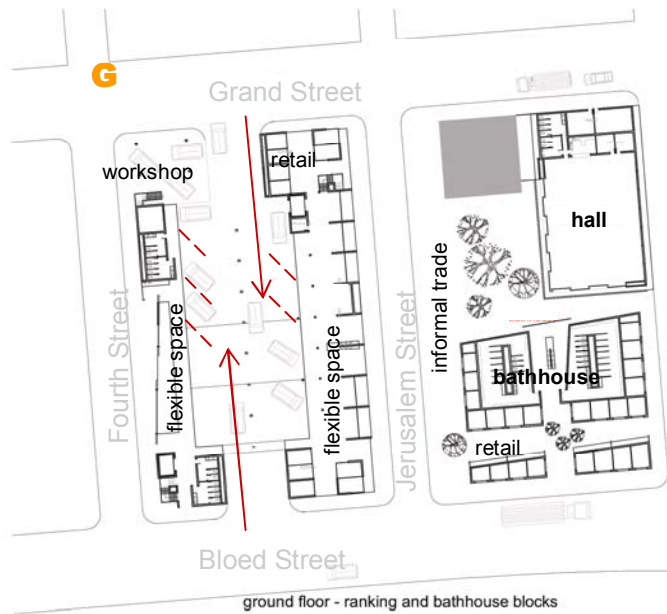


Figure 71 west elevation of ranking block

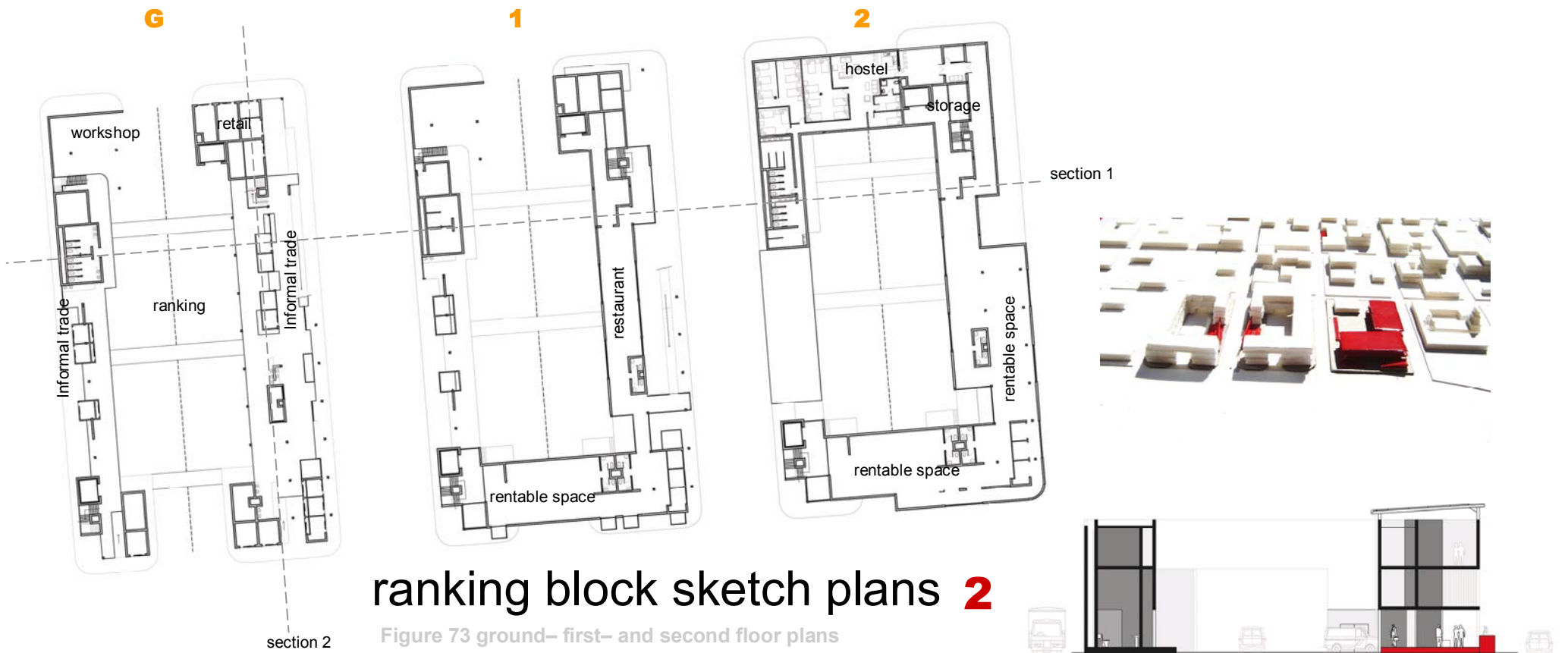


sketch plans 1

Figure 72 ground- first- and second floor plans



conceptual designs



ranking block sketch plans 2

Figure 73 ground- first- and second floor plans



Figure 74 section 1



Figure 75 section 2

For the purpose of this dissertation, one of the ranking blocks will be designed in more detail. Sketch plans **1** and **2** explore the concept of the perimeter block building to scale. At this stage of the design, the building starts to take form and the sizes of spaces and elements are determined.

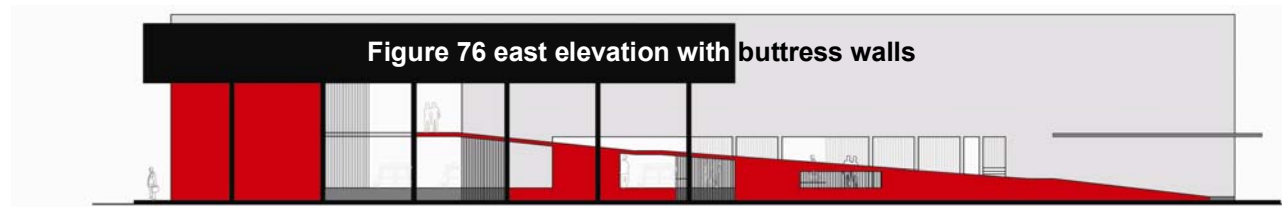


Figure 77 the northern façade



conceptual designs
visualising the building

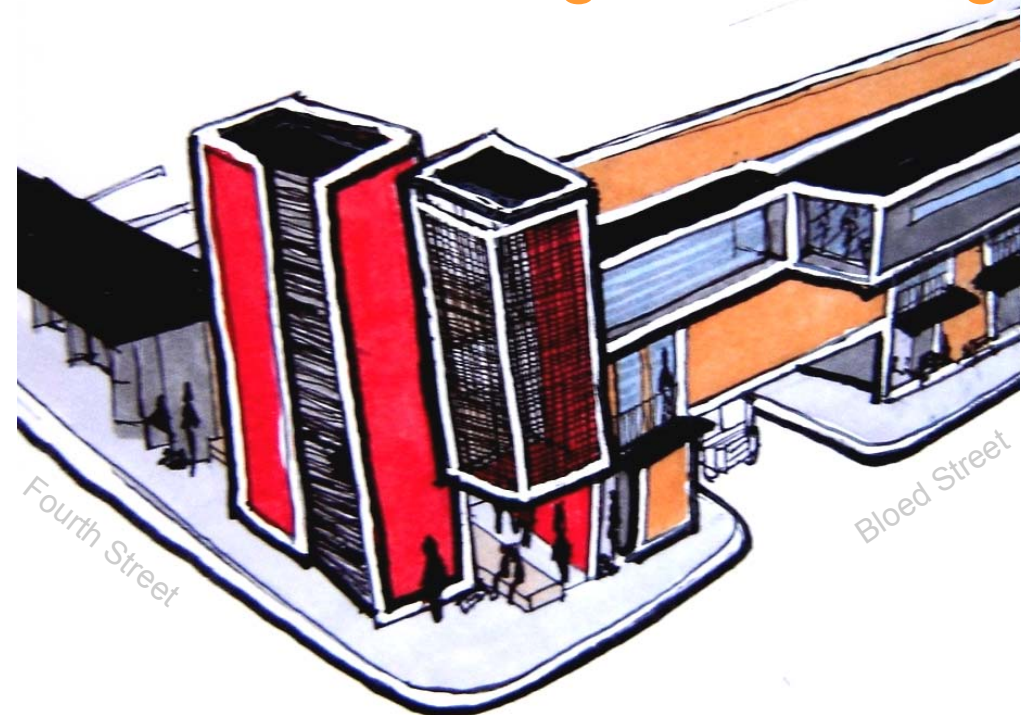
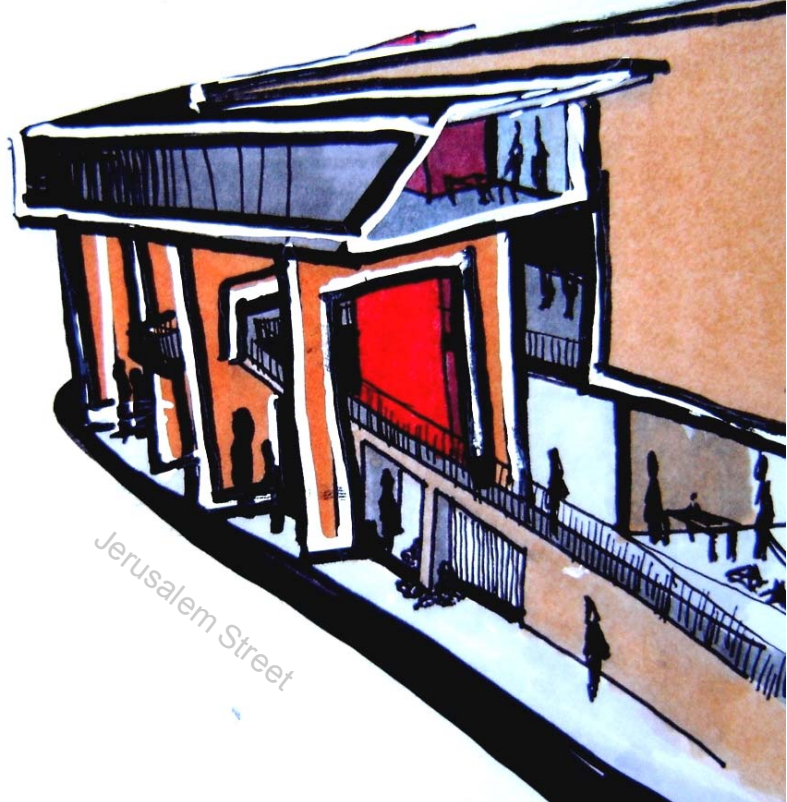


Figure 78 the corner of Bloed- and Fourth Street



Figure 79 a pedestrian ramp frames a space suitable for community appropriation



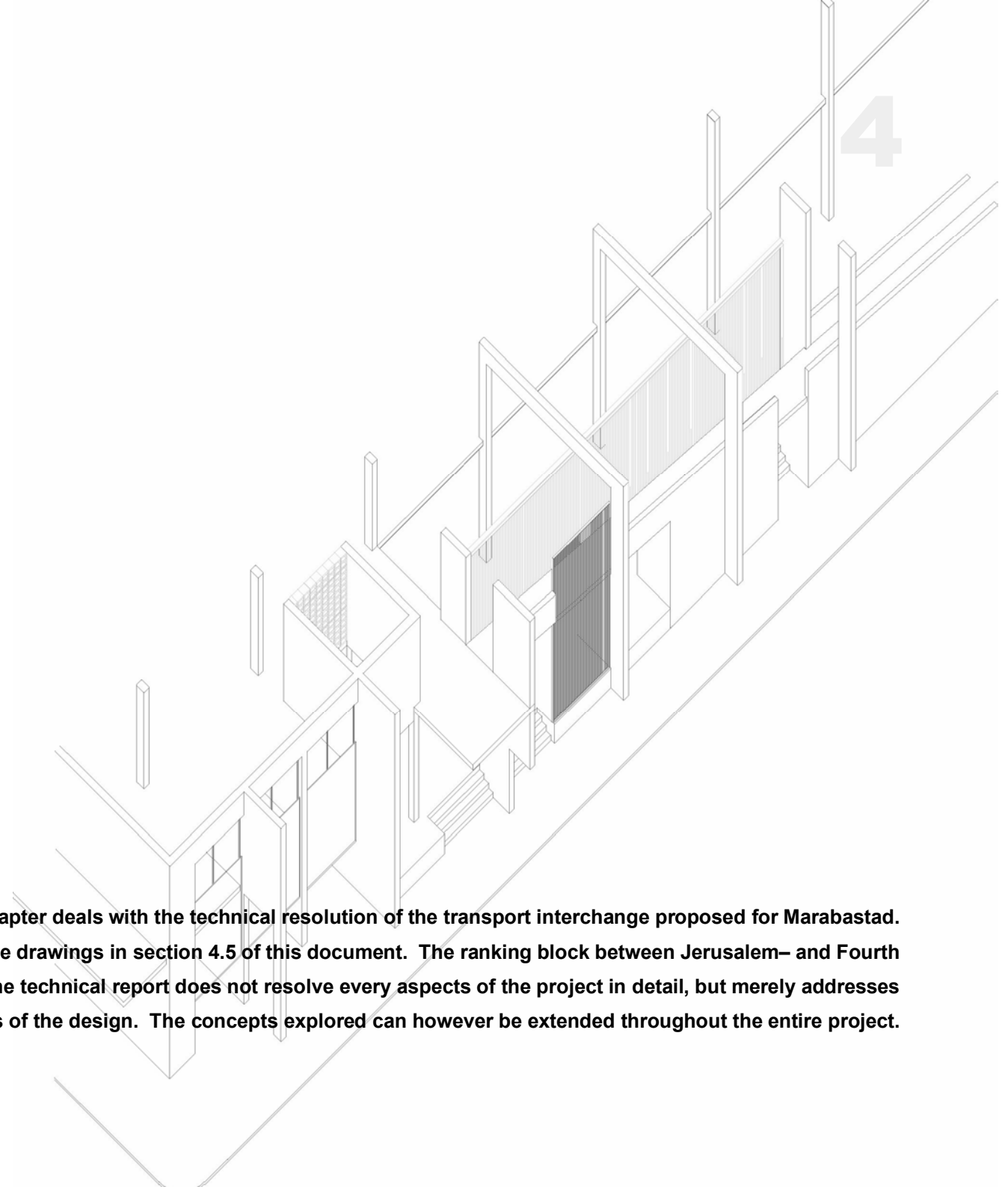
intervene

4 the building; technical report

intervene (in-ter-vēn') *v.i.* to come or be between; to happen in the meantime; to interfere; to interpose

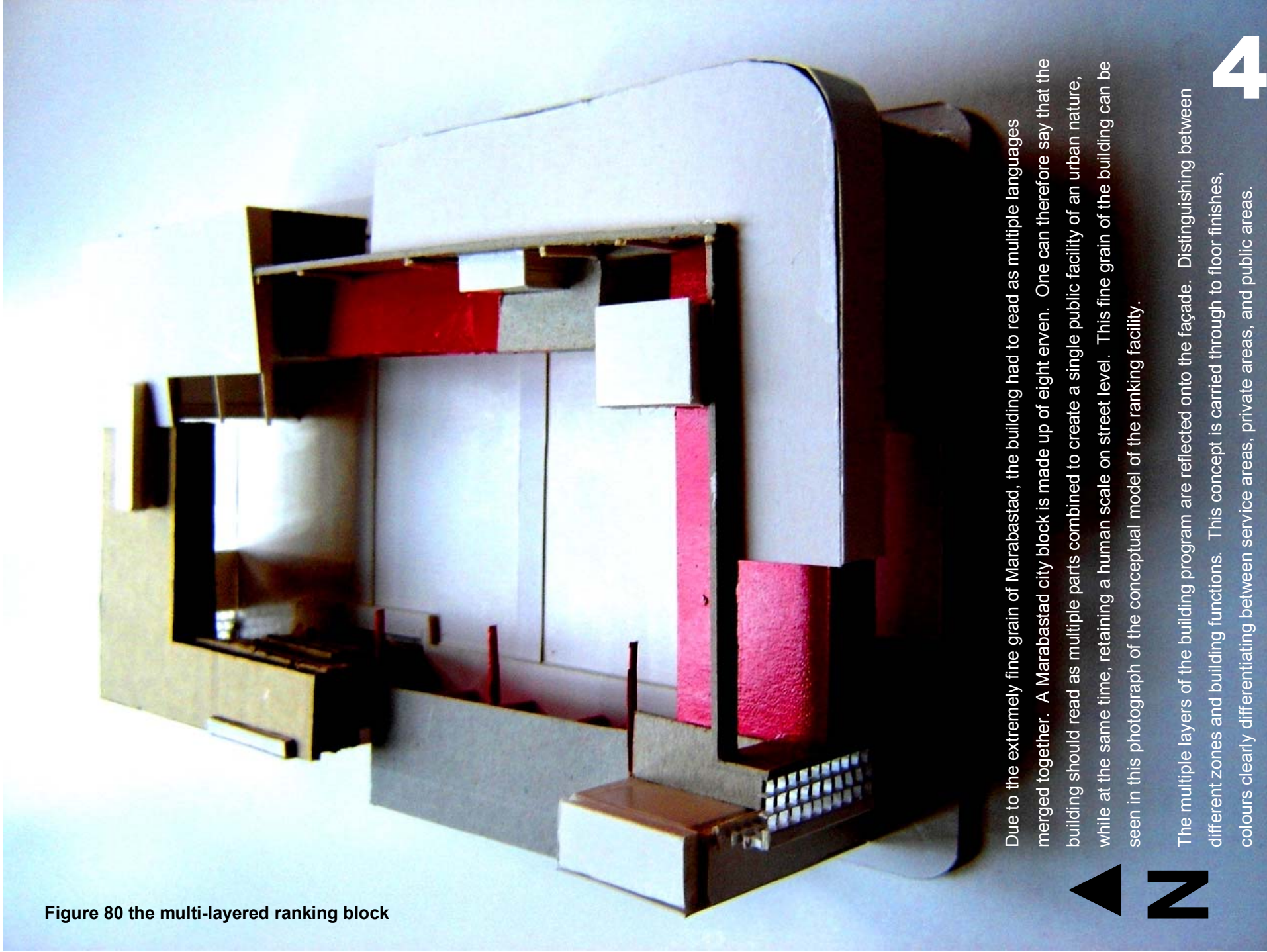
interpose (in-ter-pōz') *v.t.* to thrust in the way; to offer, as aid or service

The project comprises an overlay of systems and functions. This should manifest in the spaces created by the building. Constructed of the amalgamation of different parts, the building itself becomes an **INTERFACE**.



This chapter deals with the technical resolution of the transport interchange proposed for Marabastad. This chapter should be read together with the drawings in section 4.5 of this document. The ranking block between Jerusalem- and Fourth Street is the focus of this part of the study. The technical report does not resolve every aspects of the project in detail, but merely addresses the most important elements of the design. The concepts explored can however be extended throughout the entire project.

Figure 80 the multi-layered ranking block



Due to the extremely fine grain of Marabastad, the building had to read as multiple languages merged together. A Marabastad city block is made up of eight even. One can therefore say that the building should read as multiple parts combined to create a single public facility of an urban nature, while at the same time, retaining a human scale on street level. This fine grain of the building can be seen in this photograph of the conceptual model of the ranking facility.

The multiple layers of the building program are reflected onto the façade. Distinguishing between different zones and building functions. This concept is carried through to floor finishes, colours clearly differentiating between service areas, private areas, and public areas.

The building consists of a city block perimeter building, with taxi ranking facilities situated to the centre of the block. The taxi rank is enclosed by various thresholds and boundaries creating opportunities for a variety of formal and informal building functions. The entire ground floor functions around ranking and hawking facilities.

A section through the block (figure 81) provides an introduction to the building's science.

The western façade of the block, facing Fourth Street forms the main link between the two proposed ranking blocks.

The greater part consists of a lightweight roof structure that provides a canopy for a loose-fit adaptable plan.

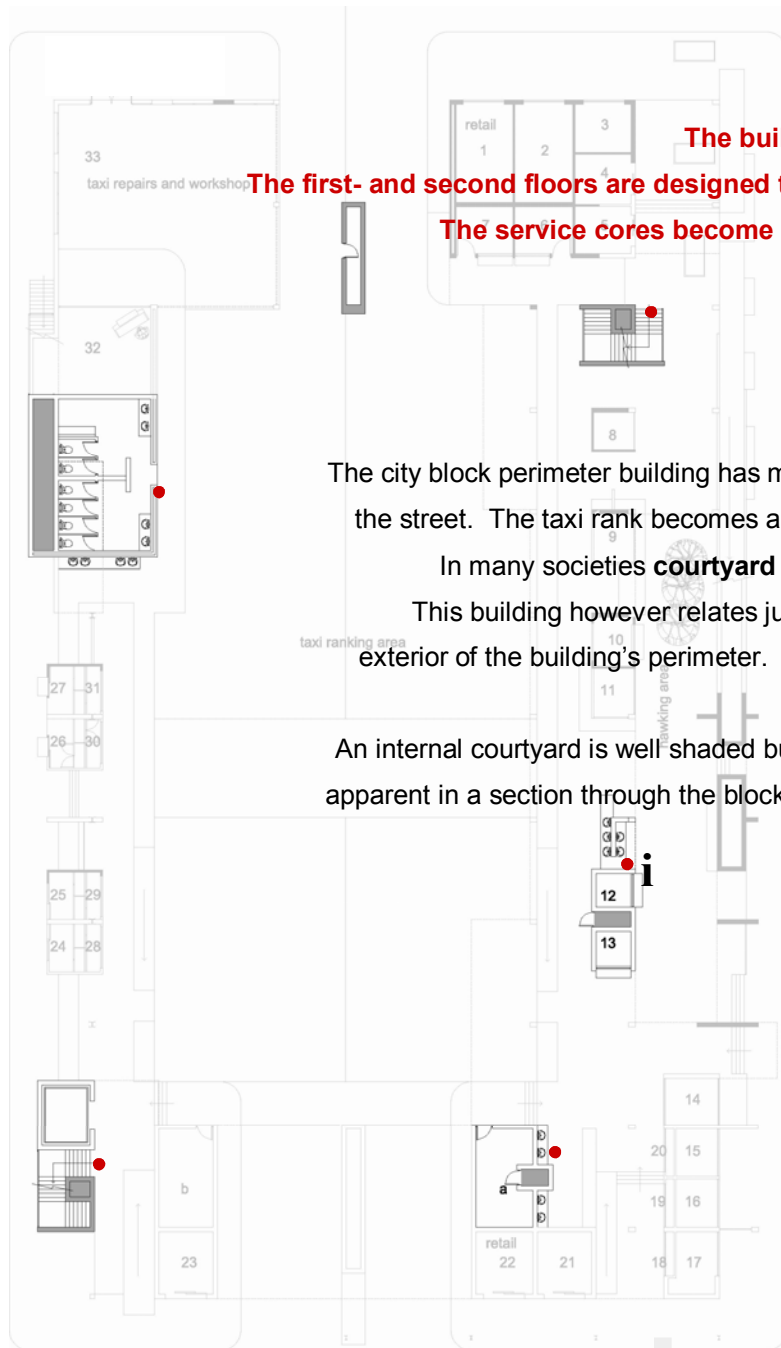


Figure 81 a section through the block

The eastern façade bordering Jerusalem Street creates a definite street edge at first glance, however functioning as a multiple layered threshold between the ranking area and the street.

The north-western corner of the block houses a taxi repairs and workshop area. With high levels of visual permeability it reminds of the existing ritual of taxi repairs taking place on the corners of streets throughout Marabastad.

The hostel, with overnight accommodation, is situated on the top floor of the facility. Facing north, with a cavity wall screening the hostel from the ranking facility to the south, allows adequate thermal and acoustic levels in this part of the building.



The building contains multiple service cores, to provide flexibility in terms of rentable space. The first- and second floors are designed to be let to single, or multiple tenants, with separate access points and service cores. The service cores become landmarks in the building and will be painted a bright color to indicate access points, information kiosk and restrooms (figure 82).

The city block perimeter building has multiple advantages, besides providing a layered threshold between the ranking facility and the street. The taxi rank becomes an internal “courtyard”, extending the interior of the building towards the centre of the block.

In many societies courtyard spaces are generally associated with public gatherings, enclosing and framing space.

This building however relates just as strongly to the street: extending the inside of the building to both the interior and the exterior of the building’s perimeter. Covered walkways, shading devices and colonnades extend the boundary between inside and outside. The narrow width of the building provides for adequate cross-ventilation.

An internal courtyard is well shaded but could be disadvantageous in terms of air movement. The open plan of the ground floor, apparent in a section through the block, promotes airflow through the ranking facility. Primary wind from the north east ventilates noise and fumes caused by vehicles (figure 83).

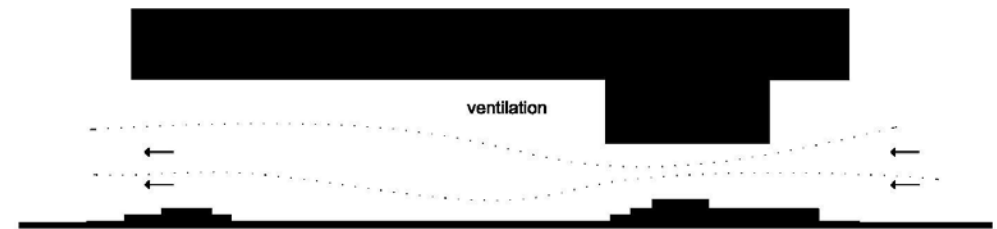
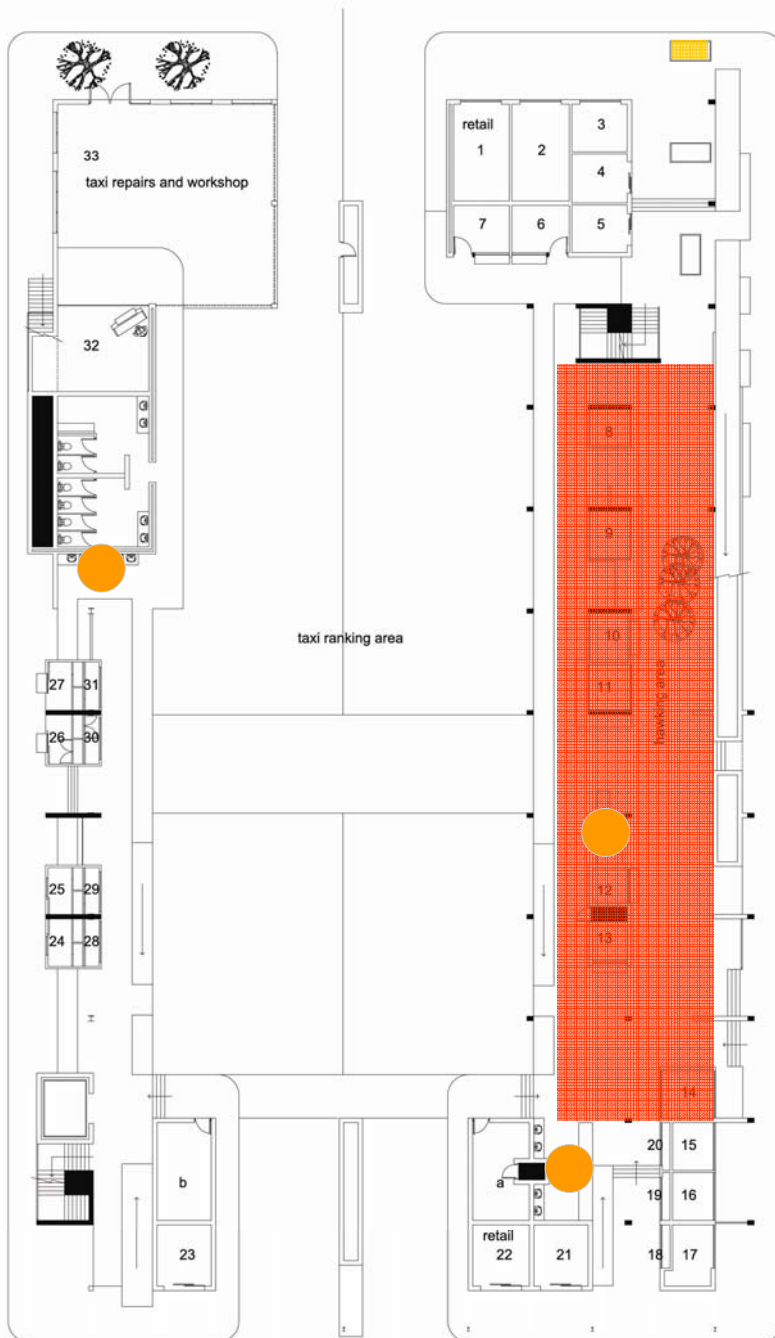


Figure 82 access and services

Figure 83 ventilation

Figure 84 basic facilities for trade



Basic facilities like wash basins, stalls and seating for hawkers are provided on the ground floor (figure 84). For safety and hygiene reasons food preparation and consumption should be restricted to certain zones. Although it would be impossible to draw a definite boundary between zones, slaughtering and food preparations will have to be controlled to some extent. Designated areas can be highlighted clearly on a diagram at the information kiosk, and the joints between concrete slabs can be filled in with mosaic to distinguish zones (figure 85). The sidewalk to the north of the block offers space for mobile trading stalls. Ramps provide easy access, for trolleys and wheelchairs, to all platforms.

The first- and second floors house a storage facility for hawkers. Stores of various sizes, ranging from 9m² to smaller “lockers”, can be rented by individuals.




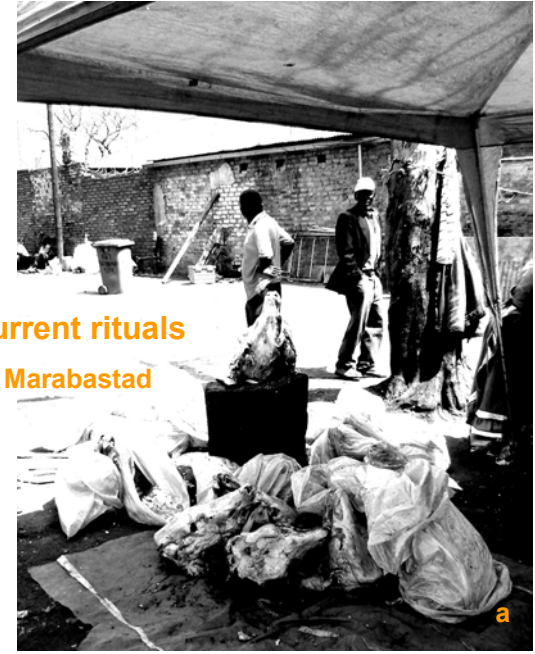
-  mobile trading stall
-  food preparation and consumption
-  wash basins

Figure 85 mosaic boundaries



In providing basic flexible facilities,
the building aims to accommodate current rituals
associated with hawking and trade in Marabastad
while promoting hygienic practises.



a unhygienic circumstances due to lack of facilities
b mobile benches used by hawkers
c trolleys used to transport goods are accommodated with ramps to hawking areas
d typical "lockers" currently used

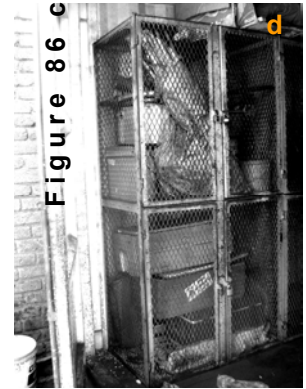


Figure 86 current

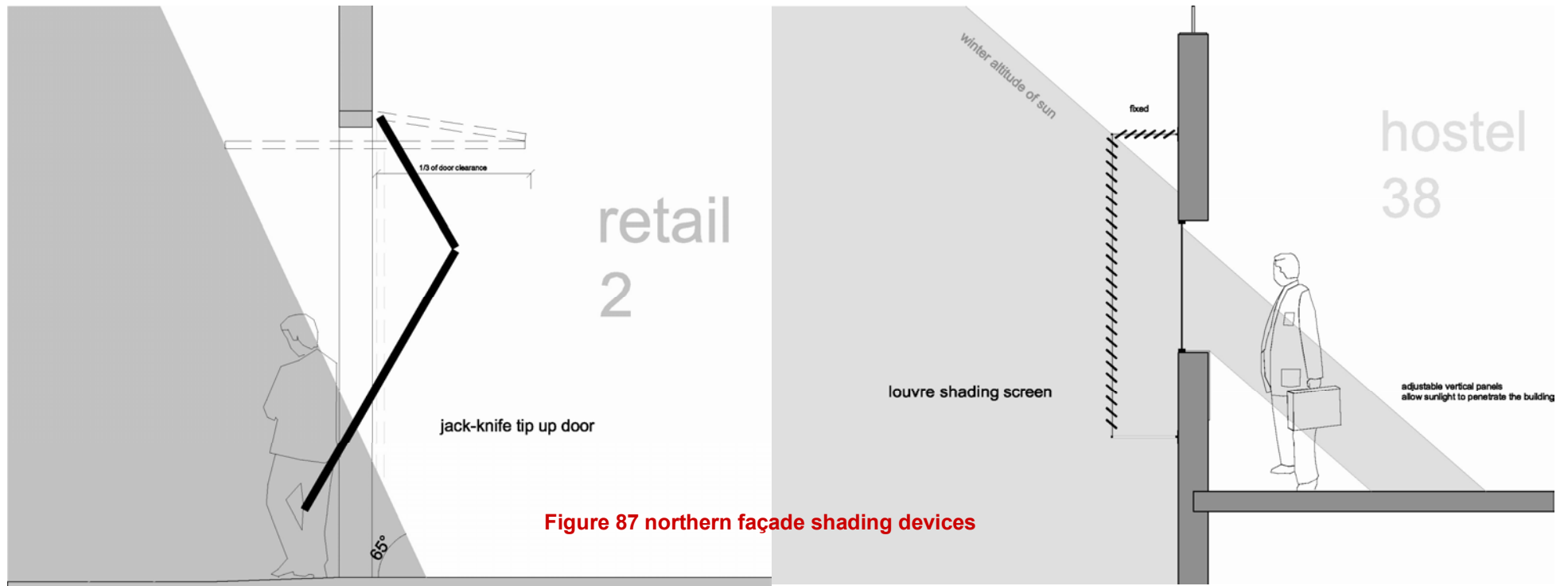


Figure 87 northern façade shading devices

For optimal thermal comfort, glazing is kept to a minimum. North-facing windows are protected from direct sunlight in summer while allowing sunlight to penetrate in winter (figure 87). Jack-knife tip up doors to the retail stalls create the sense of canopies, shading the sidewalk in front of stalls. This shaded walkway extends the boundary between inside and outside, allowing trade to spill out onto sidewalks. A louvre screen provides sun protection to the hostel on the second floor. With adjustable vertical louvres, sun penetration can be regulated accordingly.

Rentable office spaces are situated to the southern side of the block for thermal comfort.

For the purpose of this project they are occupied by a medical health care facility on the semi-public first floor and a learning centre on the semi-private second floor.

As ranking facilities are generally associated with excessive noise, a cavity wall separates the interior of the building from the taxi rank (figure 89). This cavity also ensures adequate thermal insulation to the west-facing walls of office areas. The greater part of the building relies on passive systems for user comfort. The spaces set aside as rentable office space forms a separate part of the building; allowing for an air conditioning system to be implemented in this part of the facility only. The possibility of an air conditioning system is accommodated through providing a plant room, service shafts and ceiling space to accommodate ducting.

The boundary between the building and Bloed Street is extended through a colonnade formed by a covered walkway on the first floor (figure 95). Reminding of the shaded sidewalks of Marabastad, this threshold becomes part of un-programmed space to be activated by the users.

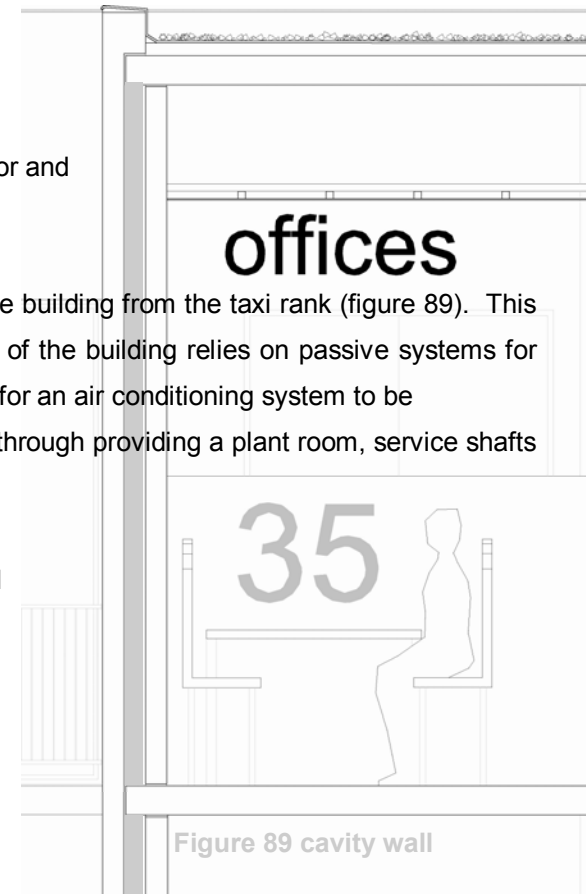


Figure 89 cavity wall



Figure 90 south elevation

The northern and southern sections of the building, with their respective entrances and service cores have solid street edges. These two solid masses are linked on the first floor by a narrow slab (figure 91), housing a restaurant which looks unto the ranking facility. Between this walkway and the pedestrian ramp an un-programmed space is framed, providing a place for meeting and trade (figure 92).

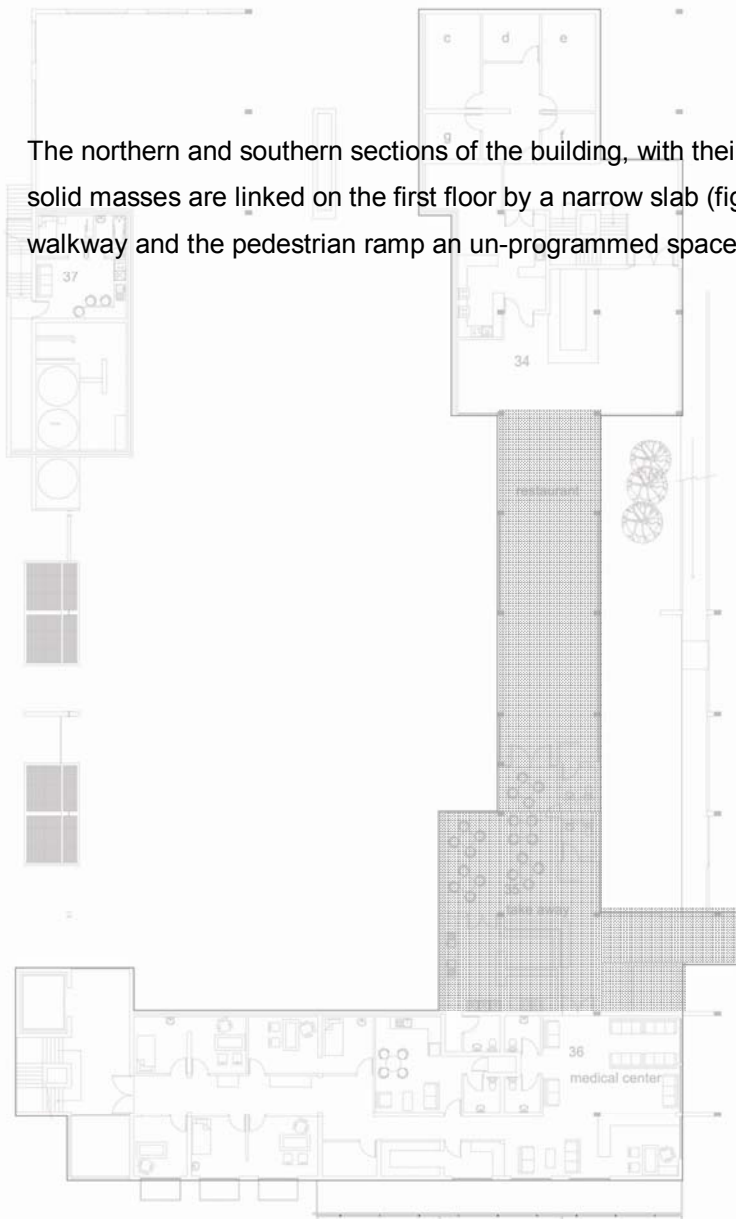


Figure 91 a walkway connecting two parts of the building

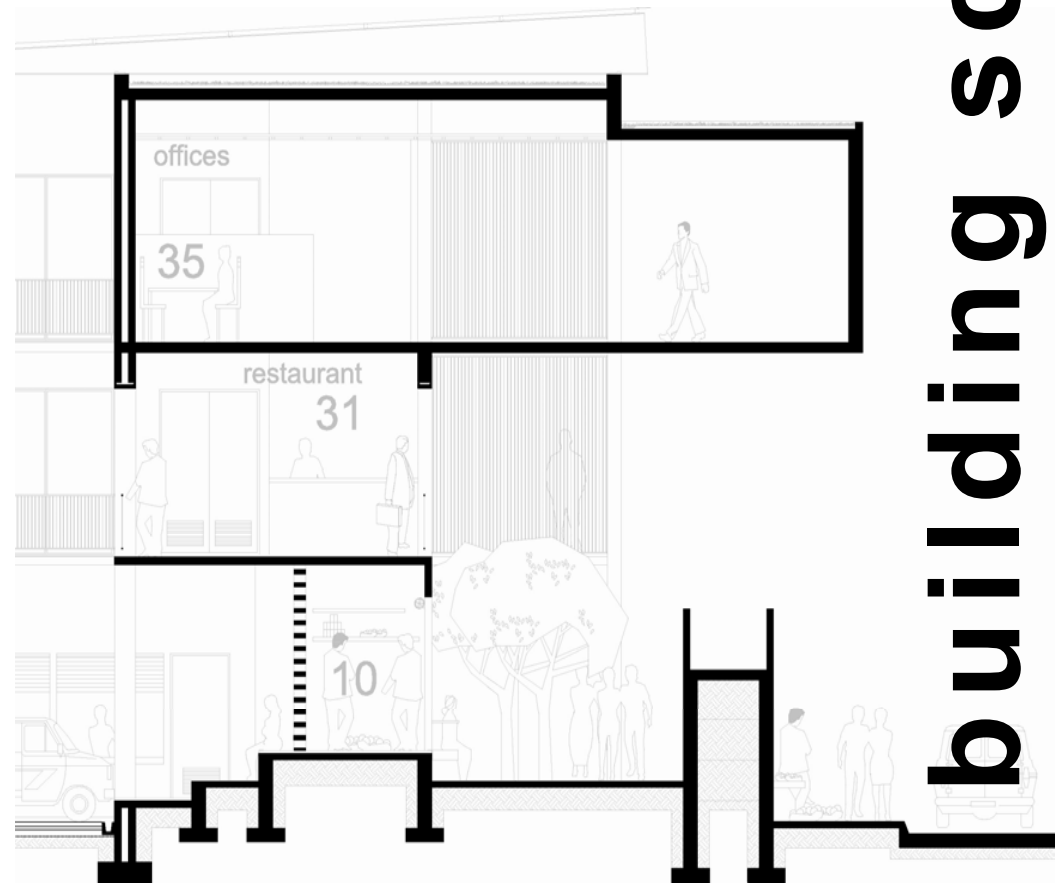


Figure 92 a space for meeting and trade

Multiple layers are present in the building horizontally as well as vertically, distinguishing between public and private space, formal and informal building functions, and programmed and un-programmed space. Thresholds like canopies, colonnades, visually permeable boundaries and throughfares, extend the boundaries between spaces. Un-programmed space comprises the “in-between” to be “activated by the movement of crowds” (Tschumi 1994:13).

Un-programmed space becomes the place of the possible event

The design takes existing rituals occurring on the site and merges them in architectural spaces. Some spaces have set functions, some are prescriptive of their use while others allow for user and tenant appropriation.

The eastern façade, with its pedestrian ramp acts as multi-layered threshold between the sidewalk and the ranking facility (figure 93). With maximum physical and visual permeability, the eastern elevation strengthens physical and visual links between the street and the interior courtyard. The concept of buttress walls is applied to the eastern streetscape of the block. In-between these projections, informal building functions can be activated.

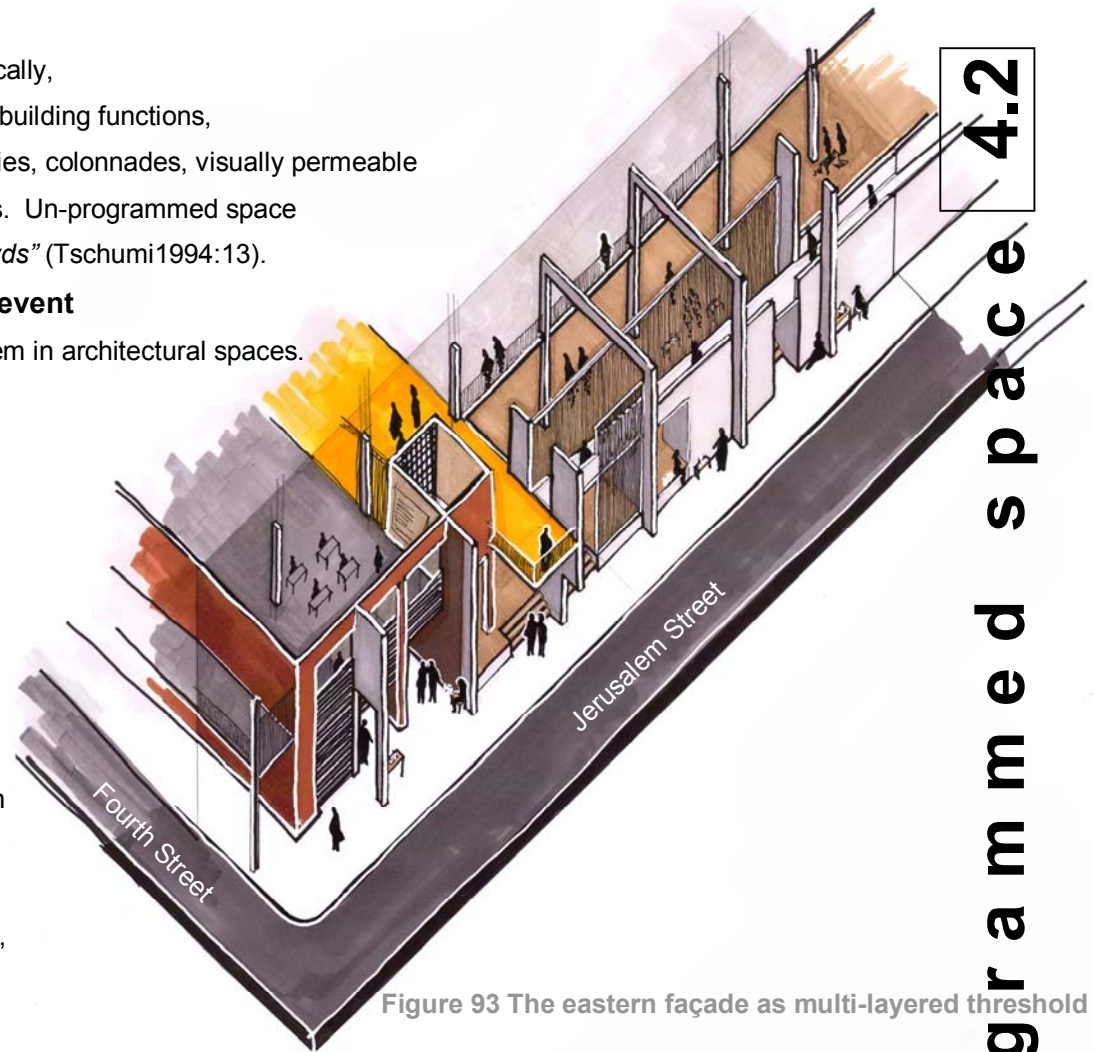
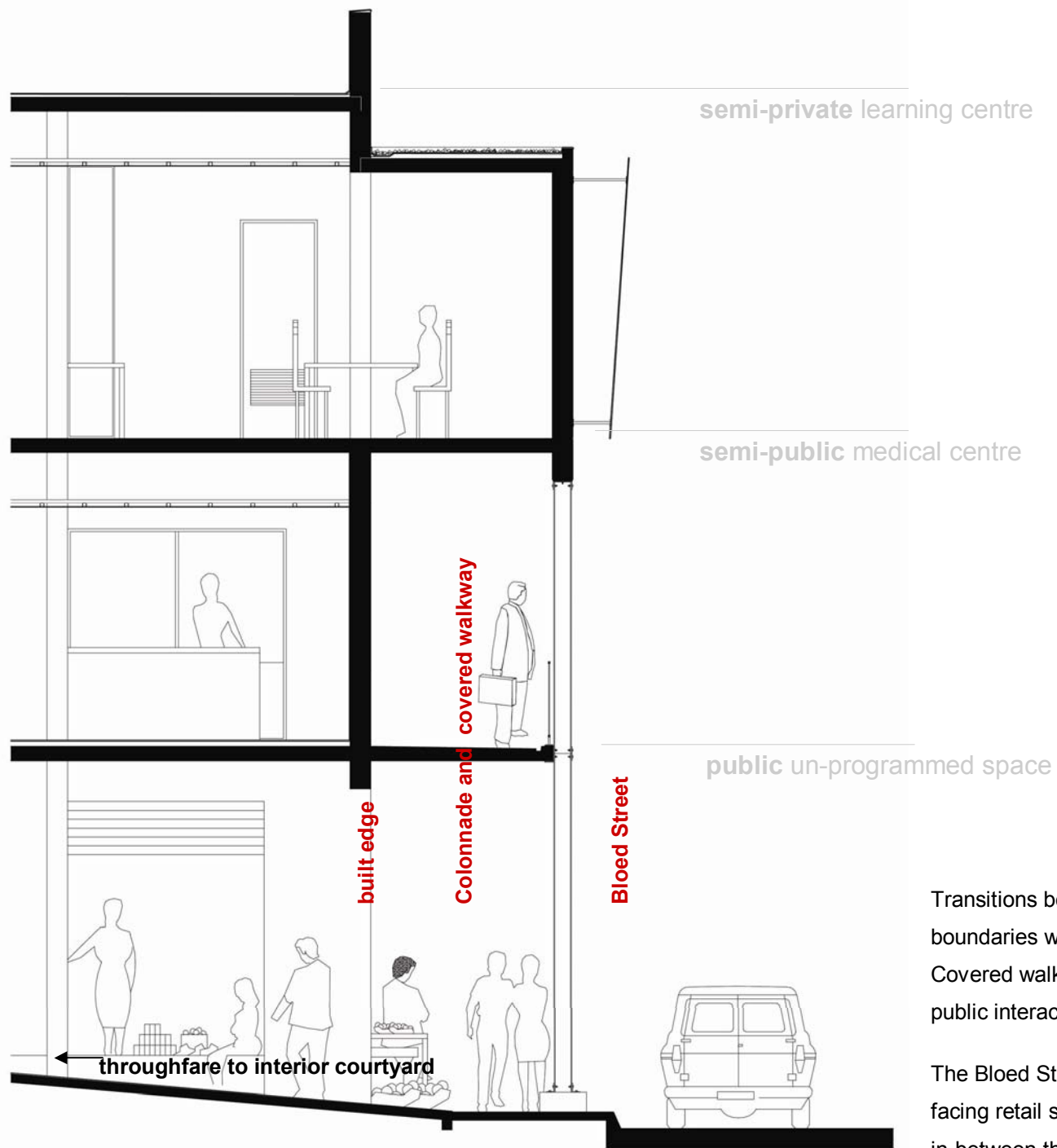


Figure 93 The eastern façade as multi-layered threshold



Figure 94 east elevation

4.2 un-programmed space



Transitions between spaces can be achieved through applying boundaries with varying levels of permeability and interaction. Covered walkways and colonnades create opportunities for public interaction.

The Bloed Street colonnade extends the built edge of the south facing retail stalls, creating an un-programmed space in-between the façade and the street.

Figure 95 section through Bloed street colonnade

The ground floor to the eastern side of the block consists of a fixed column grid (figure 96) which allows for a flexible, loose-fit plan. A variation on the conceptual idea of “**buttress walls**” (figure 62,p63) can be applied to this grid, to form opportunities for informal trade. Between these walls, different configurations can host a variety of trading opportunities.

The ground floor plan offers a possible configuration (figure 98). The columns can be filled in with masonry, concrete blocks, roller shutter doors etc. to form more permanent trading stalls.

Trade will not be confined to stalls, but will spill out onto the platforms (figure 97).

Between these stalls, an “in-between” is framed.



Figure 97 more permanent stall

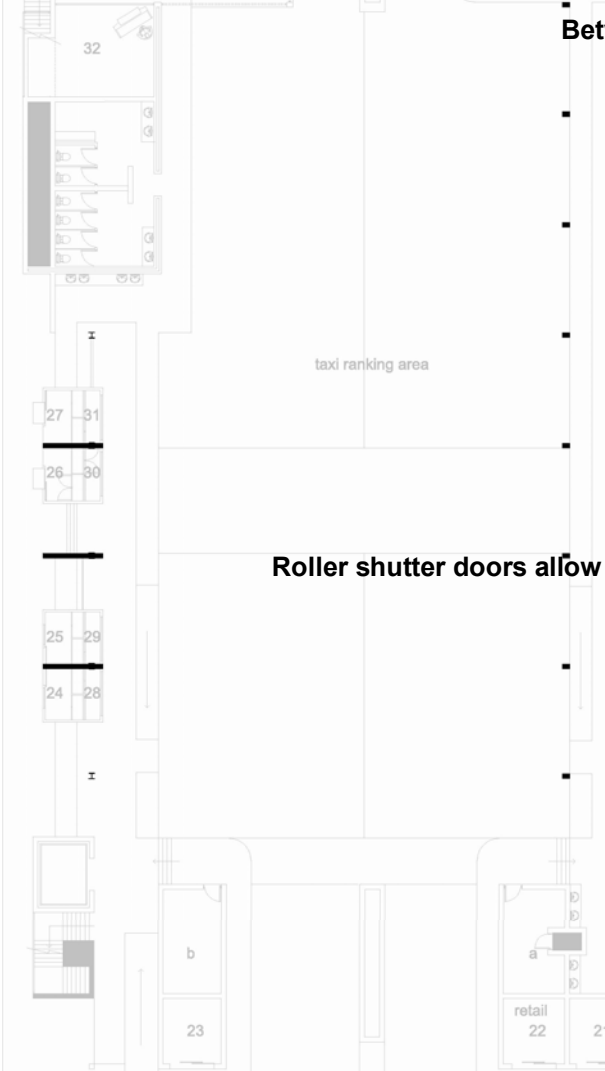
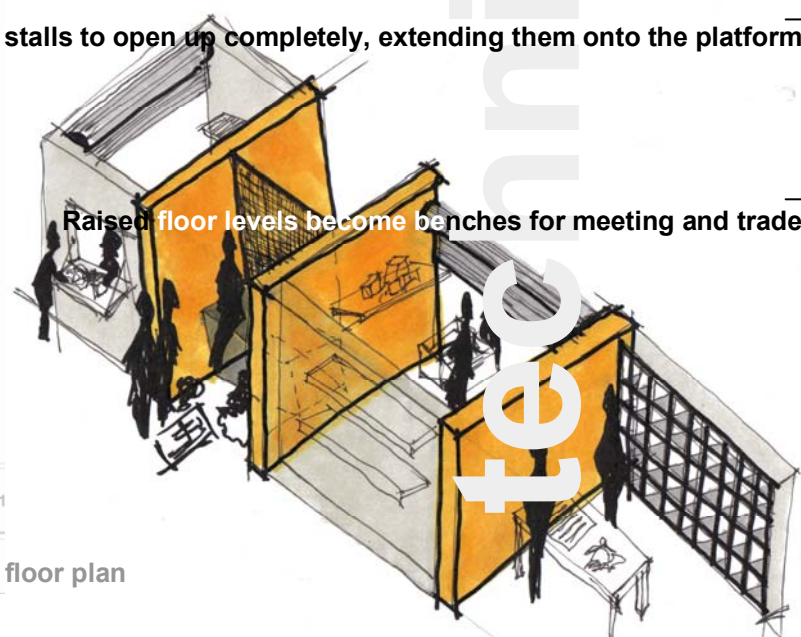


Figure 96 fixed elements of the flexible ground floor plan



Roller shutter doors allow stalls to open up completely, extending them onto the platform

Raised floor levels become benches for meeting and trade

A dividing wall can create two informal trade areas

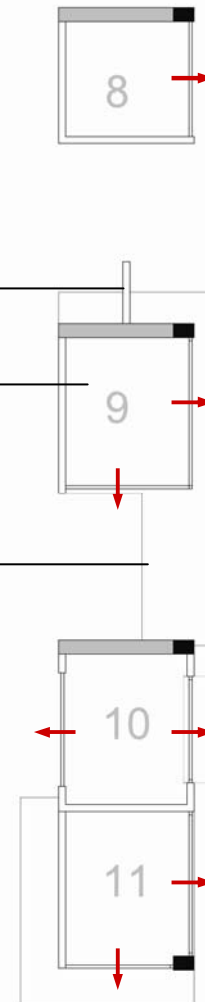
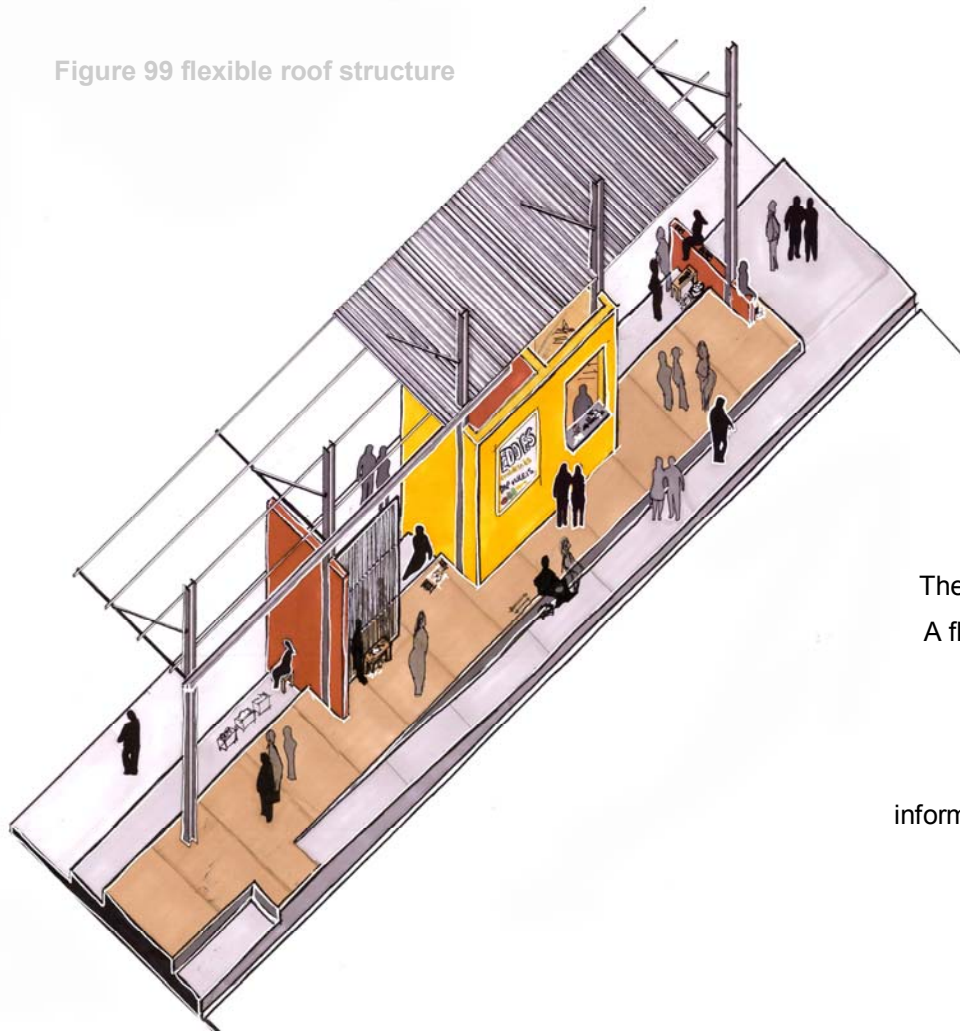


Figure 98 possible configuration plan

Figure 99 flexible roof structure



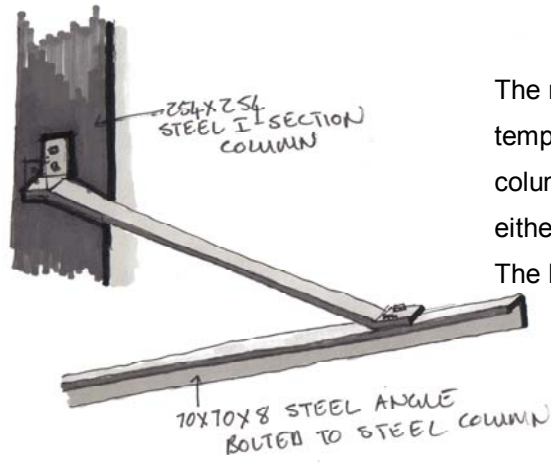
The western platform of the block forms part of un-programmed space (figure 100). A flexible roof structure with galvanized steel sections can be filled in with masonry to suit a variety of configurations (figure 99).

Simple interventions like raised floor levels can provide seating, areas for informal trade and a platform to distinguish pedestrian zones from the ranking facility.



Figure 100 west elevation

un-programmed space



The roof structure over the western platform is constructed of steel elements to reflect its temporary nature. Steel I-section columns are bolted to rods cast into 500x500 concrete column bases. Two steel angles, carrying the purlins and roof sheeting, are bolted to either side of each column, one higher than the other.

The lower carrying a box gutter for **rain-water collection**.

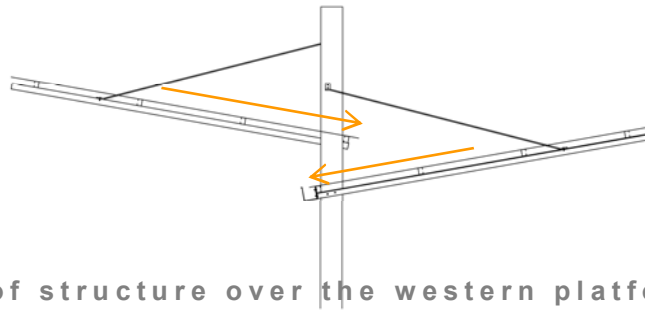
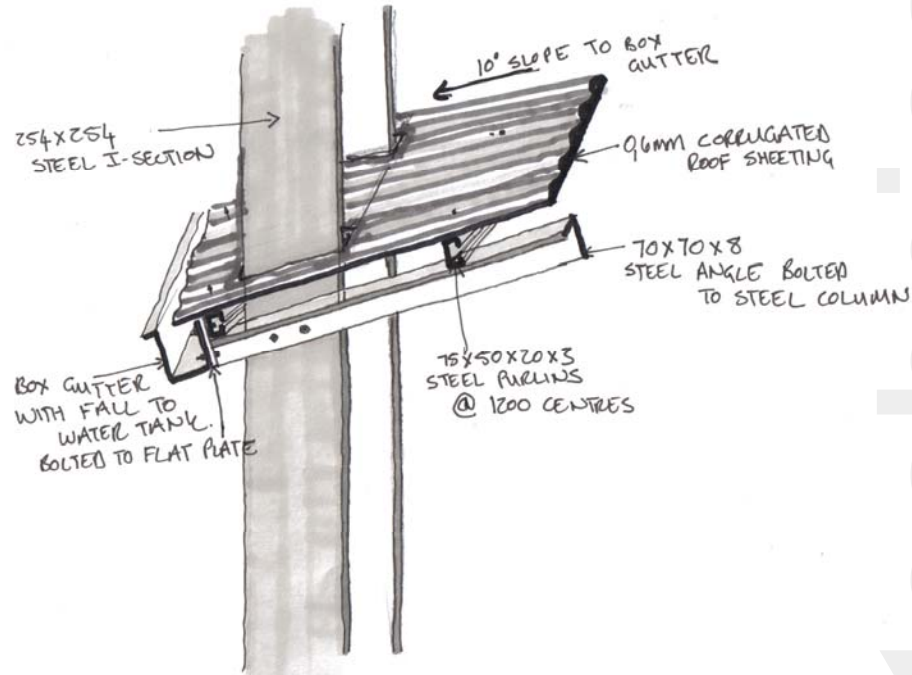
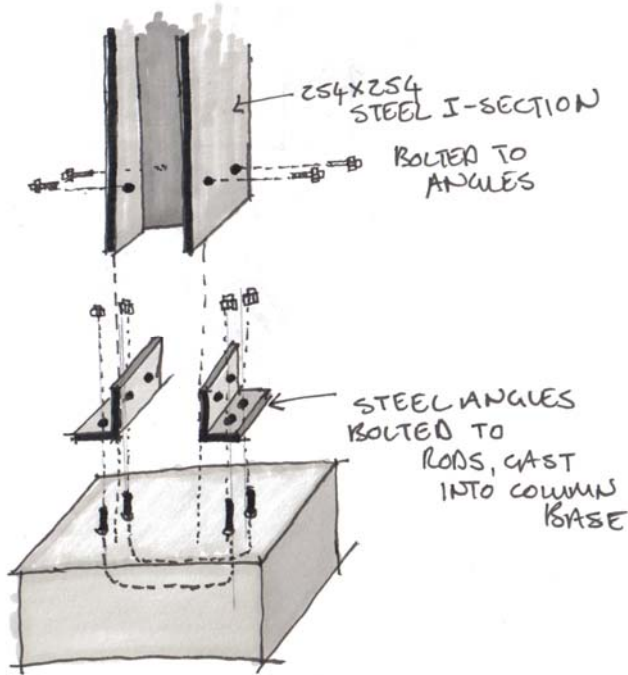


Figure 101 roof structure over the western platform



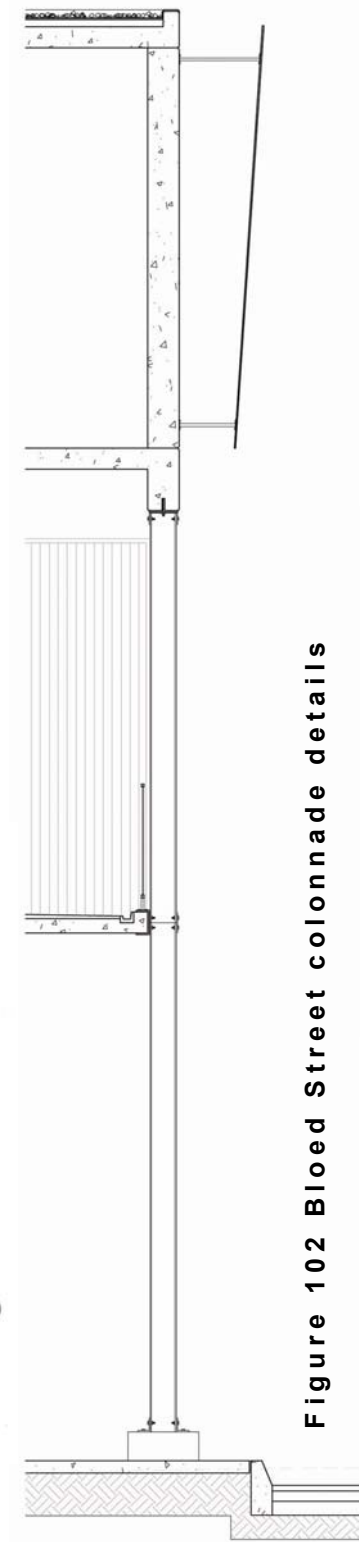
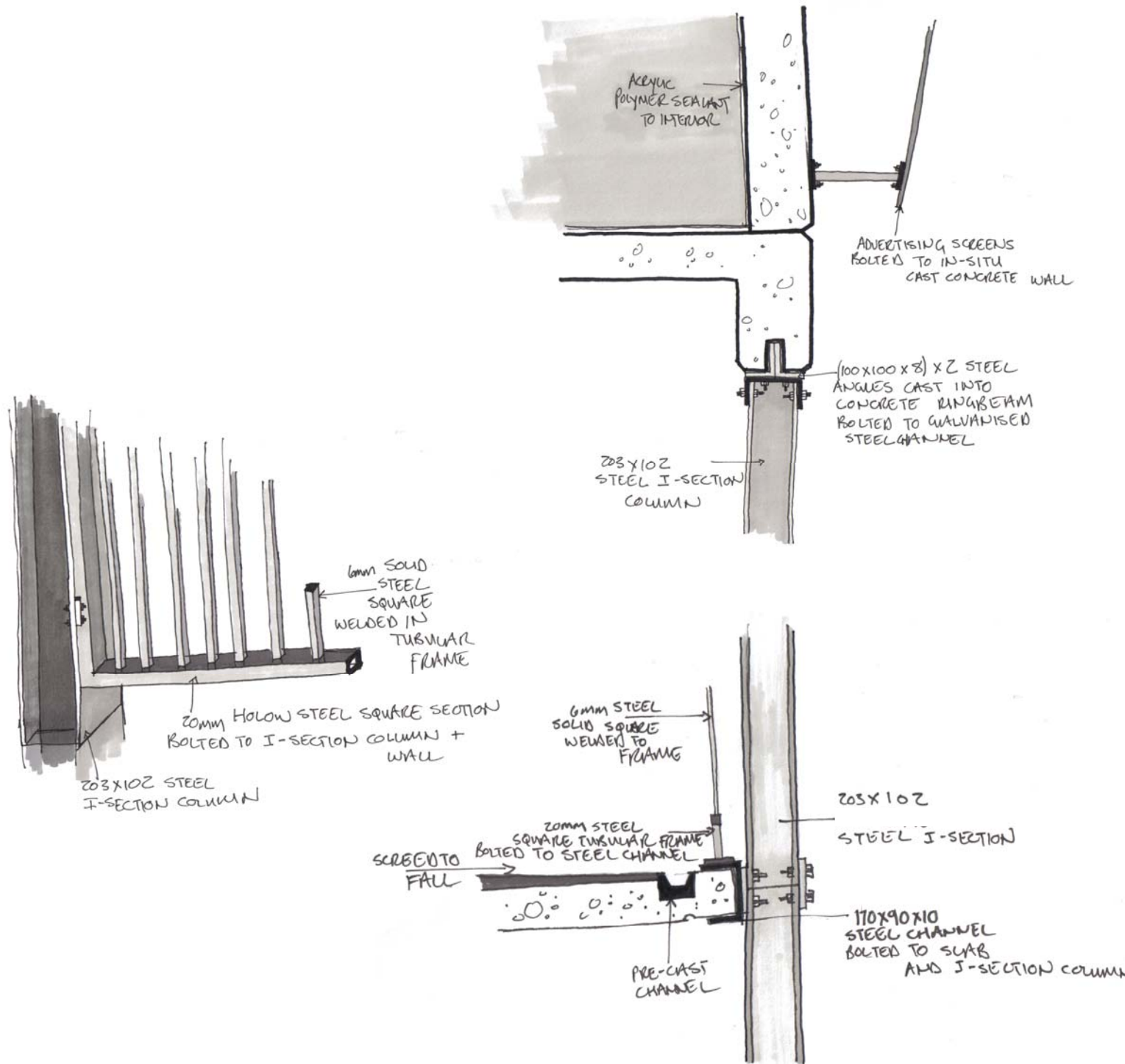


Figure 102 Bled Street colonnade details

The structure consists mainly of concrete and brickwork with some steel elements. Although the project was intended as a community facility, a financial feasibility study confirms that **the project is financially feasible** and should ensure adequate return to sustain all costs involved in construction and operation of the building.

All materials used require extremely low maintenance. The building is robust and requires no glass windows on ground floor level.

Floors to service areas and ranking- and hawking platforms with heavy pedestrian traffic will require durable surfaces.

Exposed corners of walls, columns and platforms in public areas will be fitted with aluminium corner protectors.

The concrete **floors** of the western platform are strengthened and coloured with a granolithic concrete material comprising a blend of cement, hard-wearing aggregates, lime fast pigments and additives that set rock hard. This finish has exceptional abrasion resistance, reduces drying shrinkage and requires no repainting.

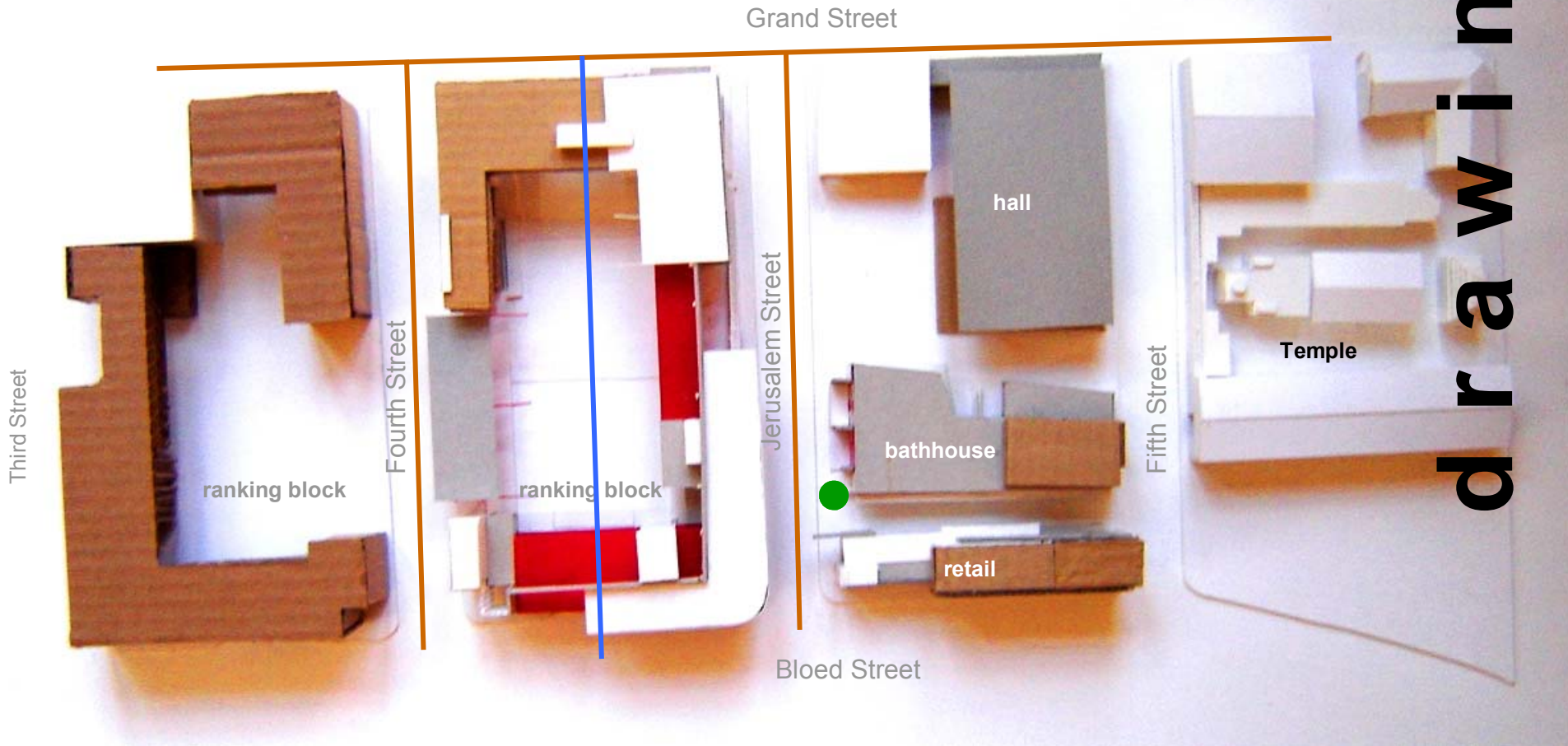
The eastern platform is constructed of pre-cast concrete square slabs. These squares can be used to demarcate territory by the hawkers. An individual may for instance take ownership of a few squares to set up a temporary stall. The concrete slabs are painted with an acrylic polymer sealer, to provide a smooth durable surface. All service areas, walkways and staircases will also be painted with this sealer to demarcate public areas. The more permanent retail stalls, and restaurants will receive screeds with colour pigment added. Floor finishes of the hostel and rentable office spaces will be specified by the tenants.

Most of the exterior masonry **walls** will be constructed of face brick, while interior walls will receive plaster and paint. The exterior walls of service cores housing public toilets, information kiosk, staircase— and elevator shafts, will be plastered and painted a bright colour to provide landmarks within the facility. For the purpose of this dissertation, yellow is used as it reminds of the bright yellow steel elements used in the Belle Ombre station building and bus rank. This will provide a sense of continuity to public transport facilities in Marabastad.



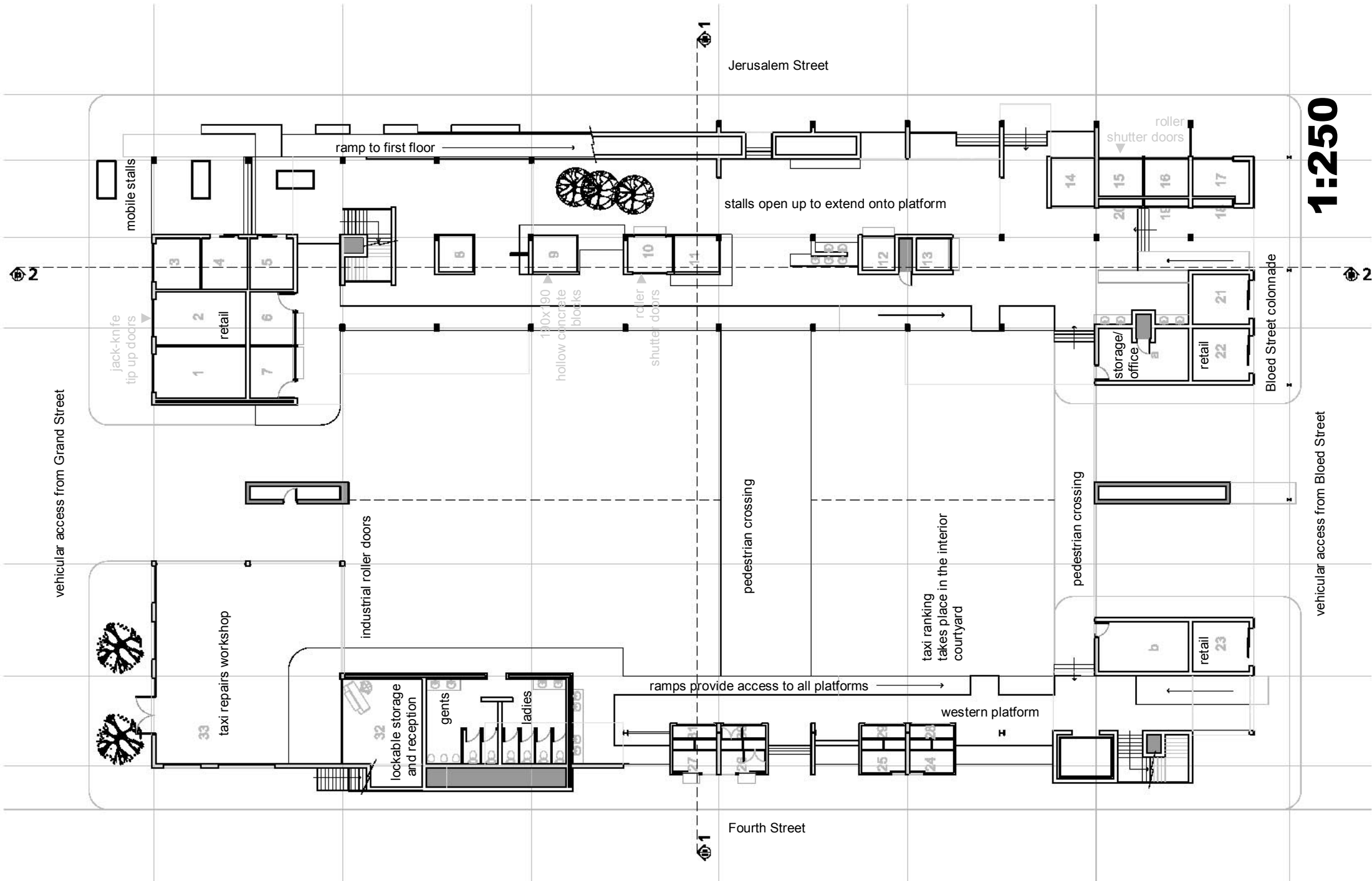
High levels of visual permeability is achieved through the use of wire mesh, concrete blocks and, horizontal and vertical steel sections welded in steel frames (figure). Besides providing boundaries, these elements also create opportunities for hawkers to hang their merchandise for display.

Figure 103 elements for visual permeability



d r a w i n g s 4.4

Figure 104 site layout 89



1:250

Figure 105 ground floor plan

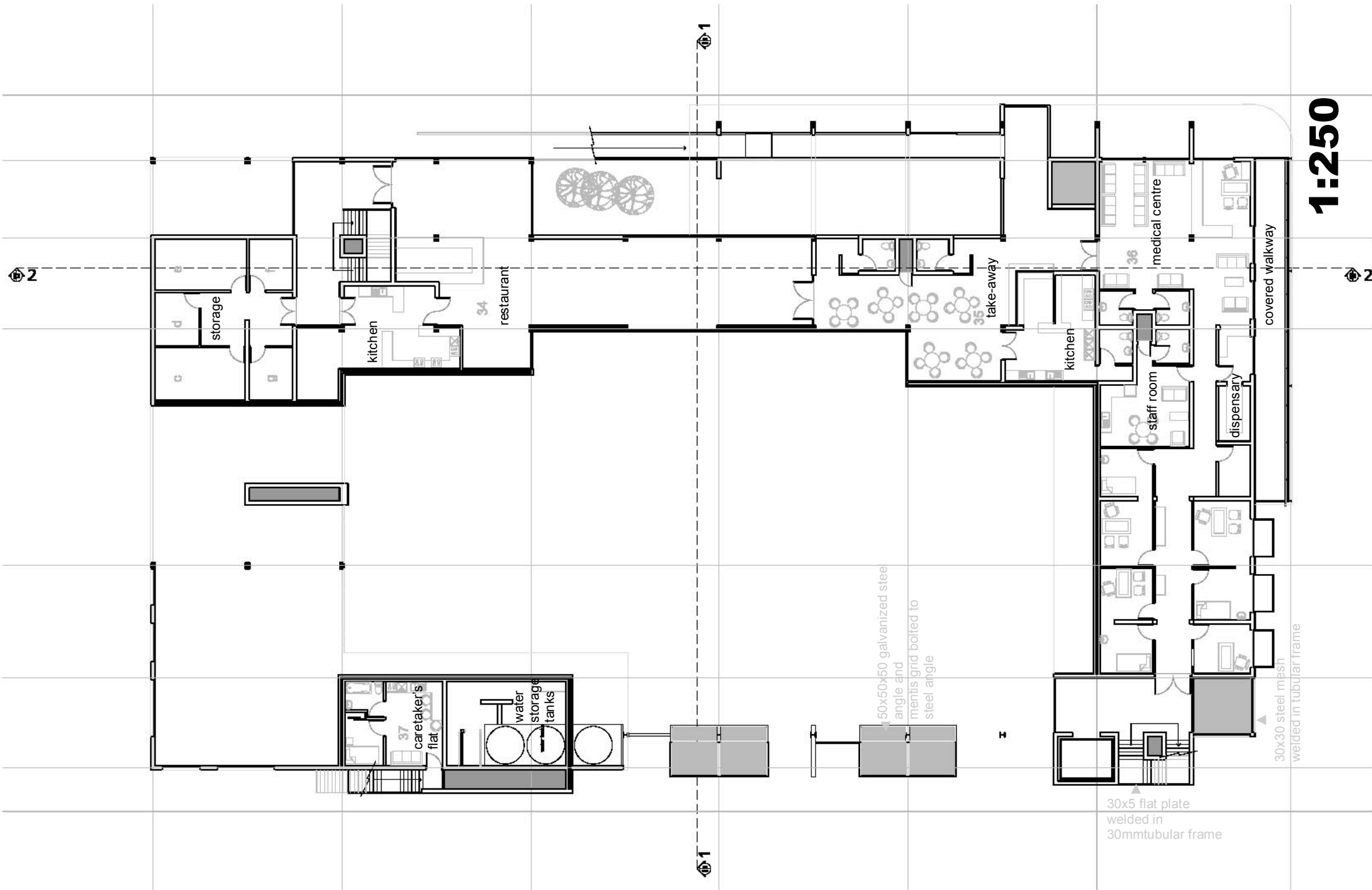


Figure 106 first floor plan

2

1

1

2

1:250

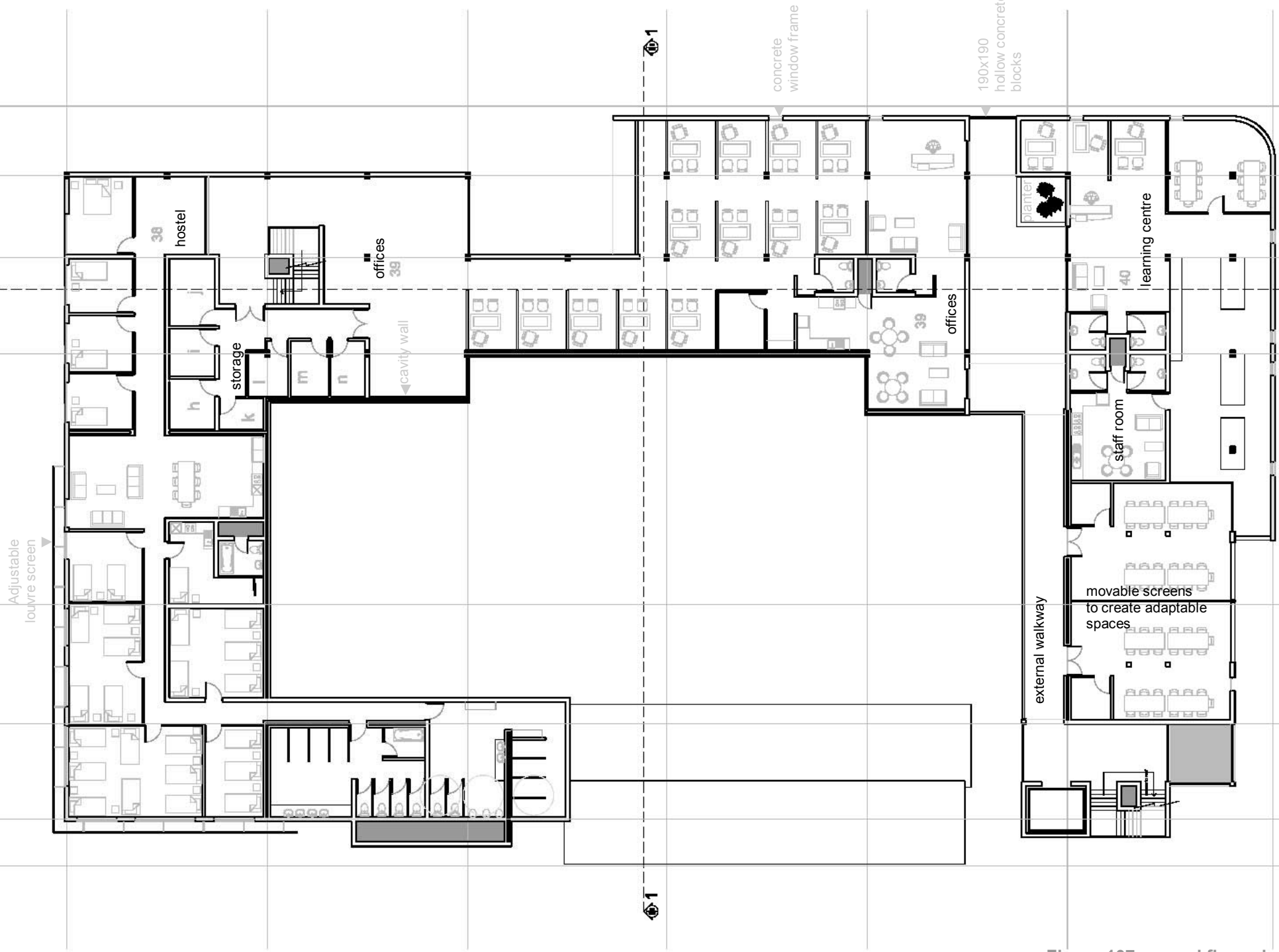
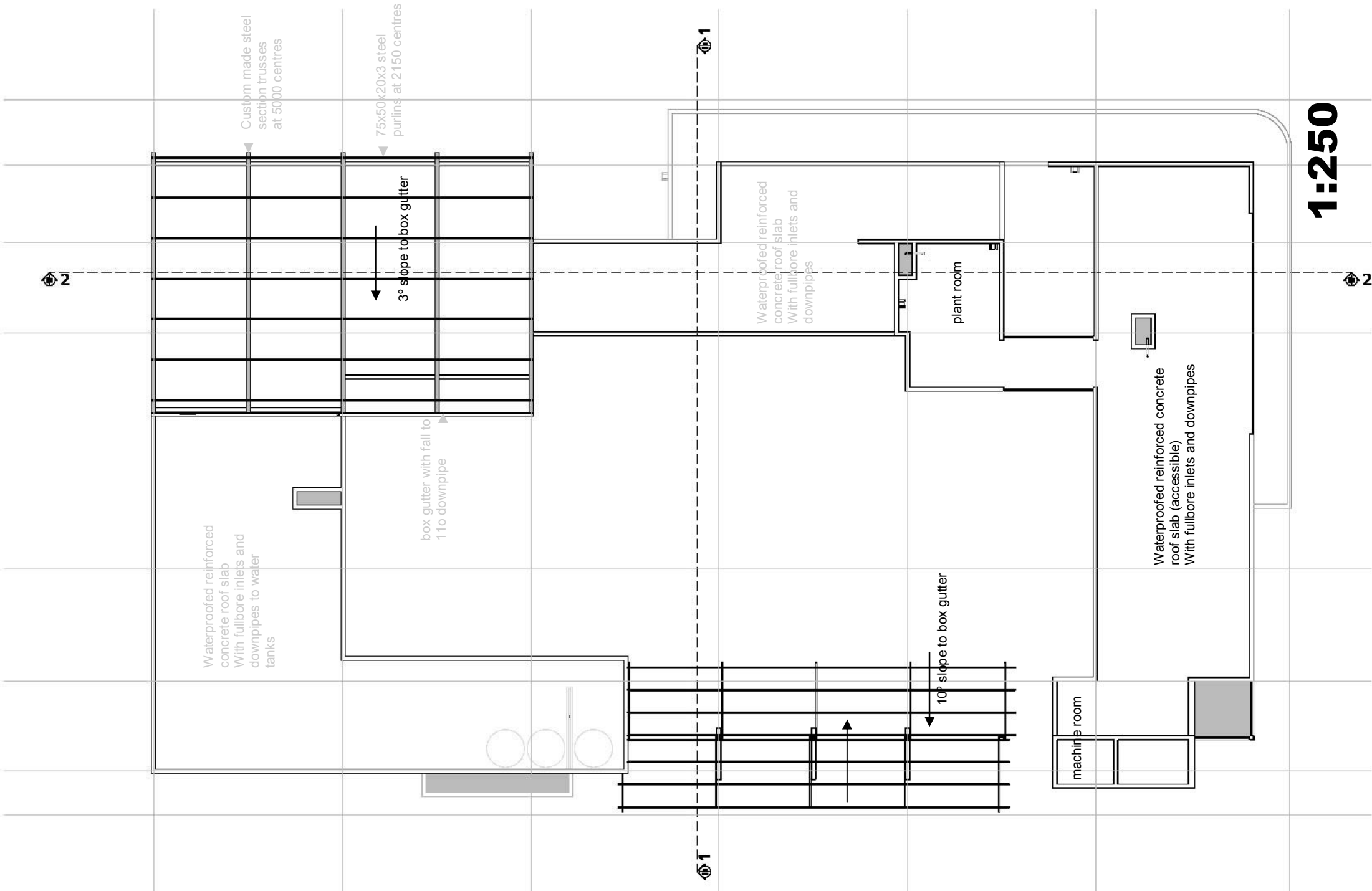
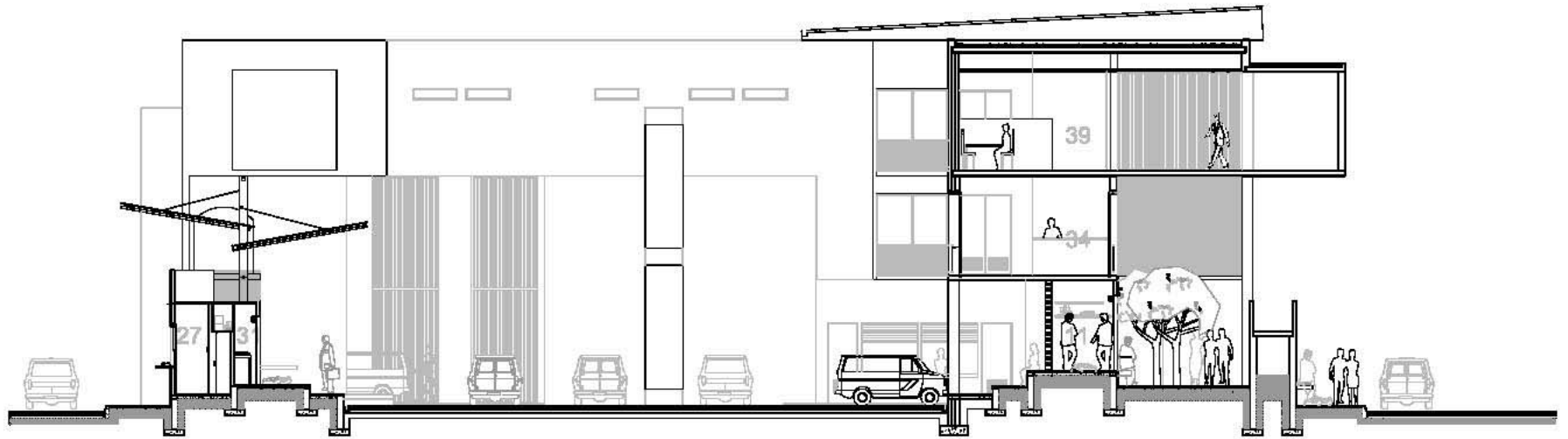


Figure 107 second floor plan

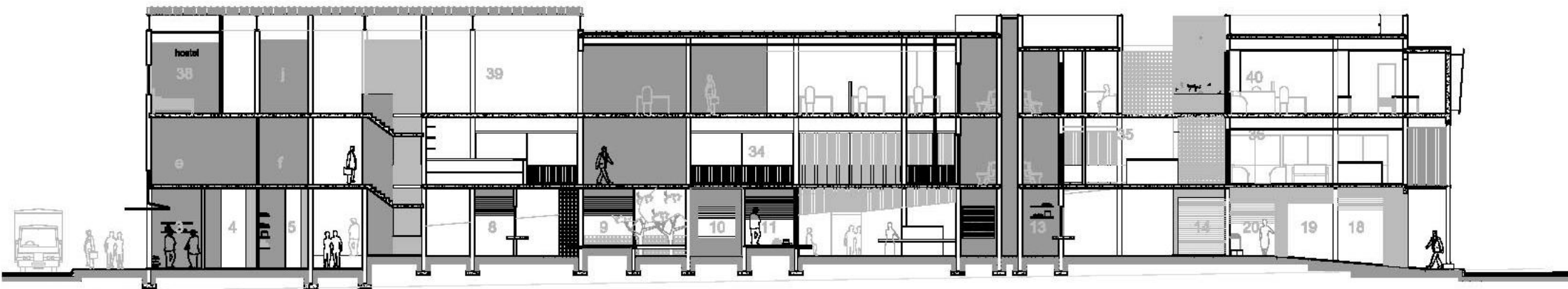


1:250

Figure 108 roof plan



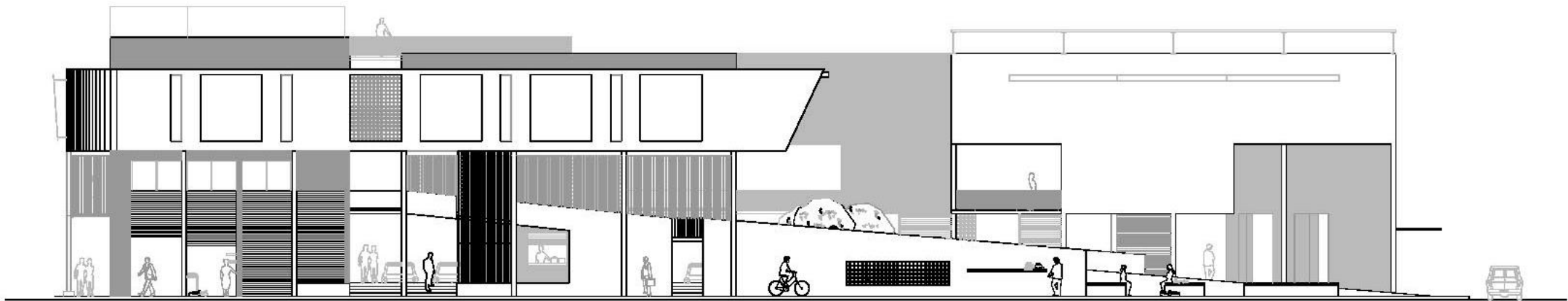
section 1 **1:200**



section 2 **1:250**



north elevation 1:250



east elevation 1:250



south elevation 1:250



west elevation 1:250

interspace

interspace (in'-ter-spās) *n.* a space in between; intervening space

conclusion

The aim of this dissertation was to exploit the concept of social integration and advancement of previously disadvantaged people through designing an adequate public transport facility for Marabastad, to create a social facility with a sense of place for the community as well as establishing a sense of permanence and integration. The aim was to upgrade existing transport systems, to promote public transport and to provide legible, more organized facilities through focusing on “interfaces”.

An interface is a crossing point and a meeting place, where interaction occurs between processes, systems and people. These crossings are found everywhere; at city markets, transport interchanges, on street sidewalks, etc. In most cases; these nodes are extremely successful as meeting places, but often lack sufficient public facilities. The proposed intervention provides the community with social spaces that allow for communal interaction. The proposals made merely form the beginnings of a model for dealing with public meeting places. The concepts explored could be applied on a larger scale throughout the city, to provide basic facilities needed. Small interventions can provide opportunities for evolution and appropriation, so that a sense of place may be spawned from existing fabric over time.

An interface as an in-between functions as un-programmed space; space to be appropriated by the user. The project manages to focus simultaneously on the formal and informal aspects of places for social gathering, such as transport interchanges. The building acts as an envelope creating spaces which allow activities to develop unofficially and spontaneously while bearing a great sense of formality and certainty. The building and the spaces it creates, provides flexibility for a variety of building functions while adhering to existing movement and functions on the site. A program is generated for a building through the superimposition of existing rituals and processes occurring on and around the site. The site acts as a catalyst for future development of this in-between that is Marabastad.

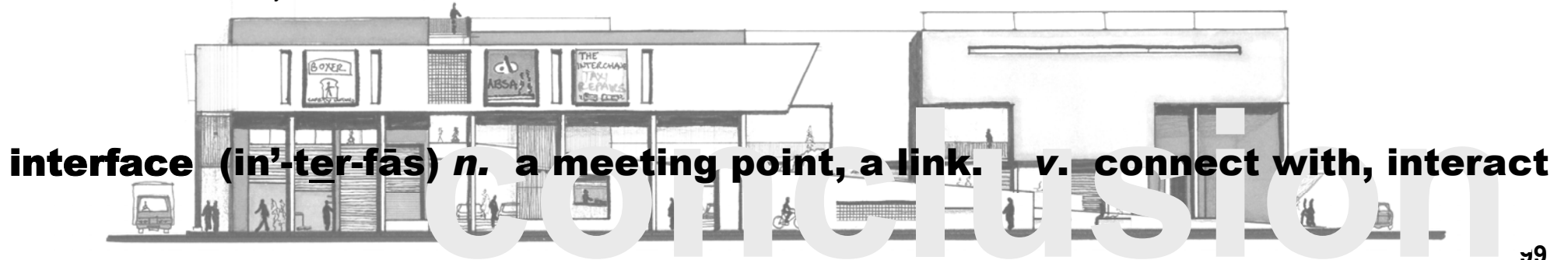
The interface becomes the generator of new events for this part of the city. The development provides urban renewal in an area in need of “urgent urban intervention” (Pretoria ISDF 1999:2). This dissertation provides solutions that will improve the quality of life for the residents, users and visitors of Marabastad. The building is integrated with the surrounding environment and enhances the unique social, cultural and historical attributes that are Marabastad. The building becomes a landmark in the precinct and could exploit this area as an important destination for tourists, inhabitants and commuters to the city. Other transport related facilities should however be upgraded and links between transport related functions need to be strengthened throughout the precinct. The proposed intervention will hopefully re-activate the suburb through stimulating commercial activity and planting the seed for future investment. The functional diversity of the facility, as a gateway for so many people to the city, creates an overlay of systems and functions. This manifests in the spaces created by the building.

Constructed of the amalgamation of different parts, **the building itself becomes an interface**. The built form echoes the fine grain of Marabastad, while reflecting the multiple layers of the program. Although the building has a flexible loose fit plan with a wide central space, its façade emphasizes the street-block-relationship through definite built edges. The perimeter building restores the historic character of the precinct through reinstating the unique grid which distinguishes Marabastad from the rest of the CBD. Besides providing an enclosure for the ranking facility this transition between sidewalk and building acts as a multi layered threshold; introducing a variety of complementary functions. The permeability of the enclosure provides links with the surrounding fabric and promotes interaction between spaces and people. Thresholds varying in physical and visual permeability regulate these levels of interaction. Covered walkways and canopies provide transitions between inside and outside, extending the boundaries between public and private to form spaces for interaction. These also offer shade and shelter against heat and precipitation.

The building was designed with a long term vision; it is of a high standard and extremely robust. It is designed to accommodate a variety of uses over its lifespan, and is therefore a sustainable solution. The intervention underpins the understanding that the architect intervenes in a short time interval after which the space is layered and defined by a number of people over time. The level of public participation through all phases of the development is extremely important. Through input and choice, the community will feel an immediate ownership of the facility, which will bring about pride and conservation of their property. The success of this project greatly depends on interpretation by its users.

Whereas the principal spatial agenda of apartheid was (racial) segregation, the spatial agenda for the new democratic era is evidently one of integration. The proposed public transport facility becomes an obvious place for integration, affording the possibility for a range of human encounters. Ranging from the private everyday routine of eating, to the ceremonial type preparation and consumption in a public restaurant located in a temporary tent-like structure, rituals determine space. Spaces are furthermore activated by the bodies that populate them.

One can only hope that the spaces and surfaces created become reflections of the remarkable ability of communities to respond to space, so that Marabastad may indeed be interfaced.



interface (in'-ter-fās) n. a meeting point, a link. v. connect with, interact

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All graphics that are not referenced were created by the author.

All aerial photographs were acquired from the Geology Department of the University of Pretoria, edited by the author

All photographs referenced to Markus Meyer, were taken on a site visit conducted together with the author

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BAIE DANKIE AAN:

Nico Botes; wat my aan die kleure en geure van Marabastad voorgestel het, en vir al die bystand en waardevolle kennis wat hy tot die projek bygedra het.

Barbara Jekot for all her time and input.

My mede studente, Markus en die weeklikse film eskepade, Chucky, en Paul Simon.

My familie wat altyd dink dat ek die beste is.

Marabastad en sy mense wat altyd gewillig was om te “pose” vir n foto.

Images of Marabastad





















