

CHAPTER 05

PRECEDENT STUDIES

Chapter Five looks at nine precedent studies that were identified from similar contexts in South Africa. The conceptual framework outlined in Chapter Three and Four is then applied to these precedents to aid in understanding and visualising the applicability of the design approach in the context of transient spaces and/or places.

This chapter aims to better understand the dynamics between transient commuter culture, the public transport industry (specifically the minibus taxi industry) and informal trade activities that are so entrenched in the ad-hoc public transport junctions particularly prevalent in South African cities. The precedent studies chosen are all contextually relevant examples of prominent transport nodes, either having undergone or yet to undergo intervention and regeneration, where the combination of activities present have often formerly been viewed as ‘illegal’ or ‘unwanted’ (such as the case with the minibus taxi and informal trading) from a western perspective. These public transport interchanges are all situated within a very particular urban context, formerly marginalised industries in marginalised localities either having or with the potential of having far-reaching effects on the greater city precincts as well as to the lives of the commuters they service.

The following precedents were specifically analysed with regards to three over-arching criteria:

1. Whether the architectural contribution added value to the context and instilled a sense of place and belonging to the everyday users within these transient urban spaces.
2. How the construction and material choices contributed to the either successful or unsuccessful reception of the design intervention.
3. The pedestrian and vehicular movement patterns on site with specific reference to Labanotation movement tracking systems.

The precedent studies in this chapter include:

1. Baragwanath Transport Interchange and Traders Market
2. Bellville Public Transport Interchange
3. Diepsloot Taxi Rank No. 2
4. Faraday Market and Transport Interchange
5. Metro Mall Transport Facility and Traders Market
6. Mitchell’s Plain Public Transport Interchange
7. Philippi Public Transport Interchange
8. Wallacedene Taxi Rank
9. Warwick Station

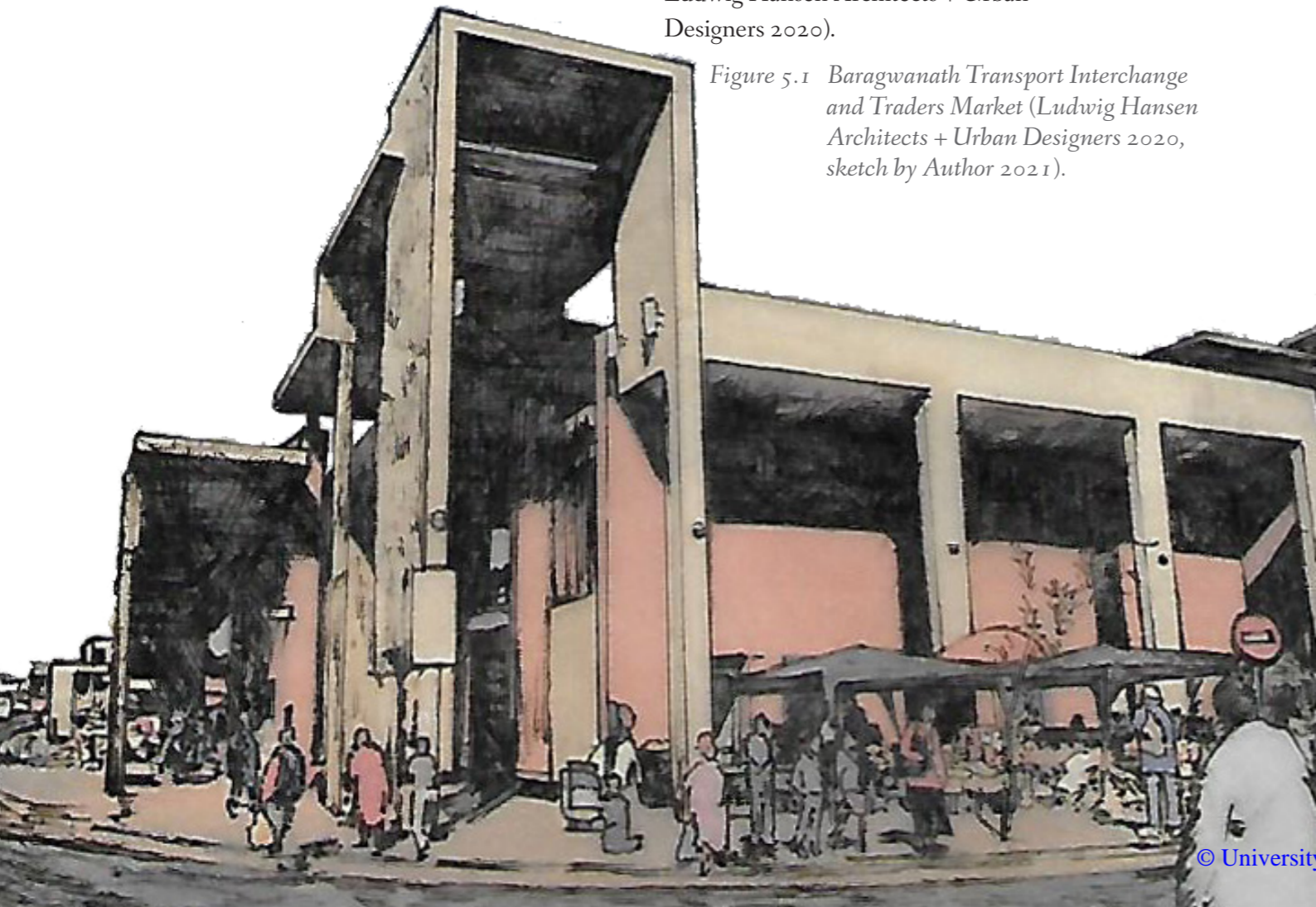
1. Baragwanath Transport Interchange and Traders Market

Location: Soweto, Johannesburg, Gauteng, South Africa
 Client: Metro Council Capital Budget Projects
 Construction: 2003 – 2008
 Size: ±17 000m²
 Project Team: Urban Solutions Architects and Urban Designers:
 Ludwig Hansen, Günther Wagner, Colleen Oosthuizen, Chris Stuck

The Baragwanath Transport Interchange and Traders Market, one of the busiest transport interchanges in South Africa, serving the transport needs of nearly 70% of Soweto's commuter populace, forms part of the Greater Johannesburg Metropolitan Council's Baralink Development Framework.

The aim of the facility is to edify the significance of this transport node and market within the Soweto context, as well as to initiate integration of Johannesburg's south-western townships into the city's urban landscape (Deckler, Graupner & Rasmuss 2006:65-67, Ludwig Hansen Architects + Urban Designers 2020).

Figure 5.1 Baragwanath Transport Interchange and Traders Market (Ludwig Hansen Architects + Urban Designers 2020, sketch by Author 2021).



The primary design concept constitutes a sculpturally formed, concrete arcade as a structural spine, linking commuters from one public facility or transport mode to the next. The arcade, which forms the centrepiece of the facility within which the largest number of traders, civic amenities and public spaces are situated, stretches along the 1.3 km length of the site along old Potchefstroom Road (Soweto's main arterial that carries about 35 000 vehicles per

day), and is approximately 50 metres wide (Deckler, Graupner & Rasmuss 2006:65). This double-volume arcade with its mosaic focal towers at the entrances, is the connecting device to the six transport terminals as well as to the inbetween market spaces, providing clarity of direction, orientation, and ease of movement to the pedestrian, and is spatially differentiated in reference to the specific functions that happen along it.

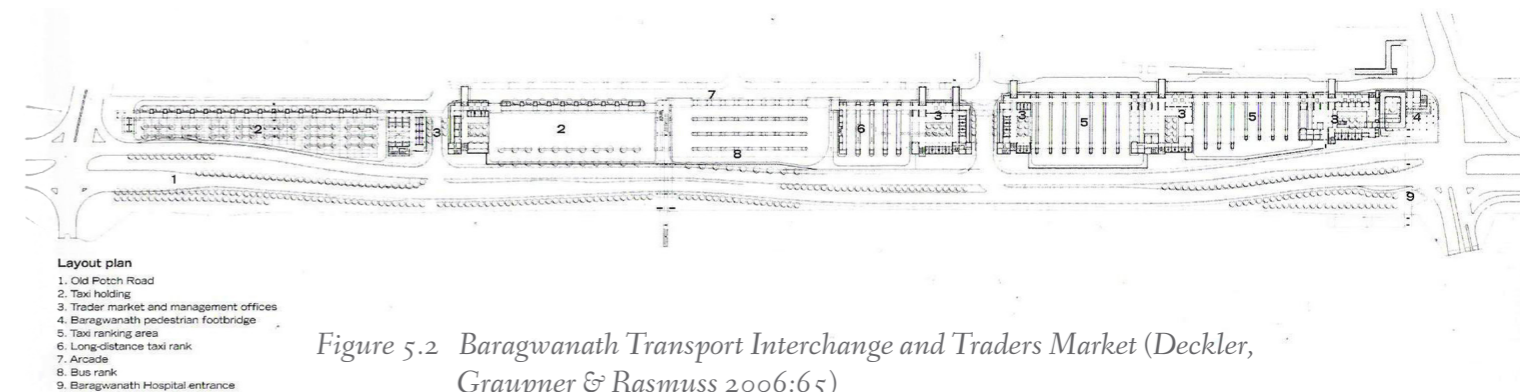


Figure 5.2 Baragwanath Transport Interchange and Traders Market (Deckler, Graupner & Rasmuss 2006:65)

This bustling transport junction accommodates 500 informal vendors, boasting trading stands varying in size to accommodate different types of businesses, with associated services that comprises management offices, storage space and support infrastructure. The transport facilities include 22 bus ranking facilities (necessary in serving the needs of

both long- and short distance bus operators) and 650 minibus taxi holding and ranking bays, accommodating the combined requirements of 12 different operators serving the routes between Johannesburg and Soweto (Deckler, Graupner & Rasmuss 2006:65-67, Ludwig Hansen Architects + Urban Designers 2020).

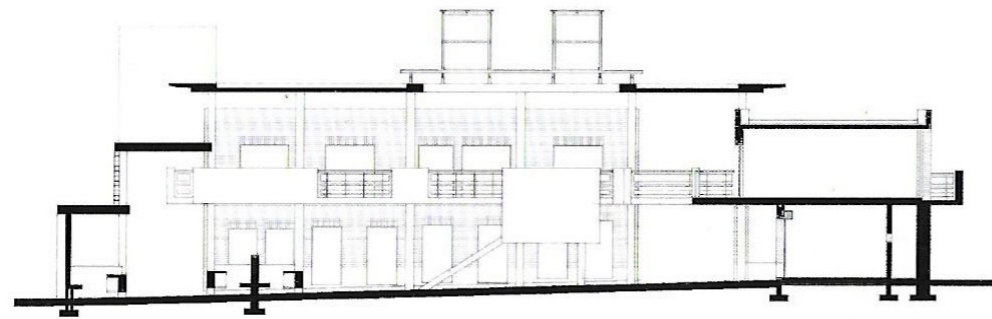


Figure 5.3 Concrete used as primary building material (Ludwig Hansen Architects + Urban Designers 2020).

Figure 5.4 Typical section of the traders market and management offices (Deckler, Graupner & Rasmuss 2006:67).

Concrete was deliberately used as the primary building material of the facility to establish a permanent, robust, and utilitarian sensibility to the facility, while at the same time being a hard-wearing and low maintenance material. The concrete is sculpted along the arcade to avoid monotony, taken into account the

length of the structure with the colourful mosaic landmark towers becoming a focal point for local artists, providing a sense of place and ownership to the surrounding community (Brand South Africa 2005, Deckler, Graupner & Rasmuss 2006:67, Ludwig Hansen Architects + Urban Designers 2020:23).

The Baragwanath Public Transport Facility and Traders Market can be seen as a noteworthy precedent for future public catalytic interventions

for revitalised urban spaces in formerly marginalised areas (Deckler, Graupner & Rasmuss 2006:67).



Figure 5.5-5.7 Concrete facade is sculpted along the arcade with the colourful mosaic landmark towers becoming focal points (Ludwig Hansen Architects + Urban Designers 2020).

2. Bellville Public Transport Interchange

Location: Bellville, Cape Town, South Africa
 Client: City of Cape Town
 Construction: Not Dated
 Project Team: Unknown

The Bellville Public Transport Interchange, while exhibiting an increased degree of violence, discord, health hazards, littering, vandalism and protests from both the taxi industry and informal sector, remains one of the largest and busiest taxi ranks in the Cape peninsula. Bellville is an economic node, situated at the heart of the Cape Town metropolitan area, connected by two national highways (the N1 and N2) with several major urban and regional arteries, an international airport in close proximity, and multiple rail, bus and minibus taxi routes in

its surrounds. This public transport interchange comprises three modes of public transport, namely, the Bellville Railway Station, Golden Arrow Bus rank as well as a taxi rank, and caters for approximately 50 000 daily public transport commuters (142 000 passenger trips via 30 routes daily), 5 connected rail links, serving 9 train station in the area as well as a high number of vehicles (De Klerk 2014, The Greater Tygerberg Partnership n.d., Solomons 2018).

Figure 5.8 Taxi rank structure at the Bellville Public Transport Interchange (EWN 2018, sketch by Author 2021).



Figure 5.9-5.10 The Bellville Public Transport Interchange (EWN 2018).

The urban planning of the area shows strong evidence of modernist principles, with the majority of the buildings surrounding the Bellville Public Transport Interchange built in the sixties, where particular focus is placed on the accessibility and movement of the motor car, undermining the importance of the pedestrian and creating a disconnect between the urban planning and the efficient use of the public transport terminals. This resulted in the creation of dangerous and uncomfortable interstitial spaces, dangerous pedestrian walkways to and from the stations that cut across busy roads, disconnection between

the three modes of public transport, no architectural form orienting the pedestrian or providing constructive connections between stations, disconnected informal markets as well as inadequate communal spaces that support the necessary scope of social activities which is fundamental in successful public transport precincts of this magnitude (De Klerk 2014).

The construction of the Bellville Taxi Rank encompasses a simple design solution comprising of concrete and steel shading structures, with curved corrugated metal roof sheeting. These structures provide the necessary protection from the elements to taxis picking up or dropping off everyday commuters, as well as to the commuters themselves, however, little accommodation is made for seating or queueing, as well as the rank being far removed from the nearest traders' markets and/or social spaces. No provision is made for taxi holding and/or waiting areas, and as a result an ad-hoc approach has been taken to parking in the left-over spaces not effectively utilised on site.

This precinct has drawn much needed attention over the past few years, with the redevelopment of the Voortrekker Corridor forming part of Cape Town's Mayoral Urban Regeneration Programme (MURP). Realising the potential of this dense public transport interchange, the opportunities it holds to overcome the legacy of apartheid spatial planning and how architectural contribution that provides scale and consideration to the pedestrian, may be the first step to begin fostering social integration and stimulate social cohesion on a metropolitan and city-region scale (The Greater Tygerberg Partnership n.d., Solomons 2018).



Figure 5.11 Curved, corrugated metal roof sheeting shading structures (EWN 2018).

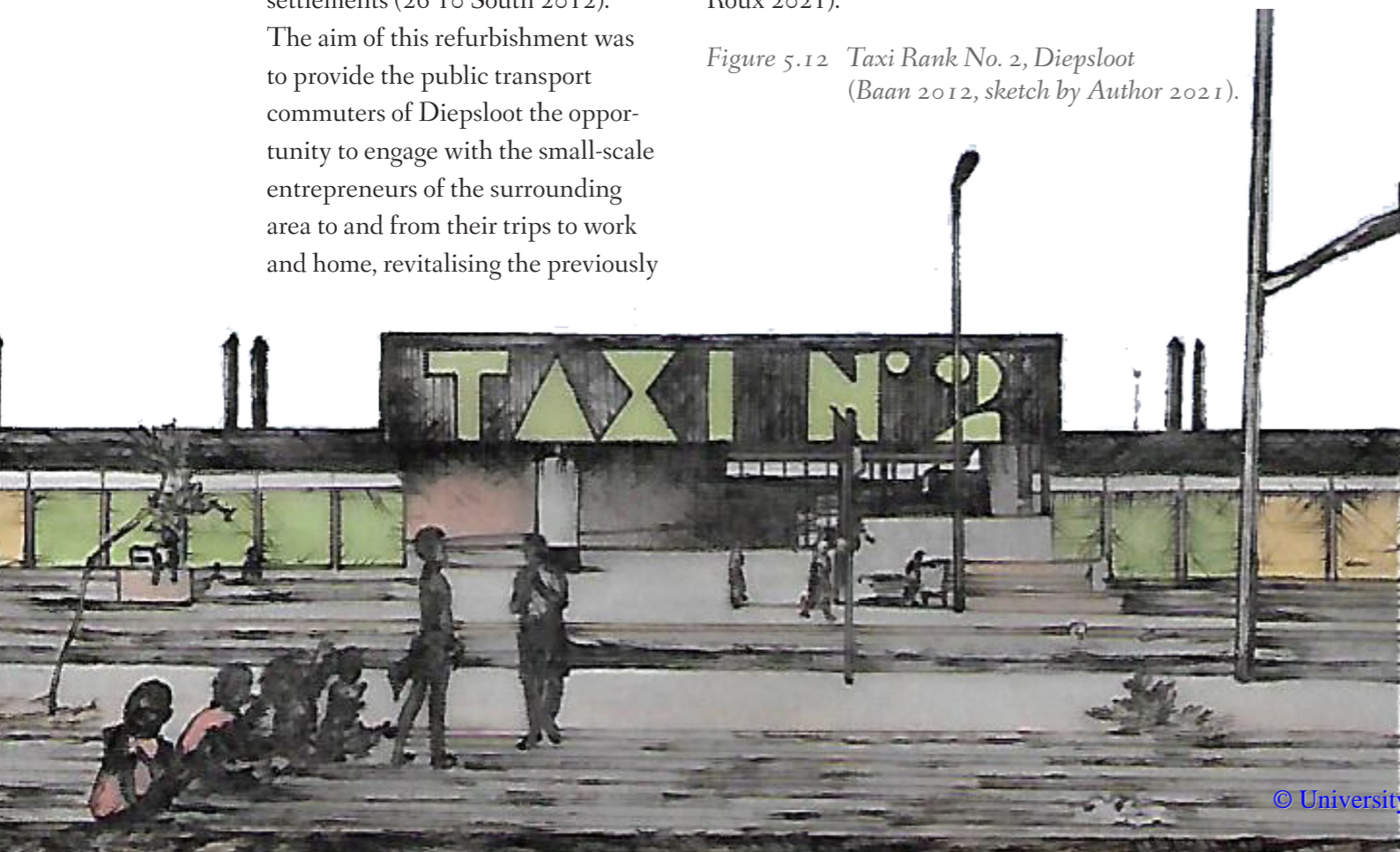
3. Taxi Rank No. 2

Location: Diepsloot, Johannesburg, South Africa
 Client: Johannesburg Development Agency (JDA)
 Construction: 2013
 Project Team: 26'10 South Architects – Thorsten Deckler, Anne Graupner, Nkululeko Mbengu, Stephen Reid, Carl Jacobs, Guy Trangos, Lara Wilson, Nzinga Biegueng Mboup, Alex Howell, Thulani Rachia and Mtembekhi Ngema

The main taxi rank, connecting the residents of Diepsloot - a poor, densely populated, post-apartheid township located on the urban fringes of northern Johannesburg - to the city, was upgraded by the City of Johannesburg with the aim to improve and uplift public spaces within townships and informal settlements (26'10 South 2012). The aim of this refurbishment was to provide the public transport commuters of Diepsloot the opportunity to engage with the small-scale entrepreneurs of the surrounding area to and from their trips to work and home, revitalising the previously

decrepit and leaking back wall of the ablution block, which used to be the most prominent and visible part of the old taxi rank. Now, commuters are welcomed by a colourful gateway to the taxi queues and flexible shops for ad-hoc services, creating a safer environment for those arriving at the rank in the early morning hours (Le Roux 2021).

Figure 5.12 Taxi Rank No. 2, Diepsloot (Baan 2012, sketch by Author 2021).



The refurbishment of the Diepsloot Taxi Rank included the reconfiguration of the shed-like roof to allow for more natural light during operating hours, the addition of a linear market, a sheltered meeting point or 'urban' porch articulating the entrance of the rank, as well as the extension of the existing administration office with a new meeting space, car wash and mechanic workshop, all to generate additional income for the everyday running and maintenance of the rank (26'10 South 2012, Le Roux 2021).



Figure 5.13 Section of Taxi Rank No. 2, Diepsloot (Baan 2012).

The linear market, now with secure, well-functioning and distinguished trader stalls, complete with fuel-fired cooking facilities and chimney stacks (to mitigate the effect of the frequent electricity black outs so common in this area) is located on the perimeter of the site hereby extending the double-sided informal market that takes place along Main Road, activating the boundary edge of the taxi rank. The market was realised as a steel

The existing roof covering the taxi queuing lanes was extended and opened up into mono-pitch roofs with clerestories above some of the existing barrel vaults to allow for more natural daylight. The slope of the pitch of the new roofs are suitable for solar panels and a UPS station has been provided for to power the rank during the frequent electricity outages affecting Diepsloot (26'10 South 2012).

frame structure to emphasize the notion of 'durability', which spills out onto a raised paved platform during the day into which seating ledges have been integrated, where commuters may take a moment and have a seat or finish a meal before donning the next bus or taxi (26'10 South 2012, Kotze 2014).

The celebrated ‘urban’ porch situated on the southern side of the rank a sheltered meeting point or ‘urban’ porch, where food and other social activities may be enjoyed, and rewarded with a view over the settlement. The use of colour and vegetation planted have added a destination-like quality to the rank, instilling a feeling of belonging and ownership to the everyday users (26’10 South 2012, Kotze 2014).

The approach taken in the design and construction processes of Dieps-

loot Taxi Rank No. 2 is apparent to be one of humility, where the effort was made to learn from the local conditions and apply a contextually appropriate and uplifting place-making solution, effectively integrating the transport node with the daily life and operations of the greater Diepsloot area. These simple design decisions have efficiently enhanced the environmental, social, and commercial sustainability of the taxi rank, creating an inspiring and dignified urban place (Kotze 2014).



Figure 5.14 Mono-pitch taxi roofs with clerestories above the existing barrel vaults to allow for more natural daylight (Baan 2012).

Figure 5.15 The use of colour create a destination-like quality to the rank (Baan 2012).

4. Faraday Market and Transport Interchange

Location: Marshalltown, Johannesburg, Gauteng, South Africa
 Client: Johannesburg Development Agency (JDA)
 Construction: 2006
 Project Team: Albonico + Sack Architects and Urban Designers with MMA Architects

The Faraday Market and Transport Interchange, located on the southern edge of Johannesburg inner city and anchored by Faraday Station (a railway terminal that connects Soweto and other southwestern townships to the city) has become a multimodal transport interchange precinct, with public transport modes expanding their services to reach into the central and near city zones. The completion of this revitalised project signifies a turning point in a precinct that was formerly suffering significant decay with the primary aim being to redress the lack of services and discrimination against the multitude of public transport users; a notch in

the belt for the City's Regeneration Campaign (Deckler, Graupner & Rasmuss 2006:71, Joburg 2018).

With the intermodal transport interchange having historically served as a gateway to Johannesburg for miners on the Gold Reef, it was important to create a node that would be able to accommodate both local and long-distance taxi rank facilities as well as underground train stations, effectively connecting commuters to destinations both locally as well as to the broader city environment (Deckler, Graupner & Rasmuss 2006:71, Joburg 2018).

Figure 5.16 Faraday Market and Transport Interchange (image from Kirchhoff n.d., sketch by Author 2021).



Situated within an urban context and designed to serve a larger precinct, this capability of the Faraday Market and Transport Interchange ties in with the primary development concept of intertwining the trading activity that is associated with taxi industry to the commercial and transport precinct. This generates a richer and more diverse urban fabric necessary for this development to function successfully within its surroundings where the commuters are provided with the necessary goods for daily life while allowing for social interaction between commuters, traders and public transport operators, an aspect that is vital to the creation of African space (Deckler, Graupner & Rasmuss 2006:71, Joburg 2018).

The architectural intervention comprises the renewal and integration of an administrative unit and spacious storehouse in the existing and revamped building structures, a

new, open traders' market, a covered area for the queueing of commuters and taxis, improved, cleaner and safer compact shelters for traditional medicine / muti traders, along with a traditional healers' herb market that is incorporated into the transport junction as well as the conversion of former office buildings into consultation rooms for traditional healers, with attached bathrooms used for ritual cleansing purposes (Deckler, Graupner & Rasmuss 2006:73, MMA Design Studio n.d.). The aim of this project was to recycle and regenerate and along with this unique approach of combining traditional practices and those of the contemporary urban context brings about a more inclusive and sustainable future for the precinct and the city (Deckler, Graupner & Rasmuss 2006:73, Joburg 2018).

The Faraday Market consists of a series of small open halls, divided into 280 separate stands that range

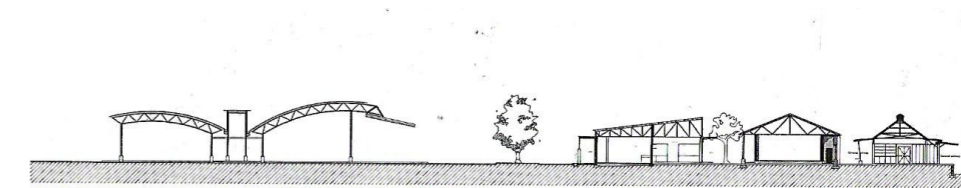


Figure 5.17 Typical section of the Faraday Market and Transport Interchange (Deckler, Graupner & Rasmuss 2006:73).

from small lockable stalls to larger enclosed and lockable sheds, to open public spaces planted with striking, indigenous coral trees, hereby accommodating for adaptability and change. These stalls extend into the passageways where traders display their produce. All these design considerations celebrate these surviving traditions and elevates the stance of this previously informal market in the city. Additional facilities are provided for that include a railway station forecourt, restrooms, managerial offices, places of formal commerce as well as several social co-mingling spaces. The wave-like corrugated iron rooftops of the market, supported by steel girders, give forth the pleasing imagery of rolling hills in the veld, juxtaposing the angular shapes of the adjoining factories and warehouses. These tall roof

structures allow for natural light to fill the spaces during the day, while at the same time being hard-wearing, low maintenance materials, ideal for heavily frequented precincts such as this, while traditional decorative elements are employed as functional devices to improve building performance such as woven wire sun-screens (Brand South Africa 2005, Deckler, Graupner & Rasmuss 2006:73, Joburg 2018).

The architectural intervention is unique in the successful understanding and tying-together of transient commuter culture and the history of the transport precinct, effectively straddling the junction between the rural and the urban in this African city context (Deckler, Graupner & Rasmuss 2006:73).



Figure 5.18-5.21 The wave-like corrugated iron rooftops and steel girders allow for increased natural light to fill the spaces below, and are juxtaposed by the angular shape of the factories and markets (MMA Design Studio n.d.).

5. Metro Mall Transport Facility and Traders Market

Location: Johannesburg, Gauteng, South Africa
 Client: Johannesburg Development Agency (JDA)
 Construction: 2003
 Project Team: Urban Solutions Architects and Urban Designers:
 Ludwig Hansen, Günther Wagner, Colleen Oosthuizen, Chris Stuck

Metro Mall Transport Facility and Traders Market is situated on a twelve-hectare site along Bree Street, one of the busiest streets in the inner city of Johannesburg. The new building type aims to provide a trader and transport terminal with human-centred design as its core concept, by supplying vendors with the necessary spaces that will allow them to maximise the passing trade, while taking into consideration the needs of the taxi industry. This transport-cum-retail development was one of Johannesburg's first crucial infrastructural improvements and built as a catalyst intervention for an urban design renewal programme, with the intention of linking Braamfontein to the north with

the Newtown Cultural Precinct in the south (Brand South Africa 2005, Deckler, Graupner & Rasmuss 2006:61).

Metro Mall is designed to accommodate holding, ranking and loading facilities for over 2 000 minibuses with separate well-defined areas for the different operators and associations, 25 buses that serve 35 routes as well as formalising the informal trade sector by providing trader stalls and retail shops to approximately 800 vendors for the estimated 150,000 public transport commuters who make use of the transport interchange on a daily basis (Deckler, Graupner & Rasmuss 2006:61, Ludwig Hansen Architects

+ Urban Designers 2020:22). Additional facilities provided for in the intervention include taxi association offices, food courts, television and pool halls, Metro Trading Company building management offices, areas for designated cooking 'mamas' who exclusively cook for the specific taxi associations, as well as a day care facility (Ludwig Hansen Architects + Urban Designers 2020:22).

The mixed-use facility, a three level building based on a perimeter-block typology, is in keeping with the urban principles of establishing con-

nections with the greater surrounding urban landscape, completing the city framework to enhance the flow of movement, supporting public mobility with an intermodal transport station, advancing urban mixed use opportunities, strengthening street boundaries by creating active street edges, recognising the street as public space as well as promoting equal opportunity of access and freedom of movement (Brand South Africa 2005, Deckler, Graupner & Rasmuss 2006:63, Ludwig Hansen Architects + Urban Designers 2020:22).

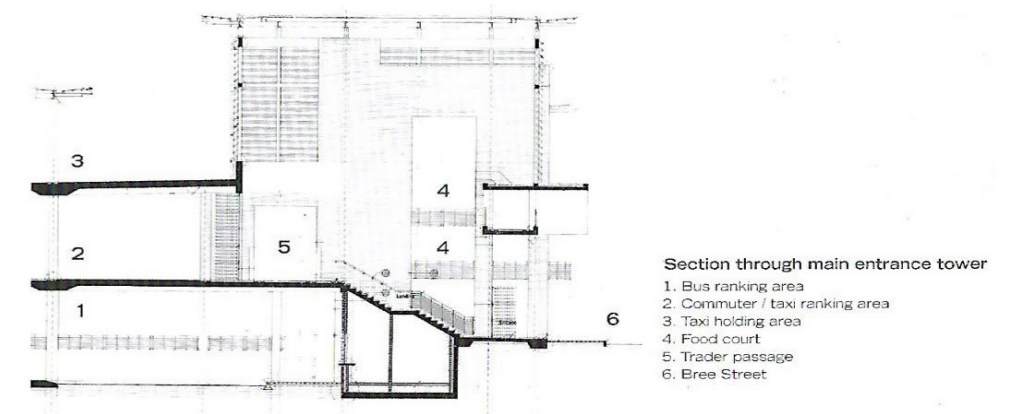


Figure 5.24 Section through main entrance tower of Metro Mall (Deckler, Graupner & Rasmuss 2006:63).

Figure 5.22-5.23 Metro Mall Transport Facility and Traders Market (Artefacts 2002).

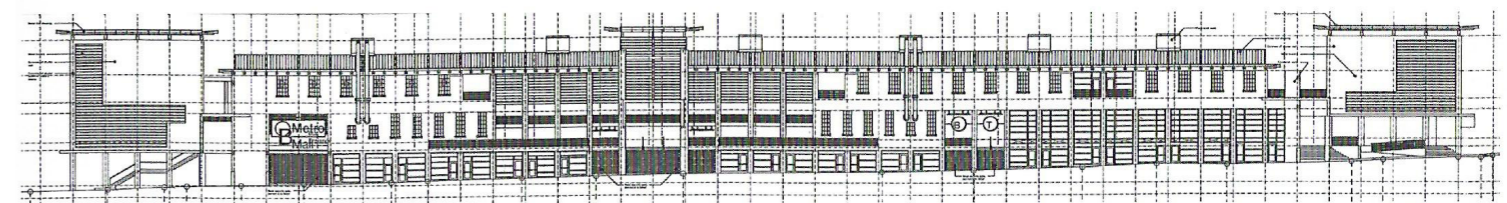


Figure 5.25 Bree street elevation of Metro Mall (Deckler, Graupner & Rasmuss 2006:63).

The building's grand double-volume entrances, displaying some of Johannesburg's unique public art – murals, mosaic, and tall wooden life-sized sculptures by local artists – dominate the street landscape and function as “collection baskets” to orient users and entice them into its interior. Robust, hard-wearing, and low maintenance materials are used in the construction of the facility such as red facebrick and off-shutter concrete, offering a feeling of structural permanence and durability to the architectural intervention and site at large (Brand South Africa 2005, Deckler, Graupner & Rasmuss 2006:63, Ludwig Han-

sen Architects + Urban Designers 2020:22).

On East Bree Street, the Metro Mall minibus transport terminal works on a simple and rapid line-up system with a single row of embarking platforms where commuters are easily able to don the taxis. On the western side, a multiple line-up system spanning a wide platform is utilised where taxis are stacked between off-peak traffic hours. Here, the lack of orienting elements makes the area confusing to use and pedestrians cut across the taxi-waiting areas to reach their destinations.



Figure 5.26-5.28 The grand double-volume entrances orient the users, while robust, hard-wearing materials such as red facebrick and off-shutter concrete provide a feeling of structural permanence and durability (Artefacts 2002).

Formal retail stores are situated along Bree Street, while the street trade community are housed along the internal street fronts, sporting an extensive range of items on sale in colourful stalls: fresh fruit, spices, cellphones, CDs and kitchenware. The placement of these trader stalls utilise the constant pedestrian foot traffic along the pavement to and from the taxi loading zones, creating an interactive street edge. These traders have a wide variety of trading space to choose from, ranging from the most basic, floor space stalls with concrete counters to larger lockable cubicles to fully serviced food outlets and hairdressing salons (Brand South Africa 2005, Deckler, Graupner & Rasmuss 2006:61, Ludwig Hansen Architects + Urban Designers 2020:22). Architect, Ludwig Hansen of Urban Solutions, Architects and Urban Designers critiques the project by calling it too rigid and controlled to some extent, not allowing enough flexibility for the traders to manipulate the trading spaces to make it their own as they would outdoors, essentially putting them into boxes. Informal vendors must make use of trolleys to cart their goods to and from the narrow two-by-two metre barred storage cages either using an eleva-

tor or staircase. These inhospitable storage cages are in some instances also used as communal kitchens by traders needing to make their own meals (Ludwig Hansen Architects + Urban Designers 2020:22). While possibly not entirely satisfying the needs of the informal trade sector, the Metro Mall Transport Facility and Traders Market may still be viewed as an important precedent in providing a well-considered public building to a vital sector of our society marginalised in the past; in striving to provide a formal home for informal vendors and minibus taxi operators alike. The facility is a truly public building, addressing the everyday needs of its users and instilling a sense of civic pride to the greater community (Brand South Africa 2005, Deckler, Graupner & Rasmuss 2006:63, Ludwig Hansen Architects + Urban Designers 2020:22).

6. Mitchell's Plain Public Transport Interchange

Location: Mitchell's Plain, Western Cape, South Africa
 Client: Mitchell's Plain Town Centre
 Construction: 2008
 Size: ±17 000m²
 Project Team: Holm Jordaan Architects

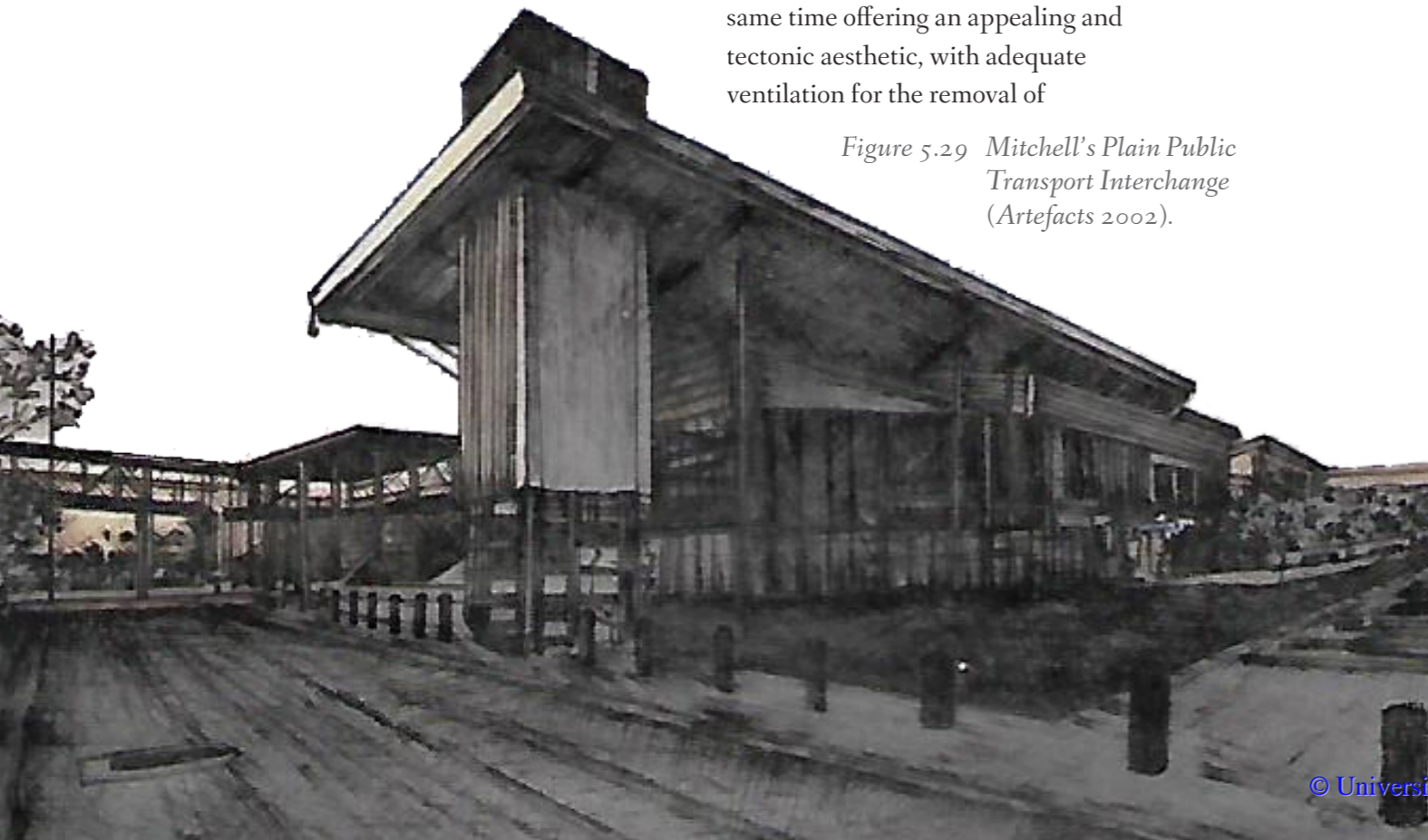
The Mitchell's Plain Public Transport Interchange situated in Mitchell's Plain, one of South Africa's largest townships approximately 28 km from the city of Cape Town, is the second largest public transport interchange in the Western Cape (NewUrban Architects and Urban Designers 2016).

The transport facility includes taxi and bus terminals catering for over 1 000 minibus taxis daily, as well as managerial offices, ablution facilities,

a pedestrian bridge crossing the railway line and a sizeable marketplace at the centre of the interchange that provides informal vendors with the necessary facilities to relocate from the congested malls in the Town Centre (NewUrban Architects and Urban Designers 2016).

The modular bus and taxi shelters were designed in such a way as to provide protection to commuters during harsh summer and winter climatic conditions, while at the same time offering an appealing and tectonic aesthetic, with adequate ventilation for the removal of

Figure 5.29 Mitchell's Plain Public Transport Interchange (Artefacts 2002).



exhaust fumes, to the facility. An identical section profile is utilised for both terminals where the sides have been brought down and clad in GRP sheeting, allowing natural light to stream into the space during the day and out at night and early mornings, while the modular design characteristics enable the possibility of future expansion, if desired (NewUrban Architects and Urban Designers 2016).

The design brief called for the transport terminal to form part of a greater Urban Design Framework within the Mitchell's Plain Town Centre, with the aim to garner engagement from interested and affected parties and associations and augment the value of undeveloped

land in the surrounding area creating more desirable development opportunities for future transportation facilities in strategic locales in the encircling neighbourhoods. The framework suggests the pedestrianisation of 7th Avenue, running parallel to the interchange, as well as the construction of three more taxi interchanges strategically positioned at the boundaries of the newly pedestrianised plaza, drawing commuters in, and creating a lively and vibrant Town Centre. This results in a fluid, comfortable, safe, and more attractive environment to public transport users moving between various modes of transport, hereby increasing the value of the existing Town Centre (NewUrban Architects and Urban Designers 2016).



Figure 5.30-5.32 The tectonic modular bus and taxi shelters, designed in such a way as to provide protection to commuters during harsh summer and winter climatic conditions (Artefacts 2002).

7. Philippi Public Transport Interchange

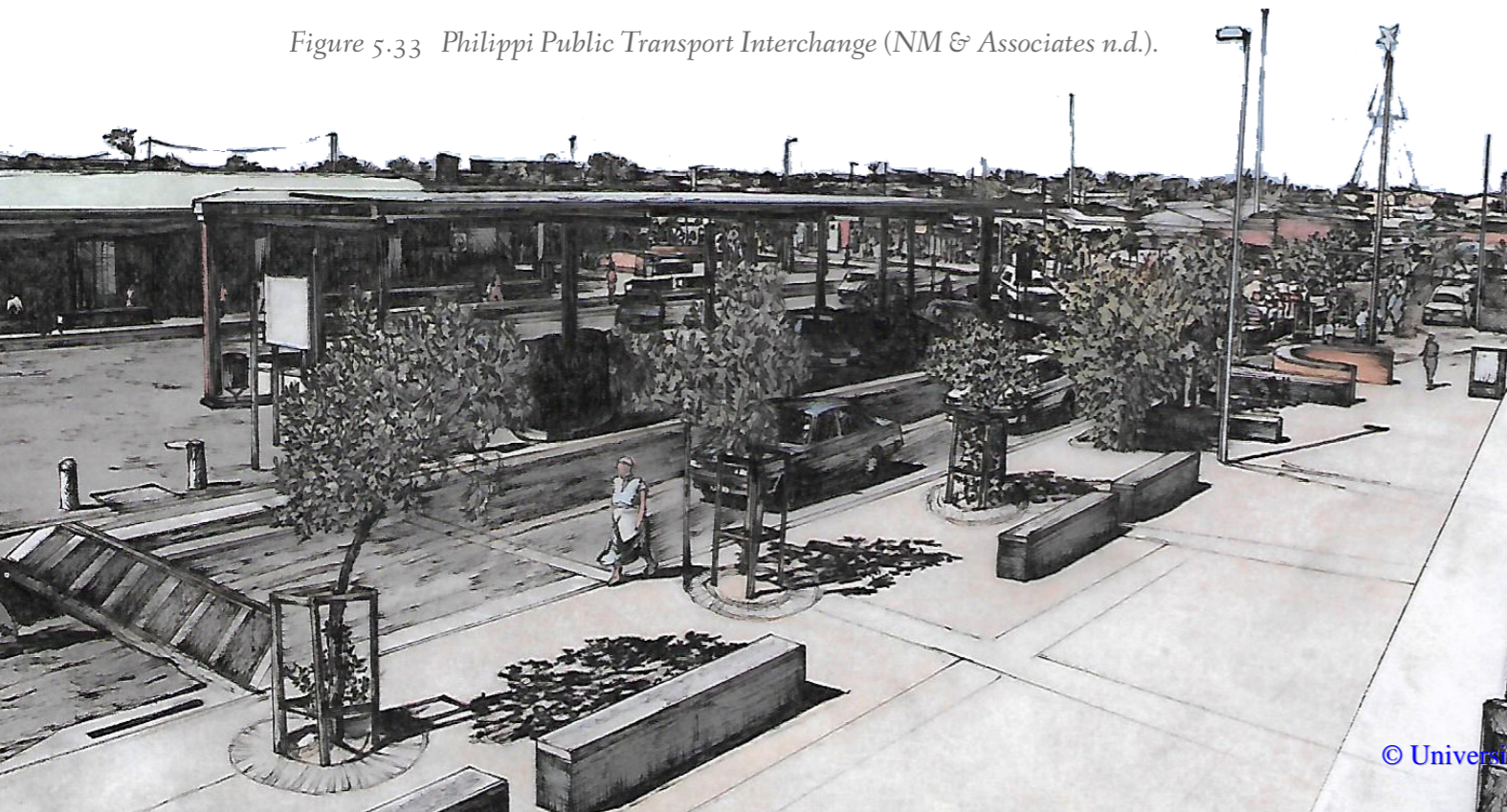
Location: Philippi, Cape Town, Western Cape, South Africa
 Client: City of Cape Town
 Construction: 1999 – 2001
 Project Team: Du Toit & Perrin

The Philippi Public Transport Interchange, located within the peripheral, impoverished township of Philippi, approximately 20 kilometers from the Cape Town Business District – a historic South African township that has encountered significant transformation despite infrastructural limitations - is the third largest transport station in Cape Town. This transport station transformation came about firstly, as a reaction by the community to the scarcity of resources and civic facilities prevalent in the township, hereby trying to create and sustain

their own urban landscape, and secondly, through key programmes of public investment striving to redress apartheid legacies by the City of Cape Town Municipality through formalism and architectural intervention within an agreed urban spatial framework (Deckler, Graupner & Rasmuss 2006:79-81, NM & Associates n.d., Tomer 2014:27).

The transport facility is conceived as simple urban building blocks, striving towards the creation of a neutral new South African expression and co-authored space, of well-propor-

Figure 5.33 Philippi Public Transport Interchange (NM & Associates n.d.).



tioned and intricate frames able to accommodate small businesses and their respective signage needs (Deckler, Graupner & Rasmuss 2006:81). This included capturing the activities normally associated with transport interchanges within the South African urban context, and therefore areas that focused on the opportunity for social interaction, diverse encounters and a vibrant public realm were prioritised (NM & Associates n.d.).

One of the primary design concerns of the transport interchange was to include the local community in the architectural and building process. This approach realised into the articulation of a 200-meter by 70-meter station forecourt occupied by a dense informal traders' market and a variety of social spaces, through which the 30,000 pedestrians who make use of the facility on a daily

basis can traverse through. This established an integrated public environment - an “urban living room” - where the integrity of this urban space is reinforced, supporting the needs of the informal trading sector, surrounding community as well as those of the public transport user, with the hope of encouraging further public and private investment in the foreseeable future (Deckler, Graupner & Rasmuss 2006:79-81, NM & Associates n.d.). This “urban living room” forms one of two primary public spaces around which the remaining functions are defined, including the accommodation of public transport terminals for mini-bus taxis, the new informal trade spaces, and ablutions. These two major public spaces communicate the previously existing spatial and social activities and rhythms prevalent on site (NM & Associates n.d.).

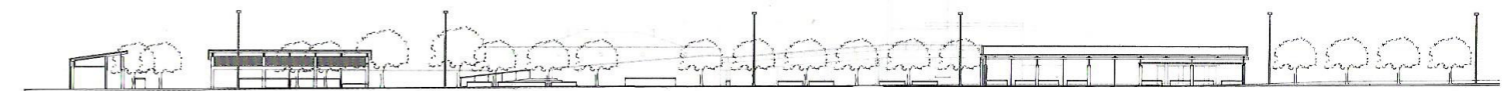


Figure 5.34 North elevation of the Philippi Public Transport Interchange (Deckler, Graupner & Rasmuss 2006:81).

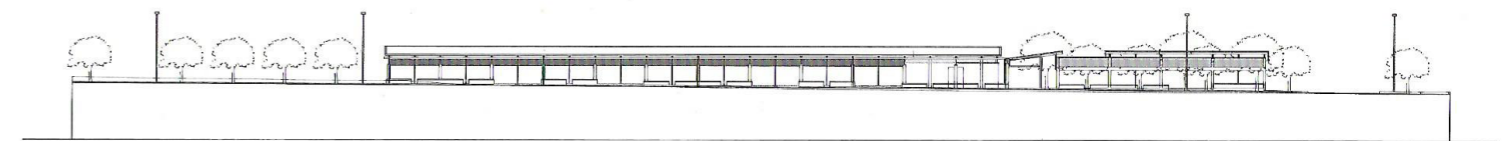


Figure 5.35 South elevation of the Philippi Public Transport Interchange (Deckler, Graupner & Rasmuss 2006:81).

The first public space, the forecourt, is activated by the constant circulation of people, either moving through, trading, watching, or sitting, while rudimentary elements such as trees, cooking platforms, large “urban lounge” seating areas and taps create clusters of “outdoor living rooms”. This forecourt is bordered by two corners of trade areas where food, outdoor restaurants and music associated with shebeen culture can be found. The second public space is surrounded by an informal trade area set back from the robust public colonnade with a generous verandah allowing the vendors to extend beyond the confinements of their stalls whilst instilling a human scale

to the vicinity. The intention behind the design of the units in the trading areas provide vendors with the opportunity to adapt and change their trading spaces over time (Deckler, Graupner & Rasmuss 2006:81, NM & Associates n.d.).

Robust and hard-wearing materials were utilised in the construction of the interchange, such as concrete, brick and steel, that consciously communicate a strong functionalism at a human-scale which beautifully captures the passing of light and time. Most importantly, the success of this civic facility lies in the understanding that the space will be defined by the social activity and

individual expression of the community over time, attesting to the capacity of communities to transform even the most desolate of places to a place of community, ownership and belonging (Deckler, Graupner & Rasmuss 2006:81, NM & Associates n.d.).



Figure 5.36-5.39 Robust and hard-wearing materials were utilised in the construction of the interchange, such as concrete, brick and steel, that consciously communicate a strong functionalism at a human-scale (NM & Associates n.d.).

8. Wallacedene Taxi Rank

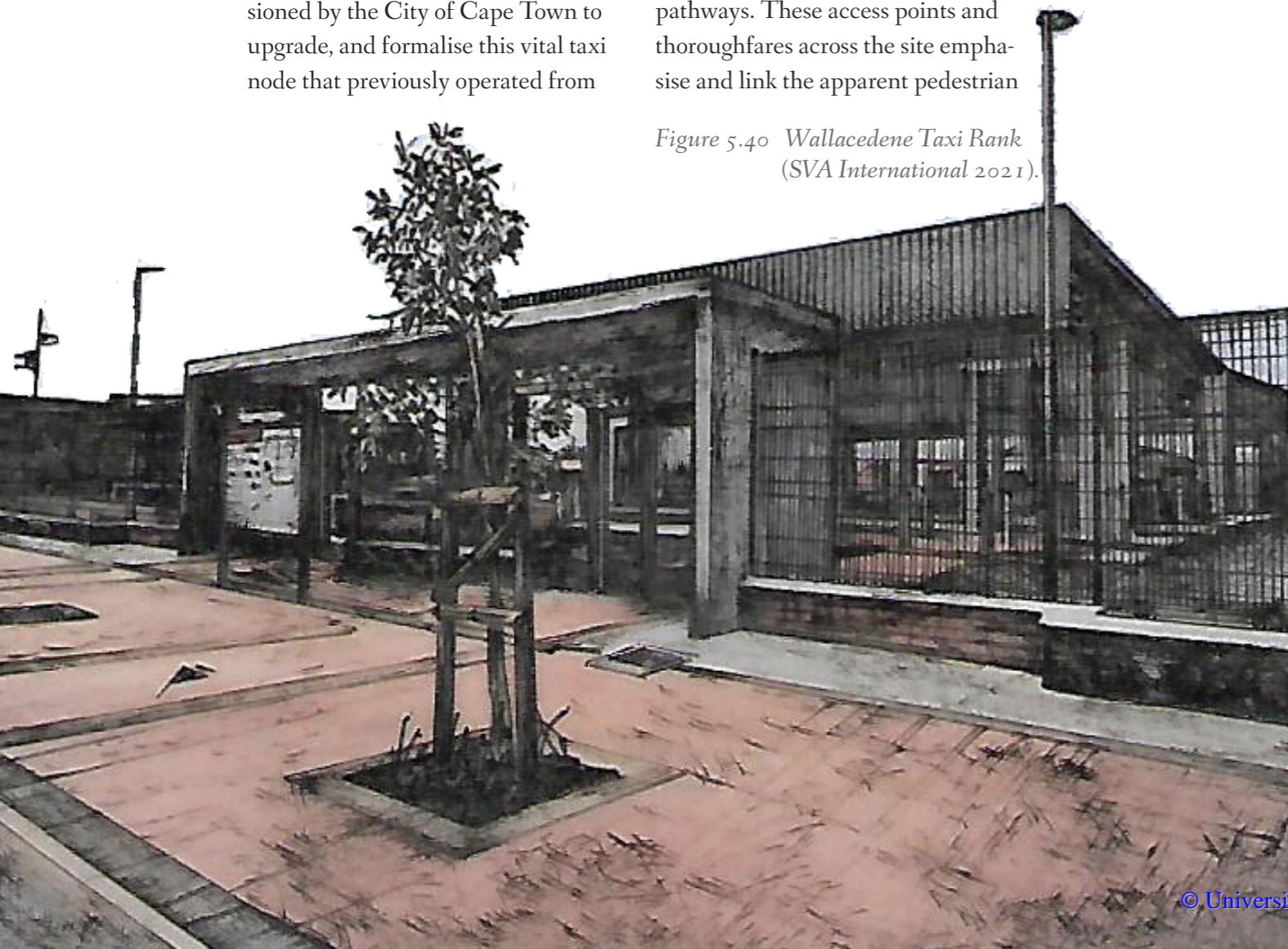
Location: Wallacedene, Cape Town, Western Cape, South Africa
 Client: City of Cape Town - Transport for Cape Town (TCT)
 Construction: 2014
 Project Team: SVA Architects

The Wallacedene Taxi Rank is located in the informal housing settlement of Wallacedene on the eastern outskirts of Cape Town and is considered to be South Africa's first 'green' taxi rank. This simple architectural intervention that provides legible user-oriented spaces in an informal context, was commissioned by the City of Cape Town to upgrade, and formalise this vital taxi node that previously operated from

a dusty veld (Meiring 2014, SVA International 2021).

Creating a 'people place' was one of the core considerations made in the design process where pedestrians are prioritised over vehicular traffic by allocating several protected and well-defined entrances and pathways. These access points and thoroughfares across the site emphasise and link the apparent pedestrian

Figure 5.40 Wallacedene Taxi Rank (SVA International 2021).



movement patterns that are distinctly separate from the single vehicular entry/exit point (Meiring 2014, SVA International 2021).

The facility comprises a 10-lane taxi loading area with several naturally lit, sheltered and open waiting areas with a diverse range of robust, accessible, and comfortable seating options, managing offices as well as a small trading constituent, all catering for approximately 5 000 public transport commuters daily (Meiring 2014, SVA International 2021).

Materials used for the construction of the taxi rank comprises locally sourced red facebrick and exposed concrete; both being high-quality, robust, and low maintenance finishes (Meiring 2014, SVA International 2021).

The taxi rank incorporates intelligent architectural design and technological intervention along with several notable environmentally sustainable strategies rendering the station nearly entirely self-sufficient, hereby boosting service delivery to the surrounding neighbourhood. The considerable roof area is effectively utilised to collect and store rainwater in an underground tank system that has a storage capacity of up to 20 000 litres as well as the inclusion of a 20kVA photovoltaic assembly system with battery back-up. Harvested rainwater is recycled via an underground filter and pump system of which 70% is used at the facility (besides drinking water), mostly for the constant washing of minibus taxis, reducing potable washbay water consumption and associated sewer discharge by approxi-

Figure 5.41-5.42 The considerable roof area is effectively utilised to collect rainwater as well as the inclusion of a 20kVA photovoltaic assembly system with battery back-up (SVA International 2021).



mately 80%. The solar panel system, installed to meet winter electricity requirements, generates a surplus of electricity in the summertime, essentially enabling it to operate off the city's electrical grid, powering the lights, electronic gates as well as all kitchen appliances. Provision has also been made for a sizeable waste management system, enabling on-

site recycling and sorting. (Meiring 2014, SVA International 2021).

The Wallacedene Taxi Rank sets a remarkable precedent for the construction and future development of innovatively designed, sustainable and regenerative transport facilities in resource-deprived regions within South Africa.



Figure 5.43-5.48 The taxi rank comprises a 10-lane taxi loading area with several naturally lit, sheltered and open waiting areas with a diverse range of robust, accessible, and comfortable seating options (SVA International 2021).

9. Warwick Station

Location: Durban, Kwa-Zulu Natal, South Africa
Client: The eThekweni Metropolitan Municipality
Construction: Founded in the 1980s. Later upgraded as part of an urban renewal project in 1995, and again in 2008.
Project Team: A number of government departments of the eThekweni Metropolitan Municipality: architectural services, city health, city police, development and planning, drainage, and coastal engineering. Durban solid waste, electronics, housing, informal trade and small business opportunities, licensing, parks, protection services, real estate, roads, traffic and transportation, urban design, and wastewater management.

Located at the edge of the Durban city centre, one of South Africa's largest metropolitan areas, the Warwick Junction is regarded as the urban gateway and main rail-

way station of Durban. Under the apartheid government, this junction was used as the single-entry point through which the black population's ingress into the 'all-white city'

Figure 5.49 Warwick Station (LaFerriere 2019).



was controlled and even discouraged with a sole footbridge providing the primary crossing for the high pedestrian traffic flows. This facilitated local authorities in completely close off the city to citizens living in the peripheral informal settlements, as well as tormenting informal vendors by confiscating their goods and preventing them from trading along bustling, high-trafficed paths (Dobson & Quazi 2016, Maassen & Galvin 2019).

Following apartheid and the exponential increase in the volume of commuters utilizing the multi-modal transport junction (particularly from formerly prohibited groups) the eThekweni Municipality, in a co-operative design effort with street traders, initiated an urban renewal scheme to mitigate the effects of decades of racist urban design and resource deprivation. The primary infrastructural contributions included the addition of pedestrian walkways, entrances and overpasses, the

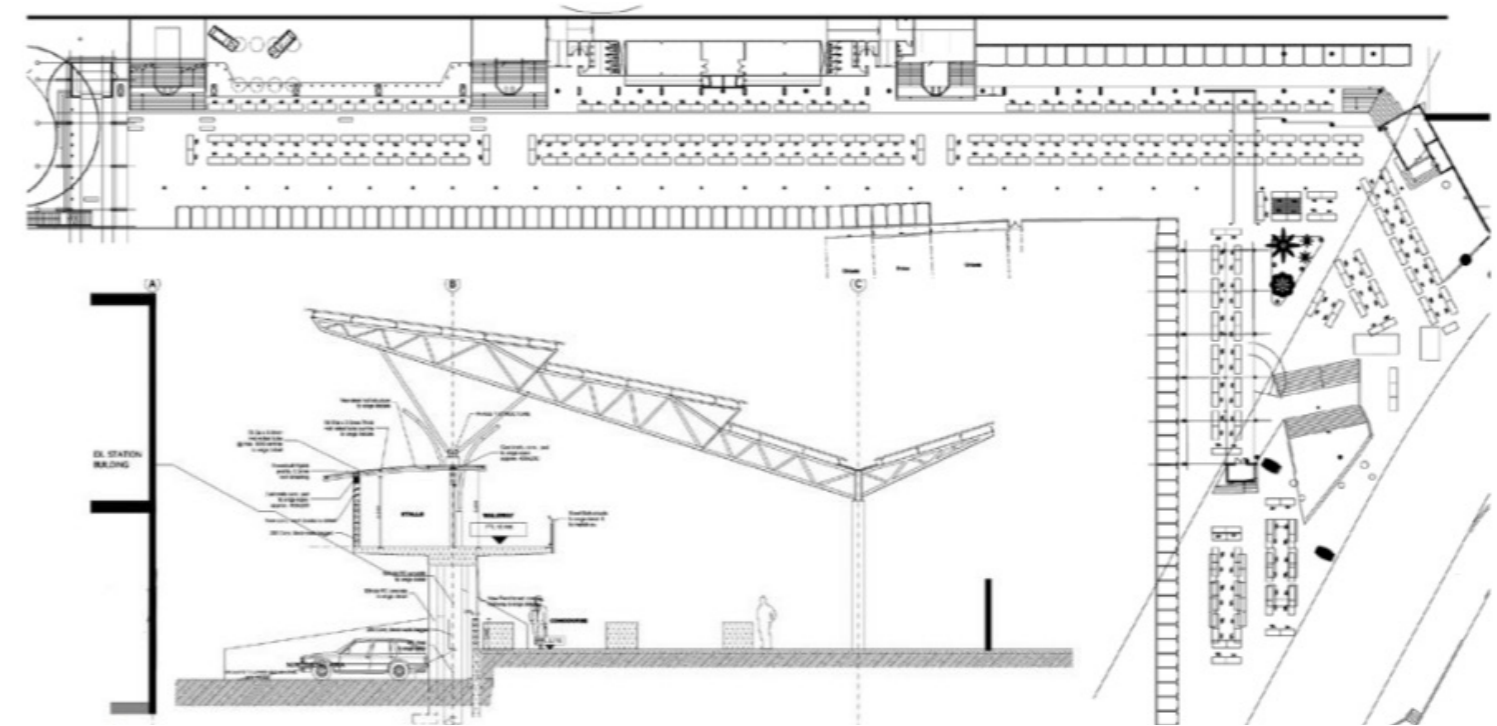


Figure 5.50 Plan and section of the Brook central market (The South African Institute of Architects n.d.).

revitalization of previously disused bridges, the improvement of trading areas, spatial reshaping of the informal economy, the provision of storage facilities for traders, the allocation of street trader sites and furniture, provision of water and electricity as well as improving connectivity between markets and health and safety conditions (Dobson & Quazi 2016, Luckan 2019:21-22).

This urban renewal project along with the counsel and efforts of Asiye eTafuleni (AeT) (a non-profit organisation founded by Richard Dobson and Patric Ndlovu) that focus on keeping the legacy of inclusive urban renewal alive and bridge the widening gap between informal

traders and the city, have resulted in Warwick Junction incrementally expanding into South Africa's largest marketplace. The junction caters for 460 000 traversing pedestrians, 300 buses and 1 550 minibus taxis departing from this node, with a further 38 000 vehicles passing through the area, 166 000 public transport commuters and more than 7 000 informal vendors operating from this interchange on a daily basis. Market activities include the selling of fresh produce, the cooking of low-cost fast food (mostly on open gas or wood fires), mixed trading such as the selling of cigarettes, hardware, music and other durable goods, foreign barbers, African herbal medicine, porters (men who deliver goods

and furniture to and from multiple storage sites) and cardboard collectors (Dobson, Skinner & Nicholson 2009:5, 10, 17, 23, 30-33, 74-77, 79-81, Luckan 2019:22).

The project integrates contextually appropriate and attractive infrastructure with a novel collaborative and inclusive design approach where the everyday traders were included in the design phases rather than being displaced by them. The construction consisted of several new multi-level light-weight steel "trade bridges" that link the several trade markets and transport modes creating a unique informal shopping precinct. This design intervention proved to be a sensitive approach to the contextual and socio-economic requirements of the precinct, where "lost" or undesignated spaces provided vendors with the possibility of defining and adapting these trader spaces over time, acknowledging a sense of resilience and respect for the users (Luckan 2019:21-23, Maassen & Galvin 2019, The South African Institute of Architects n.d.).

This junction serves as a noteworthy precedent firstly in the way it sets out to understand and seek out the collaboration of the everyday

key role players in the vicinity, that results in these traders taking pride and ownership of their trading spaces that subsequently improves the environmental conditions of these markets, and secondly, demonstrating how the inclusion of street traders in urban design strategies contributes to the vibrancy and attraction of cities – a vital role in functional city-making (Dobson & Skinner 2009:85, Maassen & Galvin 2019).



Figure 5.51-5.53 The sensitive design approach, incorporating multi-level light-weight steel "trade bridges", where "lost" or undesignated spaces provide vendors with the chance to define and adapt their trader spaces over time (Dobson, Skinner, & Nicholson 2009:12,16, LaFerriere 2019).