

# 10 Appendices

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## 10.1 Appendix A : Interviews

### 10.1.1 CITY OF TSHWANE

*INTERVIEW WITH ESTA PRINS  
Town Planner  
estap@tshwane.gov.za  
(012) 358 7942  
15.03.2006  
10:30*

**Site:** Remainder and portion 7 of ERF 1161, Arcadia.

**Current use:** Educational.

**Implication:** Rezoning necessary and likely to be approved.

**Possible developers:**

Mandela Development Company.

Atterbury Property.

**Current/historic use of buildings:**

Contact institutions, SAHRA and Alf Vorster.

**Ancillary supports:**

Nelson Mandela Corridor Framework.

GAPP Framework.

Atterbury Property.

Urban Development Zone.

Parking – Table H.

**Demand:** Create facility to attract people.  
Establish upmarket development along Nelson Mandela.  
Must be a prime property development:  
i.e. such as the DTI or  
new BMW showroom in Vermeulen Street

**Rents/Yields:** If land is state owned, it can be leased for private use.  
Contact evaluation office.

**Planning controls:**

Rezoning required to allow for commercial or amusement use on the site.

Amusement (theatres) only allowed within general business zones with consent from the City of Tshwane.

**Subsidies:**

Public-private partnership: only if land is not government owned one can apply for a tax break or rebates on building fees.

**Note:**

**Implementation of GAPP Framework very likely!**

Money to be poured into development and improvement of Church and Paul Kruger Street.

### 10.1.2 CLIMATRON

*INTERVIEW WITH PEPE STEDMAN  
39 Webber Street  
Selby  
Johannesburg  
082 458 3335  
13.09.2006  
10:00*

### 10.1.3 INNOVATION HUB

*INTERVIEW WITH NKHULU MABOYA  
nmaboya@theinnovationhub.com  
(012) 844 0027  
072 808 3162  
08.05.2006  
09:00*

Land parcels were sold and developed by purchaser.

Aim: To bring like minded people together.

#### **Incubation concept:**

Students set up business plans and apply to become part of the pre-incubation process. Graduates are selected according to the innovative level of their ideas. Pre-incubation allows the graduates with 6 months free rent with mentors provided in their particular field of study. The innovation hub recruits experts in that field to work as mentors. After the pre-incubation period and if the industry makes use of your idea you graduate to the incubation period where you may rent an office for a period of 2 years while you set up your business.

#### **Blue IQ:**

The hub is one of the 11 provincial Blue IQ developments and serves as the first Science and Technology Park in South Africa. It is envisioned to be completed before 2010 with all land parcels being sold off and developed. The hub owns the Innovation Centre Building as well as the Enterprise Building. These buildings contain offices and conference facilities that can be rented by graduates or the greater public. A system of hot offices exists where people can rent an office on a weekly basis.

State of the art facilities are provided with the latest in technical support. Europa@hub is the restaurant provided on the campus. It is thought that bringing like minded people together one can generate innovative ideas from within.

#### 10.1.4 TSHWANE NORTH COLLEGE

*INTERVIEW WITH RONEL VENTER*

*Marketing Manager*

*082 868 2546*

*10.05.2006*

##### **The College:**

Tshwane North College is a FET (Further Education and Training) college operating as a vocational training college. After grade 9 (Standard 7) students can enrol in various programmes. The college has three campuses: the main campus located in Church Street and two more at Soshanguve and Mamelodi. The college is state-owned but has to raise its own funds to cover running costs.

##### **The Students:**

There are currently 18 000 students on the main campus. The college is unique in that students gather for assembly every morning at 07:30. They spend on average about R3 000 per day at the cafeteria alone! Space is limited on the campus but students are reluctant to attend classes at the other campuses. Students refer to the students at the main campus as 'coconuts' – white on the inside and black on the outside. Due to its stately appearance the principal attraction to the college is the historic main building of sandstone. On occasion potential students have applied for admittance without knowing anything about the college but just because they wanted to study there.

##### **The College Building:**

As previously stated, the college is state owned. The main college building requires a lot of maintenance and upkeep for which additional funds have to be raised, as monies received from the state may only be used for specific purposes. This leaves the college with a dilemma where funds are desperately needed for student facilities and where an historical building is falling into disrepair due to lack of maintenance.

##### **Fund-raising:**

The college is incredibly innovative in finding means to survive. It appears that this institution does not play the victim in any situation and rises to the occasion in all spheres. The college runs a number of businesses on its campus and two satellite businesses in the city – the Reserve Bank coffee shop and the restaurant for AVBOB. The satellite businesses are run by permanent staff, while the campus businesses are run by students.

##### **Job Opportunities:**

The students in the catering and hospitality programmes are in high demand and places such as Sun City would even employ someone with little or no experience for a salary up to R8 000 a month! This poses a problem for the college as students get offered jobs and leave without obtaining any qualifications. The spin side is that students who have talent in various other fields such as jewellery design often find themselves at a loss after completing their studies. Some, having won various accolades for their designs while studying, are barely able to make a living and end up doing nothing after their studies have been completed.

##### **Long-term Plans:**

The main problem at the college is the disorganization of departments since they merged to form the Tshwane North College. This has resulted in a great need for bigger facilities. The long-term plan is to consolidate departments and divide them up amongst the three campuses.

### 10.1.5 TSHWANE UNIVERSITY OF TECHNOLOGY

*INTERVIEW WITH PIET ENGELBRECHT  
Buildings and Estates/Geboue en Terreine  
engelbrecht@tut.ac.za  
086 112121  
(012) 382 4501  
10.05.2006  
09:00*

#### **Views:**

Public-private partnership unlikely.  
Collaboration between tertiary institutions highly improbable.

#### **Current Situation:**

Campus at maximum capacity, with a student body of over 2500. Van Aswegens building across the road is being rented for a further 1500 students. Library inadequate; need exists for study space and internet access. Student interaction is poor. Crime is viewed by students and staff to be internally driven by students and staff and comprises mostly theft. The campus would never be opened to the public.

#### **Green Building on the corner of Nelson Mandela and Church:**

Currently owned by TUT but not occupied due to present condition. Originally used as a brothel when purchased by TUT for R 750 000. Adjacent sites, Jeka Foams and Carburetor City, on the market for R 3 000 000 and R 5 000 000 respectively. Suggested to be demolished and redeveloped but due to lack of funds will be refurbished only to house the SRC.

#### **Long-term plans:**

Relocation of various departments and housing of SRC in Green Building. Deed of transfer is in TUT's name but any changes to the site have to be approved by the Department of Education. Any development required by the dean of the campus needs to be privately funded as TUT is lacking in funds and the Government only provides a subsidy of 40%. The owner of Metro (Cassim) would snatch up any opportunity to purchase the land.

#### **Eaton Buildings:**

Norman Eaton buildings are merely viewed as buildings and was refurbished between 1995 and 2000. Architect approached – Derick Stedall.

#### **Businesses run by TUT:**

Guest houses – NZASM and Cosmos.

All in all not a positive response to the idea of an incubation project as proposed, probably due to being in the business for 25 years and having typical Afrikaner mentality. Wants to know what's in it for TUT without giving anything back.

## 10.2 Appendix B : Frameworks

### GAPP FRAMEWORK

#### Guidelines for the Mandela Corridor Precinct:

The built form in this precinct should be a mix of higher-quality modern retail, office and residential buildings, to move away from the existing lower quality edge-type built form. The key directives are as follows:

- All buildings should address the public spaces.
- The architecture should comply with the architectural guidelines.
- The general built form should be of the courtyard type.
- Height of buildings should relate to the public space dimensions and should attempt to highlight the Caledonian Sports Ground, and elsewhere attempt to create a consistent height of between 6-10 stories.
- The CTMM's current plans for the Apies River Walk and the Caledonian Sports Grounds should be considered as part of these guidelines.
- Materials to be used– sandstone, slate, concrete, glass, timber, transparent materials, plaster.

(GAPP 2006:158)

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## 10.3 Appendix C: Environmental Context



Fig.10.1 Site Area - Environmental Context

### 10.3.1 Natural Systems

- The structure of the city is determined by a system of ridges, with the inner city cradled between the Langeberge and the Witwatersberge.
- The site is located within the inner city in close proximity to the Apies River, which indicates a shallow water table.
- The site is developed in its entirety with a garden surrounding the existing administration building and planted trees in courtyards and along Vermeulen and Nelson Mandela.

### 10.3.2 Topography

- The site slopes north-eastwards towards the Apies River but development has almost levelled it. Redevelopment of the site would require minimal cut and fill.

### 10.3.3 Existing Vegetation

- The trees bordering the site on Vermeulen Street are considered to have an important aesthetic value as they frame and soften the campus in contrast to the harsh edge provided by the Metro building on the Northern sidewalk.
- It is proposed that existing indigenous trees be kept in tact and maintained as far as possible.
- The vegetation planted in and around historic buildings are of particular importance and can be restored in many instances to its original state.

### 10.3.4 Climate

- Tshwane falls in the temperate eastern plateau region of Gauteng. Generally, this area predominantly consists grassland with scattered trees in the wetter parts. Summers are warm to hot, with fairly dry air, relieved by thunderstorms generated by thermal air movement. Hail is not uncommon. Winter days are pleasantly sunny with clear cold to very cold nights (Geel 2005: 27).
- The climate of temperate Eastern Plateau region is moderate and does not necessitate extreme governing principles for the design of buildings (Geel 2005:27).

### 10.3.5 Rain

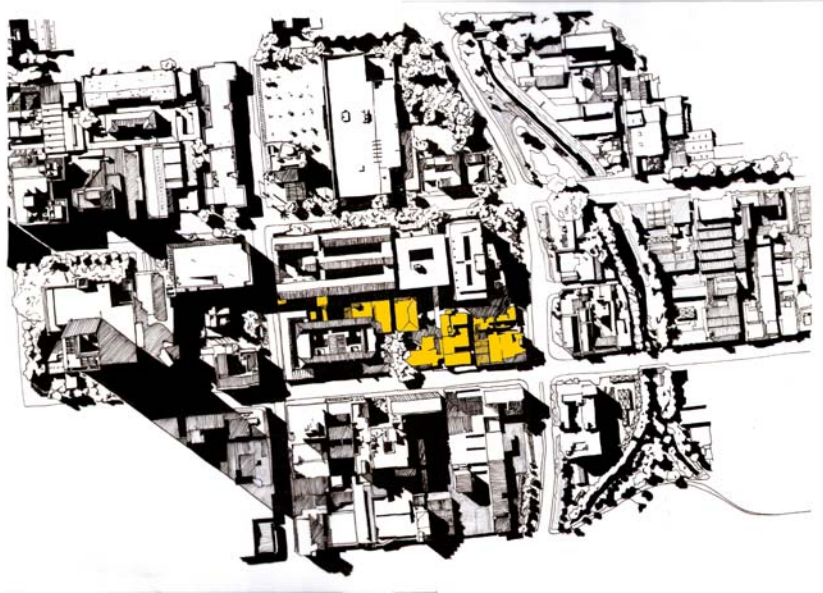
- The rainy season occurs from November to March, peaking in January.
- Fifty to eighty days of rain can be expected annually.
- The high rainfall in the area can be harvested and stored for domestic use. Because of the possibility of hail in the area, the design of gutters need to be considered if rainwater is to be harvested (Geel 2005:27).

### 10.3.6 Climate Facts

- January temperatures: 20 to 25 °C
- June temperatures: 10 to 15 °C
- Prevailing winds: N-E in summer and N-E to N-W in winter.
- Relative humidity: 30%
- Hours sunshine: 60%
- Average rainfall: 674 mm
- Winter solstice: 22 June - 44°
- Summer solstice: 22 December - 87° (Geel 18:2005).



## 10.5 Appendix C : Demolition



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Fig.10.2: Legal Context – Diagram depicting buildings to be demolished

### 10.5.1 BUILDING 1

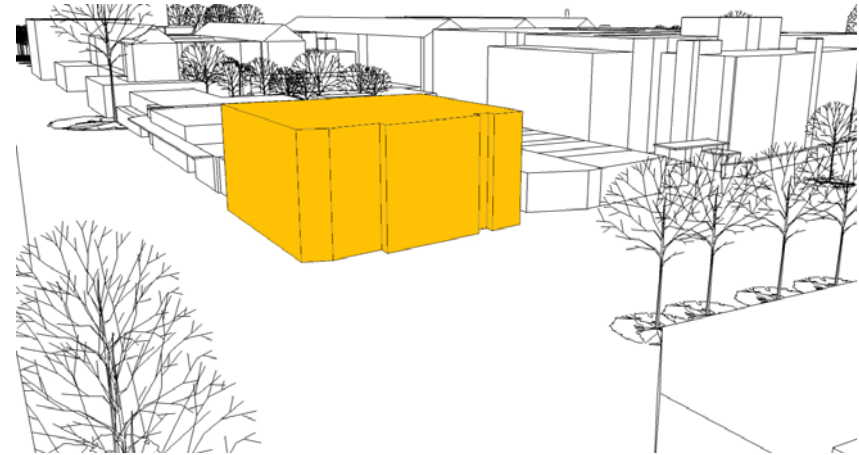


Fig.10.3: Legal Context – Building 1

**ADDRESS:** North Western corner of Nelson Mandela Boulevard and Church Street.

**ERF #:** 1161

**OWNED BY:** Tshwane University of Technology.

**CURRENT USE:** Retail on street level along Church Street, upper levels unoccupied.



The Tshwane University of Technology purchased the land for R 750 000 but has not been able to occupy the building due to its dilapidated state. The building was previously used as a brothel and was extended without approval from the City Council of Tshwane. The structure is deemed unsafe by the Facilities Manager mr Piet Engelbrecht and has been severely vandalized. He proposes that the building be demolished, but due to lack of funds this would not be possible at the moment. Extensive renovations would have to be made and is envisioned to house the Tshwane University of Technology's Student Representative Council.

**CONCLUSION:** Demolition advisable.



Fig.10.4: Building 1 – Corner of Church Street and Nelson Mandela Boulevard

### 10.5.2 BUILDING 2

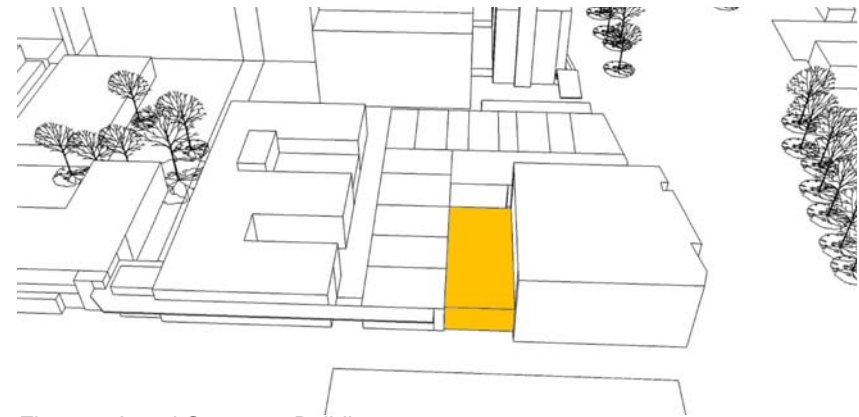


Fig.10.5: Legal Context – Building 2

**ADDRESS:** 440 Church Street  
**ERF #:**  
**OWNED BY:** Jeka Foam and Plastics.  
**CURRENT USE:** Retail.

Double-storey face-brick building used for retail; owner requests R3 000 000 for purchase.

**CONCLUSION:** Demolition advisable.



Fig.10.6: Building 2 – Church Street

### 10.5.3 BUILDING 3

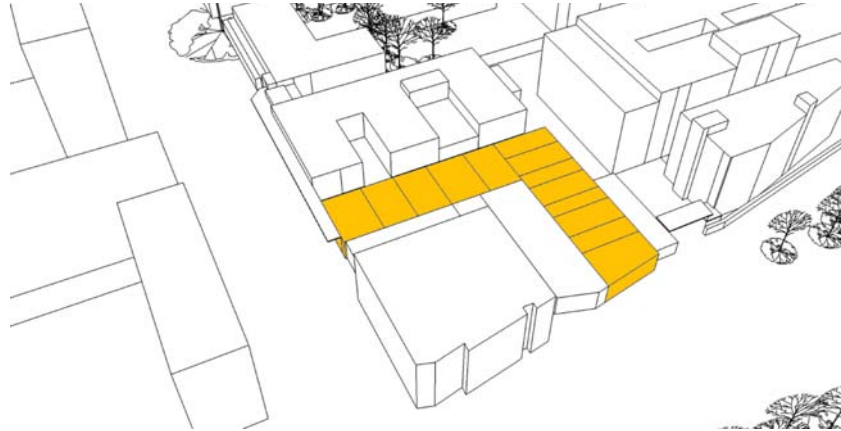


Fig.10.7: Legal Context – Building 3

**ADDRESS:** 436 Church Street  
**ERF #:**  
**OWNED BY:** Auto Spares Pretoria, Carburettor City.  
**CURRENT USE:** Service and repair of vehicles.

Provision of spares on Church Street and workshops leading to Nelson Mandela Boulevard. Double-storey face-brick with ramp on Nelson Mandela.

**CONCLUSION:** Demolition advisable.



Fig.10.8: Building 3 – Entrance on Nelson Mandela Boulevard

### 10.5.4 BUILDING 4

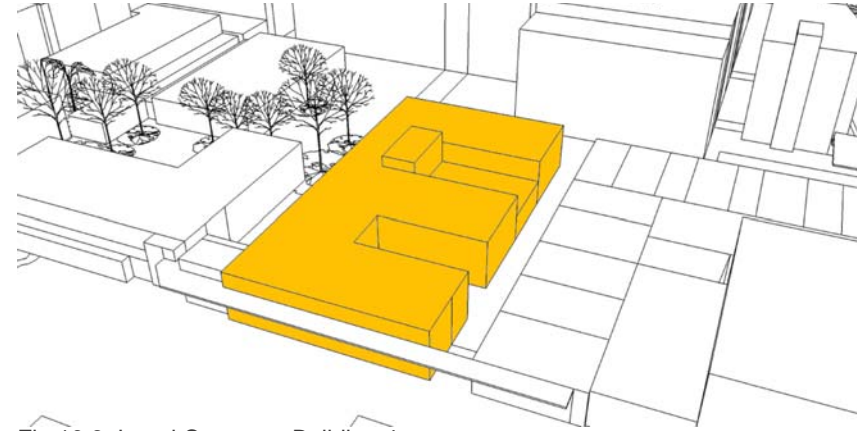


Fig.10.9: Legal Context – Building 4

**ADDRESS:** Arcadia Campus 175 Nelson Mandela Drive  
**ERF #:** 1161  
**OWNED BY:** Tshwane University of Technology.  
**CURRENT USE:** Sasol Library.

Opened in 1995 (Oberholzer: p176), the library functions more as a social and study area for the current campus situation rather than a library. For this reason the facility is at maximum capacity and does not meet the needs of the students.

**CONCLUSION:** Facility inadequate, demolition advisable.



Fig.10.10: Building 4 – View of building from Nelson Mandela entrance to the campus

Fig.10.11: Building 4 – Church Street Façade

### 10.5.5 BUILDING 5

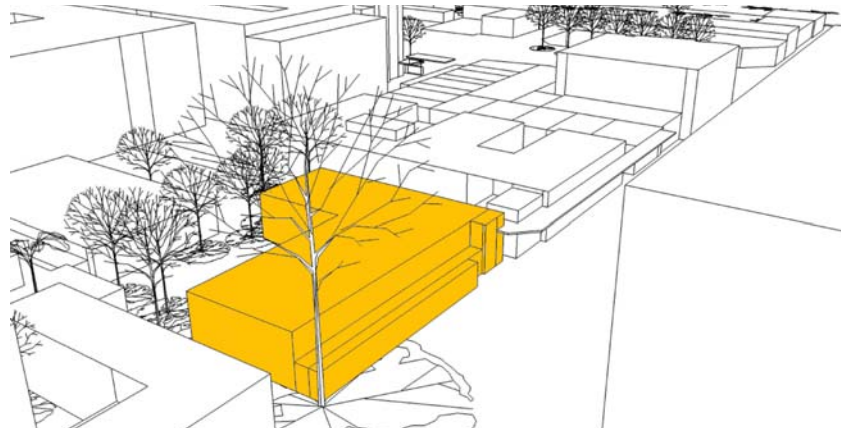


Fig.10.12: Legal Context – Building 5

**ADDRESS:** Arcadia Campus, 175 Nelson Mandela Drive  
**ERF #:** 1161  
**OWNED BY:** Tshwane University of Technology.  
**CURRENT USE:** Administration Building.

Added to the campus in 1995 (Oberholzer: p177), this building serves as offices for the administration staff. These functions could easily be accommodated in a new development as they require no direct interface with the street.

**CONCLUSION:** Facility can be easily relocated.



Fig.10.13: Building 5 – Church Street Façade

### 10.5.6 BUILDING 6

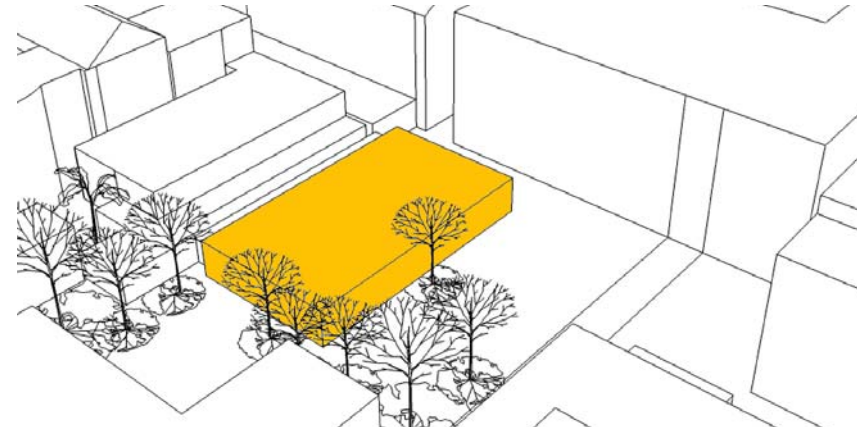


Fig.10.14: Legal Context - Building 6

**ADDRESS:** Arcadia Campus, 175 Nelson Mandela Drive  
**ERF #:** 1161  
**OWNED BY:** Tshwane University of Technology.  
**CURRENT USE:** Examination hall.

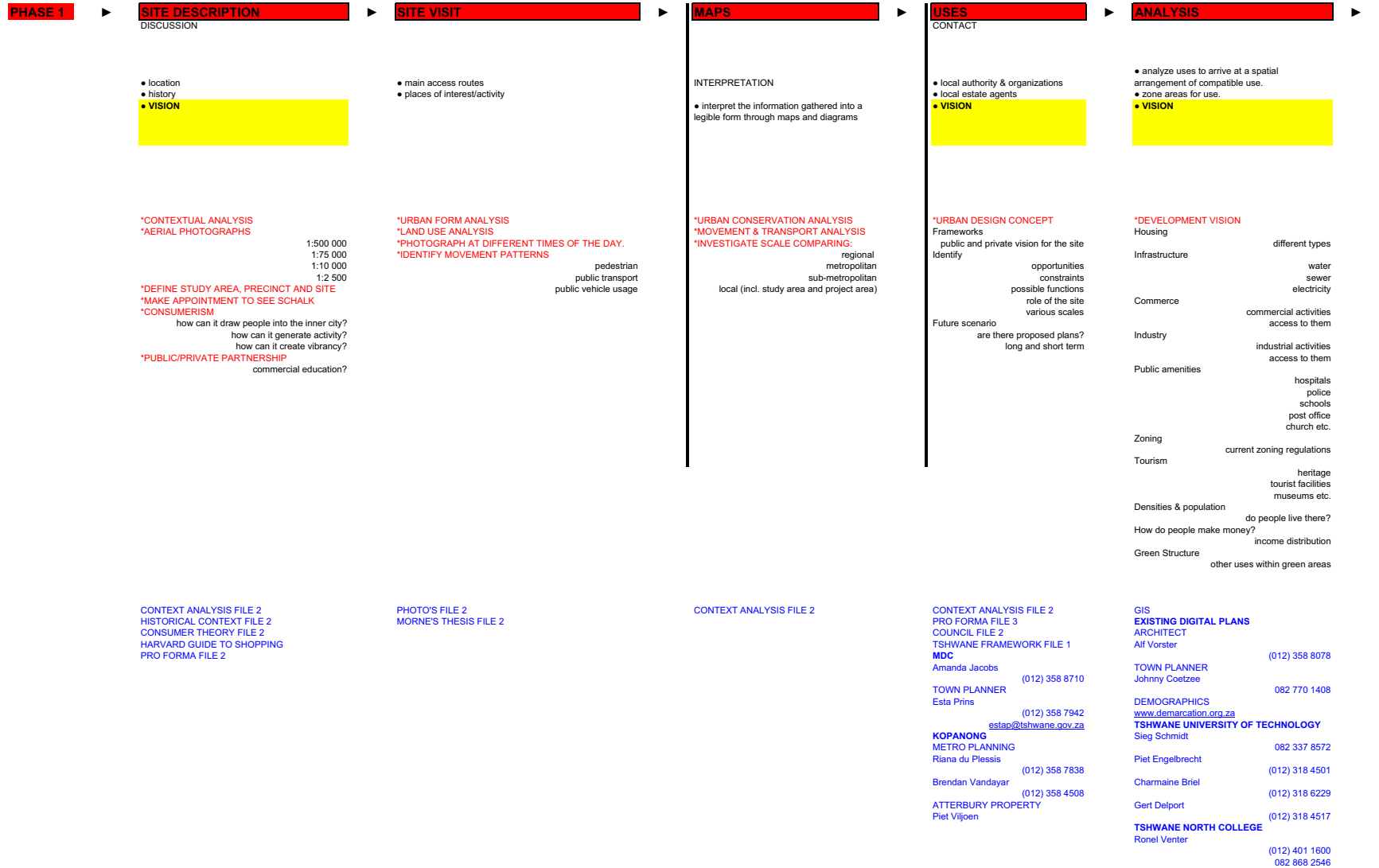
Added to the campus in 1995 (Oberholzer: p177), the single-storey hall serves as an examination facility.

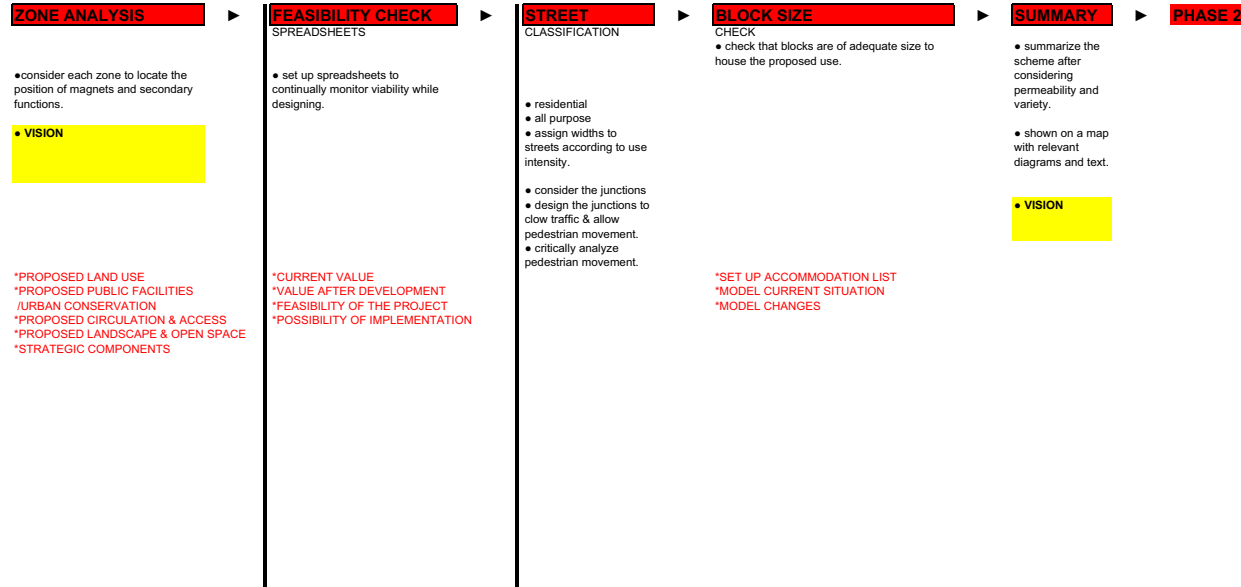
**CONCLUSION:** Facility can be easily relocated.



Fig.10.15: Building 6 – Wall dividing Tshwane North College and Tshwane University of Technology

## 10.5 Appendix D : Analysis Methodology





**EVALUATION DEPARTMENT**  
 Highest and best use.  
 Ben Espach (012) 358 8376

**GIS TRAFFIC DEPARTMENT**  
 Lloyd Muli (012) 358 7839

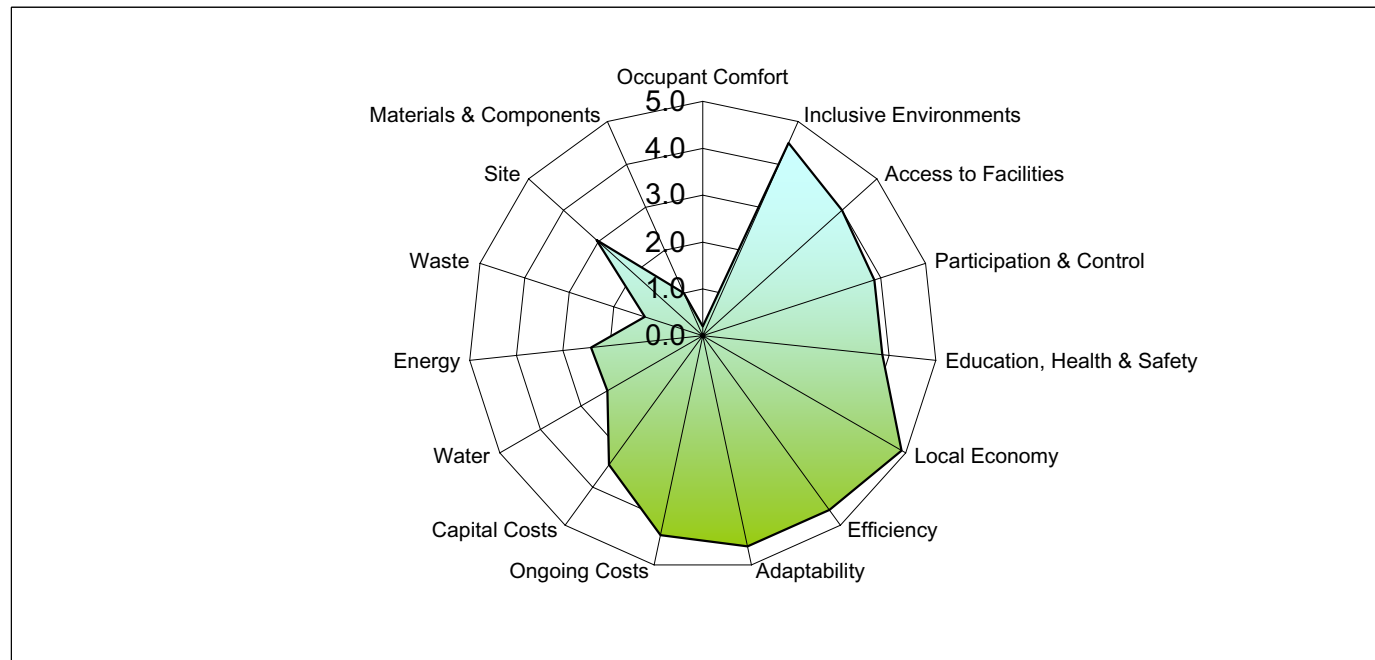
**INNOVATION HUB**  
 Dr Neville Comins (CEO) (012) 844 0024/1  
 Lindsay Prescott (Campus Viewing) (012) 844 0026  
[lprescott@innovationhub.com](mailto:lprescott@innovationhub.com)  
**TSHWANE UNIVERSITY OF TECHNOLOGY**  
 Piet Engelbrecht (012) 318 4501

10.6 Appendix E : Baseline Document

SUSTAINABLE BUILDING ASSESSMENT TOOL (SBAT- P) V1

PROJECT	ASSESSMENT
Project title: The Refinery	Date: 14/10/2006
Location: Tshwane	Undertaken by: Natalie Moore
Building type (specify): Educational/Commercial	Company / organisation: Tshwane University of Technology
Internal area (m2):	Telephone: Fax:
Number of users:	Email:
Building life cycle stage (specify): Design/Construction/Operation	

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Social	3.3	Economic	4.4	Environmental	2.0
Overall		3.2			



## Building Performance - Social

Criteria	Indicative performance measure	Measured	Points	Quantified modelled or measured performance data
<b>SO 1 Occupant Comfort</b>				<u>Explanatory notes</u> 0.2 <a href="http://greenbuilding.ca/">http://greenbuilding.ca/</a>
SO 1.1 Daylighting	% of occupied spaces that are within distance 2H from window, where H is the height of the window or where there is good daylight from skylights	20	0.2	
SO 1.2 Ventilation	% of occupied spaces have equivalent of opening window area equivalent to 10% of floor area or adequate mechanical system, with unpolluted air source	0	0.0	
SO 1.3 Noise	% of occupied spaces where external/internal/reverberation noise does not impinge on normal conversation (50dbA)	0	0.0	
SO 1.5 Thermal comfort	Temperature of occupied space does not exceed 28 or go below 19°C for less than 5 days per year (100%)	0	0.0	
SO 1.5 Views	% of occupied space that is 6m from an external window (not a skylight) with a view	0	0.0	
<b>SO 2 Inclusive Environment</b>				<u>Explanatory notes</u> 4.5
SO 2.1 Public Transport	% of building (s) within 400m of disabled accessible (20%) and affordable (80%) public transport	100	1.0	
SO 2.2 Information	Comprehensive signage provided (50%), Signage high contrast, clear print signage in appropriate locations and language(s) / use of understandable symbols / manned reception at all entrances (50%)	70	0.7	
SO 2.3 Space	% of occupied spaces that are accessible to ambulant disabled / wheelchair users	100	1.0	
SO 2.4 Toilets	% of occupied space with fully accessible toilets within 50m along easily accessible route	90	0.9	
SO 2.5 Fittings & Furniture	% of commonly used furniture and fittings (reception desk, kitchenette, auditorium) fully accessible	90	0.9	
<b>SO 3 Access to Facilities</b>				<u>Explanatory notes</u> 4.0
SO 3.1 Children	All users can walk (100%) / use public transport (50%) to get to their childrens' schools and creches	50	0.5	
SO 3.2 Banking	All users can walk (100%) / use public transport (50%) to get to banking facilities	100	1.0	
SO 3.3 Retail	All users can walk (100%) / use public transport (50%) to get to food retail	100	1.0	
SO 3.4 Communication	All users can walk (100%) / use public transport (50%) to get to communication facilities (post/telephone/internet)	100	1.0	
SO 3.5 Exercise	All users can walk (100%) / use public transport (50%) to get to recreation/exercise facilities	50	0.5	
<b>SO 4 Participation &amp; Control</b>				<u>Explanatory notes</u> 3.9
SO 4.1 Environmental control	% of occupied space able to control their thermal environment (adjacent to openable windows/thermal controls)	75	0.8	
SO 4.2 Lighting control	% of occupied space able to control their light (adjacent to controllable blinds etc/local lighting control)	75	0.8	
SO 4.3 Social spaces	Social informal meeting spaces (parks / staff canteens / cafes) provided locally (within 400m) (100%)	100	1.0	
SO 4.4 Sharing facilities	5% or more of facilities shared with other users / organisations on a weekly basis (100%)	75	0.8	
SO 4.5 User group	Users actively involved in the design process (50%) / Active and representative management user group (50%)	60	0.6	
<b>SO 5 Education, Health &amp; Safety</b>				<u>Explanatory notes</u> 3.9
SO 5.1 Education	Two percent or more space/facilities available for education (seminar rooms / reading / libraries) per occupied space (75%). Construction training provided on site (25%)	75	0.8	
SO 5.2 Safety	All well used routes in and around building well lit (25%), all routes in and around buildings visually supervised (25%), secure perimeter and access control (50%), No crime (100%)	50	0.5	
SO 5.3 Awareness	% of users who can access information on health & safety issues (ie HIV/AIDS), training and employment opportunities easily (posters/personnel/intranet site)	100	1.0	
SO 5.4 Materials	All materials/components used have no negative effects on indoor air quality (100%)	60	0.6	
SO 5.5 Accidents	Process in place for recording all occupational accidents and diseases and addressing these	100	1.0	



## Building Performance - Economic

	Criteria	Indicative performance measure	Measured	Points
<b>EC 1</b>	<b>Local economy</b>		<u>Explanatory notes</u>	<b>4.9</b>
EC 1.1	Local contractors	% value of the building constructed by local (within 50km) small (employees<20) contractors	90	0.9
EC 1.2	Local materials	% of materials (sand, bricks, blocks, roofing material) sourced from within 50km	100	1.0
EC 1.3	Local components	% of components (windows, doors etc) made locally (in the country)	100	1.0
EC 1.4	Local furniture/fittings	% of furniture and fittings made locally (in the country)	100	1.0
EC 1.5	Maintenance	% of maintenance and repairs by value that can, and are undertaken, by local contractors (within 50km)	100	1.0
<b>EC 2</b>	<b>Efficiency</b>		<u>Explanatory notes</u>	<b>4.6</b>
EC 2.1	Capacity	% capacity of building used on a daily basis (actual number of users / number of users at full capacity*100)	100	1.0
EC 2.2	Occupancy	% of time building is occupied and used (actual average number of hours used / all potential hours building could be used (24) *100)	90	0.9
EC 2.3	Space per occupant	Space provision per user not more than 10% above national average for building type (100%)	100	1.0
EC 2.4	Communication	Site/building has access to internet and telephone (100%), telephone only (50%)	100	1.0
EC 2.5	Material & Components	Building design coordinated with material / component sizes in order to minimise wastage. Walls (50%), Roof and floors (50%)	70	0.7
<b>EC 3</b>	<b>Adaptability</b>		<u>Explanatory notes</u>	<b>4.3</b>
EC 3.1	Vertical heights	% of spaces that have a floor to ceiling height of 3000mm or more	100	1.0
EC 3.2	External space	Design facilitates flexible external space use (100%)	100	1.0
EC 3.3	Internal partition	Non loadbearing internal partitions that can be easily adapted (loose partitioning (100%), studwall (50%), masonry (25%)	25	0.3
EC 3.4	Modular planning	Building with modular structure, envelope (fenestration) & services allowing easy internal adaptation (100%)	100	1.0
EC 3.5	Furniture	Modular, limited variety furniture - can be easily configured for different uses (100%)	100	1.0
<b>EC 4</b>	<b>Ongoing costs</b>		<u>Explanatory notes</u>	<b>4.4</b>
EC 4.1	Induction	All new users receive induction training on building systems (50%), Detailed building user manual (50%)	100	1.0
EC 4.2	Consumption & waste	% of users exposed on a monthly basis to building performance figures (water (25%), electricity (25%), waste (25%), accidents (25%)	75	0.8
EC 4.2	Metering	Easily monitored localised metering system for water (50%) and energy (50%)	80	0.8
EC 4.3	Maintenance & Cleaning	% of building that can be cleaned and maintained easily and safely using simple equipment and local non-hazardous materials	80	0.8
EC 4.5	Procurement	% of value of all materials/equipment used in the building on a daily basis supplied by local (within the country) manufacturers	100	1.0
<b>EC 5</b>	<b>Capital Costs</b>		<u>Explanatory notes</u>	<b>3.4</b>
EC 5.1	Local need	Five percent capital cost allocated to address urgent local issues (employment, training etc) during construction process (100%)	100	1.0
EC 5.2	Procurement	Tender / construction packaged to ensure involvement of small local contractors/manufacturers (100%)	100	1.0
EC 5.3	Building costs	Capital cost not more than fifteen % above national average building costs for the building type (100%)	90	0.9
EC 5.4	Technology	3% or more of capital costs allocated to new sustainable/indigenous technology (100%)	50	0.5
EC 5.5	Existing Buildings	Existing buildings reused (100%)	0	0.0

## Building Performance - Environmental

	Criteria	Indicative performance measure	Measured	Points
<b>EN 1</b>	<b>Water</b>		<u>Explanatory notes</u>	<b>2.4</b>
EN 1.1	Rainwater	% of water consumed sourced from rainwater harvested on site	0	0.0
EN 1.2	Water use	% of equipment (taps, washing machines, urinals showerheads) that are water efficient	40	0.4
EN 1.3	Runoff	% of carparking, paths, roads and roofs that have absorbant/semi absorbant/permeable surfaces (grassed/thatched/looselaid paving/ absorbant materials)	20	0.2
EN 1.4	Greywater	% of water from washing/relatively clean processes recycled and reused	90	0.9
EN 1.5	Planting	% of planting (other than food gardens) on site with low / appropriate water requirements	85	0.9
<b>EN 2</b>	<b>Energy</b>		<u>Explanatory notes</u>	<b>2.4</b>
EN 2.1	Location	% of users who walk / cycle / use public transport to commute to the building	100	1.0
EN 2.2	Ventilation	% of building ventilation requirements met through natural / passive ventilation	40	0.4
EN 2.3	Heating & Cooling	% of occupied space which relies solely on passive environmental control (no or minimal energy consumption)	40	0.4
EN 2.4	Appliances & fittings	% of appliances / lighting fixtures that are classed as highly energy efficient ( ie energy star rating)	30	0.3
EN 2.5	Renewable energy	% of building energy requirements met from renewable sources	30	0.3
<b>EN 3</b>	<b>Waste</b>		<u>Explanatory notes</u>	<b>1.3</b>
EN 3.1	Toxic waste	% of toxic waste (batteries, ink cartridges, flourescent lamps) recycled	80	0.8
EN 3.2	Organic waste	% of organic waste recycled	50	0.5
EN 3.3	Inorganic waste	% of inorganic waste recycled.	0	0.0
EN 3.4	Sewerage	% of sewerage recycled on site	0	0.0
EN 3.5	Construction waste	% of damaged building materials / waste developed in construction recycled on site	0	0.0
<b>EN 4</b>	<b>Site</b>		<u>Explanatory notes</u>	<b>3.1</b>
EN 4.1	Brownfield site	% of proposed site already disturbed / brownfield (previously developed)	100	1.0
EN 4.2	Neighbouring buildings	No neighbouring buildings negatively affected (access to sunlight, daylight, ventilation) (100%)	100	1.0
EN 4.3	Vegetation	% of area of area covered in vegetation (include green roofs, internal planting) relative to whole site	25	0.3
EN 4.4	Food gardens	Food gardens on site (100%)	0	0.0
EN 4.5	Landscape inputs	% of landscape that does not require mechanical equipment (ie lawn cutting) and or artificial inputs such as weed killers and pesticides	80	0.8
<b>EN 5</b>	<b>Materials &amp; Componen</b>		<u>Explanatory notes</u>	<b>1.0</b>
EN 5.1	Embodied energy	Materials with high embodied energy (aluminium,plastics) make up less than 1% of weight of building (100%)	0	0.0
EN 5.2	Material sources	% of materials and components by volume from grown sources (animal/plant)	20	0.2
EN 5.3	Ozone depletion	No materials and components used requiring ozone depleting processes (100%)	0	0.0
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