The building and the landscape are perceived as a whole. The building radiates into the landscape as an extension of the open spaces within the building. The nature, the institutions and the context are cast into an interactive relationship to benefit the community, university and students alike. The architecture has been set to enhance the individual experience and create a shared social landscape.

The language of the building is free from literal translations and instead, sets a neutral language by looking into the future and not the reminiscence of the past. The building provides a rich collision of events, where the boundaries of one event blend into that of the next, setting the stage for unexpected events to occur, with functional integration and professional interaction at the core.

The unexpected combinations of movement, events and space contribute qualities of vitality to the building that are relevant to the reality of contemporary architecture, resulting in the embracing of urban life in its most exciting manifestations.

The building achieves multi-faceted unity: on plan, in section and detailing, as well as in sensory experience of the space. The expressive presence of the building is true and honest in construction. The user can truly experience architecture by moving through spaces that change shape to accommodate and communicate changes in function, natural light that leads you through spaces, and unexpected entrances and views into other parts of the building.

It exposes the user to architecture and art in an interactive and fresh way, by revealing not only the product but the process. The experience is thus propelled through time as well as space, as it changes with the ebb and flow of the creative inhabitants. Through guidance, exposure and interaction, creative professions are promoted, to future artists and public alike.

A place where students, professionals and general public can rest, play, learn and work.
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10.3 Frameworks
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10.6 Research Methodology
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10.1.2 Books
10.1.4 Frameworks
- HATFIELD SPATIAL DEVELOPMENT FRAMEWORK
- GROUP FRAMEWORK in association with the HOLM-JORDAAN CAMPUS FRAMEWORK

10.1.5 Internet Sources
- PPS, date, PPS’s Campus Program, http://www.pps.org/campuses/info/campuses_approach (05 March 2008)
- PPS, date, Big Plans on Campus, http://www.pps.org/campuses/info/campuses_articles/campus_bulletin (05 March 2008)

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UNDERSTANDING TRANSIT ORIENTED DEVELOPMENT

- Transit Oriented Development is the exciting new fast growing trend in creating vibrant, livable communities. Also known as Transit Oriented Development (TOD), it focuses on developing compact, walkable communities centered around high-quality train systems. This makes it possible to live a higher quality life without complete dependence on a car for mobility and survival.

- The components of Transit Oriented Design are:
  - Walkable design with pedestrian as the highest priority
  - Train station as prominent feature of town center
  - A regional node containing a mixture of uses in close proximity including office, residential, retail and civic uses
  - High-density, high-quality development within 10-minute walking radius surrounding train station
  - Collector support transit systems including trolley, streetcar, light rail and buses
  - Designed to include the easy use of bicycles, scooters and walking as daily support transportation systems
  - Prioritizes and manages parking inside 10-minute walking radius around town center/train station
10.3 Frameworks

10.3.1 Hatfield Spatial Development Framework

The Hatfield area may be regarded as an international window for the larger City of Tshwane Metropolitan Area due to the fact that the majority of international embassies and trade missions in South Africa are located in this area. The overall vision for the Hatfield Gautrain Station is to create a highly accessible, pedestrian friendly environment where all major destinations are connected. However, Hatfield must continue to be an "urban place" where people want to be, creating a safe, clean, attractive and user-friendly environment to retain existing business and attract further investment. It is important to consider that with the development of the Hatfield Gautrain Station, the Hatfield area will be an evolving locale (www.tshwane.gov.za).

Urban Design Objectives:

- Implement generous sidewalks to facilitate pedestrian movement.
- Ensure appropriate assistance signage.
- Reduce lack of permeability.
- Ensure appropriate lighting and safety.
- Guide development to enhance the public domain.
- Restrict informal development.
- Allocate space and co-ordinate interaction at modal transfer points.
- Road improvements to cater for pedestrian movement.
- Develop and monitor the potential spatial structure.
- Promote mixed use developments.
- Support and extend the CID.
- Promote linkages through existing developments.

Hatfield Station Development Framework guidelines:

- Open space development.
- Provision of a range of residential units.
- Pedestrianisation.
- Building massing.
- Housing typologies.
- Building Fabric.
- Interface conditions.
- Street hierarchy and treatment.

10.3.3 Group Framework in association with the Holm-Jordaan Campus Framework

VISION STATEMENT

"TRANSFORMING THE UNIVERSITY OF PRETORIA FROM AN ISOLATED FRAGMENTED KNOWLEDGE PRODUCTION INSTITUTION, TO A UNIVERSITY CITY, A CITY OF INNOVATION."

Transforming the University and the Hatfield precinct into a UNIVERSITY CITY, an integrated networked city of innovation and social cohesion, where public sector interfaces with the private sector, interfaces with the academic sector. Removing physical, social and psychological boundaries that are constraining both the University and Hatfield precincts growth. Creating a social blend that celebrates and empowers the uniqueness, vitality, potential and culture of South Africa's premiere Academic community.

The University City

The University of the Future is a city of knowledge. To achieve the University of Pretoria's strategic objective of becoming a world class research institute, the surrounding
Hatfield area and the university need to merge from two vibrant successful independent isolated entities to a coherent spatially integrated community, without boundaries and borders. There is an intense need to allow the community to enter upon campus grounds to fully utilise all facilities and integrate community and student life.

The transformation is a long term undertaking and will have to be achieved in phases over time. Currently, the university is not ready to be integrated with the city, but needs to be prepared for the eventual merger by designing the urban fabric to first function as two separate entities and later as a single mechanism. The campus will keep its own tangible and definable character, identity and vitality, that has clarity of circulation dominated by pedestrians. The urban fabric will be designed at human scale, where the buildings become nodes of social and academic interaction, and the exterior spaces act as outdoor rooms for academic discourse and social play. A campus designed for the night time, which has a vibrant and cultural night life. It will function as a community, working as an inter-related whole, a symbiotic relationship of allied units.

Social Hub

Hatfield precinct is to be developed to create destination place. A place of continual social, cultural and civic regeneration; a place that defines itself as the vibrant, multifunctional “body” of the “University City”. Hatfield is to be the gateway of the “University City” precinct. Hatfield’s continual transformation will be driven by the creation of interdependent nodes including, transport, mixed use, culture, commerce and political, allowing a dynamic interface for social expression. Hatfield must become a place for the people, for businessmen, academics, students, professionals, politicians, workers; Hatfield must be a place for all.

The unification of these two distinct identities must not allow the dissolution of either’s unique identity but rather reinforce each other’s key strengths and opportunities to allow a true city of knowledge to be born, a “UNIVERSITY CITY”.

Five concerns addressed within the precinct:

a) Public transport services and facilities,
b) Pedestrians and bicycles,
c) Traffic and parking
d) Security
e) University as isolated community

Performance Criteria:

a) Vitality
b) Accessibility
c) Diversity
d) Equity
e) Control

Clues for Intervention:

• Edges
• Nodes
• Precincts
• Paths (activity links & visual links)
• Gateways
• Areas of Intervention
• Thresholds
• Green Spaces
10.4 Site Analysis

10.4.1 North, Contours & Area

10.4.1.1 Location

Pretoria: 25°44’ south longitude, 28°12’ east latitude

10.4.1.2 Street Address

South-western corner of Burnett and Festival Streets.

10.4.2 Geology

To determine the exact geological profile of the soil type on the proposed site will require a technical survey. However, the Tshwane Inner City Proposed Spatial Development framework (DPW, 2005) describes the composition of the general soil profiles for the city region as “Hekpoort Andesite which generally consist of an upper residual clay horizon followed at depth by jointed moderately weathered rock which is often water bearing. Below this there is hard competent rock”.

“There are various options available for retaining the vertical perimeter edges of the excavations. The proposed soil support system which is currently used extensively is the augmented pile system. Spacing of piles is determined by the actual soil conditions and could range from 2m centres to interlocking secant piles which are very high risks of collapse or high ground water tables” (DPW, 2005:6)
10.4.3 Existing Physical Features
10.4.4 Climate Data

10.4.4.1 Macro-Climate

Pretoria is located in the ‘Highveld’ or Northern Steppe climatic zone which is characterised by warm summers with occasional afternoon showers and winters that are dry and cool.

10.4.4.2 Micro-Climate

Pretoria, being a densely built urban environment is subject to the heat island effect created in most city centres. Buildings store and emit large amounts of heat due to long-wave re-radiation. This coupled with heat generated by people, traffic, industry, and by the heating of the interiors of buildings contributes to increased temperatures within the city necessitating shaded areas for pedestrians and increasing the need for cooling within the buildings. The tree lined streets of Pretoria help overcome this problem by filtering the air and providing shade. The site’s climate can be described as unpleasant. Designing for the micro- and macro climate will have to be an important consideration in the surfacing of the site and the building. (Shultz, 1986:49)
| **TEMPERATURE** | Summer: 20-38°C | Highest Maximum: 36,3°C; average monthly max (January) 24,8°C | Pretoria is characterised by generally high temperatures due to thermal mass of the built environment. Relatively high local humidity can combine with high afternoon temperatures to cause uncomfortable heat. |
|----------------|----------------|-------------------------------------------------------------|
|                | Winter: 10-27°C | Lowest minimum: -5,5°C; average monthly minimum (June/July) 12,1°C | |
| **HUMIDITY**   | Minimum (Sept): 57% at 08h00 to 29% at 14h00  | 101 |
|                | Maximum (March): 75% at 08h00 to 48% at 14h00 | |
|                | Average relative humidity: 59% | |
| **RAINFALL**   | Average: 674mm per year | Varies between 125-375mm in summer and 62-250mm during winter. |
|                | Rainfall Season: Summer between Nov & March | 50-80 rainy days per year with some hail expected. |
|                | Peak: January | |
|                | Thunderstorms: Rate of 90-100mm per hour | |
| **SUN ANGLES AT 12h00, DAYLIGHT & SUNSHINE** | Summer (22 Dec): 88° altitude | Pretoria receives high amounts of solar incidence with approximately 80% during the summer months and 67% during the winter months. The percentages translate into solar radiation energy as 8Whr/m²/day in summer and 4.5Whr/m²/day in winter (AAL 310, 2002:19) |
|                | Winter (21 June): 44° altitude | |
|                | Equinox (21 March & 23 Sept): 64,23° altitude | |
| **CLOUD COVER** | Average 33% | Varying between 13% in July to 54% in December | |
| **WIND**       | Summer: North-easterly to south-easterly direction | Light to Moderate. The density of the built fabric surrounding the site forms wind channels that alters micro scale atmospheric pressure, increasing wind velocity. |
|                | Winter: North-westerly direction | |
| **VEGETATION** | According to Ad Destinatum 1910-60, the vegetation existing in 1910 on the future campus-site, was primarily thorn trees (presumably various Acacia-species) and Rhus Lancea. The existing vegetation is primarily perennial shade trees for the current parking area. The parking area is lined with Seliqua Ceretonia (Carob) trees. | |
### 10.4.5 Cadastral Information

#### 2. KADASTRALE SAMESTELLING
Lot 779 bestaan uit die volgende gekonsolideerde Lotte:

<table>
<thead>
<tr>
<th>Kadastrale samestelling</th>
<th>Oppervlakte</th>
<th>Diagram Nommer</th>
<th>Vorige erf beskrywing</th>
<th>Aanhangsel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot 759, Hatfield</td>
<td>8752m²</td>
<td>8099/2001</td>
<td>Restant en Gedeeltes 1, 2 en 4 van Erf 45 en Erf 632, Hatfield</td>
<td>&quot;A5&quot;</td>
</tr>
<tr>
<td>Lot 780, Hatfield</td>
<td>32704m²</td>
<td>8091/2001</td>
<td>Erf 750 en 596, Hatfield</td>
<td>&quot;A6&quot;</td>
</tr>
<tr>
<td>Lot 762, Hatfield</td>
<td>7899m²</td>
<td>8093/2001</td>
<td>Erf 122, R123, 1/123, 124, R/125, Erf 574 en 1/126, Hatfield</td>
<td>&quot;A7&quot;</td>
</tr>
<tr>
<td>Lot 778, Hatfield (gedeelte van Suidstraat)</td>
<td>4642m²</td>
<td></td>
<td>Voorheen 'n gedeelte van Suidstraat</td>
<td>&quot;A6&quot;</td>
</tr>
<tr>
<td><strong>TOTAAL LOT 779, HATFIELD</strong></td>
<td><strong>53989m²</strong></td>
<td></td>
<td>Voorheen Lotte 759, 760, 762 en 778, Hatfield</td>
<td></td>
</tr>
</tbody>
</table>

![Cadastral Information Diagram](image-url)
10.4.6 Land Use & Adjacent Zoning

### SONERING INLIGTING (VERWYS NA PLAN 2) LOT 779, HATFIELD

<table>
<thead>
<tr>
<th>Erf Beskrywing</th>
<th>Sonering</th>
<th>VRV</th>
<th>Sekking %</th>
<th>Hoogte</th>
<th>Wysigings-aktes</th>
<th>Aanhangsel</th>
</tr>
</thead>
<tbody>
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<td>Lot 759, Hatfield</td>
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<td></td>
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<td>Lot 760, Hatfield</td>
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<td>Lot 761, Hatfield</td>
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<td></td>
<td>0</td>
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<tr>
<td>Part EF GH</td>
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<td>10%</td>
<td>1</td>
<td></td>
<td>9625</td>
</tr>
<tr>
<td>Part JK MN</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>9925</td>
</tr>
<tr>
<td>Lot 782, Hatfield</td>
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<td>0.75</td>
<td>20%</td>
<td>4</td>
<td></td>
<td>3844</td>
</tr>
<tr>
<td>Lot 777, Hatfield</td>
<td></td>
<td>2</td>
<td>70%</td>
<td>32m</td>
<td></td>
<td>10/53</td>
</tr>
</tbody>
</table>

**TABEL 2**

### LAND USES

- **Low Intensity Mixed Use**
- **Core Business Area**
- **University Precinct**

### CURRENT LAND USE PATTERNS

**Scale 1:2500**

- **Amendment Schemes**
10.4.7 Services & Servitudes
10.4.10 Movement Patterns
10.5 Legislation

10.5.1 National Heritage Resources Act, 1999 (Act 25 of 1999)

Section 34:

1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

2) Within three months of the refusal of the provincial heritage resources authority to issue a permit, consideration must be given to the protection of the place concerned in terms of one of the formal designations provided for in Part 1 of this chapter. This making provision for a structure to be declared as a Provincial Heritage Site.

Section 38. Heritage resources management

1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as--
   a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
   b) the construction of a bridge or similar structure exceeding 50 m in length;
   c) any development or other activity which will change the character of a site--
      i) exceeding 5 000 m² in extent; or
      ii) involving three or more existing erven or subdivisions thereof; or
      iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
   d) the re-zoning of a site exceeding 10 000 m² in extent; or
   e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,
   f) must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection (1) --
   a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or
   b) notify the person concerned that this section does not apply.
3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2)(a): Provided that the following must be included:
   a) The identification and mapping of all heritage resources in the area affected;
   b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7;
   c) an assessment of the impact of the development on such heritage resources;
   d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
   e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
   f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
   g) plans for mitigation of any adverse effects during and after the completion of the proposed development.

4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development, decide:
   a) whether or not the development may proceed;
   b) any limitations or conditions to be applied to the development;
   c) what general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;
   d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of the development; and
   e) whether the appointment of specialists is required as a condition of approval of the proposal.

5) A provincial heritage resources authority shall not make any decision under subsection (4) with respect to any development which impacts on a heritage resource formally protected by SAHRA unless the authority concerned decides otherwise.

6) The applicant may appeal against the decision of the provincial heritage resources authority to the MEC, who--
   a) must consider the views of both parties; and
   b) may at his or her discretion--
      i) appoint a committee to undertake an independent review of the impact assessment report and the decision of the responsible heritage authority; and
      ii) consult SAHRA; and
   c) must uphold, amend or overturn such decision.

7) The provisions of this section do not apply to a development described in subsection (1) affecting any heritage resource formally protected by SAHRA unless the authority concerned decides otherwise.

8) The provisions of this section do not apply to a development as described in subsection (1) if an evaluation of the impact of such development on heritage resources is required in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989), or the integrated environmental management guidelines issued by the Department of Environment Affairs and Tourism, or the Minerals Act, 1991 (Act No. 50 of 1991), or any other legislation: Provided that the consenting authority must ensure that the evaluation fulfills the requirements
The Floor Area Ratio for developments on campus is 2.5, with a height restriction of six storeys (+/- 18m). If developments occur on existing parking areas, alternative parking should be provided.

10.5.2 Statutory Legal Regulations

The provincial heritage resources authority, with the approval of the MEC, may, by notice in the Provincial Gazette, exempt from the requirements of this section any place specified in the notice.

10) Any person who has complied with the decision of a provincial heritage resources authority in subsection (4) or of the MEC in terms of subsection (6) or other requirements referred to in subsection (8), must be exempted from compliance with all other protections in terms of this Part, but any existing heritage agreements made in terms of section 42 must continue to apply.
GRONDGEBRUIKSONE: V "OPVOEDKUNDIG"

Doeleindes waarvoor geboue opgerig of gebruik, of grond gebruik mag word indien die siendom "Opvoedkundig" gesoneer is in terme van Sone 5 van die Pretoria Dorpsbeplanningskema, 1974:

<table>
<thead>
<tr>
<th>Grondgebruiksone</th>
<th>Primêre Reg:</th>
<th>Toelaatbaar met toestemmingsgebruik aansoeke</th>
<th>Toelaatbaar met hersonerings aansoeke</th>
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</thead>
<tbody>
<tr>
<td>Opvoedkundig</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>-Onderrigplekke, -Geselligheidsale, -Plekke vir Openbare godsdiensoefening</td>
<td>-Inrigtings -Spesiale Geboue, -Woongeboue, -Woonhuis, -Tusondernemings ingevolge Schedule IX(g)</td>
<td>Ander gebruik nie onder die vorige kolomme genoem nie.</td>
<td></td>
</tr>
</tbody>
</table>

(i) **WOORDOMSRYWINGS**

**Onderrigplekke:** Beteken 'n gebou en grond gebruik vir 'n skool, kollege, teggense instituut, akademie, lesingsaal, monniksklooster, nonneklooster, openbare biblioteek, Kunstmuseum, museum, kleuterskool, kinderbewaarhuis-cum-kleuterskool, kinderbewaarhuis-cum-kleuterskool-cum-nasaksoosentrum of ander opvoedkundige sentrum en omvat 'n koshuis vir persone wat enige van die voorgenoemde bywoon maar omvat nie 'n gebou wat ontwerp is om uitsluitlik of hoofsaaklik as 'n gesertifieerde verbeterings- of nywerheidskool gebruik te word nie.

**Geselligheidsale:** Beteken 'n gebou ontwerp of gebruik vir, onder ander, gesellige byeenkomste en ontspanning en 'n nie-residensiële klub maar dit sluit nie die gebruik sosos onder 'n "Vermaaklikheidsplek" gedefinieer nie.

**Plekke vir Openbare Godsdiensoefening:** Beteken 'n gebou ontwerp of gebruik vir 'n kerk, kapel, sinagoge, Sondagsskool of 'n ander plek vir openbare godsdiensoefening en omvat 'n inrigting of ander gebou vir die doel van gesellige verkeer en ontspanning op dieselfde terrein en verbonde aan enigeen van die voorgenoemde geboue, maar omvat nie 'n begrafniskapel of rouokaal nie.

(ii) **VRV, DEKKING EN HOOGTE**

Die Gebruiksone "Opvoedkundig" spesifiseer in die Hatfield en Hillcrest-gebied dat die VRV, Dekking en Hoogtebepalings van Sone 5 van die Pretoria Dorpsbeplanningskema, 1974 geld.

<table>
<thead>
<tr>
<th>Stadsbeplanningkontroles</th>
<th>Gebruike</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VRV vir Sone 5:</strong></td>
<td>1,5</td>
</tr>
<tr>
<td>Vir Duplekswonings, Woonstelle, Hostelle en blokke huurkamerwonings.</td>
<td></td>
</tr>
<tr>
<td><strong>Dekking vir Sone 5:</strong></td>
<td>60%</td>
</tr>
<tr>
<td>Vir alle ander gebruikie ingevolge die woordomteyeings toelaatbaar.</td>
<td></td>
</tr>
<tr>
<td><strong>Hoogte vir Sone 5:</strong></td>
<td>19m</td>
</tr>
<tr>
<td>Vir alle gebruikie.</td>
<td></td>
</tr>
</tbody>
</table>

(iii) **GEVOLTREKKING**

Indien die bovermelde toelaatbare VRV, Dekking en Hoogte onder Item 3. vergelyk word met die bestaande gebou inligting onder Item 4. kan die volgende gevoltrekkings gemaak word:

- Die bestaande geboue opgerig op die Universiteitsgronde val binne die beperkings van die VRV en Dekking vereistes van die Pretoria Dorpsbeplanningskema, 1974.

- Die rekords van die Universiteit sal waarskynlik wys dat toestemming verkry was om die hoogte beperkings sosos gestel in die Pretoria Dorpsbeplanningskema, 1974, t.o.v. die geboue wat 'n hoogte van 19m oorskry verkry is.
4. **BESTAANDE GEBOUWE**

Hierby aangeheg is 'n tabel uiteensetting van alle bestaande geboue op Lot 779, Hatfield (sien Aanhangsel "A14")

<table>
<thead>
<tr>
<th>Erf Beskrywing</th>
<th>Opp. Van geboue op Erf / m²</th>
<th>Opp van Erf / m²</th>
<th>VRV</th>
<th>Dekking %</th>
<th>Maksimum Hoogte</th>
<th>Lys van bestaande geboue Aanhangsel</th>
<th>Berekenning van bestaande VRV ens. Aanhangsel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot 759, Hatfield</td>
<td>1208.09</td>
<td>8752</td>
<td>0.14</td>
<td>13.8</td>
<td>1 verdieping</td>
<td>&quot;A15&quot;</td>
<td>&quot;A14&quot;</td>
</tr>
<tr>
<td>Lot 760, Hatfield</td>
<td>27666.55 (afdekke 221.56m² uitgesluit)</td>
<td>26876</td>
<td>0.97</td>
<td>38.04</td>
<td>13 verdieplings</td>
<td>&quot;A16&quot;</td>
<td>&quot;A14&quot;</td>
</tr>
<tr>
<td>Ged EFGH</td>
<td>165.88</td>
<td>2552</td>
<td>0.7</td>
<td>6.5</td>
<td>1 verdieping</td>
<td>&quot;A16&quot;</td>
<td></td>
</tr>
<tr>
<td>Ged JKMN</td>
<td>0</td>
<td>1276</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>&quot;A16&quot;</td>
<td></td>
</tr>
<tr>
<td>Lot 762, Hatfield (afdekke 1189.50m² uitgesluit)</td>
<td>4976.90</td>
<td>7898</td>
<td>0.63</td>
<td>38.82</td>
<td>4 verdieplings</td>
<td>&quot;A17&quot;</td>
<td>&quot;A14&quot;</td>
</tr>
<tr>
<td>Lot 778, Hatfield (gedeelde van Saldstraat)</td>
<td>0</td>
<td>4642</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>&quot;A14&quot;</td>
<td></td>
</tr>
<tr>
<td>Totaal Lot 779</td>
<td>-</td>
<td>53996m²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TABEL 3**

**Notas:**
- **VRV:** Vier Ruimte Verhouding
- **TOP:** Terrein Ontwikkelaars Plan
- **BVO:** Brutus Voer Oppervlakte
- **Ov:** Oppervlakte

No person may unfairly discriminate against any person on the ground of disability, including -

a) Removing any supporting facility necessary for their functioning in society.

b) Contravening the code of practice or regulations of South African Bureau of Standards, that govern environmental access.

c) Failing to eliminate obstacles that unfairly limit or restrict persons with disabilities from enjoying equal opportunities.

10.5.4 SABS Building Regulations 0400-1990

The building has been designed in accordance with the South African Bureau of Standards - National Building Regulations.

Part S of the National Building Regulations (NBR) and its associated code 0400 includes regulations setting out national requirements for an accessible built environment.

Barrier-free Access:
The built environment contains a number of barriers that prevent people with disabilities from enjoying equal opportunities. For example: structural barriers such as flights of stairs, inaccessible toilets and bathrooms and uneven pavements; inaccessible entrances due to security systems such as turnstiles; poor town planning such as schools, clinics positioned at the highest point in town, narrow pavement areas, and lack of demarcated parking bays; and poor interior design such as fixed seats in restaurants, cluttered overall spaces, bad lighting, and inaccessible tables.
10.6 Research Methodology

10.6.1 Research Methods

The research methodology comprises several different methods of research for the different aspects of the project. It will also be a combination of a Linear and Systems approach to problem solving. Because of the nature of Architecture, the project has a systemic focus but will also progress generally in a linear fashion and will constantly be updated and corrected as the research and analysis produces more data.

The Objective will therefore be: the optimisation of the system (Systemic) as well as produce the best answer to the problem (Linear). The Process will be: building and modifying the system to the ideal (Systemic) while using analysis and synthesis to reach this goal. The Accent will be equally on the components of the problem (Linear) as well as the linkages between components (Systemic).

10.6.2 Historical & Analytical Research Method

For the theoretical investigation parallel to the project, I will use a combination of the Historical and Analytical research methods.

The historical method will be used to analyse and investigate other Architectural theorists and their writings (historical and literary data) on relevant topics to my theoretical investigation.

The precedent studies will be undertaken as analytical research method, studying its functional aspects, characteristics and qualities. By analysing different projects of similar form, function or structure, I will deduce successful methods of implementing such practices in

10.6.3 Descriptive Survey Method

A small part of the research for the project will be the analysis of contextual data collected from observation of student movement patterns, energy flow on and onto campus, and volumes of traffic handled by various access routes and points. The objective will be to identify movement patterns, norms, criteria, standards, and the aesthetic context.

The bulk of the project research will be done according to the Grounded Theory Method as information is generated inductively from the analysis of the contextual data. It will be the most applicable research method as it is context-centred and will lead to fit the context theoretical frameworks and design guidelines leading to a grounded design (De Villiers, 2008). The grounded theory method will help me to define sets of methods, so that a Grounded Theory will emerge systematically and inductively through ongoing covariant data collection and analysis. Through this ongoing process a grounded theory will grow, be adjusted, expanded and refined (Lincoln & Guba, 1985). The method includes interviews, observation, fieldwork, documenting and recording, videotaping, and analysis.

10.6.4 Grounded Theory Method
10.7 Baseline Criteria

Constant comparative coding will form part of the validation process, patterns will be identified, new data coded into categories, reviewed and expanded as the theory emerges (De Villiers, 2008).

This baseline study serves as a guideline to direct the conceptual process towards an integrated sustainable outcome. The Sustainable Building Assessment Tool (SBAT), which was developed by the Sustainable Building group of the CSIR in Pretoria, has been selected to generate the baseline guiding criteria and performance targets.

The tool is used to assess the performance of a building but its main aim is to influence the design of buildings and construction early on in the planning process, stressing the importance of sustainable development and allowing sustainability to become an integrated aspect rather than a retrofit attempt. The sustainability rating obtained can then aid in setting benchmarks and also allows for comparative sustainability and performance analysis between buildings.
The tool was specifically designed for buildings in developing countries and it therefore focuses on pertinent issues in the economic, social and environmental domains as summarised below:

10.7.1 Economic State

"Responsive systems and technologies that are able to accommodate change and ensure that limited resources are used and maintained as efficiently and effectively as possible to provide for the needs of existing and future populations without damaging the biophysical environment" (Gibberd, 2003:115).

10.7.2 Social State

"Safe, happy, healthy, cohesive, fulfilled, societies that have organisational structures and are able to develop innovative solutions, which enable them to share limited resources equitably and in ways that enable all existing and future populations' needs to be met" (Gibberd, 2003:115).

10.7.3 Environmental State