Close out Report
of the New Universities Project Management Team on the
Development of New Universities in Mpumalanga and the Northern Cape
01 NOVEMBER 2011 - 31 JULY 2017
Chapter 6

Land assembly, feasibility and early implementation
6. Land Assembly, Feasibility and Early Implementation

6.1. Selection of the Seats of the New Universities

6.1.1 Introduction

In 2010 the Minister of Higher Education and Training had appointed two task teams to investigate the potential to establish universities in the Northern Cape and Mpumalanga provinces. The task teams engaged stakeholders in the provinces and made recommendations on the type and size of the two new institutions, including consideration of possible sites, which had been pointed out by stakeholders. The task team reports were submitted to the Minister in September 2011. Shortly thereafter, the NUPMT was established and commenced work in November 2011 on a range of issues, including:

- understanding the nature, scale and possible academic content of the two institutions;
- establishing a framework of selection criteria that defines the essential qualities of the host town and of the optimum site, a framework that supports objective decision making [6-1];
- visiting and assessing the 18 sites put forward by a range of stakeholders in the two provinces [6-2]

6.1.2 High-level Criteria and Recommendations

Together with the DHET, the NUPMT established some high level criteria for the selection of the "seat of delivery" of each of the new universities. It was understood that at a countrywide level, the new institutions must advance the national goals for higher education, including enrolment growth and growth in teaching and academic capacity. As the first new universities post democracy, they should be inspirational and reflect the aspirations of South Africans. It was further understood that at a regional and local level the new institutions should create a strong academic hub in each province, characterised by strong main campuses that:

- elevate the regional focus on higher education;
- enable maximum access within the country, the province and, indeed, internationally;
- contribute to the economic growth and cultural development of the respective provinces;
- draw on the context, individuality and strengths of each province to develop a unique academic focus.

The selection of “the seat of academic delivery” had to ensure that the selected town was able to support the success of the new university, now and into the future. In this context, the town had to provide an appropriate supporting fabric and environment for the university. The selected town had to be accessible to the largest possible population, provincially and nationally. Attractive social, cultural and recreational amenities were required, and the ability to attract and retain top academics. Furthermore, the selected town had to be economically and commercially vibrant, able to facilitate some student employment and internship experience. It was understood that the prestige and viability of the new institution would be enhanced by a town that is host to important government institutions, research institutes and other public entities.
Within the preferred town, the selected site had to be well located. It had to provide an iconic setting for the university with strong visibility and a prominent presence. It needed to be of suitable size and shape for current plans as well as future expansion over many decades. It had to be able to be quickly and cost effectively serviced and, given the pressure to deliver the universities, the sites had to be unencumbered by complex environmental, land, legal or geotechnical constraints.

The recommendations of the NUPMT for the seats for the new universities were finalised in the report of 18 July 2012.

6.1.3 Recommendations on the New University - Mpumalanga

It was decided that Nelspruit was the best placed city in the province to accommodate and support a new university with an estimated student population of fifteen thousand. The recommendations pointed out that

“In summary, the city of Nelspruit:

- is a prominent growth point, located at the junction of two major development corridors – the R40 and N4 corridors;
- provides maximum access opportunities to high density populations along both these corridors;
- is further linked by rail and air;
- boasts an International Airport, providing ease of access for visiting academics and dignitaries;
- offers environmental quality – with excellent amenities for staff and students
- is a pre-eminent centre for tourism and recreation;
- is the Seat of Provincial Government;
- offers the most integrated urban system, particularly movement, infrastructure, civic amenities and green structure;
- boasts an established and growing commercial, manufacturing and business sector;
- offers student job and internship opportunities; and
- offers a broad spectrum of housing opportunities for students and staff.”

It was further pointed out that:

“In summary, the site (Lowveld College of Agriculture):

- is sufficiently large to accommodate the new University, as well as the existing College and will allow for future growth over a 50-year period and beyond;
- is well located adjacent to both the R40 and N4 corridors;
- is spatially linked to, and associated with, the Provincial Legislature and is also close to retail facilities;
- is government-owned land, supporting reduced development time and costs;
- has established bulk infrastructure, supporting reduced development time and costs (though the adequacy of the existing supply will need to be verified);
- has presence and prominence, overlooking the city and offering opportunity for an iconic development;
- provides sufficient land to create a new identity and expand the academic
programme;
• provides opportunity for student and staff accommodation and sport and recreation amenities;
• offers quick operational establishment and conversion into a university campus...."

6.1.4 Recommendations on the New University - Northern Cape

It was decided that in this sparsely populated and arid province, Kimberley, with a population of some 300 000 people (one third of the population of the Northern Cape), offered the best conditions to support the establishment of a world class university with a student population of five thousand.

The recommendations pointed out that the city has the capacity to absorb many university activities into the existing town fabric and

“In summary, the city of Kimberley:
• provides maximum integration with national infrastructure – on the Cape Town to Gauteng route – by both road and rail infrastructure;
• has an airport and is in close proximity to other regional centres and higher education institutions – Bloemfontein (170km), Potchefstroom (350km);
• has the greatest concentration of population, namely 30% of the total province;
• has a well developed civic bulk infrastructure;
• has a broad educational base, namely well respected primary and secondary education, which is important for staff retention;
• offers environmental quality – with good amenities for staff and students, and good potential to attract and retain staff;
• is the Seat of Provincial Government and is an established commercial centre with a variety of retail and community facilities;...
• offers student job and internship opportunities;
• has the best offering of housing and student accommodation in the province...”.

In terms of the selected site, the NUPMT noted that development of a new Higher Education institution on the identified site in the heart of the city, would strengthen the civic character of the city, make use of and enhance the existing infrastructure, make use of predominantly government owned land (national, provincial and municipal), activate urban regeneration within the city, and ultimately result in reduced delivery costs and time.

The NUPMT’s recommendations further pointed out that

“In summary, the consolidated inner city site:
• is in a central and highly visible location, with potential to establish an iconic identity with a focus on the central city park;
• is well located and integrated within the inner city;
• has surrounding support amenities and facilities (retail and recreation);
• has established education facilities in the immediate vicinity (schools, higher education and Further Education and Training facilities);
• provides potential for quick academic establishment, using existing buildings;
• supports the adaptive re-use of existing inner city buildings (NIHE);
• ... would strengthen the civic character of the city;
• is based primarily on government owned land (national, provincial and municipal), supporting reduced delivery cost and time.”

6.2. SPATIAL PLANNING, FEASIBILITY AND IMPLEMENTATION PLANNING
Announcement of the selected sites by the President on 05 July 2012, enabled rapid progress on the spatial and physical planning of both universities. Workshops were held with local authorities impacted by the establishment of the new universities in Kimberley and Nelspruit, with two key objectives in mind:
  • to ensure that these authorities would include the development of the universities in their future plans; and
  • to assess the available infrastructure and services to support the development of these institutions.

The first of the spatial planning workshops was held in Sol Plaatje Municipality over four days during 2012. As the site is centrally located adjacent to the central business district (CBD), detailed planning meetings were held with the Municipal Manager and his technical department executive directors. Thus, the development of the spatial framework was concluded in direct consultation with a variety of city stakeholders, which included the Sol Plaatje Municipality, the Provincial Government, public institutions, private landowners and effected citizens. This meant that the spatial development framework was viewed as a collaborative effort, and not as an imported project of the DHET.

Similar technical consultations were held with planning officials in Mbombela though these were less intensive as the site lies on the periphery of the city. In both cities, presentations on the preliminary planning frameworks were made to the respective Mayoral Committees. By early 2013 the preliminary Spatial Development Frameworks were already well formed, creating the starting point for all further physical planning, architectural and engineering design. Elaboration of the Spatial Development Frameworks is described in Chapter 7.

The spatial development frameworks also formed the basis for the multi-year Infrastructure Implementation Plans for each university. Initially approved by the Interim Council of each university, these implementation plans have evolved and continue to evolve with the developing needs of the growing universities.
Fig 6.1: Sol Plaatje University: Initial Implementation Framework

Fig 6.2: Sol Plaatje University: 2013-2025 Implementation Strategy
Fig 6.3: UMP Mbombela Phasing Plan for the Hill and Orchards Campus

Fig 6.4: UMP Mbombela Phasing Plan for the Hill Campus
Fig 6.5: UMP Mbombela Phasing Plan for the Orchards Campus.

Fig 6.6: UMP Siyabuswa Campus – Implementation Plans for 2015, 2016 and 2017.
Fig 6.7: Site Recommended for the University of Mpumalanga within the greater Mbombela context.

Fig 6.8: Site Recommended for the University of Mpumalanga. The former Lowveld College of Agriculture Campus.
Fig 6.9: Recommended for the Sol Plaatje University in the greater Sol Plaatje Municipality context.

Fig 6.10: Site Recommended for the Sol Plaatje University in the inner city of Kimberley.
Fig 6.11: Central Campus Implementation Strategy at the Sol Plaatje University.

Fig 6.12: Images of the existing buildings and properties of the University of Mpumalanga.
6.2.1 Feasibility Studies

In the latter part of 2012, comprehensive feasibility studies [6-4], [6-5] were undertaken for each university, projecting the phased infrastructure development and operation of the two institutions. These studies were submitted to National Treasury indicating the funding requirements for each university over the period of the Medium Term Expenditure Framework (MTEF) ahead.

As a result of the feasibility reports submitted, National Treasury confirmed the following funding for the new universities.

Table 6.1: Medium Term Expenditure Allocation – 2013 – 2016

<table>
<thead>
<tr>
<th></th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total MTEF Allocation Confirmed by National Treasury (including both Capital and operational)</td>
<td>R300 000</td>
<td>R 659 000</td>
<td>R1 166 314</td>
<td>R2 125 314</td>
</tr>
</tbody>
</table>

Note: This combined budget is for both universities and the allocation between universities is decided by DHET on the basis of implementation plans, priorities and related factors.
The funding allocations for the 2014/15 and 2015/16 years was lower than the amounts projected in the feasibility studies, requiring the NUPMT to adjust the pace of the planned implementation phasing.

6.2.2 Infrastructure Verification Studies and Challenges

By early 2013 work had been concluded on a range of studies to verify the physical planning requirements of both universities. Following the award of tenders for each university, these studies involved over 16 specialists in town planning, heritage, environmental impact assessments, engineering (civil, electrical, traffic, geotechnical), landscape architecture, energy efficiency and cost consulting. Additional specialists in land survey and data base management and ICT were appointed shortly thereafter. The verification studies confirmed the key assumptions of the feasibility studies and also a number of challenges.

6.2.3 Infrastructure Challenges - University in Mpumalanga

As a result of the verification studies the following issues emerged:

- R40 Intersection upgrading – a major upgrading of the intersection between the road to the university (D725) and the arterial R40 would be required to ensure road safety. Major cost implications were identified, with initial estimates at R60m and no way to phase the project. At the same time it was clear that a safety problem already exists and the university should not be burdened with the full costs of the required upgrade. The NUPMT would need to engage with Mbombela to clarify and quantify an appropriate contribution in terms of the university’s impact on the traffic volumes.

- Bulk electricity, water and sewer infrastructure within Mbombela was stressed and would require upgrading to accommodate the new university and other private sector developments within the area. Excess capacity in the Nels River Substation would be sufficient to supply the demand for electricity until 2017. The NUPMT would need to engage with the Mbombela water concessionaire (Sembcorp Silulumanzi) to quantify the implementation programme, required financial contributions and phasing of the water services.

- Environmental approval would be required involving a Basic Assessment Report, which was anticipated to take between nine and 12 months, for water, sewage, electricity and storm water from external roads.

- Town planning approvals would be contingent upon the Environmental Impact Assessment (EIA) approvals and approval of bulk services. Bulk Services reports would need to be compiled and submitted to the different authorities in support of the town planning applications.

6.2.4 Infrastructure Challenges - University in Northern Cape

The verification studies identified the following issues for further attention:

- Traffic calming measures would be required for the pedestrian crossing between the Northern and central campuses involving traffic lights and in the long term a grade separation in the form of a pedestrian underpass. This work would need to be scheduled by the NUPMT as part of the implementation plan.

- Water: It was confirmed that Sol Plaatje Local Municipality experiences water shortages from time to time and that additional water storage would be required on each building site.
6.3. Academic Planning and Space Requirements

The phasing of construction implementation over a 10-12 year development period was informed by several factors. The key informant was the academic planning including the Programme Qualification Mix (PQM) and the enrolment planning and phasing, which together determined the space requirements. Implementation also had to take account of the status of each campus in terms of town planning, zoning and environmental impact as well as the availability and augmentation of bulk services.

In the absence of academic leadership the initial spatial planning and costing relied on analysis done by Dr Lucas Stoop, who is renowned for his work on academic space development modelling.

In terms of the Higher Education Management Information System (HEMIS) space norms, the annual space requirement of each University over the entire growth period (2014 to 2025 Sol Plaatje and 2014 to 2027 Mpumalanga) was based on the planned annual enrolment growth in each of the different academic programmes. This growth defined the Assignable Square Metres (ASMs) for academic and administrative space and the ASMs for the residential space required by each university. Planning took account of the fact that the actual building space required was equivalent to an average factor of 1.43 times the ASM. Based on the initial academic planning, the total estimated space requirement (ASM) for each completed university (including residence space for 60% of total students at UMP and 80% at SPU) was estimated to be as follows:

- University of Mpumalanga – 316 906 m²;
- Sol Plaatje University – 129 124 m²

From the second half of 2013 onwards, planning for the phased implementation of the required infrastructure was refined in close collaboration with the newly appointed Interim Councils and subsequently with the leadership of each university.

It was noted that the high requirement established by DHET for on-site student accommodation would substantially raise the overall delivery costs. For example, to accommodate 60% of the student population in residence at UMP required as much as 182 250 ASMs, compared with 134 656 ASMs for the total academic component.

6.4. Land Assembly

6.4.1 The fundamental challenge

Land owned by the public sector constitutes the bulk of the land identified for the development of both universities. As yet, none of this land has been transferred to either of the universities and the ongoing development relies on two official documents published in the Government Gazette in March 2013 (Northern Cape) and April 2013 (Mpumalanga). These were: the Record of Intention to Facilitate the Rapid Establishment of the New Universities and the Transfer and Development of Publicly Owned Land signed by the Minister of Higher Education and Training, the Premiers of the two provinces and the Minister of Public Works. In the Northern Cape, where part of the land is municipally owned, the document was also signed by the Mayor of Sol Plaatje Municipality and the Executive Mayor of Frances Baard Municipality. Both universities continue to work with the Department of Public Works (DPW) towards transfer the various land parcels.
6.4.2 Sol Plaatje University

The chosen Seat for the new Sol Plaatje University is situated in a central location in the city, enjoying high visibility as an institution of national importance with the ability to establish an iconic identity. The location of the academic and administrative component of the university is situated around the established central Oppenheimer Memorial Park, with maximum accessibility to the city and surrounds. Two further distinguishable landholdings stretch south from the Memorial Park and include the FET Sport Fields and Hoffe Park.

The selected campus sites are separated by national and municipal roads, which result in an urban-type campus that is well integrated within the urban fabric. The site is at the junction of the national routes leading to Bloemfontein, Cape Town, and Gauteng which maximises accessibility but also creates fragmentation of the campus. The central location within Kimberley offers various existing amenities, which have the capacity to support the new university.

The properties earmarked for development of the university are described below. All properties that had to be purchased were evaluated and the recommendations were submitted for Ministerial approval.

a) Oppenheimer Memorial Park Northern Campus

The most distinct portion of the new university is the Oppenheimer Memorial Park, which is referred to as the Northern Campus. The park is the focus of a number of important civic buildings. These include the Sol Plaatje Municipality, the Northern Cape High Court, the Northern Cape Urban FET College, the William Humphrey Art Museum, the De Beers Building and the National Institute for Higher Education (NIHE) in the former Legislature building. The approximately 50-hectare park is well maintained and has established trees and landscape features, and features a variety of memorials and statues. It also commemorates the former Malay Camp, which used to be located in this area. Following a decision by the Sol Plaatje Municipality, the Minister of Higher Education and Training approved the purchase of the site in the amount of R14.5m.

b) Central Landholdings: Central Campus

The central land-holdings, now referred to as the Central Campus, consist of a number of properties held by national, provincial and local institutions, as well as private land owners. The northernmost land parcel is home to the historic William Pescod School, formerly used by NIHE. The property is accessed via Scanlan Street and faces on to Bultfontein Road (N8 and N12 routes).

The central portion of this landholding is Erf 2503, formerly part of the Northern Cape Urban TVET College sport fields. The site is a 30 500 sq.m property located at the junction of the N8 to Cape Town (Dalham Road) and the N12 to Bloemfontein (Bishops Avenue). Residential properties and the TVET College residence form the western border to the site. To the south of the TVET sport fields is a vacant land parcel and hockey fields currently used by the Diamantveld High School. The transfer of the Diamantveld properties to the university is still an ongoing process.

The last parcel forming the Central Campus is a privately owned tennis academy with six courts. Property valuations were conducted by the NUPMT but the owner demanded a sales price well in excess of the valuation. The property has since been excluded from the Design and Development Framework and its Implementation Plan.
c) Hoffe Park: Southern Campus

Erf 2511 (South Campus), was formerly owned by Transnet and deemed essential for the residential and sport requirements of the university. Two valuations were commissioned, one by the Project Management Team and one by DPW to facilitate the Transnet disposal of this property. Following negotiations with Transnet, the Minister approved payment in the amount of R25m and transfer of the property was concluded in 2015. The 14.6ha land with buildings includes a student residence for approximately 250 students. In the long term the property will form an important hub for student sport facilities and residences.

On the southern boundary of the Southern Campus is the Hoffe Park Stadium with a capacity of 18,000 spectators. The relationship between the stadium and the university will be formalised by a shared user agreement currently being negotiated.

d) Commercial Residential Properties

To enable residential accommodation for the 2014 start, the NU Project Management Team (NUPMT) commissioned valuations and due diligence reports for the purchase of two commercial residential buildings in close proximity to the university. The two-storey Diamond Lodge Hotel (R15m) and the nine-storey Whiteways Flats (R15m) were renovated to accommodate a total of 178 students with a range of support services. Their purchase enabled student occupation in time for the 2014 academic year. Both properties were registered in the name of the Sol Plaatje University in March 2014. The Valuation and due diligence reports form part of the Annexures to this report [6-6], [6-7]

6.4.3 University of Mpumalanga – Mbombela Campus

Administered by Mpumalanga Department of Rural Development and Land Administration (DARDLA), the Lowveld College of Agricultural in Mbombela was identified as the seat for the University of Mpumalanga and constitutes its Mbombela Campus. The site is located 5km north of the Nelspruit CBD on the R40 to White River and offers good regional accessibility. It is a highly visible site enjoying grand views of the Mpumalanga Provincial Legislature complex and the inner city of Nelspruit. The site is a large land holding of 280 hectare, sufficient to accommodate a university expanding well beyond 15 000 students. The site was deemed ideal as it was government owned land with existing educational facilities and sports amenities. It is within close proximity to retail, commercial and recreational amenities, and will further strengthen the R40 Development Corridor.

The N4 and D725 shape the southern border of the site, whilst the R40 defines the western edge of the property. The land slopes gently from south to north. A stream running north to south splits the Boschrand property into two distinct parcels.

The site is made up of 6 land portions:

- Portions 31 and 32 of the Farm Boschrand JT 283

The Boschrand Farm portion of the new university is the largest and covers approximately 210 hectares. The farm is triangular, and was used as an experimental orchard and crop farm in support of the former Lowveld College of Agricultural.

- Portion 17, 19, 28 and 36 of the Farm Friedenheim Nr. 282.
The Friedenheim farm (fig. 11) consists of four cadastral land portions, with two on either side of the D725 district road. The farm portion covers approximately 68 hectares. The two northern portions slope steeply from the D725 to the northern rock outcrops and accommodate the former Lowveld College of Agricultural buildings. Existing buildings that have been incorporated into the new university include a small number of administrative and academic facilities, a great hall, dining facilities and student residences for 240 students.

The remaining portion of erf 75, Friedenheim 282, about 13.5 ha, located north of the Lower Campus was considered of particular strategic importance to UMP's future development. The motivation for the purchase of this property was prepared by the NUPMT \[6-8\] in February 2016. The purchase was approved by the Minister and the property was subsequently purchased by UMP.

The farm portion on the southern side of the D725 is used as an experimental orchard, and accommodates sport and recreation amenities. These include an athletic track, soccer and cricket field, with some recreational club facilities. The property is relatively flat with surface water visible in places. The Agricultural Research Council (ARC) is located on the farm on the eastern border of the identified university property.

Fig 6.14: Sol Plaatje University land assembly investigation. The following Sites have been incorporated into the campus: 2511, 2513, 879 and 3009. The Oppenheimer Gardens was also incorporated after an agreement with the Sol Plaatje Municipality.
6.4.4 University of Mpumalanga – Siyabuswa Campus

Plans for the incorporation of the Siyabuswa Campus were initiated in the second half of 2014 and the land assembly and transfer issues constitute a challenge that is yet to be fully addressed. The former Ndebele Teacher Training College is a relatively small campus of 6.5 hectares and would require additional land if the Siyabuswa campus is to increase its student enrolment numbers to achieve a more viable student population. This might be partially achieved through a shared usage agreement with the neighbouring school and the CN Mahlangu TVET college, and it is envisaged that this option will be explored in the future.

6.4.5 Additional Land Feasibility Studies

The NUPMT was also requested to undertake due diligence or feasibility investigations on a few other properties for the two universities which were never acquired or incorporated into the university campuses. These were;

i) University of Mpumalanga
   - The Bundu Lodge, a conference, leisure and hotel facility came onto the market in 2015 and acquisition was considered by the university with the aim of expanding UMP’s hospitality programme, providing accommodation and utilising the hotel’s substantial conference facilities. The NUPMT report recommended against the purchase of Bundu Lodge and this was accepted by the University Council. [6-9]
   - Marapyane - Due diligence assessments for the incorporation of the Marapyane campus to the UMP were done in 2014 by the NUPMT. A report to this effect was prepared. [6-10]
ii) Sol Plaatje University

- Sol Plaatje University requested the NUPMT to perform an indicative valuation and feasibility study in 2015 on an unused property owned by De Beers in Kimberley, which was offered to the University as a donation. The property comprised an abandoned hostel and hospital, a clinic and an occupational health facility and conference facility that appeared to have been in use until just before the assessment. The study concluded that extensive capital expenditure would be required to redevelop and refurbish the facilities. The university accepted the recommendations to focus its capital investment on the available SPU properties. [6-11]

Fig 6.16: Aerial Image of the existing Siyabuswa Campus indicating the existing Buildings, which were renovated during from 2012-2015.
6.5. PLANNING APPROVALS

6.5.1 Spatial Planning, Town Planning and Environmental Approvals

The Spatial Development Framework has formed the basis for engagement with all stakeholders. With the establishment of the Interim Councils at the respective universities in 2013, these Spatial Development Frameworks were submitted for formal approval.

The spatial development frameworks created the crucial starting point for all further physical planning, including Town Planning and Environment Impact approvals. The Town Planning and Environmental Impact Assessment processes also had a significant impact on the construction start for some portions of the two universities.

This was particularly relevant in the case of the Hill Campus of the University of Mpumalanga. The need for town planning and environmental approvals on the Hill Campus meant that it was necessary to start development with the first phase of construction focused on the Lower Campus around the former Lowveld College of Agricultural buildings. However, with no environmental approval, even this development was restricted to “compromised land”, which explains the development of the first buildings on former parking lots.

The Central Campus of the Sol Plaatje University offered fewer obstacles and was therefore targeted for the first phase construction.
Most of the Town Planning and Environmental Authorisations were completed during the course of 2014 and ensured that construction of new buildings and infrastructure for the two universities could commence that year.

6.5.2 Planning and Environmental Approvals for the University of Mpumalanga

The New Universities Project Management Team worked closely with Mbombela Municipality regarding zoning for the university development, in particular for the development of the iconic Hill Campus of the university. The town planning application was submitted for approval in March 2013 and the Mbombela Town Planning Department approved the Site Establishment Conditions on 23 March 2015.

The Site Development Plan (SDP) was submitted to the Mbombela Municipal Development Control Team in July 2014. Approval of the SDP was dependent on the approval of the Environmental Authorisation of bulk electrical service, bulk storm water, the planned traffic circles on the R40 and D725 and the finalisation of the service level agreements (with details of the Bulk Service Contributions) before final sign-off of the SDP.

The Building Control Submission was submitted to the Mbombela Municipal Development Control Team in July 2014. Final approval was also dependent on the approval of the SDP. A Section 7/6 application was approved, allowing commencement of building work on site prior to the SDP and Building Control approvals.

An environmental impact assessment (Basic Assessment Report – BAR) was commissioned in March 2013 for the development at the University as envisaged in the Spatial Development Framework. After a detailed and lengthy process, including public consultation, the Department of Environmental Affairs (DEA) issued the authorisation for the BAR, on 26 March 2014 (Record of Decision). During the stakeholder engagement process, there was general support for the university and no objections were raised.

The Department of Environmental Affairs (DEA) had approved the amended Environmental Management Programme and the approval letter was received in July 2014. The Environmental Authorisation (Basic Assessment Reports) for the bulk supply of water, sewage and upgrading of the external roads D725 and R40 including storm water management services were submitted to DEA during 2014 and approval was received in May 2015 and in January 2016 respectively. The BAR for the bulk electrical services were prepared and submitted by the end of 2015 with approval expected during 2016. Environmental Authorisation was received in November 2016.

6.5.3 Planning and Environmental Approvals for the Sol Plaatje University

Planning approval for the Central Campus, which was the focus of major development for the 2016 academic year, was granted by the Sol Plaatje Municipality in December 2013. The balance of the rezoning applications, in particular for Erf 2511: Hoffe Park and Erf 1: Oppenheimer Gardens were conducted during the course of 2014. These areas were targeted for a construction start only in 2018.

The Department of Environmental Affairs (DEA) approved the amended Environmental Management Programme (EMPr) for Erf 2503 issued tan approval letter to the Sol Plaatje University.
a) Planning approval for Erf 2503

The Central Campus, which was the focus of major development for the 2016 academic year, was granted Town Planning Approval by the Sol Plaatje Municipality in December 2013. The Northern Cape Department of Co-operative Governance, Human Settlement and Traditional Affairs (COGHSTA) approved this application in August 2014 and the approval was published in the Northern Cape Government Gazette in September 2014.

The Sol Plaatje Municipality and COGHSTA approval for both Erf 2503 and Erf 879 required that the Northern Cape Heritage Resource Authority (BOSWA) provide a letter confirming that they have no socio-cultural and/or heritage issues in respect of this site. A presentation to BOSWA was arranged in April 2015 and an in-principle approval was received for the entire campus.

The SDP for Erf 2503 was submitted to the Sol Plaatje Municipality with an amendment to increase the “University” Zoning to 12 storeys in order to accommodate the one-off design of the iconic seven-storey Library and Student Resource building. All other buildings were planned not to exceed four storeys.

The Building Control Submission was also delivered to the Sol Plaatje Municipality in July 2014 and the plans for Erf 2503 were subsequently approved a month later in August 2014.

b) William Pescod Education Campus (Erf 879)

In preparation for further development, the Removal of Restriction application for the William Pescod Campus was submitted in October 2014. The matter was put forward to the Spatial Planning, Environment and Land Use Management Committee (SPELUM) and approved for submission to the Sol Plaatje Council on 15 April 2015. A written approval letter from BOSWA in respect of Erf 879 was received in June 2016.

c) Oppenheimer Memorial Gardens (Erf 1)

Applications for the closure of public open space, rezoning and subdivision were required for this site, which was still zoned “Public Open Space” and will constitute the North Campus. The appointed town planners have been provided with a Site Development Plan in order to accelerate the town planning approvals of three separate applications required for this site, namely: Alienation of Public Open Space, Closure of Public Roads and Rezoning. This application has yet to be approved.

d) South Campus - Hoffe Park (Erf 2511)

This site will become the South Campus and is currently zoned “Public Open Space”. The preparation for the closure of public space and rezoning applications submission to Council is underway.

6.6. BULK INFRASTRUCTURE AND ICT

6.6.1 General

The NUPMT took the proposed bulk infrastructure through all the stages of basic planning, verification, development of an Implementation Plan and agreement with the municipalities that these would require for implementation. It was understood and subsequently agreed that the following bulk infrastructure would form part of the implementation of the two
universities and that the investment made by the universities would be off-set against the bulk services contribution payable for each service.

6.6.2 Sol Plaatje University

a) Traffic and Transport
A Traffic Impact and Mobility study was undertaken for the campus. Traffic calming measures were required for pedestrian crossings and walkways between the different campuses. The pedestrian crossing across the busy Bultfontein Road has been completed as part of the link between the North and Central campuses. This entails an elevated pedestrian crossing, bollards and traffic lights. A further crossing has been planned at Scanlan Road between William Pescod campus and the square on erf 2503. 

A concept design for the traffic circle at the intersection of Scanlan, Bultfontein, Lyndhurst, Dalham and Bishops roads has been completed. The first phase will entail the relocation of services away from the intersection and should be started during 2017 while implementation of the roundabout is planned for completion during 2018/19. \[6-20\]

Parking: - A land parcel owned by the municipality located between the Municipal offices and the Luka Jantjie House has been identified as potential shared parking area. The municipality is being consulted on the development of plans for street parking, pedestrian and cycle routes and a public transport system. Proposals were developed for a centralised, shared parking facility at the High Court premises (erf 3781). \[6-21\]

b) Bulk Water
At the first stakeholder meetings, the Sol Plaatje Municipality gave assurances that the existing water supply is sufficient and that the water quality is up to standard. Despite these assurances Kimberley and the university experienced frequent water shortages. Problems experienced with water were mostly related to old infrastructure, leakages and more recently due to poor quality water from the Municipality. To ensure a continuous water supply, the emergency supply was increased to provide water for a minimum of two days in all the university buildings. These measures cover new developments on the campus as well as existing buildings, namely Luka Jantjie House, Ra-Thaga House and the William Pescod building site. Due to the poor quality water received from the municipal system, filter and dozing installations are also planned for all developments.

A report on the potential use of non-potable water from either the Kamfer Dam or from De Beers Big Hole has been completed. Further actions are being planned by the SPU to further this initiative as a potential source of non-potable water for irrigation of sport facilities on and around the campus to the benefit of stake holders with large sport fields. \[6-22\]

c) Electricity
Despite assurances from the Sol Plaatje Municipality that the electricity supply is sufficient to accommodate the university, electricity supply in the central business district has been under stress. The installation of a dedicated SPU bulk electrical 11 KV cable
from Hall Street substation to the Central Campus (erf 2503 and the William Pescod building) has been completed. The remainder of the electrical back-bone supply through the campus to the South Campus will be implemented during 2017 and the last stretch from South Campus to the Hadison Park substation in 2020. A future electrical demand report was prepared for the SPU outlining the implementation strategy of the 11 KV back-bone cable and proposed upgrade of the Hadison Park substation by the municipality. All buildings will be equipped with standby generation. [6-23]

6.6.3 University of Mpumalanga

a) Traffic and Transport
R40 / D725 Interchange upgrading: – From the outset the need was identified for a major upgrading of the intersection between the road to the university (D725) and the R40 arterial. The NUPMT commissioned the preliminary design solution. Because of the hazardous nature of the intersection, the project was prioritised by all stakeholders for implementation by the end of 2018. It was subsequently also agreed that the Mbombela Local Municipality will implement the project and that the university will contribute to this cost by paying their bulk services contribution to the Mbombela Local Municipality (MLM). Following an agreement between Province and the MLM, sections of the D725 and R40 roads were de-proclaimed by Province for about 2200m and 700m respectively to facilitate the municipal upgrade. The de-proclamation was gazetted in the Provincial Gazette in October 2015. [6-24]

A detailed design was completed and requests for co-funding were made to the municipality and to the PICC. Due to site limitations, the interchange position was moved about 60m towards White River with a re-alignment of the D725 road onto the UMP property.

A Traffic Impact Study (TIS) [6-25] and Mobility Study [6-26] were compiled for the campus and external roads. The existing access road from the D725 to the existing lower campus has been improved with temporary road markings, road signs and traffic calming rumble strips. Improved future campus access roads were conceptually designed and involve two future traffic lights and a traffic circle access to the campus. A temporary access on the eastern boundary of the campus was applied for and will be used for construction access to the lower campus until 2018.

Proposals were also made for upgrading of university entrances to allow for additional taxi parking areas, a drop-and-go zone and bus stops for the Mbombela BRT system.

b) Bulk Water and Sewer Infrastructure
Bulk water and sewer infrastructure for the Mbombela Campus were a priority, as the current supply lacked capacity. New bulk water and sewer infrastructure was designed in collaboration with the municipality’s concessionaire, Silulumanzi Sembcorp. The NUPMT assisted the UMP with a tender process to appoint a contractor for completion of the construction of these facilities by February 2017.
Due to shortage of water during 2016, an additional emergency bulk water supply pipeline was installed from Regional water supply mains at the Archives building to supplement water supply to the university-owned 900 KL reservoir.

c) Bulk Electrical Infrastructure
Mbombela Local Municipality (MLM) has confirmed that it will act as the future bulk electrical authority. Excess capacity in the Nels River Substation enabled the MLM to supply the demand for electricity to the Mbombela Campus. It is planned to implement the 20 MVA substation by 2020/21.

The NUPMT assisted the UMP to prepare a Services Agreement in collaboration with the Mbombela Local Municipality, highlighting all details with respect to bulk services, on-site services and implementation arrangements. The agreement was signed by all parties in January 2016.\[^{6-27}\]

6.6.4 ICT and Connector Services to both Universities

a) Establishment of the ICT Core for the New Universities

The ICT core platform is the medium through which ICT services for the Universities are delivered to the user community. The ICT core platform architecture was defined in consultation with various other universities and the CSIR, in line with the envisaged enrolment and development plans for the SPU and UMP.

The underlying design aim of this platform was to provide immediate services that were capable of expanding into highly available and redundant solutions with as little effort as possible. The ICT platform consists of many components, and a comprehensive procurement process was developed to appoint a dedicated service provider for each University to deliver the following:

- Server clusters for hosting hybrid on premise and in-cloud services;
- Storage and backup systems;
- Network core, distribution and access equipment;
- Network security and identity management;
- Wifi - Eduroam;
- Unified communication system;
- Software and licensing.

The first phase bulk ICT infrastructure implementation budget was R24.2m for the University of Mpumalanga and R24.9m for the Sol Plaatje University. This first phase installation was required from the outset to ensure service provision for future development phases. The expansion of the ICT systems during the following development phases was designed and implemented as part of the infrastructure and building projects in each financial year.

After completing a comprehensive open procurement process, described in Chapter 9, contracts for the deployment of the ICT Platform projects were signed with the service provider in July 2014 for both Universities. Detailed design and laboratory testing processes were undertaken between August and October 2014, and the systems were implemented on site during November and December of 2014.
Both Universities started the 2015 academic year making use of the services deployed in the ICT Platform projects. The remote campuses, namely MRTT, Siyabuswa and Marapyane for University of Mpumalanga, and Galashewe for Sol Plaatje University were also incorporated and are still making use of the services offered by the ICT platform.

b) ICT Implementation 2016

The new building infrastructure handed over to both universities in 2016 marked the first real test for the ICT Platform that was commissioned at a cost of R 24.1m and R24.9m at SPU and UMP respectively in January 2015. Some of the key performance indicators noted that:

- The ICT Platform had to be modular;
- The ICT Platform had to be scalable;
- The ICT Platform had to scale without performance degradation.

These three goals amongst others were realised for the 2016 student intake at SPU in buildings L001 – Student Residence, L004 – Auditorium and Offices and L006 – Teaching, Labs and Offices; and at UMP at Land Parcel 01 – Student Residences, Land Parcel 04 – Teaching Admin and Land Parcel 06 – Science Block.

In addition to the user base and data network growth, the ICT Platform temporarily hosts both the Access Control and CCTV surveillance security system until a dedicated security services platform can be installed.

Since March 2016, when the two new universities took over management of the ICT Platform, a dedicated security platform has been implemented as described below.

c) Security Platform

As with the ICT Platform, the need was identified for the development of a Security Platform at each university in order to support electronic security systems, namely access control, CCTV surveillance and burglar alarm systems.

While these systems are still running on the ICT platform, the plan is to have a dedicated server and storage infrastructure. Apart from providing dedicated hardware the main objective of the security platform is to integrate these individual systems and enable them to be operated and monitored through a single user interface, otherwise known as a single pane of glass which will greatly improve the Universities’ ability to respond to security incidents, investigations and reports.

A budget of R8.4m and R9.2m was earmarked for implementation of the security platforms at UMP and SPU respectively during 2015. This could not be implemented by the NUPMT at this time, mainly because the infrastructure to accommodate the security platform was only completed in 2016. The funds were reallocated to SPU and UMP for implementation under their management.
Fig 6.18: Environmental Assessment and sensitivity map as part of the Town Planning submission for the UMP Mbombela Campus.

Fig 6.19: Town Planning submission of the South Campus (Hoffe Park) as part of the overall town planning approval process for the Sol Plaatje University.
Fig 6.20: The bulk infrastructure upgrades in Kimberley includes the improvement of existing roads. The design proposal is for the Bultfontein and Bishop Road intersection.

Fig 6.21: D725 and R40 road upgrades at UMP
6.7. Upgrading and Construction Renovation Work at SPU

Upgrading and conversion work on a variety of existing buildings and associated services commenced in 2013 and has continued over the period of the NU PMT involvement.

Infrastructure delivered for the 2014 academic year provided for the inaugural enrolment of 125 university students in 2014 and for over 300 students in 2015. Between late 2013 and the start of 2016, renovation of existing buildings included the William Pescod School, the former Legislature Building (now the Luka Jantjie House), Mhudi House (Diamond Lodge Hotel) and Ra-Thaga House (Whiteways Apartments).

The cost of upgradings, renovations and conversion work undertaken by framework contractors is indicated in Tables 6.2 and 6.3 at Sol Plaatje University.

Table 6.2: Roburn Construction Trust 2 - framework contract for upgrading of infrastructure

<table>
<thead>
<tr>
<th>Package order</th>
<th>Description</th>
<th>Final value excluding compensation events (including VAT)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction of the square</td>
<td>R 7 534 295</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Development of UMP memorial gardens</td>
<td>R 2 244 266</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>William Pescod and Bultfontein crossing</td>
<td>R 4 138 429</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Bulk Electrical (equipment and cabling)</td>
<td>R 1522 686</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Erf 2503 bulk infrastructure services</td>
<td>R 698 927</td>
<td></td>
</tr>
</tbody>
</table>

Total construction cost (including VAT) R16 130 603
Compensation events (including VAT) R 346 869
Final account R 16 485 472
Table 6.3: HSH Construction Pty (Ltd) - Framework contract for the services of a management contractor for the refurbishment, extension or alteration of existing buildings

<table>
<thead>
<tr>
<th>Package order</th>
<th>Site and outline scope</th>
<th>Forecast value of order at start (including VAT)</th>
<th>Value of order at completion (including VAT)</th>
<th>Percentage of works subcontracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NIHE and William Prescod Buildings (SPU 2014 start-up: executive offices, waterproofing and classrooms south west corner of old legislature building)</td>
<td>R 4 457 745</td>
<td>R 4 425 869</td>
<td>75.6%</td>
</tr>
<tr>
<td>2</td>
<td>NIHE and William Prescod Buildings (SPU 2014 start-up: classrooms 1 and 2 (northern classrooms), staff offices and IT room, student foyer area and removal of asbestos ceilings to old legislature building and removal of asbestos ceilings and mechanical installations to William Prescod)</td>
<td>R 4 975 418</td>
<td>R 4 886 879</td>
<td>85.8%</td>
</tr>
<tr>
<td>3</td>
<td>NIHE and William Prescod Buildings (SPU 2014 start-up: mechanical installations and wireless internet connections)</td>
<td>R 4 120 643</td>
<td>R 4 092 649</td>
<td>94.4%</td>
</tr>
<tr>
<td>4</td>
<td>NIHE and William Prescod Buildings (SPU 2014 start-up: biological laboratory, academic staff offices and TUT rooms, entrance foyer, ablutions, geography laboratory and IT laboratory)</td>
<td>R 4 917 683</td>
<td>R 4 837 712</td>
<td>83.6%</td>
</tr>
<tr>
<td>5</td>
<td>NIHE Building</td>
<td>R 4 812 177</td>
<td>R 4 812 177</td>
<td>62.6%</td>
</tr>
<tr>
<td>6</td>
<td>William Prescod and Whiteways Building</td>
<td>R 4 699 472</td>
<td>R 4 699 472</td>
<td>45.6%</td>
</tr>
<tr>
<td>7</td>
<td>VCs House and Whiteways Building</td>
<td>R 4 087 969</td>
<td>R 4 087 969</td>
<td>49.8%</td>
</tr>
<tr>
<td>8</td>
<td>NIHE and William Prescod Buildings</td>
<td>R 3 892 133</td>
<td>R 3 892 133</td>
<td>100%</td>
</tr>
<tr>
<td>9</td>
<td>NIHE and William Prescod Buildings</td>
<td>R 4 734 854</td>
<td>R 4 734 854</td>
<td>98.5%</td>
</tr>
<tr>
<td>10</td>
<td>Whiteways Building</td>
<td>R 4 846 214</td>
<td>R 4 846 214</td>
<td>97.3%</td>
</tr>
<tr>
<td>11</td>
<td>Whiteways Building</td>
<td>R 4 848 535</td>
<td>R 4 848 535</td>
<td>92.7%</td>
</tr>
<tr>
<td>12</td>
<td>Whiteways Building</td>
<td>R 4 959 000</td>
<td>R 4 959 000</td>
<td>82.6%</td>
</tr>
<tr>
<td>13</td>
<td>William Prescod and Diamond Lodge Buildings</td>
<td>R 4 879 735</td>
<td>R 4 879 735</td>
<td>39.9%</td>
</tr>
<tr>
<td>14</td>
<td>Whiteways and NIHE Buildings</td>
<td>R 3 345 900</td>
<td>R 3 345 900</td>
<td>100%</td>
</tr>
<tr>
<td>15</td>
<td>NIHE Building</td>
<td>R 4 765 000</td>
<td>R 4 765 000</td>
<td>48.6%</td>
</tr>
<tr>
<td>16</td>
<td>William Prescod, Diamond Lodge, Whiteways and NIHE Buildings</td>
<td>R 4 960 000</td>
<td>R 4 960 000</td>
<td>100%</td>
</tr>
<tr>
<td>17</td>
<td>William Prescod, Diamond Lodge, Whiteways and NIHE Buildings</td>
<td>R 13 558 531</td>
<td>R 13 092 299</td>
<td>92.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>R 86 060 455</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) Mhudi House (former Diamond Lodge Hotel)

The three-storey hotel was renovated during 2015 and 2016 to include:

- 31 two-bed student rooms (62 students);
- Games / TV room, study, kitchen and dining room, plus laundry on ground floor;
- Two-bedroom warden flat on the first floor, including office;
- Security room for security guards, store rooms, staff rest room, bicycle cage and ablutions, and enclosed refuse area.
Work included the complete revamp of all the student bedrooms with en-suite bathrooms. The entire ground floor was redesigned to include the amenities listed above. The entire building was equipped with wi-fi connections. The air-conditioning in the student rooms was connected to a separate electrical supply and can be used when required.

A construction amount of R10.4 million was spent on these upgrades.

b) Ra-Thaga House (former Whiteways apartment block)
The nine-storey apartment building was renovated between 2014 and 2016 to include:

- 30 self-contained, two-bedroom units with two students per bedroom plus bathroom, toilet, and common room with kitchenette, accommodating a total of 120 students;
- Laundry, new kitchen and dining room with TV facility and games room;
- One warden’s two-bedroom flat and separate office;
- Fully equipped staff flat on the 9th floor;
- Store rooms and staff rest room;
- Bicycle cage and ablutions, enclosed refuse area, guard house;
- New, separate fire-escape steel staircase.

Work included the complete revamp of all the flats with kitchenettes and the provision of wi-fi connections. The entire ground floor was redesigned to include the amenities listed above. The lift was upgraded with a new KONE lift. An on-site standby generator and 20 Kl potable water storage tanks were installed. The hot-water supply for the entire building was upgraded with a more energy efficient heat pump system on the roof. Unutilised carports were closed with steel frames creating additional storage area for the University’s attic stock.

All handrails on the balconies and passages were upgraded to comply with Municipal Regulations. The garden was landscaped with an atomised irrigation system.

An amount of R23.0 million was spent on these upgrades (construction value).

c) William Pescod Building (former William Pescod School)
The one-storey, S-shaped building was upgraded for the BEd academic programme during the period 2013 to 2015, and includes the following:

- Biology, Computer, Consumer Science, and Physical Science laboratories with store rooms and offices for lab technicians;
- Geography Practical Classroom;
- Technology classroom and fully equipped demonstration workshop with store rooms;
- 21 staff offices, toilets and kitchenettes; and
- Security room for security guards and ICT patch room.

Work included the installation of audio visual equipment, furniture and improvements to the security in the building. The area around the building was landscaped with new lights, trees and a pedestrian walkway towards the Bultfontein Road. An irrigation system and 5kl water storage unit was installed. The two large classroom, former “magasyn", building was demolished to make way for the new C008 building.

An amount of R14.0 million was spent on these upgrades.
**d) Luka Jantjie House (former Provincial Legislature Building)**

The three-storey building was partially renovated during the period 2013 to 2016 and includes the following:

**Second floor:**
- 13 staff offices, five smaller (24 to 30 seat) and two larger (54 seat) classrooms;
- Print room and SPU server room;
- Two committee rooms, student lounge area;
- Toilets for students and staff, and kitchenettes.

**First floor:**
- Three CUT offices, two large (60 seat) classrooms;
- End user computing room (with IT technician office and store room), Electronics and Hardware/Computing laboratories with store room;
- 13 staff offices with meeting room on western wing;
- Nine staff offices on the eastern wing;
- Four study rooms on the northern wing;
- Toilets for students and staff, and kitchenettes; and
- AC plant rooms and refuge rooms for fire protection.

**Ground floor:**
- 13 staff offices, a board room and student waiting / reception are in the western wing;
- Eight staff offices on the eastern wing;
- Student admissions and temporary bookstore for Van Schaik;
- Catering kitchen to provide 500 meals in the student canteen plus a staff coffee shop;
- Toilets and kitchenettes, and fire escape routes.

**Basement:**
- Secured storage area and stand-by generator for the SPU Server.

Work included the installation of air-conditioning facilities, audio visual equipment and furniture in classrooms, and improvements to the security in the building. Three new lifts were installed. The dilapidated and inefficient water supply system (both potable and fire water) was upgraded with two 15KI on-site storage tanks and a pump system to provide water to the building. A stand-by generator was installed and the main electrical distribution board was replaced. The premises have been landscaped with new exterior lights, a new walkway canopy in the courtyard and irrigation systems.

An amount of R38.5 million was spent on these upgrades which accounts for about 60% of the building upgrades. The remainder of upgrades will be done by the SPU during 2017 and 2018.
e) Other smaller upgrades

VC House (Carrington 22)

The VC’s house was purchased in 2014. The following work was done on the house:

a. Waterproofing and painting of the entire roof;

b. Replacing of gutters, fascias and clearing overgrowth around the building;

c. Painting of interior, maintenance of the wooden floors and purchasing of basic furniture;

d. An amount of about R 275 000 was spent on these upgrades.

Hoffe Park house – to accommodate the Project Managers

a. The house on the premises was upgraded during 2015 to function as office for the Project Managers (Aecom). Work entailed painting, upgrade of plumbing, electrical installations, air-conditioning, security and water proofing of the roof.

6.8. Construction Renovation Work at UMP

Infrastructure delivered for the 2014 academic year provided for the inaugural enrolment of 160 university students in 2014 and for over 540 students in 2015. Construction during 2015 has enabled the 2016 enrolment of over 1255 students, with expansion to over 1600 planned in 2017.

For the first two years of enrolment (2014 and 2015), the existing buildings including the residences, administration buildings and teaching venues were renovated.

In addition to the work at the UMP Mbombela Campus, the University of Mpumalanga with the assistance of the NUPMT focused on development of several new buildings, infrastructure projects and renovations at the UMP Siyabuswa Campus.

Between late 2013 and the start of 2016, a number of existing buildings were upgraded and/or converted. With the exception of the MRTT buildings, all renovated buildings are located on the former Lowveld College of Agriculture (LCA).

The cost of renovations and conversion work as set out in Table 6.4
Table 6.4: Norse Projects (Pty)Ltd - Framework contract for the services of a management contractor for the refurbishment, extension or alteration of existing buildings

<table>
<thead>
<tr>
<th>Package order</th>
<th>Outline scope</th>
<th>Forecast value of order at start (including VAT)</th>
<th>Value of order at completion (including VAT)</th>
<th>Percentage of works subcontracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MRTT staff offices, hostel demolition, external works</td>
<td>3 094 958</td>
<td>3 037 477</td>
<td>40%</td>
</tr>
<tr>
<td>2</td>
<td>MRTT kitchens, classrooms and resource centres, hostel refurbishment</td>
<td>4 378 634</td>
<td>4 143 372</td>
<td>51%</td>
</tr>
<tr>
<td>3</td>
<td>LCA executive offices and external works</td>
<td>3 004 338</td>
<td>3 002 011</td>
<td>38%</td>
</tr>
<tr>
<td>4</td>
<td>LCA computer laboratory, LCA lecture halls</td>
<td>4 054 654</td>
<td>4 053 575</td>
<td>42%</td>
</tr>
<tr>
<td>5</td>
<td>Refurbishment of the balance of student residence rooms</td>
<td>4 587 132</td>
<td>4 308 849</td>
<td>10%</td>
</tr>
<tr>
<td>6</td>
<td>LCA auditoriums</td>
<td>2 425 230</td>
<td>1 504 690</td>
<td>50%</td>
</tr>
<tr>
<td>7</td>
<td>Refurbishment of the balance of student residence rooms</td>
<td>2 902 326</td>
<td>2 546 677</td>
<td>10%</td>
</tr>
<tr>
<td>8</td>
<td>Refurbishment of administration block, PM offices and external works</td>
<td>4 265 504</td>
<td>4 137 266</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>26 733 919.39</strong></td>
<td></td>
</tr>
</tbody>
</table>

**a) Office Building north of Library**

The single storey building behind the Library was renovated during 2013 and 2014, mainly to provide offices for the newly established UMP campus and included:

- Six offices plus open plan waiting area and secretarial/admin office;
- Ten-seat meeting room; and
- Kitchenette.

Work included the installation of air-conditioning facilities, audio visual equipment and wi-fi, data points in all offices and an external pause area with landscaping.

The construction costs for this upgrade amount to R3.217 million.

**b) Existing Library, Auditoria and Computer Lab Building**

The two-storey building was renovated during 2013 and 2014 for the 2014 and 2015 student intake, to serve as the main lecture space. The following upgrades were completed:

- The library and study centre, including foyer area with seating and toilets;
- 2 x 64 and 2 x 104 seat raked auditoria (teaching venues);
- Computer laboratory;
- Server room with stand-by generator.

A classroom and IT laboratory were created in the adjacent PC laboratory, fitted out with
tables and chairs, mapping tables, PC workstations and audio-visual teaching equipment and wireless connectivity.

The room behind the Main Hall was upgraded to a computer classroom with 45 stations, complete with air-conditioning, security and data connections. Work included the installation of air-conditioning facilities, audio visual equipment and wireless coverage in and around the buildings. The ramp on the south-eastern passage was covered with an overhang roof.

The construction costs for these upgrades amounts to R4.251 million.

c) Administration building

The two-storey building was renovated during 2014 to prepare office space for UMP staff.

Although the executive offices were originally prepared to accommodate senior staff, the first floor offices next to the foyer area were subsequently upgraded for this purpose. The following upgrades were done in the administration building:

- Ground floor east wing: Eight offices were tiled and painted;
- Five senior staff offices plus store room on the first floor with the stair case;
- Split air-conditioning units were serviced and replaced where required;
- A new patch room was developed and equipped;
- All offices were equipped with data cables and connections;
- Executive board room was painted with new data connections installed.

The construction cost for this upgrade amounts to about R2.970 million.

d) Student residence

The four two-storey buildings and the two storey third-year residence were renovated during 2014 and 2015. During this period small groups of students from the residences were relocated in batches to park-homes while their rooms were renovated. The renovation entailed:

- Upgrade of all 200 rooms in the four main residences;
- Upgrade of all 12 rooms, a TV room and ablutions in the third-year residence;
- Painting of passages and replacing of broken vinyl tiles;
- Upgrade of laundries with installation of new equipment;
- Painting of common rooms, and basic maintenance of all ablution facilities.

Work included the installation of wireless connectivity in all residences, repair work on access doors and gates, new furniture and installation of data cables between the server room and these five buildings.

The construction costs for these upgrade amounts to about R2.860 million.

e) Mpumalanga Regional Training Trust (MRTT) upgrades

Based on an MOA between UMP and the MRTT, the decision was taken to renovate portions of the MRTT in return for free usage for a period of three years from the start of 2014. The single and two-storey buildings at the MRTT were renovated for UMP hospitality students as follows:

- A derelict building was converted into an office for the UMP lecturers, including a
boardroom, five individual offices, kitchenette and bathroom;
- The west wing of this building was converted into a two-bedroom warden’s apartment with furniture;
- Student residence building: 15 x 2-bedrooms were upgraded and equipped with new furniture, ablutions were overhauled and a steel fire escape staircase was fitted;
- Classrooms: two classrooms were upgraded and fitted out with audio-visual teaching equipment;
- Teaching block of the existing MRTT Hotel Academy: two teaching kitchens, three classrooms and a set of student toilets were upgraded;
- Landscaping and storm water control was provided around these buildings with a new staircase to the warden’s apartment.

In addition, external services, storm water and landscaping was upgraded on the MRTT campus.

The construction costs for these upgrades amounts to about R8.0 million.

f) Other smaller upgrades

A range of smaller upgrades were undertaken relating to landscaping, provision of offices for the project managers, external roads as well as internal water and sewers.

Landscaping on the Mbombela Campus

The following landscaping work was done (with irrigation) on the Mbombela Campus:
- The entrance gate to the UMP with walkways, a small culvert bridge, street lighting and trees;
- The area around the executive offices with an outside under-cover entertainment area and garden furniture.

Project Managers’ Offices:

The former clubhouse for the mini-golf course was upgraded with a large meeting room, plus six workstations and ablution facilities.

External roads, internal water and sewer networks

Work on external roads included:
- Installation of directional signage on external roads leading towards the Mbombela campus with reference to the “University of Mpumalanga”;
- Temporary road marking and road signage at the entrance to the Mbombela campus.

The existing internal water and sewer systems on the existing campus were upgraded by:
- Replacing all aged valves and pipes to improve management of the water supply to the buildings and different zones on the campus;
- Unblocking of choked drains on the old septic tank system at the sport complex, and
- Upgrading the level control of the existing sewer pump station.

In addition to upgrades on buildings described above, the following work was also undertaken on existing facilities of the former Lowveld College of Agriculture premises:
- Installation of seven containers, initially as temporary residences during upgrading of the residences in 2014 and 2015 and used since then as temporary offices for UMP
staff;
• Upgrading of the sport fields ablution facilities;
• Replacing and upgrading of existing stairs, paving, kerbing, storm water infrastructure, servicing of existing mini-substations on the campus and removing of trees in preparation for new buildings and infrastructure;
• Installation of new sign boards on the campus;
• Upgrading of the irrigation laboratory with a new kitchen and ablutions to be shared by the park-home offices;
• Waterproofing of existing houses on the lower campus;
• Upgrading and conversion of a storage area on the Boschrand farm into a welding lecture room; and
• Upgrading of student and staff toilets at the entrance to the Great Hall.

The construction costs for these upgrades amounts to about R5.435 million.

6.9. UMP SIYABUSWA CAMPUS

6.9.1 Background

The former Ndebele College of Education located in Siyabuswa in Mpumalanga is an education campus that was established in 1980. It was used to deliver pre-service teacher education and a limited number of in-service programmes.

Coordinated by the National Institute for Higher Education (NIHE) and supported by partnerships with the University of the Witwatersrand and with the University of Pretoria the campus continued to be used as a site of delivery for initial teacher education programmes until the end of 2010. It has since been used by the Mpumalanga Department of Education (MDE) to deliver continuing professional teacher development programmes and to provide accommodation and facilities during Grade 12 examination marking sessions. It has also been used as a teaching site by a number of universities for continuing professional development programmes such as the Advanced Certificate in Education (ACE).

In 2013 a BEd (Foundation Phase Teaching) programme was started on this campus through a partnership between the DHET, MDE, NIHE Mpumalanga and the University of Johannesburg (UJ). This partnership initiated the process of redeveloping the old teacher training college in Siyabuswa with the specific aim of increasing teacher education and development capacity in the country.

One hundred students were successfully enrolled for the BEd programme delivered on the campus by UJ in 2013. The redevelopment of the campus was spearheaded by the DHET through funding to NIHE, with a view to establishing Siyabuswa as a part of the New University in Mpumalanga. A series of transitional arrangements were agreed by the partners in this venture in order to facilitate the academic, administrative and physical transition of the Siyabuswa Campus to the UMP. The 2014 intake of students at Siyabuswa were enrolled as students of the new university.

6.9.2 Role of NIHE and the NUPMT

Plans for the incorporation of the Siyabuswa Campus were initiated only in the second half of 2013 and the land assembly and transfer issues constitute a major challenge that is yet to be resolved. The NUPMT has played an advisory role, assisting first NIHE and then the
University of Mpumalanga to procure and implement infrastructural and building improvements. The NUPMT also assisted UMP and the DHET with the establishment of an Integrated Spatial Development Framework for the Siyabuswa Campus, which was used to guide the implementation of building and infrastructure spend over the period 2013-2015, the period during which the transfer of responsibility from NIHE to UMP took place.

6.9.3 Siyabuswa Development

Planning for this campus is based on the understanding that the existing academic and administrative buildings can accommodate 1,500 students with 300 beds. The phased redevelopment of the Siyabuswa Campus commenced in 2012 to prepare for the re-opening of the Campus and the enrolment of the 2013 UJ student intake. This Phase I redevelopment included the refurbishment of three residential units to accommodate 150 beds; the upgrade of the kitchen and dining hall; conversion of space into lecturer offices; library and resource centre upgrade; and the upgrading of the upper and lower floors of the administration building for management offices and staff rooms.

The Phase II redevelopment programme commenced in mid-2013 and focussed on refurbishing the existing remaining residences to increase the bed capacity to 300. It also included the upgrade of two more classrooms, one lecture hall and two dining halls.

The Phase III redevelopment programme commenced in 2015 and focused on additional residential capacity to accommodate 664 FTE students until 2019. Phase III commenced in 2014 and a total of R80m was allocated by DHET to the improvement of the Siyabuswa Campus. It also included expanding the kitchen facilities and student amenities. Work further included the upgrading of three auditoria, four classrooms, existing student residences and sport facilities. The bulk of the budget was for the development of a new 102 bed Student Residence, which increased the total number of students on campus to 412. To address the lack of staff accommodation, eight staff apartments were built. The construction of both the staff and student accommodation was completed by November 2015.

Phase IV: R18 million was allocated to infrastructure improvements in 2015. The bulk of the budget was for water and electricity infrastructure, and improvement of the sport amenities. The budget and implementation oversight for these projects was managed by the University of Mpumalanga directly.

Administering, and reporting against, the budget allocations for the above development phases was first the responsibility of NIHE and, after closure of NIHE, became the responsibility of the university. The operational closure of NIHE in 2014 resulted in the transfer of a number of capable project facilitation staff members from NIHE to the UMP. The experience and in-depth knowledge attained by these staff members at Siyabuswa was thus not lost, and has added greatly to the UMP staff capacity in terms of infrastructure development and maintenance.
Fig 6.22: Mhudi House (former Diamond Lodge Hotel) converted to accommodate 62 students. Renovated during 2015.

Fig 6.23: Ra-Thaga House (Former Whiteways Apartment Block).
Fig 6.24: William Pescod Building (former William Pescod School) Former school buildings renovated and converted to accommodate B.Education Academic programmes.

Fig.6.25 Luka Jantjie House (former Provincial Legislature Building) Building renovated and converted to accommodate SPU administration, staff offices, student support and lecture venues.
Fig 6.26: University of Mpumalanga Renovation Plan for the existing former Lowveld Agricultural College structures. These included the residences, administration block, lecture venues and library.

Fig 6.27: University of Mpumalanga renovation of the existing five residence buildings.
Fig 6.28: University of Mpumalanga Siyabuswa Campus renovation of the existing offices, library and lecture venues.

Fig 6.29: University of Mpumalanga Siyabuswa Campus renovation and upgrade of the existing dining amenities.
REFERENCE DOCUMENTS

6-1 Selection Criteria for Towns and Sites
6-2 Summary overview of sites visited
6-3 Selection Criteria and Recommendations on the Seats for the New Universities – 18 July 2012
6-4 Feasibility Study for the New University in Mpumalanga Province (September 2012)
   Annexure 1 Space and Cost Norms for Buildings and Other Land Improvements at Higher Education Institutions April 2009 – (cover only for reference)
   Annexure 2 Calculation of Building and Other Costs - 20 Sept 2012 v3a
   Annexure 3 Land Assembly Feasibility Report - 21 Sept 2012
   Annexure 4 Preliminary Spatial Plan and Building Potential
   Annexure 5 Implementation Programme
   Annexure 6 Phase 1 2013-17 Years Control Budget
   Annexure 7 Final Report on the Establishment of new universities in the Northern Cape and Mpumalanga Provinces
   Annexure 8 Case for Kimberley and Nelspruit
   Annexure 9 Recommendations on the Seats of the new universities
   Annexure 10 Risk Register
   Annexure 11 Bulk Services Report
   Annexure 12 Bulk ICT Report
   Annexure 13 Project Stakeholders
   Annexure 14 Project Implementation Plan template
   Annexure 15 Procurement Framework
   Annexure 16 Wits Infrastructure Delivery Management System (IDMS)

6-5 Feasibility Study for the New University in the Northern Cape (September 2012)
   Annexure 1 Space and Cost Norms for Buildings and Other Land Improvements at Higher Education Institutions April 2009 – (cover only for reference)
   Annexure 2 Calculation of Building and Other Costs - 20 Sept 2012 v3a
   Annexure 3 Land Assembly Feasibility Report - 21 Sept 2012
   Annexure 4 Preliminary Spatial Plan and Building Potential
   Annexure 5 Implementation Programme
   Annexure 6 Phase 1 2013-17 Years Control Budget
   Annexure 7 Final Report on the Establishment of new universities in the Northern Cape and Mpumalanga Provinces
   Annexure 8 Case for Kimberley and Nelspruit
   Annexure 9 Recommendations on the Seats of the new universities
   Annexure 10 Risk Register
   Annexure 11 Bulk Services Report
   Annexure 12 Bulk ICT Report
Annexure 13 Project Stakeholders
Annexure 14 Project Implementation Plan template
Annexure 15 Procurement Framework
Annexure 16 Wits Infrastructure Delivery Management System (IDMS)

6-6 Whiteways Sept 2013, Valuations and Due Diligence Review by Courtwell
6-7 Diamond Lodge Aug 2013, Valuations and Due Diligence Review by Courtwell
6-8 Motivation March 2016, NUPMT to UMP to purchase remainder of portion 75
6-9 Bundu Lodge Oct 2015, Feasibility Report
6-10 Marapyane June 2014, Feasibility Report
6-11 De Beers Oct 2015, Donated Land Feasibility Report
6-12 Environmental Authorization March 2014, EA (ROD) for construction of the new UMP
6-13 EMPr July 2014, Environmental Management Programme for construction of the new UMP
6-14 Environmental Authorization May 2015, EA (ROD) for bulk water and sewer
6-15 Environmental Authorization January 2016, EA (ROD) for upgrade of external roads
6-16 Environmental Authorization March 2014, EA (ROD) for construction of the new SPU
6-17 EMPr July 2014, Environmental Management Programme for construction of the new UMP
6-18 TIA SPU 2014, Traffic Impact Assessment for SPU
6-19 Mobility Study for SPU August 2013
6-20 Round-About Plan 2014 for intersection on SPU
6-21 SPU parking 2015, parking area on erf 1 and bus stop
6-22 Non-potable water SPU 2014, report to assess feasibility to use non-potable water for irrigation
6-23 Bulk Electrical Report SPU 2016,
6-24 Provincial Gazette Oct’2015, De-proclamation of the D725 and R40 to MLM
6-25 TIA UMP August 2013, Traffic Impact Assessment
6-26 Mobility study UMP September 2013
6-27 Services agreement for the provision and installation of engineering services for the development of the University of Mpumalanga Township