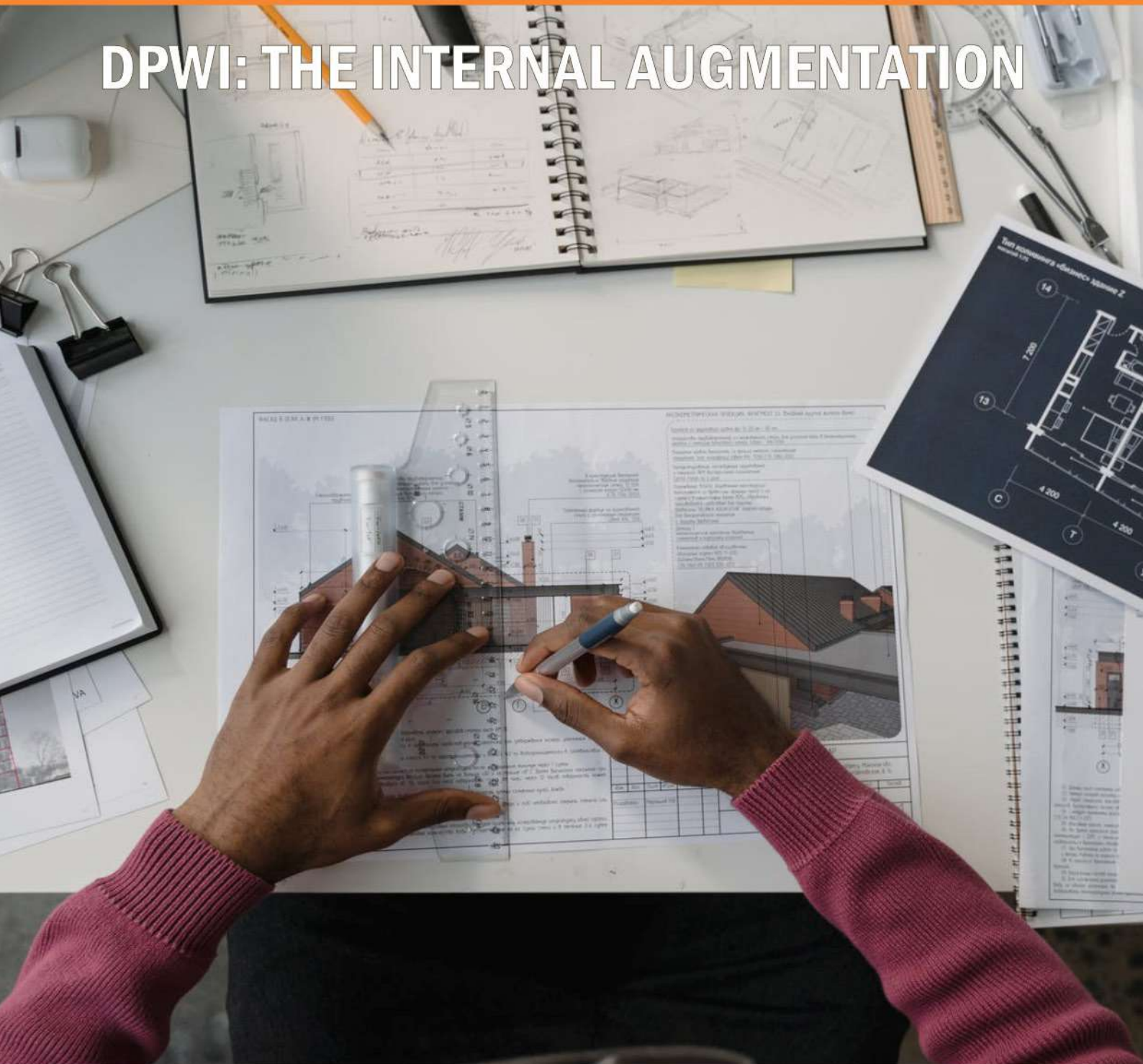




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Special Edition - June 2022

DPWI: THE INTERNAL AUGMENTATION



public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA



Editorial



DPWI : The Internal Augmentation

The Department of Public Works and Infrastructure (DPWI), through its Real Estate Management Services Branch, has beefed up internal capacity in order to take full control of its Architectural Services.

In previous years, the Architectural Services Unit only functioned on an advisory basis. Private consultants such as Landscape Architects, Architects or multi-disciplinary firms, were hired for consulting projects. Whereas now, the department is working towards having a fully functional Architectural Services Unit with in-house architects, not having to rely on private consultants.

This change came as the Architectural Services Unit was having a difficult time with consultants from private practices that were not always familiar with processes, norms and design requirements of the public sector.

The main challenge however, that the unit experienced, with private consultants, was the amount of time consumed in the process of reworking designs, in order for the work delivered to be compliant with legislation, regulations, design guidelines and sector related design standards. The now appointed departmental Architects and Landscape Architects, act as counterparts, assessing work performed in terms of compliance and set standards, for such projects.

The Architectural Services Unit has appointed Professional Architects, Professional Landscape Architects, Architectural Technologists and Landscape Architectural Candidates, to the total of 15 staff members.

This Special Edition of WorxNews focuses on tracking down and profiling some of the appointed staff members within the Architectural Services unit. In their profiles, we also showcase some of the exciting projects they have worked on. Furthermore, you can also read up on the construction of a Magistrate Court in Soshanguve that is being built up entirely by the departmental professionals. You can also boost your knowledge on some facts about Architects in our "Did you know?" section.

I would like to thank everyone from the Architectural Services, as well as, the Engineering Services Units for all their inputs and allowing us to showcase their work on this platform.

When you go through this copy of WorxNews, I hope you realise the strides that the department continues to make in order to build our capacity, and I hope you realise that it is the small groups of thoughtful, dedicated and committed people, that change the world.

Enjoy the read!

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“DID YOU KNOW ?”

Information gathered by DPWI'S Architectural Services Unit

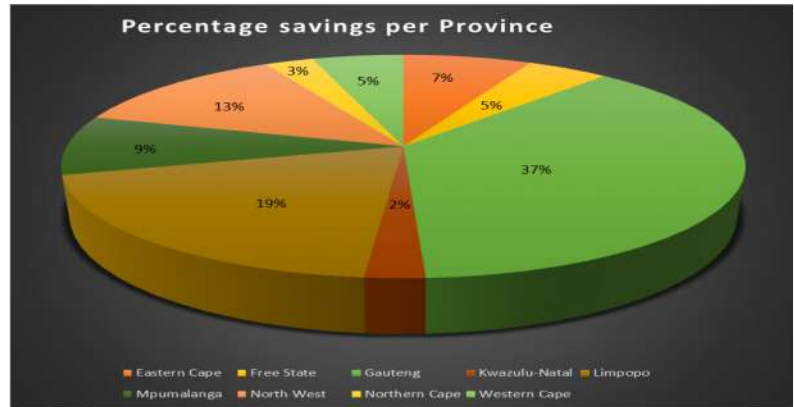
Procurement of professional built environment services can be a lengthy process. Inevitably some consultants may also cancel their contracts after being appointed, resulting in delays for re-appointment. Providing for these services in-house can limit delays and assist teams to deliver projects sooner, to the benefit of user-clients.

Landscape Architectural young professionals and candidates are in high demand and have performed professional work in the region of Two to Three Million Rands average per year over the past three- five years (see table below). Most of this includes work on all six work stages from inception to close-out.

Architectural work has also grown in demand and we are currently working on several significant upgrades of magistrate's courts, resulting in savings on time and fees. We are hoping to work more closely in future with other built environment professional units to expand in-house work to the benefit of user clients.

The Architectural Services Unit is the only unit that provides Landscape Architectural professional services for all state projects in South Africa. The pie charts below shows a demographic comparison study of number of projects and professional fee savings per province.

Total Professional Fees Savings Province Demographics: Over the past 3-5 years		
Province	No. Projects	Total Savings
Eastern Cape	3	R794,880.00
Free State	4	R504,063.65
Gauteng	17	R4,104,565.86
Kwazulu Natal	2	R264,960.00
Limpopo	6	R2,133,126.00
Mpumalanga	4	R945,475.74
North West	3	R1,387,610.84
Northern Cape	1	R300,000.00
Western Cape	2	R564,480.00
TOTAL	42	R10,999,162.09
Ave. per financial year	8	R2,199,832



Operation Triple-R: Renovate! Rebuild! Reconstruct!

By: Siphamandla Nyembe

Following the floods that have ravaged KwaZulu-Natal (KZN), the beautiful province has been in a state of disarray. Its people have seen their beloved land reduced to rubble, forcing them to band together to rebuild it.

The Department of Public Works and Infrastructure (DPWI) intends to work together with client departments so they may repair state-owned buildings that have been damaged by the floods. With that in mind, DPWI has requested all client departments that have been affected by the floods to urgently report all damages to the department. So far, approximately fifty state-owned buildings which

are managed by the DPWI have been damaged by the floods. Of the fifty, twenty seven are magistrate's courts, eleven are police stations, another eleven are military bases and one is a museum.

Minister of DPWI Patricia de Lille, Deputy Minister of DPWI, Noxolo Kiviet, the KZN MEC for Human Settlements and Public Works, Jomo Sibiya, Head of Infrastructure South Africa (ISA), Dr Kgosientso Ramokgopa as well as various heads of entities from the DPWI, visited the Prospecton Air force in Isipingo. This visit revealed the extent of the damage to buildings, as the floods left the site without electricity and water, in addition to the severe damage to numerous buildings on the base.

It is from this visit that plans have now been put in place to procure material for the repairing of 20 buildings around the province. Meanwhile, a Professional Service's multi-disciplinary team, made up of various skilled workers has conducted detailed site inspections, to provide findings for supply chain processes. This will also enable them to have an idea of how long it will take to restore the affected buildings to their previous, functional state.



ANELE NDAWULE

My name is Anele Ndawule and I am currently working as a Candidate Landscape Architect based at Head Office. I joined the Department of Public Works and Infrastructure (DPWI) in 2021, after being awarded the DPWI bursary in 2019 to further my studies in Landscape Architecture. I studied at the University of Cape Town, both my Honours and Masters as this is required for professional registration by the South African Council for the Landscape Architectural Profession (SACLAP).

Before obtaining my Honours and Masters Degrees, I studied towards a National diploma and Bachelor in Landscape Technology from the Cape Peninsula University of Technology, obtaining these in 2017 and 2018 respectively. In 2012, I completed grade 12 at Simanyene High School in Cape Town. In 2013 I studied NATED course (N1-N3) in Electrical Engineering at Boland College in Cape Town. At the moment one of my core and critical goal is obtaining my professional registration with SACLAP by the end of 2022.

Currently, my work entails the following;

- Design and overseeing the installation of landscape works from a small-scale project such as a magistrate court to large projects such as Precinct Development Frameworks and Feasibility studies.
- I oversee the consultants work and contractors during construction.
- I also ensure compliance with all the Department's regulations, guidelines and manuals for consultants, when providing landscape architectural services for in-house project from inception, through design to construction stage, including close out stages, and project cost estimates.



Figure 1 : Poffadder Magistrate court: new courtyard and existing heritage building

- I also handle fee-calculations and ensure that they are also done in order to determine the value of the work we perform.

I have a few favourite projects that I am currently working on. One of the most interesting project is Poffadder Magistrate Court that is in the Northern Cape. I have been involved in this project from its initial stages.

The project is currently in work stage 4. The site has an existing heritage building, which poses a number of restrictions regarding alterations on the building façades and surroundings. The region experiences very harsh climatic conditions, with high average temperatures and limited rainfall throughout the year. The region is also characterised by complex landscape typologies (vegetation and general ecology) with high number of endangered plant species. These challenges provoke thoughtful design thinking and problem solving.

In this project I have learned and gained a significant amount of experience and competencies that are required for professional registration. I have gained an extent of knowledge from the professional practice aspects, such as professional fees determination and project administration. I have also gained knowledge regarding sustainable landscape design, in line with the department's sketch plan requirements.

The project has an environmental and heritage aspects, and I have gained a significant amount of experience in this regard, including design challenges around local vegetation (plant selection and applied horticulture) and ecology.

I am honoured to be working for the public sector providing landscape architectural professional services to the public. I believe this is one of the opportunities I would always be grateful for. It is truly a great platform for me to showcase and improve my skills and innovative ways of designing for accessible/public landscapes.

The exposure and experience has really improved my work ethic. Considering the time I have been with the department, I am proud of the work I have managed to complete.

To mention one highlight of my career at DPWI, the collaborative project with Planning and Precinct Development (PPD), Mbizana Government Precinct, based in the Eastern Cape, Mbizana Municipality. Below is the design, the philosophy was around shared facilities, public and semi-public spaces. In preparation of feasibility studies and master planning, I provided landscape architectural master plan and functional design diagrams.



Figure 2 : Poffadder Magistrate court Landscape Architectural Conceptual Site Development Plan

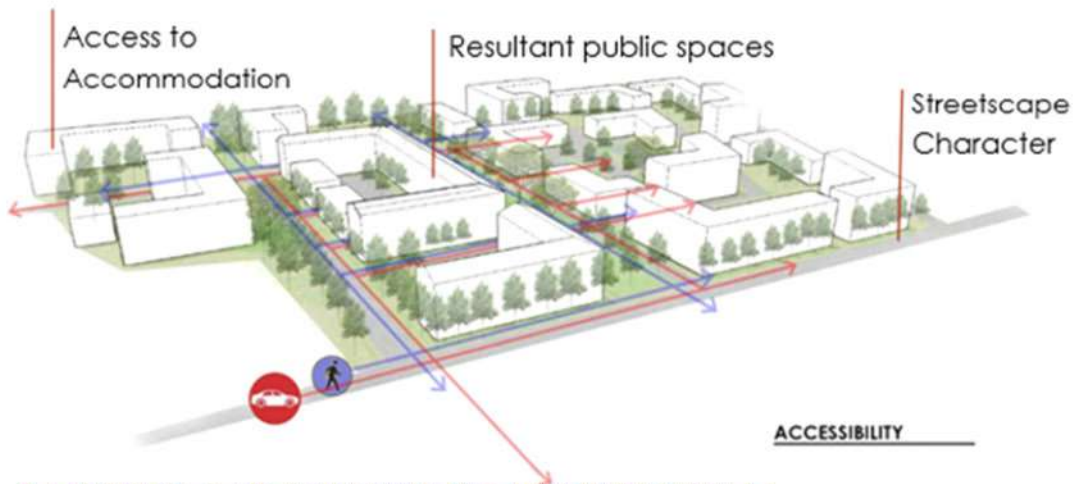


Figure 3: Mbizana Government Precinct, Landscape Architectural Master Plan-Functional diagram






Figure 4: Mbizana Government Precinct Conceptual Master Plan

Mbizana Precinct Development

LEGEND:

-  PROPOSED BUILDINGS [GOVERNMENT OFFICES]
-  PROPOSED PUBLIC AND SEMI-PUBLIC SPACES

-  EXISTING TREES RETAINED
-  PROPOSED EVERGREEN TREES
-  PROPOSED DECIDUOUS TREES



ATHENKOSI SIHLAHLA

My name is Athenkosi Sihl parking bays needed and the landscape components. Ahla and I am a Professional Landscape Architect for the Department of Public Works and Infrastructure (DPWI) based at Head Office, Pretoria.

I received the Departmental bursary during my third year in Landscape Technology that I was studying for at Cape Peninsula University of Technology (CPUT), in 2014. After graduating with a National Diploma in Landscape Technology, I did my BTech degree in Landscape Technology with the Tshwane University of Technology (TUT). Once completed, I joined the Department for a one year internship in 2016. Thereafter, I did my Masters Degree in Landscape Architecture from the University of Cape Town.

In 2020 I was offered employment under the DPWI Young Professionals Program, as a Candidate Landscape Architect. In 2021, I registered as a Professional Landscape Architect with the South African Council for the landscape Architectural Profession (SACLAP). Registering as a professional was my main goal upon joining the department. Now I hope to be offered permanent employment by the Department.

As an in-house Professional Landscape Architect, the work I do entails;

- Design and construction monitoring of in-house projects.
- Advisory services where inputs are given on whether or not proposed additional accommodations can be constructed on certain state properties.
- Acting as a counterpart in the development of departmental precincts.
- Working with Town Planners in the rezoning of state houses.
- Giving guidance to candidates on technical drawings and report writing
- I also conduct site visits at various state owned properties/facilities and produce Site development plans, Landscape development plans, Site development reports, Landscape development reports, Sketch plans, Cost estimates and Conditions reports.

From the projects that I have worked on ever since I joined the department, the one I am currently working on which is the rezoning for the refurbishment of SAPS additional accommodation on ERF 8969, in 01 Jock Meiring Street, Bloemfontein, has to be my favourite project. For this project I worked closely with the in-house Town Planners and Traffic Engineers from Mangaung Metropolitan Municipality. The project is located in Bloemfontein, within the jurisdiction of the Mangaung Metropolitan Municipality.



The DPWI was approached by SAPS to convert an existing state house into offices. SAPS is currently faced with the challenge of shortages of office space. The site is composed of ERF 8969. The Landscape Architectural division was approached by the Town Planning Directorate within DPWI, to assist with the rezoning of ERF 8969. Thereafter resulting in the compilation of a Landscape Architectural report and a Site Development Plan (SDP).

The overall landscape proposal took into consideration the number of officials that will be using the offices, number of parking bays needed and the landscape components.

• Parking

The Mangaung Metropolitan Municipality engineers, advised that the parking rate is 4 bays/100m². The total area of the main house is 354m². The kitchen and 2 bathrooms are subtracted from the total area of the main house. The functional areas of the main house add up to 321 m², which is equal to 13 parking bays. As per the SDP, there are 11 parking bays and 2 existing garages. Out of the 11 parking bays, there are 2 for disabled persons. According to the Mangaung Metropolitan Municipality parking standards, a typical parking bay is 2.5m x 5m and parking for disabled persons it is 3.5m x 5m. All parking bays will be paved.

• Paving

Brick pavers for the parking bays and the drive way were proposed. 40% of the property will be paved.

• Entrance drive way

The driveway will be connected to the public road network. Jock Meiring is a Class 5a road. According to the South African Traffic Impact and Site Traffic Assessment Standards and Requirements Manual, a dropped kerb or kerb crossover access is allowed.

The kerb will be dropped for smooth entry onto the property from Jock Meiring Street as illustrated.

The width of the driveway is 7m, allowing for high density two-way vehicle traffic movement. There's also a separate 1.5m pedestrian gate for safe passage for pedestrians (as per SDP). The access throat length is 15m from the road reserve boundary into the property. The throat length is long enough to accommodate the queue of vehicles during peak hour. The amount of space can allow a U-turn where possible. There is currently a fully functional manhole on the proposed entrance driveway. The proposed entrance driveway will be paved, with paving to be laid flush with the manhole for easy access for vehicles.

• Access control

There will be no access control on the property, to prevent queue spillback onto the street. A sliding gate that is operated manually will instead be utilised. The gate will be opened during office hours and it will be closed and locked after office hours.

• Planting

All trees that are located within the proposed access road into the property (as per SDP) are to be removed. There are 4 proposed trees added to the property (as per SDP). A planting mix with shrubs and groundcovers were proposed in planting beds along the fence and in front of the parking bays.

A rock garden in front of the main building, facing the entrance on Jock Meiring Street was also proposed. The rock garden will be incorporated with groundcovers and feature plants to enhance the visual appeal of the entrance as one approaches it. There will be 2 flag posts for SA and SAPS flags within the rock garden.

• Access and circulation

The site will be accessed through Jock Meiring Street. The entry will run in a clockwise direction with a two-way entrance; wide enough for easy access around the site. There are also 3 entrances into the building.

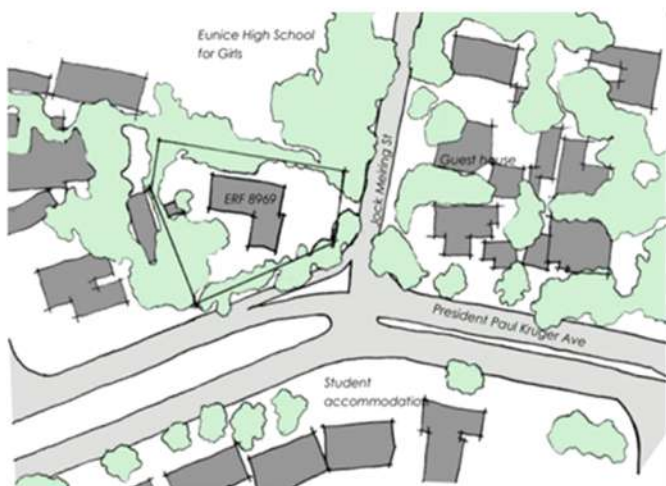
This was my favourite project because it gave me an opportunity to work with different professionals. I've gained skills and knowledge that I will use for other projects in future.

Since joining the department, I must say that I have gained extensive knowledge on parking standards and Site Development Plan (SDP) requirements of different municipalities. I gained knowledge on the Traffic Impact and Site Traffic Assessment Standards and Requirements, by working with professionals from various fields.

Obtaining my professional registration in 2021 has to be the proudest accomplishment. With the high rate of unemployment in South Africa, I feel very fortunate to be working in the public sector.

The opportunity has allowed me to showcase my capabilities. Considering that the profession I am in is not known by many, and has been recently introduced into the Department, I feel grateful to be one of the few Landscape Architects in the Department.

Introducing and exposing our profession to other professionals within the Department and showing them what we are capable of, through showcasing our skills, makes me proud and almost reassures me that our profession is being recognised in the built environment.



Locality map



SITE DEVELOPMENT PLAN

JILL WILLIAMS

My name is Jill Williams and I am a Candidate Landscape Architect based at Department of Public Works and Infrastructure head office in Pretoria under the Architectural Services Unit.

I joined DPWI during my first year as a student as part of Human Capital Investment's (HCI) bursary programme. From there, I was accepted into the bursary programme to complete my undergraduate studies. This was followed by a year-long internship in the Department, then the resumption of my studies as a post-graduate.

In 2021, I re-joined the Department as a Candidate Landscape Architect in the Young Professionals programme. In the past years I have completed my Bachelor of Science in Landscape Architecture Degree, a Bachelor of Landscape Architecture Honours Degree, as well as a Masters of Landscape Architecture Degree, all from the University of Pretoria.

Currently, the work that I do in the department entails the following;

- Project and contract administration.
- Attending coordination and project construction meetings.
- Research and drafting desktop studies.
- Site visits where data collection for report-writing occurs.
- Drafting of imagery and renders for use in reports.
- Researching and applying legislation pertaining to projects, such as the NEMA, Ridges Guideline Policy, Heritage Act, etc.
- Designing conceptual masterplan and sketch-plan proposals for consideration by client departments, drafting of working details and other technical drawings for construction
- Evaluating cost estimates for projects.

All the work I do is done in line with the South African Council for the Landscape Architectural Profession's (SACLAP) core competencies to be met during my candidacy period, under the guidance of a mentor.

The projects I have been involved in so far were mainly focused on the refurbishment of existing buildings and infrastructure. Early in 2021, I was given the opportunity to design a trellis within an existing-internal courtyard for the project. The trellis will serve as a functional support system for climbers, such as *Clematis viticella*, while acting as a feature against the only solid



wall within the courtyard. I was also tasked with drafting a construction drawing set for the paving, planters and seating walls that will soon be constructed. Another project that I enjoyed was the Oudtshoorn Government Precinct Development Framework Proposal. This project dealt with Open-space strategic planning and design.

Figure 1 before and after render of intervention in internal courtyard



- (1) DHA, SASSA, DOEL, DALRRD
- (2) WAITING HALL
- (3) SAPS, DCS
- (4) COMMUNITY WORKS PROGRAMME
- (5) INFO CENTRE, ICT, ABLUTIONS
- (6) POTENTIAL DAY CARE CENTRE
- (7) RESIDENTIAL UNITS
- (8) COMMERCIAL SPACE



Figure 2 Site Development Concept plan

The Planning and Precinct Development unit approached the Landscape Architectural component of Architectural Services to assist with determining where and how client departments could be accommodated on site.

I was involved in the design component of the project, production of some infographics and imagery used in the framework report, as well as conducting research on the environmental legislation applicable for the site, under the guidance of a Professional Landscape Architect.

Through the research and studies conducted on the site, it was determined that the NEMA legislation would require a buffer area between the existing drainage line on site and the extents of building footprints on site.

At least 40% of the site was therefore recommended to remain natural and possibly be rehabilitated, as there were signs of soil erosion occurring adjacent to the drainage line on site. It promoted the re-use of existing systems and infrastructure, and integration of the built and natural landscape.

With each project, one discovers that there are opportunities to gain experience and exposure beyond the project scope. Although the Oudtshoorn project was only advisory, I learnt a great deal about the process of site acquisition, environmental legislation related to water courses, parking standards and guidelines, and general report-writing skills.

The Justice College project continues to expose me to the construction process, including project-contract administration, construction documentation, how to conduct myself professionally on site and in technical meetings with other consultants.

I feel privileged to be working in the public sector. I get to work on projects whose scope and scale vary from the refurbishment of a government institution to the future planning and proposals for conceptual frameworks in government precincts. I am also able to work on projects from work stage one up to stage six. This means that I get the necessary exposure required to build up an outstanding portfolio. Within the Department, I am given tools such as training, workshops, in-house projects and even opportunities for secondment if need be, in order to obtain professional registration.

The Department, through the HCI unit, gives Young Professionals like myself the opportunity to help the next generation of candidates, interns and students to learn more about the profession, assist them with registration and with general guidance in their journey. This is done through the Buddy Programme, which I became part of in 2021.

I am proud of taking on a project such as Justice College. It helped me to realise that I am working within a safe learning environment, which is very beneficial for my growth within the Department.



JAN-ADRIAAN VAN ROOYEN

My name is Jan-Adriaan van Rooyen, I am an Architect under the Architectural Services Unit based in the Department of Public Works and Infrastructure (DPWI) head office in Pretoria.

I joined DPWI in 2019. At the time I was one of the bursary holders studying towards a tertiary Degree. Upon graduating, I was offered employment as a professional architect within the Department. My highest qualification is a Master's degree in Architecture that I obtained at the University of Pretoria. I aim to study towards my Doctorate Degree in the coming 3-5 years.

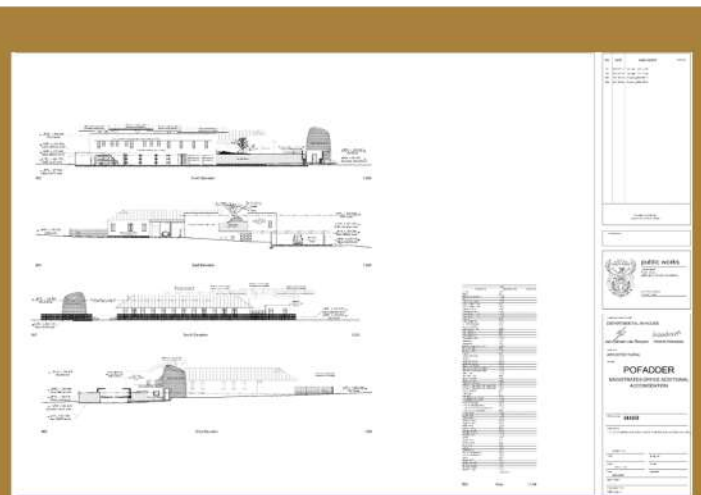
Within the Department I work as an in-house architect. Projects I have worked on mostly involves working on magistrate courts. The responsibilities range from designing the building in detail to managing the professional team and contractors to enable delivery of projects to the DPWI client departments.

My favorite project I have worked on is the Poffadder Magistrates Court. Here, I was involved in redesigning the additions to the Court to suite, not only the South African National Building Standards, but also align with the norms of the Department while creating an environmentally friendly design. This project entailed adding courtrooms to a heritage building that is to be treated with the needed care and respect. Keeping the new building fabric away from the existing fabric, without

losing functionality of the day-to-day use of the precinct, was definitely challenging, however the strategic planning and exercise of it, paid off.

Working with consultants and clients in a large organisation such as DPWI is challenging, yet also rewarding. The aspects of report writing and sending it to be approved by the relevant parties was a new and very refreshing skill to be added to my skills learned at university and other personal endeavors. Working on governmental projects is very rewarding also. Being able to work on projects that have historic value, which need to be conserved by creative and respectful design, gives one the opportunity to contribute to the continuum of architectural discourse in our country.

For the last twenty years or so, DPWI did not have in-house designers, as it was more of an admin department. However DPWI has lately realised the loss of time in teaching different consultants the necessary norms and regulations that need to be upheld by DPWI, and therefore the instatements of in-house professionals. I am proud to be part of the movement that brings back a more economical way of designing public sector buildings.



DPWI TAKES CONTROL OVER MAJOR CONSTRUCTION PROJECT IN SOSHANGUVE

By: Hope Motitimi And Andile Xulu

The Department of Public Works and Infrastructure (DPWI) has taken over the construction project of the Soshanguve Magistrate court. The existing Soshanguve Magistrate court is a two story building that covers 1552 m2 and has four courtrooms. The court that is currently being constructed, meters from the current one, is a three story building that covers 7008 m2, has eighteen holding cells and eight courtrooms.

The rebuilding of this court was initially given to an external contracting company that was to see through the entire project, however, due to unforeseen circumstances, the contracting company has since pulled out of the project. The construction of the court is still well underway. A typical construction project like this one will comprise of engineers (structural, civil, mechanical and electrical), quantity and land surveyors, project managers, and landscape architects.

On this project, the DPWI has provided Quantity Surveying as well as Structural and Civil engineering services from in-house consultants. "Taking on another engineer's concept, understanding their thought process, and implementing it into

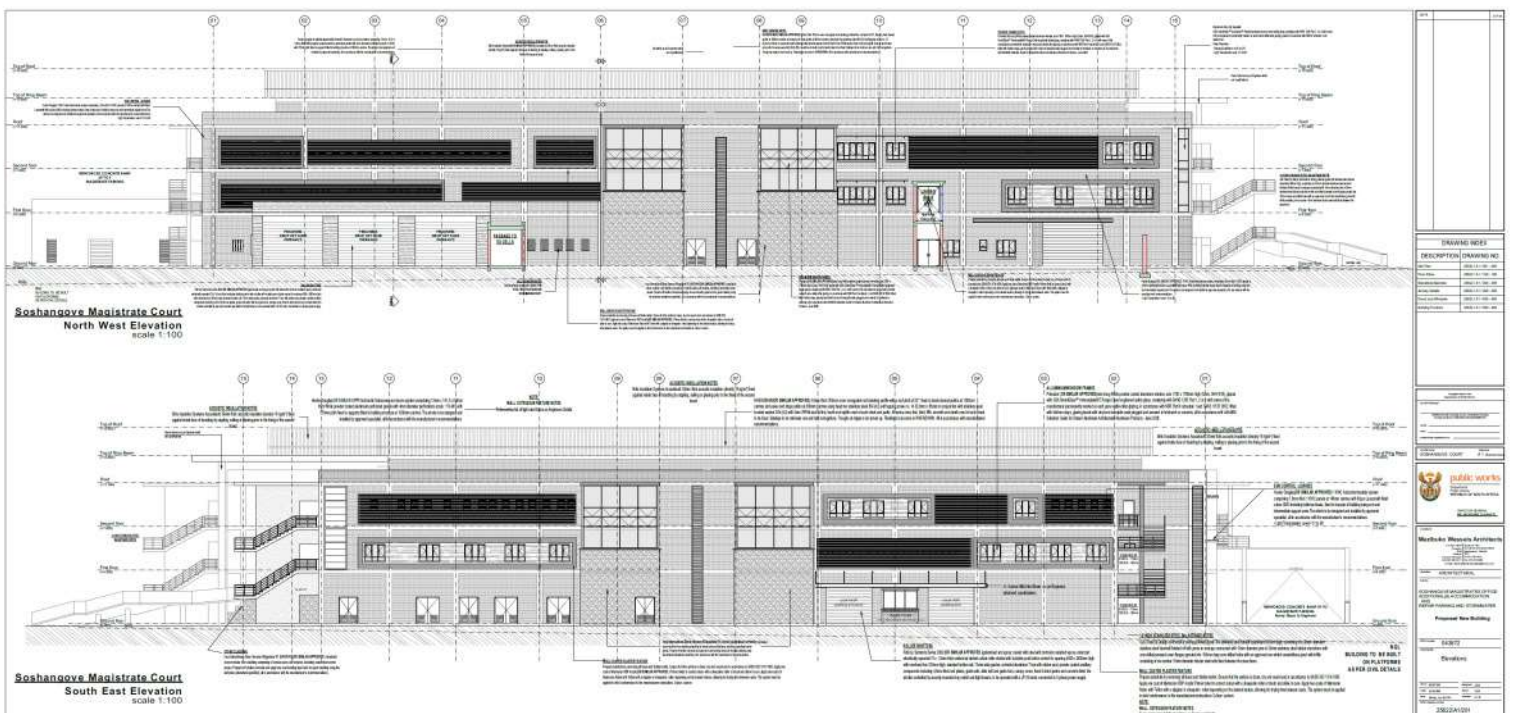
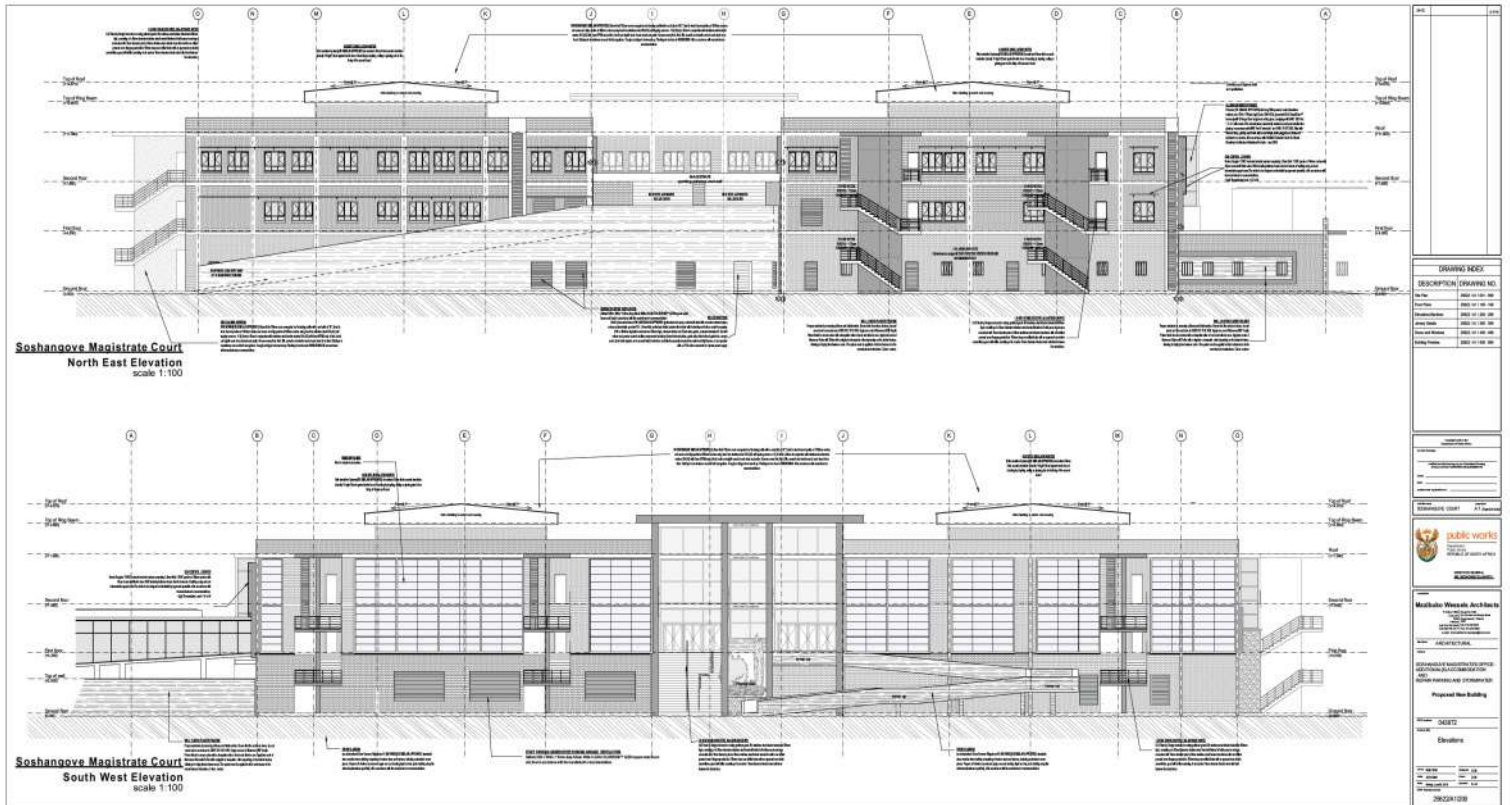
actual work has been the most difficult challenge for us. We were privy to the months devoted to comprehending this design and now we are always on our toes as we keep attempting to resolve specific challenges that we face when working with the design" says Babalwa Lekganyane, one of DPWI's in-house structural engineers that have taken over the construction of this project.

The takeover of this construction project by DPWI is not just to develop new structures like the Soshanguve Magistrate court, but to also provide learning opportunities for DPWI's in-house engineers. "In terms of progress work, I've learnt a lot. Seeing it grow from the ground up to what it is today undoubtedly presented challenges, but with each challenge comes a new learning curve" says Freddie Lots, one of the DPWI's Civil Engineers working on this project.

As it stands, 90% of the brickwork of the new magistrate court has been completed and the entire team is confident that the deadline to complete the construction of the court, which is set for May 2023, will be met.



THE SKETCH PLAN OF THE SOSHANGUVE MAGISTRATE COURT THAT IS CURRENTLY BEING CONSTRUCTED





LUNGA SITHOLE

My name is Lunga Sithole, an in-house Professional Landscape Architect, for the Department of Public Works and Infrastructure, based at Head Office. I joined the department in 2014, through the DPWI Bursary programme, during my second year while I was studying towards a Diploma in Landscape Technology, at the Cape Peninsula University of Technology.

The DPWI Bursary afforded me the opportunity to further my studies until I completed my Master's Degree in Landscape Architecture, in 2018, in the same university. Between the years 2013 to 2018, I have congregated for myself a Diploma in Landscape Technology, Bachelors of Technology (BTech) in Landscape Technology, both from the Cape Peninsula University of Technology. In 2018, I completed and received Master's Degree in Landscape Architecture from the University of Cape Town. From there I joined the Department through the Young Professionals Programme in 2019.

My duties within the department include;

- Management and coordination of projects.
- Drafting of Landscape Cost estimate & BOQ.
- Drafting Landscape architectural reports.
- Developing Landscape technical drawings, Site Development Plans (SDPs), etc.
- Drafting of Landscape Architectural Professional fee slips.
- Site surveys.
- Site meeting attendance and participation.
- Assist in the supervision of candidates.

Since working in the department, there are two projects I have worked on that have stood out for me. It would have to be the



Figure 1: Carolina Government Precinct 3d model

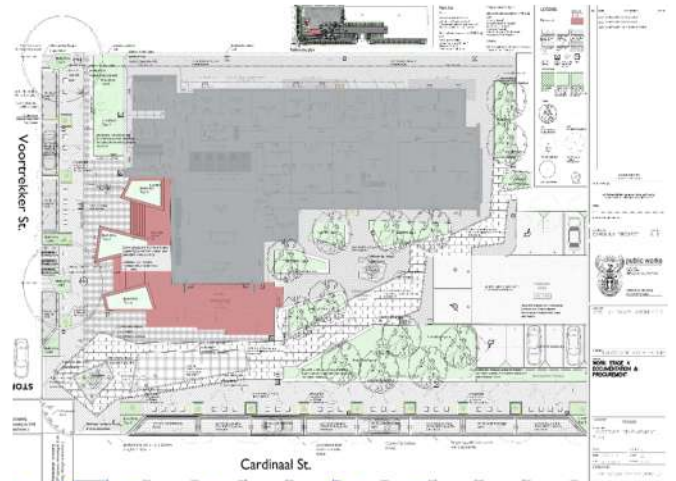


Figure 2: Carolina Department of Labour, Landscape Development Plan

Carolina Government Precinct: Phase 1 we did for the department of Labour and also, the refurbishment of the Mechanical Workshop in the Lebowagomo SAPS station.

Carolina Government Precinct: Phase 1, Carolina Department of Labour

This was a collaboration project with the Planning and Precinct Development (PPD) Unit. Architectural Services was involved in the assessment of the feasibility study and formed an integral part of the professional team, providing landscape architectural services as internal DPWI members and Consultants.

The brief for the specified project was concentrated on designing a precinct space meant to house three government department buildings. This project would be administered in a phased manner which would see the department of Labour building (located within the South-west end of the plot) being considered as phase 1 and the building at which I've provided an intensive landscape design around, cost estimate and external Landscape Architectural research.

The site was previously utilized as a truck stop with highly compacted soils, overgrowth and invasive shrubs and invasive Ash trees. An intensive rehabilitation program was proposed to ensure survival of any proposed soft landscaping.

Professional Landscape Architectural duty fees to date:
ZAR 491 881.14

Lebowakgomo South African Police Services (SAPS) Refurbishment

Another project also worthy of mention is the Lebowakgomo SAPS Refurbishment of Mechanical workshop. I was tasked to provide professional Landscape Architectural inputs to the project Landscaper and irrigation team, providing overarching Landscape Architectural report on current progress on site and advice on issues as to when they arose.

I learnt a lot from this project, from how to calculate landscape water demand, to how to design a water reticulation systems (with help from the civil engineers). On the project, I also learnt how to coordinate with project professional teams, how to conduct internal project meetings, to liaise with electrical consultant to formulate a context suitable for landscape lighting plan, and how to calculate and draft proposals for Landscape Architectural professional fees.

My proudest accomplishment since joining DPWI has to be obtaining my Professional Registration with SACLAP. Although, I'm also very proud of the contributions I have made within the department and the ones I continue to make daily. Knowing that you are working, first-hand on projects which helps communities within South Africa, makes putting in the extra hours a breeze.



Figure 8: Lebowakgomo SAPS, Southern exterior. Photo by: Lunga Sithole.2021



Figure 9: Lebowakgomo SAPS, Juncture between South & East exterior. Photo by: Lunga Sithole.



Figure 10: Lebowakgomo SAPS, Eastern exterior. Photo by: Lunga Sithole. 2021



Figure 11: Lebowakgomo SAPS, South vehicular entrance with feature Aloe Tree. Photo by: Lunga



Figure 12: Lebowakgomo SAPS, Planting feature tree. Photo by: Lunga Sithole, 2021Photo by: Lunga



Figure 3 : Carolina Department of Labour, Landscape Set-out Plan

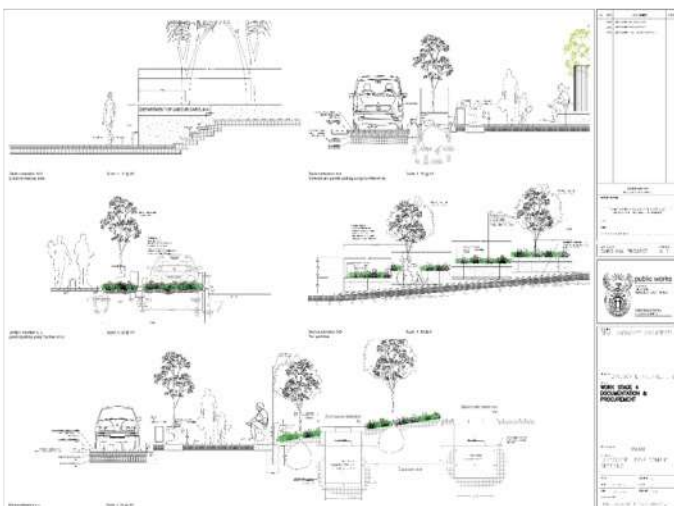


Figure 4 : Carolina Department of labour, Design sections



Nolwazi Mlambo

My name is Nolwazi Mlambo and I am a Candidate Landscape Architect for the National Department of Public Works and Infrastructure (DPWI) based at Head Office.

I completed my National Senior Certificate in 2014 at Suiderlig High School and in 2017, I completed a 3 year Bachelor of Science course in Landscape Architecture from the University of Pretoria. During my first year of study in Landscape Architecture, in 2015, I was awarded a bursary by DPWI that funded my studies until I completed my postgraduate degree.

After completing my first degree, I worked for DPWI for a year as Candidate Landscape Architectural Technologist. I re-joined the Department again in 2021 as a Candidate Landscape Architect through the Young Professionals Programme. I completed a 1 year Honours Degree in Landscape Architecture (BLArch Hons) at the University of Pretoria in 2019. Following which, in 2020, I completed a 1 year Master's Degree in Landscape Architecture (MLArch Prof), also at the University of Pretoria.

My short term career goal is to obtain professional registration with the South African Council of the Landscape Architectural Profession (SACLAP) by the end of 2023. As a Candidate Landscape Architect working towards professionalism, I work in projects of high, medium and low complexity and interact with large multi-disciplinary teams.

My responsibilities in the department include possessing proficiency in all aspects of professional practise and landscape architectural design, using basic skills in the area of environmental planning processes. Professional practise includes project and contract management, ethics, office management and administration.

I also work on;

- Landscape master planning,
- Landscape design,
- Working drawings and documentation for landscape installation and
- Cost estimation of the value of the landscape works and technical skills.

Furthermore, I am expected to be able to;

- Communicate with, co-ordinate and integrate large teams of other professionals.
- Practise Environmental management and rehabilitation (waste disposal sites, mine dumps, pipelines and roads),
- Do impact assessments and landscape character analysis.
- Have a thorough knowledge of legislation, regulations and policies as well as guidelines pertaining to landscape design and particularly environmental planning.

In the period of time that I have been in the department I've worked on various projects. One of my cherished projects thus far, is the Mafikeng Government Precinct Development project.

In this collaborative project, the Architectural Services Unit was requested by the Precinct and Planning Development Unit, to perform a desktop feasibility study on the proposed development site and provide a landscape architectural development framework proposal thereof.

In most cases, a Landscape Architect would be involved once a the development has reached the "project stage", that where I would typically provide services needed from the

However in this case, the project was still in high level planning and therefore I was exposed to the high level planning, where I could assist in developing a design framework. On this project I was able to brief and perform high level context analysis. I was also able to do micro-level site analysis, landscape water audit and demand, as well as, landscape schematic planning and zoning.

This project exposed me to multiple core competencies which I need to gain exposure on my journey towards professional registration. It exposed me to core competencies such as; professional practice, research and communication skills, landscape master planning/design framework, formulating a water demand table, high level cost estimates, environmental planning and management processes, environmental planning and impact assessment.

I feel honoured to be part of the DPWI Young Professional Programme. Being a Candidate Landscape Architect working in the public sector presents the opportunity for highlighting the importance of designed green public open spaces and green urban planning. Much of this is celebrated and valued in the private sector and I would love to play a role in raising awareness of this in the public sector and ensuring that government projects spearhead innovative people-based green spaces.

Having entered the department straight from varsity will very little prior work experience, in the short time that I have been in the department, I am most proud of how proficient I have become and the confidence I have gained in my skills.

I'm also proud of being involved in a project that has entered the construction stage, work stage 5. Not a lot of the project we work on reach this stage, so it is quite significant to be an integral part of the professional project team.

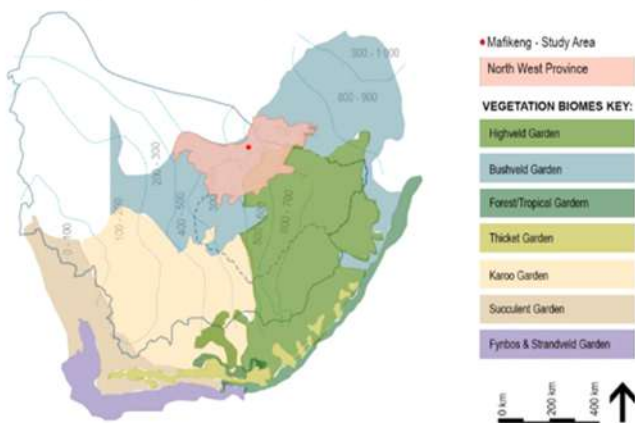


Figure 1: Illustration indicating the study area in the context with 7 Biomes of Southern Africa



Figure 2: Illustration of a contextual perspective showing the possible configuration of the proposed precinct development

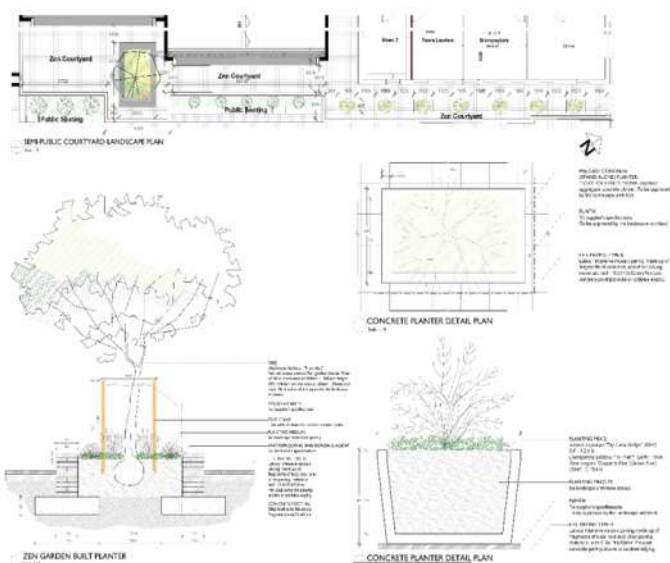


Figure 4: Illustration of courtyard tree planter details



Figure 3: Illustration of a project currently in work stage 5, construction stage.



APHELELE CENGIMBO

My name is Aphelele Cengimbo and I am currently working as an in-house Professional Landscape Architect under the Directorate: Architectural Services based at Head Office.

I am one of the Department of Public Works and Infrastructure's (DPWI's) young professionals who have obtained professional status through the Young Professionals Programme. It was in 2014, during my second year of studying Landscape Technology at the Cape Peninsula University of Technology, when I received the DPWI bursary. At the time, I had been recently rejected by National Student Financial Aid Scheme (NSFAS). It was indeed the hardest period of my academic experience. After completing my studies in 2018, I worked for a few months in the private sector. Thereafter, I joined the Department as a Candidate Landscape Architect early 2019.

In 2015, I graduated with a National Diploma and a Baccalaureus Technologiae (BTech) in Landscape Technology (Cum Laude) in 2016 from the Cape Peninsula University of Technology. In addition, in 2018 I obtained a Master's Degree in Landscape Architecture from the University of Cape Town.

In order to obtain professional registration, over and above my relevant qualifications, I had to acquire a minimum of two years' experience registered as a Candidate Landscape Architect with the South African Council for the Landscape Architectural Profession (SACLAP).

I believe that the future of any craftsman, a landscape architect, a designer or any specialist, relies on how they invest on their

craft/skills. I plan to continuously polishing my skills set, and be more involved in transformation of landscape architecture in South Africa.

When I wrote my motivation to SACLAP to be considered for professional, I argued that "Registering as a Professional Landscape Architect would be a substantial investment towards my craft. I believe it will positively influence my peers. I have to share my stories and experience with the black youth from where I came from with proof that they can also make it."

As an in-house Professional Landscape Architect, my responsibilities includes; Forming an integral part of the professional team for DPWI projects, which entails providing standard and additional landscape architectural services, from work stages one till six. I provide advisory services as a landscape architectural counter-part official. Advising on project administration, professional practice, design etc.

I assist in-house Project Managers and other department professionals with landscape architectural consultant's appointments, professional fees, and cost estimates. I relieve and assist Deputy Directors/ Chief Landscape Architects/ Mentors with; Guiding new candidates and interns with the departmental, industry and best-practice standards. Reviewing candidate's design work, technical reports, drafting of drawings for sketch plan approvals and construction. Attending and participating in developing risk registers on the unit's operations and logistics. I take on voluntary tasks within my unit and line departments, such as developing checklists for precinct development toolkit guidelines and the Sketch Plan Committee Manual.

In respect of design opportunities, scale and variety of scope of work, the following 2 projects were interesting to me.

Standerton Department of Labour, Mpumalanga:

Project overview;

The landscape development proposals are part of the old Telkom refurbishment and development project, which started early 2019. The site is situated in the CBD of Standerton, a large commercial and agricultural town. The landscape proposal took into consideration the relationship of the site to its surrounding. The site block is made up of civic facilities providing services to the public.

My involvement;

The NDPWI landscape architects were approached by the in-house architectural counterpart and the Project Principal Agent to be an integral part of the site development team. With supervision and mentorship from my mentor, I provided all landscape architectural services to the project. My tasks included a site visit for project inception, concept development, drafting of a set of design and construction drawings, as well as my current involvement in overseeing the construction of the proposal involvement in overseeing the construction of the proposal.

The proposal comprised of four types of spaces, each with a unique concept and function.

The spaces are as follows;

Public seating spaces;

These spaces are characterized and defined by built seating planters, sculptural bicycle racks and mosaic patterned paving. This space will function as a public seating area, serve as a waiting area (before the building opens) as well as a public space the rest of the day, contributing to the overall city streetscape.

Internal semi-public spaces;

These are internal spill-over spaces, promoting indoor-outdoor flow. The landscape will be characterized by a series of custom-designed concrete benches, as well as an integrated fabric of social sculpture (designed and built with the community) and mosaic patterned paving. The theme of these spaces is "Promoting use of local resources and labour."

Zen garden courtyard spaces;

This garden will be characterized by sculptural and feature bonsai trees and shrubs, boulders, and gravel/ exposed aggregate pavers as a floor finish. The visual aesthetic will be experienced through vistas or windows in the landscape.

Functional, staff and utility spaces;

These spaces are located adjacent to the kitchenette/ canteen, under covered terraces and an open shaded space under an adjacent building. Utility spaces are to be used by staff.

Lessons and challenges;

This is the first project where I was involved from project construction work stages one to five. Through this, I have learned a great deal about coordination, professional communication and project development proceedings. The overall design scheme recognised existing site materials. This helped me learn about use of local resources, civic infrastructure design and development. Most importantly, I have learnt a great deal about design coordination amongst involved professionals (in-house and private consultants).

Kunye Government Precinct, Johannesburg, Gauteng:

Project overview;

This landscape development proposal is part of collaborative work with the Planning and Precinct Development (PPD) unit. The government precinct is located in Johannesburg, a few blocks from the Gautrain station. The site extends include a number of state owned ervens, which will be consolidated into one precinct. The main erven, which is currently vacant, lies north of the precinct, accessible from Jutta Street. This street also provides access to the existing educational and residential facilities adjacent the site. Entrance to the basement parking for the existing buildings on site is also located along this street. There is currently no pedestrian movement or access to this building and will require innovative design to create a link with the proposed design.

The southern parts of the precinct consist of buildings currently utilised by the Department of Health: Medical Bureau for Occupational Diseases (MBOD). It was confirmed that the MBOD is a national function and that the building therefore is occupied by the National Department of Health. It therefore operates in a similar way as other social cluster clients, i.e. SASSA and DoE.

Design philosophy and methodology;

The vision for the site is to maximise the development potential on the site and provide permanent state owned office accommodation for departments currently accommodated in leases. The site's strategic location in close proximity to major transport infrastructure and the Johannesburg CBD makes it a very important site and optimal utilisation with the maximum development rights is recommended.

The proposal was based on a model that is highly influenced by types of spaces, function, and circulation/access and security measures thereof. The proposed model included the following spaces:

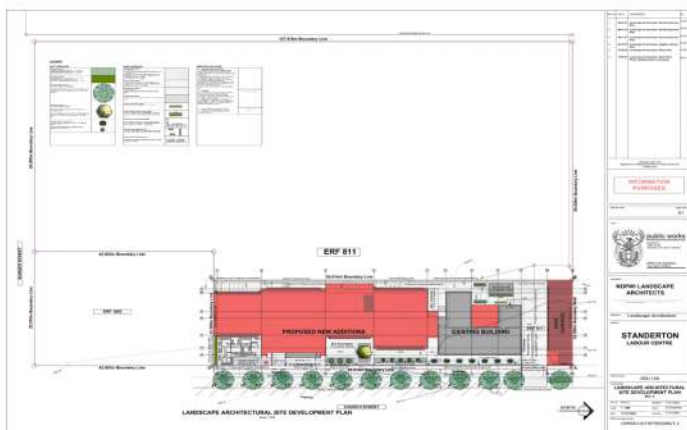


Figure 1: Landscape Architectural Site Development Plan, for Sketch plan (work stage 3) approval.

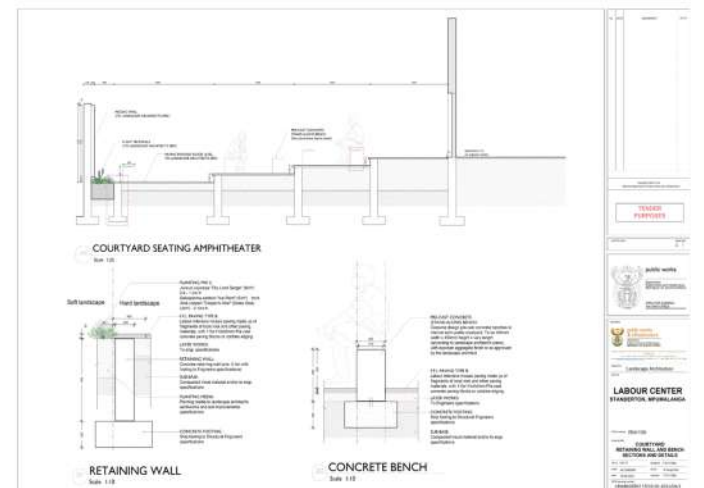


Figure 2: Standerton labour center sections

Public spaces;

Public open spaces are Level 1 spaces according to the space structure and security gradient. They constitute the streetscape (sidewalks and related spaces), entrance open amphitheatres, introduction courts, public squares, adjacent parks, etc. These are preamble spaces to the precinct and services. The public open spaces serve as waiting areas, staff as well as visitor's break away zones, ultimately forming part of the overall urban green-open space network and landscape infra-structure. These spaces form an interactive street level with the permeable building edge.

Semi-public spaces;

Semi-public spaces are Level 2 spaces according to the space structure and security gradient. This consists of open courts for informal meeting, outdoor waiting areas, spatial reliefs, open air exhibitions/ welcome/ information transfer events, etc. These are semi-preamble spaces and outdoor waiting spaces to the precinct. These spaces create the interactive connection between public spaces and the semi-private to private spaces.

Semi-private spaces;

Level 3 consists of semi-private spaces according to the space structure and security gradient system. This entails breakaway spaces for meetings, open air briefing sessions, open step-out balconies, poise areas, open air reading courts (associated with reading rooms/ libraries), and health and wellness courts amongst others.

These spaces will also be utilised as emergency assembly points for private spaces.

Private spaces;

These are Level 4 spaces according to the open space structure and security gradient system. This includes the open balconies, roof gardens, poise areas, green reliefs.

These spaces will be used for private purposes, by staff or visiting authorised personnel.

My involvement;

The NDPWI landscape architects were approached by the Planning and Precinct Development unit to provide Landscape Architectural input on the project. I provided all landscape architectural services to the project. My tasks included; Site

visits, a preliminary survey, and analysis, landscape development brief, need analysis and functional diagram, development framework and development high level cost estimate/budget.

Lessons and challenges;

Once again, this is one of my first projects working on a precinct scale development. I have learnt a lot about the work and information gathered and analysed before the project is approved.

What lessons have you gained from your favourite design/project, for your professional registration?

My mentor made sure that each and everything I work on is aligned with the industry's best practise standards; whether it's a report, a drawing or a site instruction. This enabled me to have a professional body of work, eligible to be submitted for professional registration assessment.

In the beginning of a landscape architect's candidacy period, it is very difficult to align work conducted here at the department with the core competencies expected by SACLAP. However, once one starts understanding the structure of the organisation and its line departments, it becomes very easy to align your work with the core competencies required to be met throughout one's candidacy.

How do you feel providing your professional skills to our country as a public sector landscape architect?

Working for the public sector is rewarding on so many levels. The one aspect which I appreciate the most is that I am involved in all aspects of my projects. As I mentioned above, I have worked in the private sector for a significant time. As a student or young professional in private sector you are basically a draftsman. You're lucky if you get to work on aspects such as professional fee proposals, budgets and essential client meeting and coordination. Here I am hands on from A-Z of my projects.



Figure 3: Diagram showing the landscape open space system-structure, privacy gradient and security measures

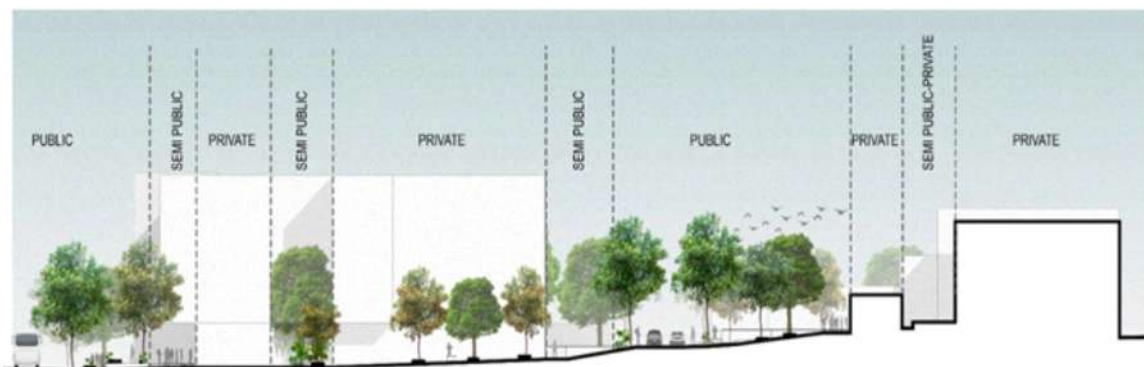
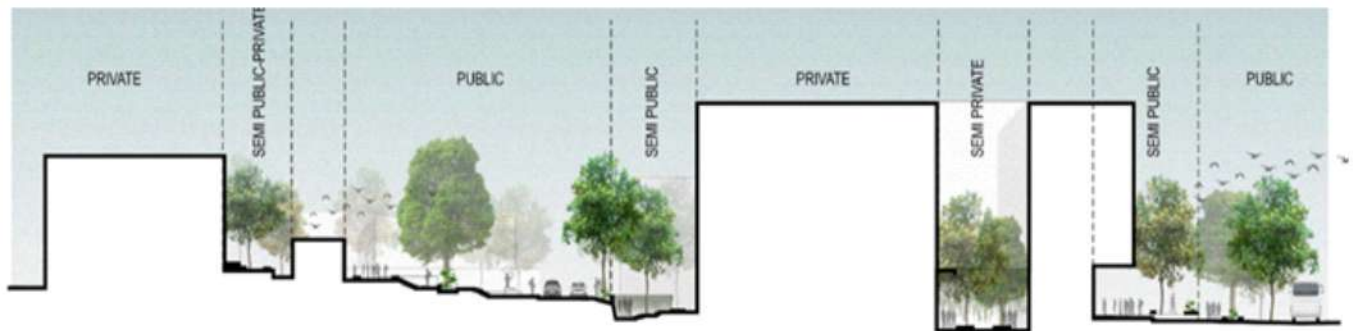
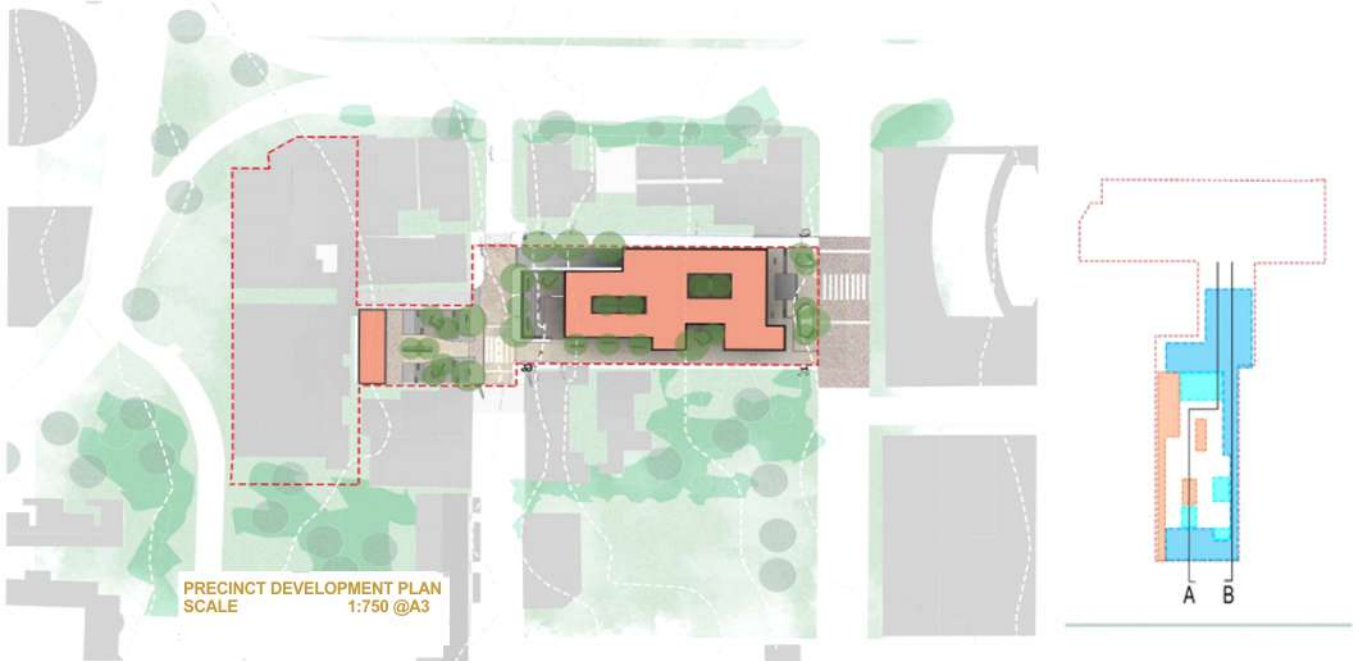
What accomplishment are you most proud of?

After working within the department for almost 2 years, I managed to put together a Portfolio of Evidence (which shows all the projects I have worked on and my responsibilities), accompanied with my complete Logbook (showing time spent on projects, education, professional development etc. during the candidacy period). As a result, I managed to register as a Professional Landscape Architect with SACLAP.

Above and beyond my involvement and tasks in professional services, I have also: Demonstrated interest in promoting the landscape architectural profession. I was nominated by the Department's

Human Capital Investment (HCI) unit as a 'Buddy Programme Member, to form an integral part of the bursary care support team, assisting bursary-holding students attending universities around South Africa. The programme provides support in academics, sourcing of study resources, professional presentation and communication skills, finances, practice and professional affiliation.

As a result of my interest in promoting the profession, I have also been nominated by the director of the Public Entities Unit (within the Department) to be considered as council member in the South African Council for Landscape Architectural Profession (SACLAP) committee, in the category of "state representative".





MSIZI MKHIZE

My name is Msizi Mkhize and I am a professional Architect in the Department of Public Works and Infrastructure (DPWI) based at Head Office, Pretoria.

I joined the department in 2012, when I was selected to be one of the DPWI Young Professionals Candidates. Before joining the department, I had studied and graduated with Bachelor of Technology (BTech) in Architecture from the Tshwane University of Technology, and my Masters of Architecture Degree from the University of Pretoria. After joining the department, I obtained a Master's degree in Public Policy and Leadership (MPP) from Yeungnam University in South Korea, this was on a government-to-government scholarship basis on behalf of the DPWI.

I have served in the department for 10 years both as candidate and professional. During this time, I have grown and developed. I have had opportunities to further my studies and register professionally. I have also received exposure in various projects, of various scope and complexity as a candidate.

As a professional architect my exposure has been limited, and my short-term goals are to gain more exposure as a project leader to execute medium to complex, local and international projects. My strengths in my field includes, the integration of technology to improve existing archaic systems, by interpreting policies to execute projects more efficiently.

As a registered professional architect in the Department my responsibilities include professional and technical advisory to client departments. Compiling of norms, policies and standards. Chairing of bid specification, adjudication and evaluation committees to deliver professional services to client departments, implementing agents and service providers. My duties also include mentorship of candidates and assisting the architectural services and other units in sketch plan committee processes.

The Architectural services Unit does not have a long history of doing In-House projects, historically the focus was the sketch plan committee, developing of norms and specifications to assist client departments with various accommodation needs. In 2018 I initiated the first in-house project. The Pofadder Magistrates Court became a fantastic opportunity to learn about both our capacity and limitations as well as the resources required to execute in-house projects successfully.

In-house projects can greatly assist the Department in small to medium repair, renovation and design projects, which otherwise stretch the resources and time of the Department if they must go through the Consultant appointment process. The lesson learned from the Pofadder Magistrates Court project; is the best way to expose and prepare candidates and professionals for much more complex projects in future.

When I joined the public sector, the appeal was to gain experience in large projects. The Department of Public Works and Infrastructure is a custodian of important immovable assets. These assets are a mix of public infrastructure, buildings and properties with heritage significance. It is always an honor to get an opportunity to work on buildings that improve the quality of life for the public and society at large.

My favorite project to have been a part of as Professional architect was the Gough Island project. This project has both historical and national significance. It is a weather station that has existed for more than 60 years, The DPWI's responsibility in this project over the years has been to maintain the facilities on behalf of the South African Weather Service and the Department of Environmental affairs and Fisheries.

Due to the remoteness of the site and environmental sensitivity of the site, the materials and construction methodologies have severely deteriorated and requires very sensitive and innovative approaches to protect the structural integrity of the building. I am truly excited about the possibility of working with various Departments in future to redesign and improve the functionality of the South African weather station.



The Department of Public Works and Infrastructure (DPWI) aims to now implement its preferred high-performance culture. Increased engagement, productivity and retention are all outcomes of a high-performance work culture.

The DPWI once again appeals to management including the entire staff to continue to participate in all processes that seek to transform the Departmental culture to a high performing culture. This new culture will also assist the organisation live up to its strategic goal, which is '*a resilient, ethical and capable organisation*'.

The culture change is part of an initiative that seeks to revitalise the Batho-Pele principles among DPWI staff, to ensure that the Department improves on its services.

Feedback & Questions should be forwarded to

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