



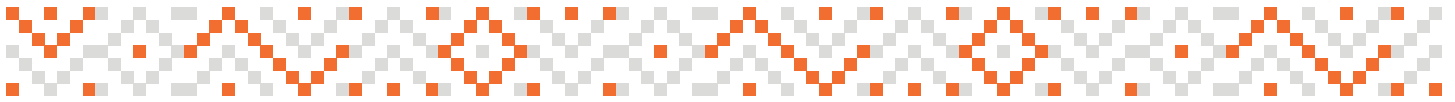
UNIVERSITY  
OF  
JOHANNESBURG

# 20/21

## ANNUAL REPORT



**The Future**  
Reimagined



# Facilities Management

The Facilities Management Division, the rebranded Operations Division, is a non-academic support division that offers services to faculties, academic support departments, students, staff and other stakeholders. It is tasked with maintaining all academic and support facilities as functional, accessible, prepared and safe. Activities include the development of new facilities, the maintenance and cleaning of buildings, infrastructure, installations, sports fields, gardens, and the extension and upgrading of infrastructure in accordance with clients' needs. The objective of support through Facilities Management is to enable improved teaching, learning, research, student life and the development of UJ according to its vision, through the fulfilment of the following six strategic objectives of the University:

- Excellence in research and innovation
- Excellence in teaching and learning
- International profile for global excellence and stature
- Enriching student-friendly learning and living experience
- National and global reputation management
- Fitness for global excellence and stature

The Facilities Management Division is divided into the following support departments:

- Campus Facilities Management (CFM)
- Central Technical Services (CTS)
- Property Management
- Occupational Health and Safety (OHS)
- Logistics

All departments have the joint aim of promoting UJ as a preferred academic institution of choice for students and staff, by rendering services to support and promote the core business of the University, in whatever form possible, and within the means of the staff and resources available to this Division. The overarching goal of this expansive support is to enable the overall drive for excellence at UJ.

During 2021, the challenge of the extended COVID-19 pandemic was again the overriding driving force. Facilities Management, being an on-campus support division, continued to be directly involved in maintaining those operations that are required by a university, irrespective of conditions and risks related to a pandemic. Campus maintenance and cleaning, project management and development, property management and



logistics staff were still required to continue providing the necessary services, notwithstanding the type or level of the lockdown that the broader society was experiencing. Other staff who had been working from home full time slowly started to transition, in mid-2021 to a partial on-site attendance mode of work. After 18 months of work from home, re-establishing an office work culture was not necessarily easy for staff used to home-schooling and minimal commuting. For the enthusiastic return to work UJ can only express its gratitude to the staff who displayed exceptional levels of loyalty and resilience. As a direct result, Facilities Management also spearheaded a review of the UJ Business Continuity Plan processes, to extend the normal building, equipment, technology, human resources and third-party (BETH3) continuity planning to include a risk review for extraordinary events that require a more adaptive, less tick-box, continuity planning approach.

## **SIGNIFICANT RISKS AND RISK MITIGATION DURING 2021**

\* The long-standing human resource capacity problem in the Central Technical Services (CTS), Property Management and Logistics areas is abating. A few key posts, e.g. the Facilities Management Maintenance Manager post, were filled in 2021. But in some departments, such as Property Management, the ratio of temporary to permanent staff is still too high – putting Facilities Management at risk of the loss of valuable institutional knowledge, should temporary posts be filled by outsiders when the posts are advertised and finally filled. The in-depth investigation into the structure of all departments in Facilities Management undertaken in late 2019 and reported on by 21st Century during 2020 and 2021 has now been approved for implementation. Facilities Management will be better structured for the changing environment with the Sustainability, Occupational Healthcare and Environment areas all better catered for in the new structure. The realignment of some departments in Facilities Management to reflect more modern professional groupings is also to be welcomed, and a change management process is being rolled out in 2022 to accommodate the inevitable teething problems during a structural adjustment.

- The Library Upgrade project – the lift required for People with Disabilities (PWD) in the DFC Library Coffee Shop – was funded and completed during 2021.
- Facilities Management now has completed a review process of all service-level agreements (SLAs), and as a result all existing SLAs are now in a planned continuous renewal programme. The post of maintenance manager, now filled, will result in a welcome improvement in planned and scheduled preventative maintenance on campuses for all facilities.
- During 2021, Facilities Management continued to work to resolve audit findings resulting from the 2018 and 2020 audit reviews. This resulted in the new, external 2021 Maintenance Audit Review, completed with only three significant audit findings and only a few minor concerns – a significant reduction from the previous audit. The Marsh Fire Protection Audit was also completed in late 2021, and with a score of more than 95%, UJ can be certain that, even though there may have been fire related incidents in 2021, these did not result in significant risks and only in minor asset impairments.
- The significant Backlog Maintenance Project is ongoing. Special emphasis was placed on this, especially at the residences, to eliminate some of the recurring backlog issues. This was made possible through additional UJ funding provided by the CFO in 2021. But funding has again become an unexpected problem since the expected DHET Infrastructure and Efficiency Grant for 2022-2024 has still not been approved for release of funds, and as a result, Facilities Management is already more than R100 million behind its planned infrastructure and residence backlog maintenance targets.
- Rezoning of newly acquired properties from residential or business to educational (for Media Park (recently rebranded as JBS Park), rezoning from special to education) is still proceeding slowly. During 2021, the final proposal for the development of the space between APK and APB Campus areas (a late addendum to the 2013 UJ Masterplan) was reviewed by the COO and Property Management and CTS and formally abandoned as unaffordable. The decision was re-iterated that the process for redevelopment of a new full Campus Master Plan should rather proceed. Further review of the total cost of ownership of individual free-standing properties has confirmed that the long-term cost and carbon impact of individual small unit ownership is unattractive, and as a result, the proposal made to and approved by the MEC was to consider the rationalisation of UJ property ownership during 2021. Because of COVID-19, the property market was so depressed that the decision to alienate small off-campus properties was put on hold – this will possibly be implemented in 2022.

- Town planning applications for SWC: Consent use and township establishment for the various properties that form the SWC Campus were eventually received and the consolidation of the various erven will now be completed in 2022. The town planning applications on DFC and APB for erf consolidation have also been lodged and are expected to be completed in 2022. Site development plans on SWC and DFC were lodged with the City during 2020/2021 for a variety of CTS managed projects, such as the fourth Soweto student residence, the new Science and Engineering Building, the Rescue and Simulation Centre on DFC and the upgrading of various venues on APB, but some approvals and certificates are still being awaited from the City.
- Student Centres: Management of outstanding debt, health audits and corporate governance controls of external tenants in the Student Centres became an area of major effort in 2021. To address the losses of tenants due to the closing of the campuses, even after the lifting of the severe Alert Levels 4 and 5 lockdown periods, a rental holiday was proclaimed, and for the remainder of 2021 rentals were again scaled based on an 'actual feet on campuses' metric. Property Management and UJ Finance have had a number of interactions with the goal of developing a new, equitable mechanism for awarding contracts to potential tenants in the Student Centres, but a first attempt to elicit new tenants using a tender based process met with little market enthusiasm. As a result of COVID-19 and reduced student numbers, 2021 saw a dramatic increase in the number of tenants making payment arrangements or attempting to on-sell existing leases.
- Overall occupational health and safety compliance remains just below 85% (2020: 85,5%; 2021: 84,94%) and while this is a very good compliance rating, there are small high-risk areas that need addressing. During 2021, this process slowed because of restricted access to the campuses by staff and students, resulting in almost no safety related training completed in 2021. During 2022, this compliance figure should improve substantially when Occupational Safety can again perform compliance testing and train staff in various compliance related areas.
- Storage of hazardous chemicals, which was not previously up to best practice levels at the laboratories on DFC, has been addressed, and this risk has been reduced dramatically. Ongoing compliance issues around hazardous gas and fume hoods were tracked more closely in 2021, and this resulted in a number of smaller compliance projects.
- Fire and escape doors at all residences remain an area of concern, given the number being vandalised by students. In residences such as Kopano, Habitat, Cornerstone and Oppierif, this was a matter of ongoing concern for Occupational Safety during 2021.
- Fire alarms have now been installed at 15 residences across all campuses in direct response to the changes in the DHET Norms and Standards for Residences. In 2022, this process will be extended to the remaining 10 residences that are not yet compliant with the DHET requirements – it should be noted that these are an extension of the National Building Regulations' requirements.
- The main fire pump room in the QK Building is presently not in operation due to faulty pumps and a fault on the electronic control panel. An order has been placed to replace the faulty equipment, but this is taking longer than expected, so that there is a residual fire risk in the QK Building.
- Because of the hard lockdown, risks around the intercampus bus service provider (StaBus) were highlighted as significant, but the bus service has performed better than expected in 2021 with slightly increased numbers of students being transported in the second half of 2021 in comparison to 2020.

## **STRATEGIC FOCUS AND TARGETS ACHIEVED IN 2021**

Owing to a further improvement in staff capacity during 2021, work load scheduling has been further restricted – but until the last posts are filled, the portfolio approach, which formed the basis of the restructuring discussion, will not be finally implemented. During 2021, there has been a clearer allocation of projects to the various project managers, and a more consistent use of external resources has seen a distinct improvement in project management reporting and performance. However, the continued issues around COVID-19 affecting work processes resulted in a disappointing performance in terms of project spending. Less than 80% of projected spending was achieved in 2021 – better than 2020 but not significantly so. Certain key initiatives still remain from 2020 to be achieved in 2022, specifically related to a new process of documenting 'wish

list' projects from various UJ internal departments – that now runs to more than 40 projects with a value in excess of R200 million – so that longer-term planning and prioritisation are now becoming a real liability to performance. Lastly, it is important to note that there is an increasing number of requests for Facilities Management to provide additional venues and office space for departments, as well as increased requests for environmental management and emergency power inputs.

### **Infrastructure Portfolio**

Space management activities align their support by providing information as to space use and for space planning purposes. The DHET Gazetted Space Norms and Standards with regard to the provision of student accommodation align with Strategic Objective Four. These relate to the various refurbishment projects undertaken from 2017 to 2020 (with some ongoing into 2021 due to the funding reallocation requested by DHET in 2020), to address the amount and standard of student accommodation. The application of the DHET Norms and Standards is also informing the development of new residences and office space – to the dismay of some clients who are pushing for above standard spaces.

### **Campus Master Planning Portfolio**

The appointment in early 2021 of a consulting team to start the development of the new Campus Master Plan was also impacted by the COVID-19 event but, notwithstanding the effort required to arrange all stakeholder engagements remotely, a first report was presented to the MEC of the first phase of the new Strategic Development Framework (SDF) (to replace the 2013 Campus Master Plan). The second phase will commence in 2022 and will result in the final SDF required to guide UJ spatial development for at least another decade. While awaiting the final SDF, projects such as the acquisition of the Media Park premises and other possible academic sites continued apace. For instance, the development of lecture venues in the basement of Media Park continued – this is to accommodate the move of the Johannesburg Business School and the Graduate School of Architecture, together with approximately 10 SARChI Chairs, into Media Park in early to mid-2022.

### **Student Residence Portfolio**

Since the commencement of the 2015 DHET Infrastructure Efficiency Grant (IEG) award for backlog maintenance of residences, a significant number of residence upgrade projects have been completed. Two residences were worked on in 2016, a further three were completed in 2017, four residences were completed in 2018 as part of Phase 3. Phase 4 was completed in 2019/2020, thereby completing the final stage of the present DHET IEG funding for student residence accommodation refurbishment. During these four phases, more than R100 million was spent on residence refurbishment. During 2020 and 2021, the fourth student residence on the Soweto Campus was started and has been completed. Design and redevelopment for the Robin Crest DFC residence refurbishment project were completed in 2020, funds obtained in 2021 and the contractor started work late in 2021 – with an estimated practical completion date of June 2022. This project will see a further R15 million spent on upgrading student accommodation.

### **Teaching Support Portfolio**

This portfolio has delivered a number of completed projects. It included projects that support the improvement of laboratory facilities, including the completion of the QK Building BEng Tech refurbishment to create additional lecture venues, and the APK and APB Library heating, ventilation and air conditioning (HVAC) projects. The portfolio also includes campus wayfinding projects – both normal signage and electronic wayfinding, the improvement of accommodation, participation in community projects and other initiatives that either create or improve the overall experience of staff, students and visitors at UJ.

### **Sustainability Portfolio**

The initial performance goals of the UJ sustainability projects have been achieved, and Facilities Management started in 2021 on a group of third phase solar PV projects that may total another 1.0Mwe installed – these encompass the Media Park building, the SWC fourth student residence, and a second project on the DFC Campus. Installation of these should be completed in 2022. This is part of a series of a further ten such projects

to reduce UJ peak load energy costs across all four campuses. By the completion of the project, more than 20% of UJ's total electrical energy consumption will be generated renewably. Through high efficiency equipment, such as reverse heat pumps and LED lighting, more than an additional 10% energy savings should also be achieved from 2022 onwards.

During 2020, a start was also made, together with the student transport bus support company, to investigate the use of electric buses. The company and UJ are ready to go out on tender for two electric buses (for use on the APK/APB/DFC route) and bus charging stations. During 2021, further residence geysers were converted to use either gas or be replaced with reverse heat pumps that are 70% less electricity intensive than electrical resistance heating for the same thermal effect. A tender for reducing lighting and thermal conditioning, using motion and thermal detection in lecture venues and other occasionally used spaces, was halted in 2020 due to funding constraints but will be revived in 2022. A full energy audit was commenced on the APB Campus as well as for the JBS Towers to determine what maximum savings would be possible in present sites, given system changes.

## **Occupational Health and Safety Support Portfolio**

Risks specifically addressed in 2021 include the QK pump room repairs completed, the emergency doors repaired at Ndlovukazi residence, non-return valve repaired in APK pump room, gas leak repaired at C Lab second floor, motherboard of fire panel replaced at South African Chef's Association (STH, APB), Magnolia hydrant system linked to PC board, retardant material installed at Ukhamba Building, main fire sounder repaired at the FADA Building, damaged fire doors at Robert Sobukwe and Bram Fisher replaced, at Funda UJabule School additional 9 kg fire extinguishers installed, fire detection and fire panel at Ukhamba Building repaired, damaged fire doors at Robert Sobukwe Bram Fisher repaired, escape doors at Oppierif, Cornerstone, and Magnolia repaired, gas lines at D Lab and at APK Student Centre and residences repaired, fire alarm deviations corrected at Kopano residence, exhaust fiberglass covers at APK pump room replaced, pumps replaced at JBS pump room, fire alarm at Con Cowen replaced, escape door at Kilimanjaro repaired, fire panel upgrade at Hector Petersen, new emergency escape door at Melrose Place linked to the fire panel, emergency doors at Cornerstone residence Block D and Block B repaired, major water leak on APB Campus repaired, C Lab fire panel repaired.

A total of 136 staff members were trained in health and safety matters, and 246 staff members in emergency procedures. In total, 14 health and safety representatives, 28 fire marshals and 29 first aiders were appointed, while 59 new staff members were inducted into emergency procedures. Nine fire related incidents were reported during 2021 (a reduction from 2020), and 23 injuries on duty were reported to the Compensation Commissioner.

OHS conducted two evacuation drills in 2021, conducted 13 health and safety reps meetings and 72 safety inspections, and undertook 22 surveys. In total, 245 students were trained in emergency procedures and 15 contractors were inducted into UJ safety related matters, with eight contravention notices issued to contractors for non-conformance with safety.

Total waste generated in 2021 was 1749.4T; total waste recycled was 895.0T (51,16%); and total hazardous waste generated was 22.85T (16.05T medical and chemical waste, 3.112T fluorescent tubes, and 12.506T fat waste). Total hazardous waste recycled was 14.68T (50,48%), consisting of fat waste, wet waste, printer cartridges and fluorescent tubes. All recycling targets were met in 2021, notwithstanding COVID-19.

As a result of the COVID-19 pandemic, the UJ COVID Coordinating Committee instructed Occupational Health and Safety to install 2 525 signs, 980 foot pedal operated sanitizers and 190 waste boxes. Similarly, as a result of the pandemic, a revised version of the standard UJ safety file documentation was produced and 155 contractors' safety files and a further 20 tenant safety files were approved. At this point in the pandemic, 52 specific risk assessments related to the virus have been completed.

## **Logistics Support Portfolio**

Logistics supported students, academics, support staff and visitors in line with the student/ UJ academic and general events calendar with a 48-hour response time, with transport bookings making use of the various

available resources, such as the car pool and the PWD vehicles. This was all undertaken during COVID-19 restrictions, with a total of six staff members testing positive for COVID-19 during 2021.

Logistics was affected more than most departments in 2021 through the extension of the COVID-19 pandemic. Student intercampus bus transport was restarted mid-2021 at a base level of five buses per day, and an agreement was reached with the service provider on a reduction in invoicing related to the fixed versus variable costs, leading to an overall savings of more than R7.4 million on the contract in 2021.

UJ Finance, together with Logistics, has considered the use of an Uber product that will allow certain UJ staff to use Uber drivers directly, utilising an application that will directly link to UJ Finance for approvals and cost recovery. This will reduce the load for certain types of vehicle requests in the future if it is finally implemented.

The further integration of Logistics transactions into Archibus has been actively investigated and in 2022 will lead to a move away from a paper-based request and provisioning system to a real-time app based system, fully integrated with Archibus.

## Notable achievements

- 44 projects with a value greater than R200 million were completed during 2021 – an increase from 2020 in project value for completed projects of approximately 33%.
- **Strategic projects completed during 2021**
  - Soweto fourth residence
  - New Science and Engineering Building Phase 1
  - 1400kWp photovoltaic energy generating systems
- **Notable priority projects completed during 2021**
  - Boiler replacements at APB Ndlovukazi, Kilimanjaro and Horizon
  - SWC Cleaning Refurbishments
  - Replacement of DFC Buxton Lift
  - Replacement of APB Horizon Residence lifts
  - Reinstatement of Ulwazi Road
  - SWC Ulwazi Residence Painting
  - DFC Chemical Science Lab (Nano Laboratory)
  - APK B1-B4 Lab waterproofing and painting
  - DFC lift extension
  - APB hospital flat roof waterproofing
  - Kodak boundary wall reinstatement
  - Off-campus residences – Impumulelo and Gloucester backup power
  - Replacement of compact fluorescent lighting with energy efficient LEDs and occupancy sensors
  - DFC Campus Gauta, Lesedi and Phumulani gas boiler replacement
  - APB FADA Fabrication Laboratory
  - PWD ramp at APK Auditorium
  - SWC acoustic sound problems
- **Strategic projects completed with a budget saving during 2021**
  - Shower doors at Cornerstone and Oppierif residences
  - Padda Dam Spillway Construction
  - DFC Chiropractic Offices
  - DFC Mechanical Engineering new flooring
  - APK Library third-floor space alteration
  - APK D Ring Level 4 space alteration
  - APB Substations 1, 3 and 5 low tension switchgear replacement
  - Replacement of Astro timber deck
  - APB FADA air conditioning units
  - Kopano residence refurbishment project (more than R3 million savings)
  - AVU facility job (more than R1.2 million savings)
  - Alterations to Chemistry Lab 3310-3313 on DFC for Applied Chemistry (more than R1.1 million savings)

No strategic projects experienced overspend during 2021 – although the FHS Rescue Simulation Centre development is late and likely only to be completed with a cost overrun.

- Significant projects in process for completion in 2022
  - FHS Rescue Simulation Centre on DFC
  - Phase 2 of the Science and Engineering Building on DFC
  - UJ Strategic Development Framework Project (replacement for Campus Master Plan)
  - Media Park lecture venues project

## **Maintenance Management Portfolio**

CTS manages the Service Desk and Archibus Maintenance Management System to improve the delivery of maintenance services to facilities and to maintain a comprehensive maintenance strategy. The Maintenance Service Desk uses the Archibus system to manage reactive on-demand maintenance and scheduled preventative maintenance. For on-demand maintenance, 26 989 requests were logged in 2021. CTS monitors the response by repair and maintenance staff on the campuses using a service-level performance score (SLPS). The score statistics of requests logged, processed, and closed were used to calculate the (SLPS) figures with the aim of achieving a target of 3.5 – in 2021, the average score was 3.37. For preventative maintenance, during 2021, Archibus was upgraded to the newest version allowing the University to access additional reports and view the status of the maintenance portfolio from anywhere at any time. A process was commenced to develop a real-time web-enabled direct request app – this was trialled successfully and is ready for launching in 2022. Also during 2021, campus preventative maintenance compliance averaged 84,58% in comparison to 2020 when an average compliance of 46,55% was achieved.

## **COMMUNITY SERVICE, STAKEHOLDER ENGAGEMENT, NATIONAL AND GLOBAL REPUTATION MANAGEMENT**

Facilities Management had fewer engagements with external stakeholders during 2021, as a result of the COVID-19 pandemic and the resulting lockdowns. Those that did take place included:

- City Power, to resolve billing discrepancies and to ensure compliance during construction projects.
- The CoJ Building Control Office, to resolve difficulties with respect to occupational certificates, plan submissions and site development plans.
- Continuous consultation with the Johannesburg Roads Agency (JRA), Johannesburg Development Agency (JDA) and Johannesburg Property Company (JPC), with regard to current and future development projects by both the COJ and UJ.
- Continuous liaison with ward councillors regarding the following: Community and City Council Projects, UJ Projects and their impact on community and surrounding environment, facilitation of collective projects and forums, e.g. improvement task teams, rejuvenation and refurbishment of wards, servitudes, street children, traffic intersections, DFC/APB surrounding projects, Egoli Gas development and corridors of freedom projects.
- International University COVID-19 project: the ED: Facilities Management was able to share UJ's experiences and achievements during the initial stages of the pandemic with the Universitas 21 university partners, as there was a worldwide rush to address student and staff concerns relating to campus access and viral risks.
- Johannesburg Water, with regard to connections and terminations and the need to address local water and sanitation issues around campuses – especially the stormwater and sewer problem in Katjiefiering Road on APB Campus.
- The Department of Higher Education and Training – two remote/virtual meetings about the 2022-2024 IEG 6 funding instrument and project performance.
- The Student Housing Initiative Programme (SHIP) team driving the development of student residences at all SA universities and TVETs. A continuous process of engagement with the SHIP team as well as with an international consultancy (Jones, La Salle and Lang LLC) was put in place to ensure that UJ supplied required information and assisted in all possible ways to create an advanced feasibility study that would allow accurate decisions with respect to student housing to be made for the coming few years.



In conclusion, 2021, the second year of the pandemic, was a year of further frustrations coupled with continued displays of resilience and achievements by the staff in all the Facilities Management portfolios. The ability of staff, while working from home and other spaces, to achieve significant targets that had been put in place without advance knowledge of the pandemic, was heartening and bodes well for Facilities Management at UJ in 2022.

A handwritten signature in black ink, consisting of a series of loops and strokes, positioned above the printed name.

**André Nel (Prof)**

Executive Director: Operations