



**POLICY ON
CAMPUSES MAINTENANCE AND PROCEDURE MANUAL**

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¹ Approval must be by the same structure that approved the initial policy.

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1. INTRODUCTION

The University of Johannesburg has an extended property portfolio. These assets are used in support of the University's core functions of teaching and learning, research, and community engagement. To support the University's core function, the institution requires facilities that meet its needs and that which create a distinctive environment that will enable staff and students to meet projected growth targets.

Campus maintenance management plays an important role in ensuring that limited maintenance and capital works resources are directed optimally to obtain the best possible outcome for the University. The Maintenance Policy and Procedure Manual provides guidance to guide the maintenance team in handling maintenance challenges. **This policy also adopts the National Immovable Asset Maintenance Management: Standards, Planning Guidelines, and Competency Framework are attached as Annexures.** Furthermore, this Policy takes cognisance of the extensive work done by the Built Care review of the UJ Institutional Backlog Maintenance report from 2014 – also attached as an Annexure.

By engaging in a strategic approach to maintenance, the physical assets of the university will be maintained and enhanced. At the same time, it addresses the risk of a reduction in services and future financial burdens that will occur because of the lack of maintenance or of developments that expose the University to increasing total cost of ownership of its assets.

This policy document handles the way campuses are to deal with planned maintenance, unplanned maintenance challenges, long term backlog maintenance issues (as part of their annual budget allocations), encouragement of staff to be proud of their tasks and working environment as a way of enhancing the staff and student experience of UJ campuses. It also details maintenance plans for lecture venues (2019 and onwards) and a 5-year planning perspective for Residences maintenance. When this 5-year plan is approved, it will result in a totally different view of UJ residences.

2. PURPOSE

The purpose of this policy is to provide the structure within which to strategically manage the maintenance and assist in managing optimisation of the life cycle of the University's assets in accordance with the business assets of the University and service delivery requirements. The key objectives of the policy are:

- *Assets must be maintained to perform at optimum levels during their life cycle, reducing disruptions and losses due to unplanned failure to a minimum.* The challenge within the institution, is that most of the facilities can only be maintained after hours, mostly during weekends and recess because of the level of facility use during academic periods. To address this different teams will assess all the facilities regularly to identify challenges and address it after hours and weekends.
- *Critical areas and risks are identified and managed.* All identified risks are immediately funded and dealt with. If these cannot be handled immediately specifically for budgetary

reasons, they are to be placed on the Operations and UJ's Risk Register and funding is to be provided in the following year.

- *Performance of assets is reviewed to suit core business service delivery and to ensure that assets are fit for purpose.* Facilities assessment is done on a regular basis, as campuses strive to ensure that UJ facilities are both fit for purpose and maintained in a condition that ensures that the core business for the institution continues.
- *The cost of maintaining assets over their life cycle is quantified.* This is to become an important part of planning and developing new facilities – the total life cost of ownership must drive design and implementation decisions rather than simple initial cost.
- *Information is gathered by assessments to assist future decision-making and budgeting.* The continuous assessment of facilities helps in addressing future budgeting (for these facilities). Reports which come out of these audits are discussed by all senior staff and plan on how to address challenges is developed.

3. MAINTENANCE SCOPE

The Facilities Maintenance Strategy and budget apply to UJ building assets and associated fixed plant and equipment. It includes building fabric and structure, civic works (roads, paved areas, fencing, etc.) and site services (water, gas, electricity, storm water drainage and sewerage).

4. MAINTENANCE PROCEDURES MANUAL

The Maintenance Division of the institution is responsible for managing the maintenance function in the most cost-effective manner possible while maximizing the useful life of institutional assets while striving to provide the best service to the end users. The following procedures establish the structure of an effective and efficient maintenance system:

4.1. Prioritisation of Work

The work priorities adopted by the Maintenance Division exemplify its philosophy of delivering excellence maintenance services to all clients. This priority system ensures that the most important maintenance work is done at a time it can be performed most cost-effectively. Minimizing vacancy and direct losses is part of the cost-effectiveness calculation. The maintenance priorities of this division are based on the following (not necessarily in this order):

- Emergency Repairs.
- Preventive Maintenance.
- On Demand Maintenance.
- Degree of Strategic Alignment.
- Critical to Business Processes.
- Compliance (OHS).
- Risk Mitigation.
- Cost.

Placing planned maintenance and vacancy preparation work ahead of resident work requests does not indicate that resident requests are unimportant. It emphasizes the importance of maintaining control of the maintenance work by performing scheduled routine and preventive work first. By doing so the division will decrease on-demand work and maintain the property.

4.2. Comprehensive Work Procedures

The Maintenance Manager will ensure that there are sufficient clear procedures in place to allow staff to implement this Maintenance Policy. All procedures will include the following:

- A statement of purpose.
- The job title(s) of the staff member(s) responsible for carrying out the activities in the procedure.
- Any forms needed to carry out the activities.
- The frequency of any specified activities.
- After their adoption, maintenance procedures will be reviewed and updated at least biannually.

4.3. Performance Standards and Goals

The Maintenance Manager will establish measures that will allow the effectiveness of maintenance systems and activities to be evaluated. In establishing these standards, the Maintenance Division will take into consideration certain factors:

- All Building/Facilities and Fire Safety (Occupational Safety).
- Buildings' Physical Condition.
- Maintenance Division job descriptions.
- Check that all fire extinguishers are serviced by Occupational Safety.
- Ensure weekly inspection of all pump houses.
- Ensure monthly testing of all equipment inside the pump house.
- The implementation of service level agreements and/or contracts that make provision for warranties and liabilities on services to be rendered.

Nothing in the documents listed above will prevent the Maintenance Division from setting a standard that is higher than that contained in the documents. These standards and goals will be used to evaluate current operations and performance and to develop strategies to improve performance and meet the standards that have been set.

In terms of building standards used to determine the occupancy readiness of any building the SA National Building standards and the City of Johannesburg Building standards for occupancy will apply and be used to determine maintenance effectiveness.

4.4. Work Order System

The Maintenance Division shall have a comprehensive work order computerised maintenance management system including a data base that keeps records of all work request information: source of work, description of work, priority, cost to complete (in future), days to complete, and hours to

perform. This information is required for the division to plan for the delivery of maintenance services as well as evaluate performance. To obtain the greatest effectiveness from the work order system, all work requests and activities performed by maintenance staff must be recorded on work orders.

Work orders will contain, at a minimum, the following information:

- Preprinted work request and job card numbers.
- Category (planned, inspection, resident, etc.).
- Requester's information (location and contact details).
- Priority assigned.
- Location of work (Campus, building, etc.).
- Date and time received.
- Date and time assigned.
- Worker(s) assigned.
- Description of work requested (with task number).
- Description of work performed (with task number).
- Estimated and actual time to complete (in future).
- Materials used to complete work (in future).
- Requesters charge account (in future, if applicable).

When items listed in Annexure B are replaced, the old item that was removed must be returned to the store.

4.5. Skills Updates and Training

To allow its staff members to perform to the best of their abilities, the Maintenance Division recognizes the importance of providing the staff with opportunities to refine technical skills, increase and expand craft skills, and learn new procedures. Each employee must participate in training annually.

Suggested training subjects may include (but not limited to)

- Safety Procedures.
- Trades training.
- Health and Safety Standards.
- Trade specific skills updates.
- Building Code updates.

The Maintenance Manager is responsible for developing a training agenda/curriculum for the departmental staff and working with personnel department staff to identify the means of delivering the training.

4.6. Long term Planning

The Maintenance Division will put in place and maintain a long-range maintenance planning capability to ensure the most cost-effective use of the division resources and the maximum useful

life of the institution's properties.

The Maintenance Manager will develop a property-specific long-range planning process that includes the following components:

- A property maintenance standard.
- An estimate of the work required to bring the property to the maintenance standard.
- An estimate of the work required to keep the property at the maintenance standard including routine and preventive maintenance workloads, vacant unit turn-around, inspection requirements and resident on-demand work.
- An estimate of the on-going cost of operating the property at the maintenance standard.
- A market analysis of the property to determine if there are any capital improvements needed to make the property more competitive.
- A cost estimate to provide the specified capital improvements.
- A revised work plan and cost estimate for maintaining property at an improved standard.

By developing a work plan, the division will be able to anticipate its staff, equipment and materials needs. It will also be possible to determine the need for contracting services.

4.7. Maintaining the Property

All maintenance work performed at the Maintenance Division for the institution's properties can be categorized by the source of the work. Each piece of work originates from a particular source -- an emergency, the routine maintenance schedule, the preventive maintenance schedule, a unit inspection, a unit turnover, or a resident request.

4.8. Responding to Emergencies

Emergencies are the highest priority source of work. The Maintenance Division will consider a work item to be an emergency if the following occur:

- The situation constitutes a serious threat to the life, safety or health of building residents or staff and students in general.
- The situation constitutes a serious threat to the public.
- The situation, if not addressed within a very short period, will cause serious damage to the property's structure or other institutional assets.
- Situation that will affect the continuation of business of the organisation.

If a staff member is unsure whether a situation is an emergency, he or she will consult with his or her supervisor. If a supervisor is not available, the employee will use his or her best judgment to make the decision but will communicate the emergency and the decision to his supervisor at the first reasonable opportunity.

For emergencies that occur after regular working hours, the Maintenance Division shall have a twenty-four (24) emergency response system in place. This response system includes the designation of a maintenance employee in charge for each day as well as a list of qualified pre-approved contractors, open purchase orders for obtaining required supplies or equipment, and

access to division materials and supplies. The designated employee shall prepare a work order and report on any emergency within twenty-four hours after abatement of the emergency.

4.9. Prepare Vacant Units for Re-occupancy

It is the responsibility of the Maintenance Division to ensure any building used by staff or students or the public as visitors to the institution meets the relevant building standards (see paragraph 4.3) before it may be re-occupied. This policy allows the Maintenance Division to maximize the income produced by its properties and operate attractive and safe properties.

The Maintenance Manager is responsible for developing and implementing a system that ensures an average turn-around time of seven (7) calendar days for normal maintenance tasks. To do so, he or she must have a system that can perform the following tasks:

- Forecast unit preparation needs based on prior years' experience.
- Estimate both the number of units to be prepared and the number of hours it will take to prepare them.
- Control work assignments to ensure prompt completion.

The maintenance procedure for reoccupying vacant units relies on the prompt notification by management of the vacancy, fast and accurate inspection of the unit, ready availability of workers and materials, and good communication with those responsible for the unit. The Maintenance Manager will have the ability to create special teams for vacancy turnaround or to hire contractors when that is required to maintain the division goals.

4.10. On-Demand Maintenance

On-demand maintenance in the context of the University of Johannesburg refers to work requests logged via the maintenance call center. Archibus is used as the Computerized Maintenance Management System (CMMS) for logging and managing the work requests from creation until they are closed. Service desk agents that are trained in Archibus building operations module as well as the basic Call Centre skills facilitate the on-demand maintenance. Upon receipt of a call, the work request is logged and issued or forwarded to the respective work team for execution.

The response time. The response time from logging the call to attending to the problem is 48 hours (except emergencies), if the work cannot be done within 48 hours the job card is signed by supervisor with notes and updated in the system. The update should be done before the first 48 hours elapses and must indicate the new promise date.

Work rating. On each job card there is space for the client to either rate the work Poor, Acceptable or Excellent. The service desk agent may at random call the client to confirm the rating before closing the request.

Performance scoring. There is a performance score that is calculated by the system based on the time taken to close the work request and the work rating. The score is calculated out of 5. Work requests not closed after 48 hours if they were not put on hold with a future promise date are penalized, this is already factored into the score.

4.11. Preventive Maintenance Program

Preventive maintenance is part of the planned or scheduled maintenance program of the Maintenance Division. The purpose of the scheduled maintenance program is to allow the division to anticipate maintenance requirements and make sure the division can address them in the most cost-effective manner. The preventive maintenance program focuses on the major systems that keep the properties operating. These systems include heating and air conditioning, electrical, life safety and plumbing. A list of critical assets has been compiled per campus and can be access at each maintenance manager. This list will be updated on a regular basis. The update will include the information about the suppliers and lead time to replace the assets.

4.12. General Operating Systems

The heart of any preventive maintenance program is a schedule that calls for the regular servicing of all systems. The development of this schedule begins with the identification of each system or item that must be checked and serviced, the date it must be serviced, and the individual responsible for the work. The servicing intervals and tasks for each system must be included in the schedule. The completion of all required tasks is considered a high priority for the Maintenance Division.

The systems covered by the preventive maintenance program include but are not limited to:

- Catch basins/Storm Drainage
- Compactors
- Condensation pumps
- Emergency lighting
- Exhaust fans
- Lights
- Life safety systems
- Mechanical equipment and vehicles
- Sanitary drains
- HVAC systems
- Domestic water
- Electrical switching equipment as part of the HT and LT circuits

A specific program will be developed for each system. This program shall include a list of the scheduled service maintenance for each system and the frequency and interval at which that service must be performed. The equipment and materials required to perform the service will be listed as well so that they will be on hand when needed. As assessment of the skills or licensing needed to perform the tasks will also be made to determine if an outside contractor must be used to perform the work. The preventive maintenance schedule must be updated each time a system is added, updated, or replaced.

4.13. Roof Repairs/ Replacement

Maintenance of roofs requires regular inspections by knowledgeable personnel to ensure that there is no unauthorized access to roof surfaces and that there is good drainage, clear gutters, and prompt

discovery of any deficiencies. The Maintenance Manager is responsible for the development of a roof maintenance plan that includes these features:

- The type, area, and age of roof.
- Warranties and/or guarantees in effect.
- Company that installed the roof.
- Expected useful life of roof.
- History of maintenance and repair.
- Inspection schedule.

The maintenance staff will usually undertake only minor roof repairs. Therefore, there should be a list of approved roofing contractors to take on more serious problems for roofs no longer under warranty.

4.14. Lead-Based Paint

Lead-based paint is not allowed to be used within the university.

4.15. Inspection Program

The Maintenance Division's goals of efficiency and cost-effectiveness are achieved through insuring that our stock is maintained in a manner that is decent, safe, and sanitary and in good repair. This program calls for the utilization of the following standards:

- Uniform Physical Condition Standard (UPCS) in the Public Housing Program
- Housing Quality Standards (HQS)
- Local/Housing and Fire Safety Codes

In any case where there is a conflict between two or more standards the more restrictive of the standards will be applied – but in all cases the minimum requirement is that the SA National Building standards are applied.

The inspection will encompass the following areas:

- Housing Units/Residences
- Building Exteriors
- Building Systems
- Common Areas
- Site (Grounds)
- Health and Safety

The Maintenance Manager and/or the Supervisor will always know the condition of each unit. The achievement of these goals may require more than the minimum annual HUD required inspection. The Services Supervisor is responsible for developing a unit inspection program that schedules inspections at the frequency required.

For all non-emergency inspections, the Resident shall be given at least two (2) days' written notice of the inspection. The Housing Inspection staff shall normally perform the unit inspection program of the Maintenance Division. Unless it is determined that the inspection program is contracted to an outside source.

During each inspection, the staff shall perform specified preventive and routine maintenance tasks. Any other work items noted at the time of the inspection will be documented on the Maintenance Division inspection form. All uncompleted work items shall be converted to a work order within twenty-four hours of the completion of the inspection.

All Technical Services Staff are responsible for monitoring the condition of facilities. Whenever a facilities inspection/assessment and/or Maintenance staff member enters a space for any purpose, such as completing a resident request for service or accompanying a contractor, he or she shall record on an inspection form any required work he or she sees while in the apartment. These work items shall also be converted to a service request within twenty-four hours of discovery.

Nothing in this policy shall prevent any Maintenance Division staff member from reporting any needed work that they see in the regular course of their daily activities. Such work items shall be reported to the site manager of the appropriate property.

Uniform Physical Condition Standard Basic Inspection Items

<u>Dwelling Unit</u>	<u>Building System</u>	<u>Building Exterior</u>	<u>Property Site</u>	<u>Common Area</u>
Bathroom Patio/Porches/Balcony Call for Aid Ceiling Stairs Doors Walls Electrical System Windows Floors Hot Water Heater HVAC System Lighting Outlets/Switches	Domestic Water Electrical System Elevators Emergency Power Exhaust System HVAC Sanitary System	Doors Foundations Lighting Roofs Walls Windows	Fences and Retaining Walls Grounds Lighting Mailboxes Project Signs Market Appeal Parking Lots Driveways Roads Play areas and Equipment Refuse Disposal Storm Drainage Walkways and Steps	Basement Garage Carport Storage Office Laundry Room Closed Utility Mechanical Trash Collection Areas Other community Space Lobby Community Room Patio Porch Balcony Day Care Pools & Related Structures Halls Corridors Stairs Restrooms Pool Structure Kitchen

4.16. Scheduled Routine Maintenance

The Maintenance Division includes in this work category all tasks that can be anticipated and put on a regular timetable for completion. Most of these routine tasks are those that contribute to the curb appeal and marketability of the property.

4.17. Building Exteriors and Interior Common Areas

The appearance of the outside of buildings as well as their interior common areas is important. Therefore, the Maintenance Division has established a routine maintenance schedule to ensure that they are always maintained in good condition. The components to be maintained include:

- Lobbies
- Hallways and stairwells
- Public restrooms
- Lighting fixtures
- All Common rooms and community spaces
- Exterior porches and railings
- Building walls
- Windows
- Study areas
- Lounges and TV rooms

The Maintenance Manager is responsible for the development of a routine maintenance schedule for building exterior and interior common areas. The schedule shall be based on the following:

- A clearly articulated standard of appearance for the building.
- A list of tasks required to maintain that standard.
- The frequency with which the tasks must be performed.
- A list of materials, equipment and supplies required to perform the tasks.

4.18. Interior Painting

The appearance and condition of the paint within each unit is important to unit condition and resident satisfaction. Accordingly, the Maintenance Division will develop a plan to ensure that interior paint in resident dwelling units is satisfactorily maintained. As part of this plan painting standards will be developed that include:

- Surface preparation.
- Protection of non-painted surfaces.
- Color and finish.
- Paint quality.
- Methods of application approved.

The plan will set out the conditions for the consideration of a painting request. These standards include the period that has elapsed since the last time the unit was painted. Alternatives for performance of the work will be included, including the conditions under which a resident will be allowed to paint his or her own unit.

4.19. Residences, Lecture Venues, Libraries and On-Demand Services

This category of work refers to all resident generated work requests that fall into no other category. These are non-emergency calls made by residents seeking maintenance service. These requests for service cannot be planned or responded to before the resident calls.

It is the responsibility of the Maintenance Division to complete requested, planned work and preventative maintenance work requests within 48 hours or seven (7) days. However, unless the request is an emergency or entails work that compromises the habitability of the unit, these requests will not be given priority above scheduled routine and preventive maintenance. By following this procedure, the Maintenance Division believes it can achieve both good resident service and a maintenance system that completes the most important work first and in the most cost-effective manner.

4.20. Contracting for Services

The Residences and all other facilities will contract for maintenance services when it is in the best interests of the residence, for example to do so. When the employees of the institution have the time and skills to perform the work at hand, they will be the first choice to perform a given task. When the employees have the skills to do the work required, but there is more work than there is time available to complete it, the Maintenance Division will determine whether it is more cost effective to use a contractor to complete the work. If the Maintenance staff do not have the skills to complete the work, a contractor will be chosen. In the last instance, the Maintenance Division will decide whether it will be cost effective to train a staff member to complete the work.

Once the decision has been made to hire a contractor, the process set out in the in this Policy will be used. These procedures vary depending on the expected rand amount of the contract. The Maintenance Manager will work with the Campus Director to facilitate the contract award through Procurement. The Campus Director will be responsible for the contribution of the Maintenance Department to this process. The most important aspect of the bid documents will be the specifications or statement of work. The clearer the specifications the easier it will be for the Maintenance Division to get the work product it requires.

When outside service providers are appointed to do work on a campus, the service provider must report to get a work permit (Annexure C) from the maintenance manager before commencement of the work.

APPROVED BY THE MANAGEMENT EXECUTIVE COMMITTEE ON
6 FEBRUARY 2019

Amended: 18 April 2023

ANNEXURE A

SYSTEM/COMPONENT CHECKLIST

TYPE OF SYSTEM/COMPONENT INSPECTED

- Catch basins/Storm Drainage
- Compactors
- Condensation pumps
- Emergency lighting
- Exhaust fans
- Exterior lights
- Mechanical equipment
- Sanitary drains
- HVAC systems

- Domestic water
- Roof/Building Exterior
- Power Tool
- Fire alarms and fire alarm systems
- Fire extinguishers
- Fire hoses
- Emergency generators
- Emergency lighting
- Sprinkler systems
- Other _____

Person making observation:

Date and Time of Observation:

Location of Component:

Description of Component Inspected:

Description of Defect or Issue:

Recommended Corrective Action:

When date and time corrective action taken and completed

ANNEXURE B

LIST OF RETURNABLE ITEMS

1 . ELECTRICAL

- a) Circuit breakers
- b) Isolators
- c) Plugs
- d) Switches
- e) LED bulbs
- f) LED floodlights
- g) LED spotlights
- h) Light fittings

2 AIRCONDITIONING

- a) Control pads
- b) Compressors
- c) Isolators

3 PLUMBING

- a) Flush masters
- b) Taps
- c) Mixers
- d) Geysers
- e) Toilet seat
- f) Shower head
- g) Hydroboils

4 CARPENTRY

- a) Doors
- b) Locks
- c) Handles

Permit to Start Work – Maintenance / Construction

Task: Maintenance/Construction:	
UJ Purchase Order (PO) Number:	
Name of contractor personnel in charge:	
Number of contractor personnel on site:	
Exact Area/Location:	
Work Description:	
Start Date:	
Completion Date:	

Permit Issue (Permit Controller)

The contractor is hereby granted a permit to commence with maintenance/construction work at the above-mentioned area/location. The contractor must comply with the following conditions:

- Ensure that the workmanship is excellent.
- Ensure strict compliance with the Occupational Health and Safety Act and Procedures.
- Ensure delivery/completion of the work as per the PO and within the set timeframes.
- Ensure excellent customer satisfaction/service.
- Clear the site and remove rubble on completion of the work, where applicable.

Permit Controller	Signature	Date	Time

Permit Acceptance (Contractor)

I understand the work that is to be carried out and the safety precautions that are necessary to complete the work safely as confirmed by the approved Safety File. If conditions are such that the work cannot be executed safely, it is my responsibility to stop work immediately and notify the person who authorised this permit to work.

Contractor	Signature	Date	Time

Permit Cancellation (Permit Controller)

This permit is cancelled. The work is / is not complete.

Comments (*if work is not complete*):

Permit Controller	Signature	Date	Time

Permit Continuation (Permit Controller)

I hereby authorise that the contractor may continue to execute the approved scope of work in line with the PO and above conditions.

Permit Controller	Signature	Date	Time