

# QUICK REFERENCE GUIDE TO THE: GUIDELINES FOR GENERAL UPKEEP AND MAINTENANCE OF EDUCATION FACILITIES



**basic education**

Department:  
Basic Education  
REPUBLIC OF SOUTH AFRICA





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UPKEEP AND MAINTENANCE OF  
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## Table of Contents

<b>PREAMBLE .....</b>	<b>5</b>
<b>1. THE NEED .....</b>	<b>6</b>
<b>2. PRIMARY OBJECTIVES OF GU&amp;M GUIDELINES .....</b>	<b>6</b>
<b>3. SCOPE OF APPLICABILITY AND EXCLUSIONS .....</b>	<b>7</b>
3.1 Scope of Applicability .....	7
3.2 Exclusions .....	7
<b>4. GUIDING PRINCIPLES FOR UNDERTAKING GU&amp;M INTERVENTIONS .....</b>	<b>8</b>
4.1 Guiding Principles for Planners of GU&M Activities .....	8
4.2 Key Success Factors .....	8
<b>5. ROLES AND RESPONSIBILITIES .....</b>	<b>10</b>
5.1 General Roles and Responsibilities .....	10
5.2 Procurement of GU&M Goods and Services .....	22
<b>6. ASSET LIFECYCLE AND GU&amp;M ACTIVITIES .....</b>	<b>24</b>
<b>7. FORMS OF GENERAL UPKEEP AND MAINTENANCE FOR THE .. BASIC EDUCATION SECTOR .....</b>	<b>27</b>

<b>8.</b>	<b>GENERAL UPKEEP AND MAINTENANCE INTERVENTIONS.....</b>	<b>30</b>
8.1	Corrective Maintenance: General Upkeep, Minor Repairs and Minor Replacements .....	30
8.2	Corrective Maintenance: Major Repairs and Major Replacements 34	
8.3	Preventative Maintenance .....	36
<b>9.</b>	<b>MANAGEMENT OF ASBESTOS-BUILT STRUCTURES .....</b>	<b>38</b>
9.1	Key Notes .....	38
9.2	Management of Asbestos-built Structures and ACMCs .....	39
<b>10.</b>	<b>EDUCATION SERVICES ON PRIVATE PROPERTIES .....</b>	<b>45</b>
10.1	Leased or Rented Education Facilities .....	45
10.2	Independent Schools .....	45
<b>11.</b>	<b>CRITICAL RESOURCE FOR GU&amp;M ACTIVITIES .....</b>	<b>46</b>
11.1	Human Resource Requirements.....	46
11.2	GU&M Tools of Trade .....	50
11.3	Operating Systems.....	51
11.4	Financial Resource Requirements and Budgeting.....	54

<b>12.</b>	<b>EXPECTED LEVEL OF SERVICE .....</b>	<b>57</b>
12.1	Levels of Maintenance .....	57
12.1	Levels of Cleanliness .....	60
<b>13.</b>	<b>OPERATIONAL AND MANAGEMENT STRUCTURES .....</b>	<b>62</b>
<b>14.</b>	<b>MONITORING AND EVALUATION .....</b>	<b>63</b>

## PREAMBLE

- (a) This ***Quick Reference Guide to the Guidelines for General Upkeep and Maintenance of Education Facilities*** has been prepared to provide a quick general guide to the *Guidelines for General Upkeep and Maintenance of Education Facilities* (the “*GU&M Guidelines*”).
- (b) The *GU&M Guidelines* was approved by the Council of Education Ministers (CEM) on 01 March 2018 and was subsequently signed by the Minister of Basic Education on 09 April 2018.
- (c) The complete document on the *GU&M Guidelines* is available on the DBE’s Website, [www.education.gov.za/Resources/Publications](http://www.education.gov.za/Resources/Publications)
- (d) The *GU&M Quick Reference Guide*:
  - (i) Should be used only for quick reference purposes;
  - (ii) Only covers certain excerpts of the *Guidelines*;
  - (iii) Should not be construed or treated as the *Guidelines* itself;
  - (iv) Does not necessarily follow the same order as the *Guidelines*;
  - (v) Focuses mainly on operational matters pertaining to GU&M activities.
- (e) The **Reader must consult** the full *GU&M Guidelines* to have a full understanding of all the required GU&M procedures, protocol and practices in the basic education sector.

## 1. THE NEED

- (a) All the basic education facilities have to:
  - (i) Be used for the intended purpose;
  - (ii) Be cared for;
  - (iii) Be looked after;
  - (iv) Be maintained; and
  - (v) Not vandalised.
- (b) The *GU&M Guidelines* provides protocols and procedures for undertaking GU&M activities of education facilities.

## 2. PRIMARY OBJECTIVES OF GU&M GUIDELINES

- (a) To guide the basic education sector on the approach to be adopted in looking after and maintaining its education facilities.
- (b) The strategic intent is to ensure:
  - (i) Uniformity of practice on GU&M processes across the sector;
  - (ii) Realisation of meaningful return on investment;
  - (iii) Prolonged useful life of education facilities; and
  - (iv) That teaching, learning and support functions take place in a safe, hygienic and conducive environment.



## 3. SCOPE OF APPLICABILITY AND EXCLUSIONS

### 3.1 Scope of Applicability

The *GU&M Guidelines* are applicable to:

- (a) The basic education sector as a whole;
- (b) All the existing and newly built education facilities;
- (c) Entities involved in the general upkeep and maintenance of education facilities;
- (d) Both immovable and movable assets (Furniture, Fittings and Equipment); and
- (e) Third parties that might be renting out or leasing part or whole of their properties to the education sector.

### 3.2 Exclusions

The following are excluded from the *GU&M Guidelines*:

- (a) Learning and Teaching Support Material (LTSM);
- (b) ICT Software and software licences;
- (c) Utensils, crockery and supplies used in the:
  - (i) National School Nutrition Programme (NSNP); and
  - (ii) Learner Boarding Facilities.
- (d) Apparatus and supplies/consumables used in the school laboratories; and

- (e) Facilities no longer used by the basic education sector after having been transferred to third parties.

## 4. GUIDING PRINCIPLES FOR UNDERTAKING GU&M INTERVENTIONS

### 4.1 Guiding Principles for Planners of GU&M Activities

The GU&M activities should be:

- (a) **Planned** – structured, co-ordinated and documented;
- (b) **Focussed** - facility specific and purpose driven;
- (c) **Differentiated** – delineation between GU&M activities from Capital Improvement Works (CIW);
- (d) **Well-resourced** – all requisite resources made available;
- (e) **Strategically Approached** – holistic, integrated seamlessly and effective management of interfaces across functionaries;
- (f) **Streamlined Processes** – well-defined, logical, practical, non-bureaucratic, and non-pervasive processes; and
- (g) **Clarity of Expectations** – clear Roles and Responsibilities and Performance Standards.

### 4.2 Key Success Factors

- (a) Key requirements:
  - (i) Availability of all the requisite GU&M resources;
  - (ii) Clear management structures at every operational level;

- (iii) Clear operating model for each level of operation;
  - (iv) Close monitoring and evaluation of the GU&M implementation processes; and
  - (v) Continuous improvement of the GU&M management processes and systems.
- (b) The GU&M activities should:
- (i) **Not be** treated as a poverty relief programme;
  - (ii) **Not be** treated as a project or programme but as an ongoing operational process; and
  - (iii) **Not be** managed through committees.

## 5. ROLES AND RESPONSIBILITIES

### 5.1 General Roles and Responsibilities

**Table 1:** *Roles and Responsibilities of various GU&M role-players.*

Stage of the Product Lifecycle	Entity	Roles and Responsibilities
<b>Statutory Requirements</b>	Dept. of Basic Education (DBE)	<ul style="list-style-type: none"><li>• Develop, institutionalise, maintain and update the <i>GU&amp;M Guidelines</i>;</li><li>• Develop and maintain Reporting Templates for various GU&amp;M activities;</li><li>• Conduct workshops and/or undertake training of any entity on the application of the provisions of the <i>GU&amp;M Guidelines</i>;</li><li>• Develop, institutionalise and maintain a centralised web-based Computerised Maintenance Management System (CMMS);</li><li>• Liaise with and co-ordinate activities of all the relevant Government Departments pertaining to GU&amp;M matters;</li></ul>

Stage of the Product Lifecycle	Entity	Roles and Responsibilities
Pre-planning Stage	DBE	<ul style="list-style-type: none"> <li>• Develop and maintain baseline information on the condition of all the education facilities;</li> </ul>
	Dept of Public Work (DPW)	<ul style="list-style-type: none"> <li>• Establish and maintain an Immovable Asset Register for all the Public Education Facilities;</li> <li>• Develop Custodian Asset Management Plan;</li> <li>• Assist PEDs with planning and budgeting for GU&amp;M activities;</li> </ul>
	Provincial Education Depts. (PEDs)	<ul style="list-style-type: none"> <li>• Develop and implement Provincial Education Infrastructure Plans;</li> <li>• Develop and implement User Asset Management Plans;</li> <li>• Develop a Database of Retired Professionals in the Built Environment to assist with various technical assignments;</li> <li>• Appoint Works Inspectors and house them at District Offices to assist with site inspections and technical assistants where necessary;</li> <li>• Chief Director: Infrastructure (CD:I) - prepares specifications for replacement parts needed in education facilities when carrying out GUMRR;</li> </ul>

<b>Stage of the Product Lifecycle</b>	<b>Entity</b>	<b>Roles and Responsibilities</b>
<b>Planning and Design Stage</b>	Appointed Design Consultant	<ul style="list-style-type: none"> <li>• Undertake assessment of Maintainability and Lifecycle Costing of the proposed construction technology and building materials;</li> <li>• Ensure that constructability and maintainability are considered during planning and design stages;</li> <li>• Ensure quality and durability of the specified construction materials and availability of replacement parts locally;</li> <li>• Ensure that Specifications cover the required quality standards of the deliverables;</li> <li>• Call for Suppliers and Contractors in the Bid Documents/ Call for Quotations to provide Maintenance Plans and Warranties/ Guarantees for their deliverables and to conduct Preventative Maintenance over the Guarantee Period;</li> </ul>
<b>Construction Stage</b>	Appointed Contractors	<ul style="list-style-type: none"> <li>• Ensure that the workmanship meets the quality standards per the Design Specifications;</li> <li>• Use SABS approved construction materials;</li> <li>• Where Alternative Building Technologies are considered, to use only Agrément Approved/ Certified technologies;</li> </ul>

<b>Stage of the Product Lifecycle</b>	<b>Entity</b>	<b>Roles and Responsibilities</b>
<b>Construction Close-out Stage</b>	Appointed Design Consultant	<ul style="list-style-type: none"> <li>• Ensure that the following documents are made available to the relevant Client Department:               <ul style="list-style-type: none"> <li>○ Guarantees / Warrantees;</li> <li>○ Relevant Certificates of Compliance;</li> <li>○ Preventative Maintenance Plans; and</li> <li>○ As-built Drawings.</li> </ul> </li> <li>• No final payment is made to any entity without the documents listed above been made available;</li> </ul>
	PEDs	<ul style="list-style-type: none"> <li>• Make copies of the Close-out documents mentioned above and send them to respective Facility Managers for reference purposes during operations;</li> <li>• Keep safe all the documents mentioned above;</li> </ul>
<b>Operations Stage</b>	Facility Manager (School Principal, Boarding Master/ Mistress, Circuit Manager, District Director)	<ul style="list-style-type: none"> <li>• Is an accountable person for GU&amp;M activities in the facility he/she is responsible for;</li> <li>• Appoints a Facility Maintenance Co-ordinator (FMC) and FMC Deputies where necessary;</li> <li>• Appoints Field Staff for his/her facility;</li> <li>• Provides Tools of Trade for the appointed Maintenance Management Staff and Field Staff;</li> <li>• Provides Admin Support Staff for the GU&amp;M Management Staff;</li> <li>• Secures and disburses appropriately budget for GU&amp;M activities;</li> </ul>

Stage of the Product Lifecycle	Entity	Roles and Responsibilities
	Facility Maintenance Co-ordinator (FMC)	<ul style="list-style-type: none"> <li>• Develops Facility GU&amp;M Management Plan including Preventative Maintenance Schedules and Rosters for his/her Facility;</li> <li>• Provides day-to-day management of GU&amp;M activities;</li> <li>• Manages and furnishes the GU&amp;M Tools and Equipment Register;</li> <li>• Manages and furnishes GU&amp;M Operations Register;</li> <li>• Co-ordinates and manages the process of scheduling of activities of Preventative Maintenance Service Providers and ensuring that such activities are carried out;</li> <li>• Ensures that where the general upkeep activities are not outsourced that there is co-ordination of such activities as would be carried out by the facility users, e.g. learners;</li> <li>• Manages the process of compiling intervention requests to PEDS: <ul style="list-style-type: none"> <li>○ Emergency Capital Improvement Works (CIW);</li> <li>○ Request for normal CIW interventions;</li> </ul> </li> <li>• Prepares required GU&amp;M Reports: <ul style="list-style-type: none"> <li>○ Quarterly Expenditure Reports; and</li> <li>○ Annual Report.</li> </ul> </li> <li>• Identifies all the training interventions required for the Facility Maintenance Personnel and submits to District Maintenance Manager (DMM);</li> <li>• Ensures that any information to be uploaded on the CMMS is indeed uploaded;</li> </ul>
	GU&M Admin Staff	<ul style="list-style-type: none"> <li>• Provision of secretarial work on GU&amp;M activities;</li> <li>• Ordering and purchasing of required GU&amp;M goods and consumables;</li> <li>• Uploading of GU&amp;M information on the CMMS.</li> </ul>



Stage of the Product Lifecycle	Entity	Roles and Responsibilities
	Facility Users	<ul style="list-style-type: none"> <li>• Look after the facility and its systems and act responsibly thus ensuring their preservation and longevity;</li> <li>• Not damage or vandalise the facility components and be liable for consequences in the event of such been ignored;</li> <li>• Undertake the General Upkeep activities assigned to them, following the rosters developed by the FMC;</li> <li>• Identify and report to the FMC any GU&amp;M attention required on any component of the facility or its systems;</li> <li>• Provide suggestions to the FMC on any GU&amp;M item to contribute towards system improvements;</li> </ul>
	Community and General Members of Public	<ul style="list-style-type: none"> <li>• Look after the education facilities and protect them from abuse and vandalism;</li> <li>• Report any acts of abuse and vandalism to the Facility Manager;</li> <li>• Provide credible, competent, reliable, and capable members of community to take part in the GU&amp;M activities either as General Cleaners, Caretakers, Groundsmen or Assistants;</li> </ul>
	Preventative Maintenance Service Providers	<ul style="list-style-type: none"> <li>• Conduct training of users at no additional costs on the operations of the system or equipment provided;</li> <li>• Undertake Preventative Maintenance activities at the scheduled times and respond to in cases of emergencies;</li> <li>• Act professionally and honestly in carrying out their duties;</li> <li>• Provide advice and suggestions to the FMC on how best to preserve or use the attendant equipment or system;</li> </ul>

Stage of the Product Lifecycle	Entity	Roles and Responsibilities
	Works Inspectors	<ul style="list-style-type: none"> <li>• Assist the FMC with assessment of GU&amp;M needs of their education facilities;</li> <li>• Assist the FMC with the development of the Facility GU&amp;M Management Plans;</li> <li>• Assist the with the co-ordination of training interventions for the GU&amp;M Field Staff;</li> <li>• Assesses the work carried out by Service Providers on Repairs and Replacements and sign them off, recommending payments towards such services;</li> <li>• Assess the materials earmarked to be declared as condemned and obsolete and sign them off as decommissioned;</li> <li>• Where necessary assist in guiding the Handyman/ Caretaker and Groundsman on the required minor repairs and minor replacements;</li> <li>• Assist the FMC with preparation of GU&amp;M Reports;</li> <li>• Suggest to the DMM and PMD any required system improvements;</li> <li>• Assists in ensuring that information to be uploaded on CMMS is indeed uploaded on time and in the correct format;</li> </ul>
	General Cleaners	<ul style="list-style-type: none"> <li>• Look after and clean the functional spaces assigned to them to the required quality standards;</li> <li>• Look after the GU&amp;M Equipment and Tools assigned to them and use them correctly;</li> <li>• Look after and utilise the GU&amp;M consumables cost effectively;</li> <li>• Report any GU&amp;M incidents to the FMC;</li> <li>• Propose any system improvements to the FMC;</li> <li>• Undergo training as advised by the FMC;</li> </ul>

Stage of the Product Lifecycle	Entity	Roles and Responsibilities
	Caretaker	<ul style="list-style-type: none"> <li>• Undertake minor repairs and minor replacements of facility components and its systems per the required quality standards – focusing mainly on the buildings and indoor environment;</li> <li>• To include some of the outdoor systems such as lighting, water fountains, outdoor learning equipment;</li> <li>• Ensure that replacement parts meet the design quality standards and that no inferior materials are used;</li> <li>• Unblock any blocked drains;</li> <li>• Ensure that quality workmanship is realised when carrying out minor repairs and replacements;</li> <li>• Look after the GU&amp;M Equipment and Tools assigned to him/her;</li> <li>• Report any GU&amp;M incidents to the FMC;</li> <li>• Propose any system improvements to the FMC;</li> <li>• Undergo training as advised by the FMC;</li> </ul>

Stage of the Product Lifecycle	Entity	Roles and Responsibilities
	Groundsman	<ul style="list-style-type: none"> <li>• Undertake management of GU&amp;M activities required on the grounds which include Facility Grounds, Courtyards, Flower Gardens, Landscapes, Open Spaces, Vegetable Gardens, Playgrounds, Sport fields, Signage, Fences and Gates; Pools, Sprinkler system; Driveways, Walkways, Parking Lots, Drop-off Areas;</li> <li>• Mowing of grass, pruning and cutting back trees and shrubs;</li> <li>• Cleaning of driveways and walkways;</li> <li>• Cleaning of gutters and stormwater drainage system;</li> <li>• Undertake Minor repairs and minor replacements in identified outdoor areas;</li> <li>• Management of solid waste, which include: <ul style="list-style-type: none"> <li>○ Picking up and collection of solid waste;</li> <li>○ Emptying waste bins placed outdoors;</li> <li>○ Assisting with recycling activities;</li> <li>○ Temporary storage of solid waste;</li> <li>○ Assist with removal of solid waste off-site;</li> <li>○ Incinerate waste on-site where this is permissible and appropriate facilities for such been provided;</li> <li>○ Assist with collection and disposal of ash and other remains after solid waste incineration;</li> <li>○ Look after and keep clean and tidy the Temporary solid waste Storage Area and its surroundings;</li> </ul> </li> </ul>

Stage of the Product Lifecycle	Entity	Roles and Responsibilities
		<ul style="list-style-type: none"> <li>• Management of condemned and obsolete materials, which include:               <ul style="list-style-type: none"> <li>○ Assisting with collection and removal of condemned and obsolete materials to designated Condemnation Area;</li> <li>○ Look after and keep clean and tidy the Condemnation Area;</li> <li>○ Assist with removal off-site condemned material;</li> </ul> </li> <li>• Look after the GU&amp;M Equipment and Tools assigned to him/her;</li> <li>• Report any GU&amp;M incidents to the FMC;</li> <li>• Propose any system improvements to the FMC;</li> <li>• Undergo the training sessions as advised by the FMC;</li> </ul>
	School Governing Body (SGB)	<ul style="list-style-type: none"> <li>• Monitor, oversee and ensure that GU&amp;M activities are carried out;</li> <li>• Assist with the identification and preparation of requests for CIW interventions to PEDs;</li> <li>• Suggest system improvements to the FMC;</li> </ul>
	District Maintenance Manager (DMM)	<ul style="list-style-type: none"> <li>• Provide day-to-day Management of Works Inspectors placed by the Province in his/her District Offices;</li> <li>• Ensure that adequate Tools of Trade and Operating Systems are made available to the Works Inspectors;</li> <li>• Consolidate the GU&amp;M Quarterly and Annual Reports from schools in their Districts, Circuit Offices and their District Office for submission to the Provincial Maintenance Director (PMD);</li> <li>• Propose any system improvement to National Maintenance Director (NMD).</li> </ul>

Stage of the Product Lifecycle	Entity	Roles and Responsibilities
	Provincial Maintenance Director (PMD)	<ul style="list-style-type: none"> <li>• Provide HR personnel including Works Inspectors to be placed at Districts;</li> <li>• Provide requisite Tools of Trade for the Maintenance Personnel;</li> <li>• Consolidate GU&amp;M Reports from the Districts for Provincial Reporting to DBE;</li> <li>• Analyse trends on the GU&amp;M activities which include expenditures, repetitive failures, and facility component Economic Service Lives;</li> <li>• Provide feedback on GU&amp;M facility component observations to the Provincial Director responsible the Capital Improvement Works especially on performance of building technologies and building materials;</li> <li>• Co-ordinate GU&amp;M training interventions required in the Province;</li> <li>• Prepare GU&amp;M Provincial Plan and budget;</li> <li>• Respond to CIW Requests from Districts, Circuits and Schools;</li> <li>• Consolidates proposed system improvements and submits to National Maintenance Director (NMD) at DBE;</li> <li>• Propose any system improvements to NMD.</li> </ul>

Stage of the Product Lifecycle	Entity	Roles and Responsibilities
	National Maintenance Director (NMD)	<ul style="list-style-type: none"> <li>• Provides oversight function and monitors implementation of GU&amp;M Guidelines and that GU&amp;M activities are carried out and so also reporting requirements;</li> <li>• Assist Provinces with the implementation of GU&amp;M policies and guidelines;</li> <li>• Consolidates Provincial GU&amp;M Quarterly and Annual Reports to Sector Reports;</li> <li>• Analyse trends on GU&amp;M and advise on any policy modifications that might be required to DBE Unit responsible for such;</li> <li>• Review and effect GU&amp;M system improvements;</li> <li>• Responsible for acquisition and maintenance of CMMS and ensures its full utilisation by the sector;</li> <li>• Ensure budget availability for GU&amp;M activities;</li> <li>• Liaises with various key stakeholders at National Level on GU&amp;M activities;</li> </ul>

## 5.2 Procurement of GU&M Goods and Services

**Table 2:** *Summary of entities responsible for procurement of various goods and services required for GU&M activities.*

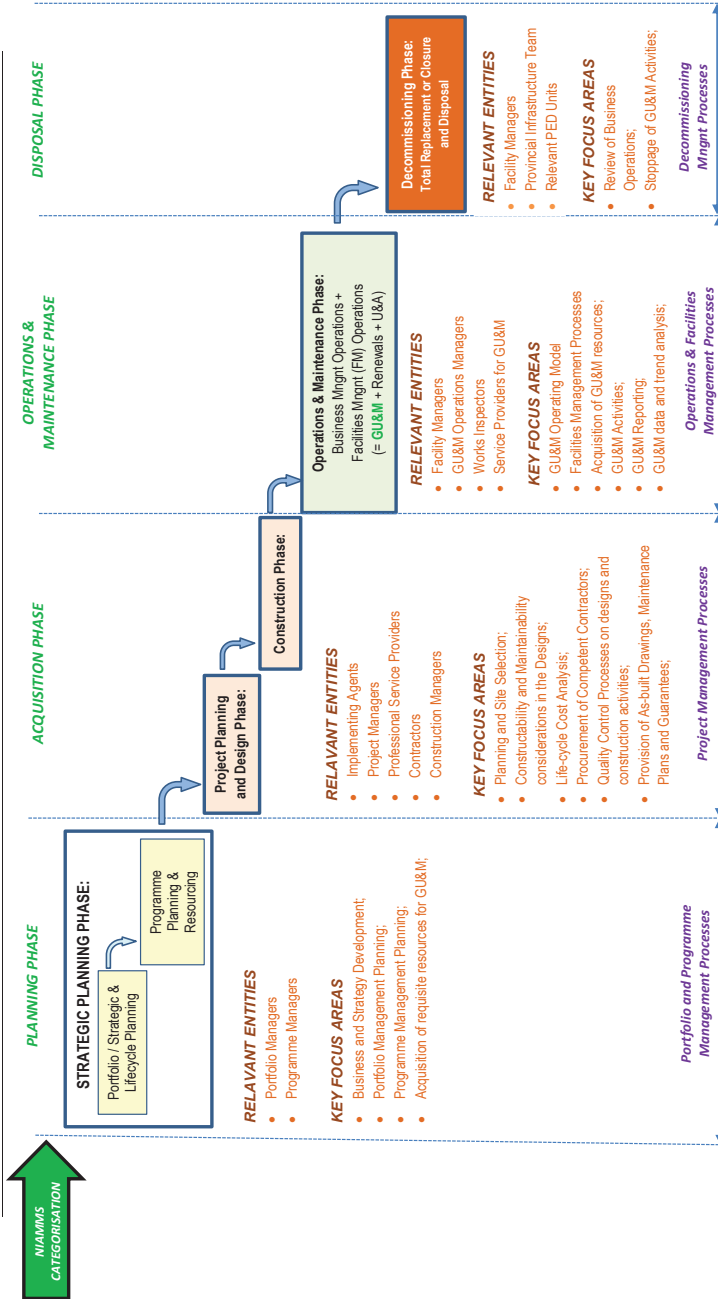
Item to be Procured / Purchased	Responsible Entity / Person	Suggested Procurement Approach
1 GU&M Tools, Equipment and Protective Clothing	Facility Maintenance Manager (FMC)	<ul style="list-style-type: none"> <li>• 3 Quote System – Once off purchase.</li> </ul>
2 GU&M Consumables	FMC	<ul style="list-style-type: none"> <li>• 3 Quote System – Annual ongoing purchases.</li> <li>• Annual contracts with the preferred Suppliers that score the highest procurement points and are within the vicinity of the facility.</li> </ul>
3 GU&M Minor Repair and Minor Replacement Parts	FMC assisted by DMM and/ or Works Inspectors	<ul style="list-style-type: none"> <li>• 3 Quote System – Annual ongoing purchases.</li> <li>• Annual contracts with the preferred Suppliers that score the highest procurement points and are within the vicinity of the facility.</li> </ul>
4 Tools of Trade for Works Inspectors and Support Staff	Facility Manager	<ul style="list-style-type: none"> <li>• Open Bid or 3 Quote system, depending upon the total cost of items to be procured.</li> </ul>
5 GU&M Staff Training Service Providers	Provincial Maintenance Director (PMD)	<ul style="list-style-type: none"> <li>• 3 Quote System – Database of Service Providers.</li> <li>• Two (2) year contracts with Training Service Provider(s).</li> <li>• Aim to have Suppliers for each District.</li> </ul>

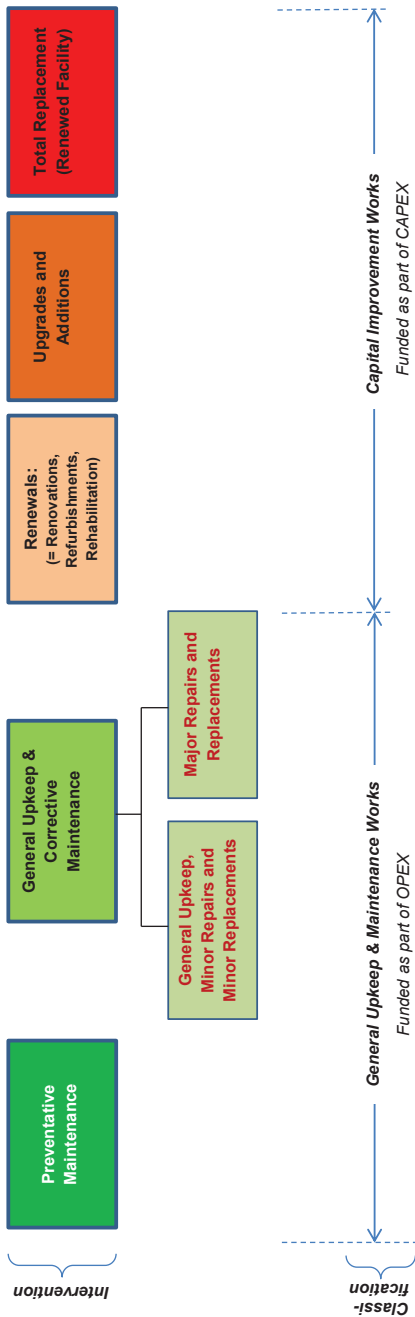


Item to be Procured / Purchased	Responsible Entity / Person	Suggested Procurement Approach
6 Central and Computerised Maintenance Management System (or equivalent)	National Maintenance Director (NMD) at DBE	<ul style="list-style-type: none"> <li>Open Bid Process or following an approach that has been agreed upon with National Treasury.</li> </ul>
7 Preventative Maintenance Services (post the Guarantee Period)	DMM	<ul style="list-style-type: none"> <li>Open Bid – Two (2) year contract with Service Provider(s) per District.</li> </ul>
8 Emergency and Normal Major Repairs and Major Replacements	PMD	<ul style="list-style-type: none"> <li>Open Bid Process – Database of Service Providers; three (3) year contracts with Service Provider per District.</li> </ul>
9 Services of Implementing Agents	PEDs	<ul style="list-style-type: none"> <li>Provincial acquisition process.</li> </ul>
10 Refurbishment and Renovations (R & R)	PEDs	<ul style="list-style-type: none"> <li>Open Bid Process</li> </ul>
11 Upgrades and Additions ( U & A)	PEDs	<ul style="list-style-type: none"> <li>Open Bid Process</li> </ul>
12 Total Replacements	PEDs	<ul style="list-style-type: none"> <li>Open Bid Process</li> </ul>

## 6. ASSET LIFECYCLE AND GU&M ACTIVITIES

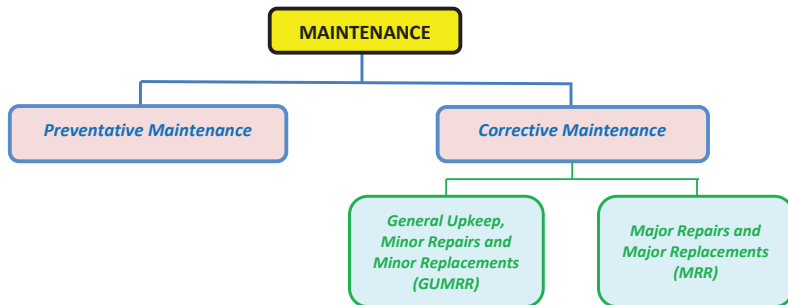
- (a) The Asset Lifecycle of education facilities emphasizing GU&M processes across is depicted in **Figure 1** overleaf.
- (b) The general interventions that are required on an education facility post-construction are presented in the continuum in **Figure 2** overleaf.





**Figure 2:** Different interventions required on an education facility over its lifespan post construction.

## 7. FORMS OF GENERAL UPKEEP AND MAINTENANCE FOR THE BASIC EDUCATION SECTOR



### Attributes of Preventative Maintenance:

- Planned, scheduled, carried out at predefined intervals;
- Carried out per Designer's or Manufacture's Specifications;
- Carried out before any signs of or actual failure or sub-optimal functionality has been detected;
- Intended to prevent any system failure;
- Is carried out by a specialist for the component or systems concerned;
- May include only inspections, testing, calibration, surface cleaning and lubrication;
- May lead to a need for minor or major repairs, or minor or major replacements as part of Corrective Maintenance if potential catastrophic failure is detected;
- May include Predictive Assessments to ascertain the remaining economic service life of the facility component and/or sub-systems for planning purposes.

### Attributes of Corrective Maintenance:

- Carried out after total failure has occurred or sub-optimal functionality detected;
- Is intended to restore the normal level of functionality and/or aesthetic appeal as was intended at design stage.
- Manifests itself as either defects, emergence of failures or total breakdown;
- Carried out on an ongoing basis, as and when required;
- Failures could be instantaneous or gradual deterioration over time;
- Could either be of emergency nature therefore unplanned or non-emergency nature therefore execution of work could be planned;
- Includes planning for and responding to Run-to-Breakdown (RBT), where consequences of failure are relatively small, not life threatening but may lead to temporary disruptions of operations;
- Could require either specialist or non-specialist skills to attend to it.

**Table 3:** *Factors informing categorisation of Corrective Maintenance Works in the basic education sector as Minor or Major Maintenance Works.*

Critical Factors	Categorisation of Corrective Maintenance	
	Minor Maintenance Work	Major Maintenance Work
Source of budget allocation	For schools, it is funded from percentage (e.g. 25%) of the total allocation assigned to each school per NSSF <sup>1</sup> .	Funded from a portion of either PES <sup>2</sup> or EIG <sup>3</sup>
Affordability levels	Limited budget of less than R500 000 <sup>4</sup> per annum for mega schools.	Based on the budget availability, and could be more than R1.0million per annum.
Level of expertise or skills level required to carry out the necessary interventions	Less technical and less complex in nature and could be carried out by the Caretaker or Groundsman.	Tends to be more technical and more complex in nature therefore requiring services of external specialist Service Providers.
Time taken to address the problem	Work could be completed within a short period of time, typically up to four hours.	Work could take a number of days to be completed.
Entity to carry out the works	Carried out and managed at a facility level.	Managed at Provincial Level.
Financial Reporting	Reported as part of a facility's Annual Financial Report.	Reported against overall infrastructure budget allocation at Provincial Level.

NSSF = National Norms and Standards for School Funding

- 1 PES = Provincial Equitable Share.
- 2 EIG = Education Infrastructure Grant.
- 3 Is a function of the number of learners in a school and the Quintile Ranking of the school concerned and assuming 25% set aside for GU&M works.

**(a) Predictive “Maintenance”:**

- (i) Is not maintenance *per se*;
- (ii) An assessment to forecast potential failure of an equipment or component of a facility.
- (iii) Should be carried out at Provincial Level.
- (iv) Is not mandatory at this stage but could be carried out if it is necessary.

**(b) Deferred “Maintenance”:**

- (i) Is not maintenance *per se*;
- (ii) Means of identifying maintenance backlogs.
- (iii) Assessment requires a specialist skill.
- (iv) Should be carried out at Provincial Level.

**(c) “Limited Maintenance”:**

- (i) Limited only to General Upkeep, Minor Repairs and Minor Replacements (GUMRR);
- (ii) Applicable only to facilities built of inappropriate materials and/or dilapidated;
- (iii) Not applicable where the facility is owned by third parties but rather provisions of Section 14 Agreements.

## 8. GENERAL UPKEEP AND MAINTENANCE INTERVENTIONS

### 8.1 Corrective Maintenance: General Upkeep, Minor Repairs and Minor Replacements

**Table 4:** *Activities associated with GUMRR and Responsible Entities / Persons.*

Type of Activities	Responsible Entities/Persons
<b>General Upkeep:</b>	
<ul style="list-style-type: none"> <li>• Cleaning indoors of Core, Specialist, Common Areas (including corridors and ablution facilities), Admin Spaces and Support Spaces - floors, walls, ceiling, windows, and curtaining (curtains, blinds and draping).</li> <li>• Cleaning of Furniture, Fittings and Equipment (FFE).</li> <li>• This entails sweeping, wiping, scrubbing, polishing, dusting surfaces and washing of curtains.</li> </ul>	<ul style="list-style-type: none"> <li>• Facility Users;</li> <li>• Dedicated Employees</li> <li>• General Workers / Cleaners; or</li> <li>• Private Company where it could be afforded.</li> </ul>
<ul style="list-style-type: none"> <li>• Picking up of papers and other solid waste materials outdoors and disposing of in designated areas (dust bins or waste disposal area).</li> <li>• Separation of solid waste where recycling is practiced.</li> </ul>	<ul style="list-style-type: none"> <li>• Facility Users; or</li> <li>• Groundsman.</li> </ul>
<ul style="list-style-type: none"> <li>• Cleaning outdoor areas, driveways, walkways, assemble areas, and external windows.</li> <li>• This entails sweeping, wiping, scrubbing, and de-weeding.</li> </ul>	<ul style="list-style-type: none"> <li>• Facility Users; or</li> <li>• Groundsman.</li> </ul>



Type of Activities	Responsible Entities/Persons
<ul style="list-style-type: none"> <li>• Cleaning and maintaining gardens, grounds, landscapes, open spaces court-yards, playgrounds, sport-fields.</li> <li>• This entails de-weeding, cutting of grass, trimming and shaping of trees, removal and disposal or composting of cuttings in designated areas.</li> <li>• Planting flowers and trees;</li> <li>• Installing grass patches;</li> <li>• Watering flower gardens.</li> </ul>	<ul style="list-style-type: none"> <li>• Groundsman</li> </ul>
<ul style="list-style-type: none"> <li>• Cleaning and managing environs of the facility – area covering 5m buffer zone just outside the school perimeter fence where no other property abuts the facility or up to the street (where the facility is along a street).</li> <li>• This entails de-weeding, cutting grass, cleaning paved areas, cutting back, trimming and shaping of trees, picking up solid waste.</li> </ul>	<ul style="list-style-type: none"> <li>• Groundsman</li> </ul>
<ul style="list-style-type: none"> <li>• Cleaning stormwater drainage system – gutters, down-pipes, water channels, drains, drainage pipes, and drainage inlets.</li> <li>• This entails removal of debris, unblocking and splashing with water (where available).</li> </ul>	<ul style="list-style-type: none"> <li>• Groundsman</li> </ul>
<ul style="list-style-type: none"> <li>• Management of Solid Waste Area.</li> <li>• Management of Condemnation Area.</li> <li>• This entails keeping the temporary storage areas for solid waste and condemned materials clean, tidy and organised.</li> <li>• Ensuring that solid waste is incinerated on-site, where permissible, or taken off-site where the waste removal system is available.</li> </ul>	<ul style="list-style-type: none"> <li>• Groundsman</li> </ul>

Type of Activities	Responsible Entities/Persons
<b>Minor Repairs:</b>	
<ul style="list-style-type: none"> <li>Minor repair work on the Furniture and Fittings, doors and windows.</li> <li>This entails tightening loose screws, oiling, applying wood-filler and paint touch-ups.</li> </ul>	<ul style="list-style-type: none"> <li>Caretaker (this term is also used to refer to a Handyman)</li> </ul>
<ul style="list-style-type: none"> <li>Closing hair-line cracks and patching surface scratches on the walls.</li> <li>This includes applying polyfiller (or similar) and paint touch-ups.</li> </ul>	<ul style="list-style-type: none"> <li>Caretaker</li> </ul>
<ul style="list-style-type: none"> <li>Tightening loose screws on switches and plug points.</li> </ul>	<ul style="list-style-type: none"> <li>Caretaker</li> </ul>
<ul style="list-style-type: none"> <li>Minor repair work on the fence and gates but excluding the special fences covered under the <i>School Infrastructure Safety and Security Guidelines</i>.</li> </ul>	<ul style="list-style-type: none"> <li>Groundsman</li> </ul>
<ul style="list-style-type: none"> <li>Replacing/fixing few roof sheets blown away by wind, fascia boards, gutters, downpipes, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Caretaker</li> </ul>
<b>Minor Replacements:</b>	
<ul style="list-style-type: none"> <li>Small electrical items (fused globes, switches and plug points), water (taps, pipes), component of a sewerage system.</li> </ul>	<ul style="list-style-type: none"> <li>Caretaker</li> </ul>
<ul style="list-style-type: none"> <li>Broken handles for doors, windows, built-ins.</li> </ul>	<ul style="list-style-type: none"> <li>Caretaker</li> </ul>
<ul style="list-style-type: none"> <li>Broken minor/small pieces of furniture.</li> </ul>	<ul style="list-style-type: none"> <li>Caretaker</li> </ul>

Type of Activities	Responsible Entities/Persons
<ul style="list-style-type: none"> <li>• Broken minor and replaceable components of certain equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• Caretaker</li> </ul>
<ul style="list-style-type: none"> <li>• Couple of floor tiles (ceramic, vinyl or carpet).</li> </ul>	<ul style="list-style-type: none"> <li>• Caretaker</li> </ul>
<ul style="list-style-type: none"> <li>• Curtains and blinds.</li> </ul>	<ul style="list-style-type: none"> <li>• Caretaker</li> </ul>
<ul style="list-style-type: none"> <li>• Few roof tiles or few roof sheets.</li> </ul>	<ul style="list-style-type: none"> <li>• Caretaker</li> </ul>
<ul style="list-style-type: none"> <li>• Broken window panes.</li> </ul>	<ul style="list-style-type: none"> <li>• Caretaker</li> </ul>
<ul style="list-style-type: none"> <li>• Broken doors.</li> </ul>	<ul style="list-style-type: none"> <li>• Caretaker</li> </ul>
<b>Minor Improvements:</b>	
<ul style="list-style-type: none"> <li>• Paintwork;</li> <li>• Installation of additional small items such as connection points (e.g. plug points, built-in units, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Caretaker;</li> <li>• Appointed external Service Provider;</li> </ul>

## 8.2 Corrective Maintenance: Major Repairs and Major Replacements

**Table 5:** *Typical items to be considered under Major Repairs and Major Replacement.*

Nature of Potential Intervention	Entity to Attend to it
<ul style="list-style-type: none"> <li>Large portion of a roof which might include roof cladding only or roof cladding together with roof trusses. (Might be due to storm-damages, rotten trusses, heavily rusted roof sheets, disused building materials such as asbestos roof sheets, or replacement of poorly constructed roofs, burnt facility).</li> </ul>	Qualified Building Contractor
<ul style="list-style-type: none"> <li>Replacement of whole or large portion of a ceiling or providing new ceiling where it did not exist before.</li> </ul>	Qualified Building Contractor
<ul style="list-style-type: none"> <li>Replacement or installation of new gutters all around, downpipes, water tanks, etc.</li> </ul>	Qualified Service Provider
<ul style="list-style-type: none"> <li>Stripping and replacement of large portion or whole of the floor coverings.</li> </ul>	Qualified Building Contractor
<ul style="list-style-type: none"> <li>Rebuilding collapsed portion of a wall.</li> </ul>	Qualified Building Contractor
<ul style="list-style-type: none"> <li>Fixing large cracks on the wall or on the floor.</li> </ul>	Qualified Building Contractor
<ul style="list-style-type: none"> <li>Fixing faulty foundations.</li> </ul>	Qualified Specialist Building Contractor
<ul style="list-style-type: none"> <li>Replacement of large portions of or whole sewerage system.</li> </ul>	Qualified Plumber
<ul style="list-style-type: none"> <li>Fixing, replacing or upgrading stormwater drainage system.</li> </ul>	Qualified Civils Contractor
<ul style="list-style-type: none"> <li>Fixing or replacing large portions of the fence or gates.</li> </ul>	Qualified Fencing Contractor

<ul style="list-style-type: none"> <li>• Replacement or Upgrading any of the building systems (Water, Electricity, ICT, Safety and Security, Fire-fighting, HVAC).</li> </ul>	Qualified Service Provider
<ul style="list-style-type: none"> <li>• Replacement, repairing specialised equipment e.g. for special subjects, technical workshops, laboratories, Nutrition Centre, or sports).</li> </ul>	Qualified Specialist Service Provider
<ul style="list-style-type: none"> <li>• Replacement of certain parts or fixing large portion of a building (e.g. pillars, stair-cases, floor slab, window frames, water tank stands).</li> </ul>	Qualified Building Contractor
<ul style="list-style-type: none"> <li>• Repairing or replacing large parts or whole pavement in assembly area, walkways, driveways, parking lots, etc.).</li> </ul>	Qualified Civils Contractor
<ul style="list-style-type: none"> <li>• Replacement of dilapidated or inappropriate Sanitation Facilities.</li> </ul>	Qualified Building Contractor
<ul style="list-style-type: none"> <li>• Fixing a large number of broken pieces of furniture and fittings.</li> </ul>	Qualified Carpenter / Specialist Contractor
<ul style="list-style-type: none"> <li>• Repairing or replacing a large number of facility equipment, vehicles, equipment for GUMRR.</li> </ul>	Qualified Service Provider

### 8.3 Preventative Maintenance

**Table 6:** *Typical items to be included as part of Preventative Maintenance.*

Items/Components	Responsible Entity for undertaking Preventative Maintenance
<ul style="list-style-type: none"> <li>• Fire-fighting system (Fire extinguishers, fire sprinklers, fire hydrants, fire hoses, fire alarms, etc.)</li> </ul>	Approved company specialising in fire-fighting equipment/system
<ul style="list-style-type: none"> <li>• Safety and Security System (Perimeter Fence and Gates, Surveillance Cameras, Panic Buttons, etc.)</li> </ul>	Company specialising in Safety and Security Equipment, Fence Supplier and Installer
<ul style="list-style-type: none"> <li>• Electricals (Distribution Boxes, Wiring, switches and plug points, Uninterruptable Power Supply System, Lightning Protection, etc.)</li> </ul>	Electrical Company
<ul style="list-style-type: none"> <li>• Power Supply (Solar system, Wind turbines, Plant, Generators, Back-up Power Supply, UPS)</li> </ul>	Electrical /Mechanical Company
<ul style="list-style-type: none"> <li>• Conveying equipment (Lifts, hoists, escalators, etc.)</li> </ul>	Specialist Mechanical Company
<ul style="list-style-type: none"> <li>• Water System (Boilers and piping)</li> </ul>	Service Providers in the Plumbing Sector
<ul style="list-style-type: none"> <li>• Sewerage System (Emptying of VIPs, Urine Diversion Systems such as Enviro-loos, Septic Tanks, etc.)</li> </ul>	Service Provider in Sanitation
<ul style="list-style-type: none"> <li>• ICT System (Servers, Cabling.)</li> </ul>	Electrical/ICT Company
<ul style="list-style-type: none"> <li>• Some Admin Systems and Equipment (Photocopiers, Public Announcement System, etc.)</li> </ul>	Approved Service Provider or original Equipment Supplier

<b>Items/Components</b>	<b>Responsible Entity for undertaking Preventative Maintenance</b>
<ul style="list-style-type: none"> <li>• Heating, Ventilation and Air-conditioning (HVAC) System.</li> </ul>	HVAC Service Provider
<ul style="list-style-type: none"> <li>• Special and General Equipment (Laboratory, Nutrition Centre, Laundry)</li> </ul>	Approved Service Provider
<ul style="list-style-type: none"> <li>• Pool vehicles used by the Facility for day-to-day Business Management Operations.</li> </ul>	Car Dealer for the type of vehicle concerned or approved Service Garage.
<ul style="list-style-type: none"> <li>• Equipment used for GUMRR (e.g. lawnmowers, vacuum cleaners, etc.)</li> </ul>	Approved Service Provider.

# 9. MANAGEMENT OF ASBESTOS-BUILT STRUCTURES

## 9.1 Key Notes

- (a) Typical uses and facility components where Asbestos-built structures (ABSs) and asbestos-containing materials (ACMs) may be found in Education Facilities include:
  - (i) Asbestos Cement (prefabricated wall sections, corrugated roof sheets, gutters, pipes, garden furniture, garden pots, tiles);
  - (ii) Asbestos Insulating Board (ceiling boards, panel boards);
  - (iii) Thermal Insulation (ceiling insulation, ovens, toasters, around boilers, steam pipes, air conditioning ducts);
  - (iv) Floor covering (PVC floor tiles, Thermoplastic vinyl-asbestos tiles);
  - (v) Joint compounds and adhesives;
  - (vi) Panel heaters.
- (b) Provided that ABSs and ACMs remain undisturbed and/or undamaged it is safer to manage them in their original position or state than removing them.
- (c) Following exposure to asbestos dust / fibres, one of the following four fatal lung diseases may develop, and have no cure, irreversible therefore untreatable:



- (i) **Asbestosis:** scarring of the soft tissue, which restricts breathing, leading to decreased lung volume and increased resistance in the airways.
- (ii) **Asbestos-related Pleural Thickening:** scarring of the outer lining of the lungs.
- (iii) **Asbestos-related Lung Cancer (bronchial carcinoma):** malignant tumour that grows through surrounding tissue of air passage, obstructing air passages.
- (iv) **Mesothelioma:** cancer of the cells that make up the lining around the outside of the lungs and inside of the ribs (pleura) or around the abdominal organs (peritoneum).

## 9.2 Management of Asbestos-built Structures and ACMCs

### 9.2.1 Asbestos Potential Exposure Risk Assessment

- (a) Education Facilities with ABSs and/or ACMs, and those located on the Asbestos Belt to be identified and recorded on the National Education Portfolio Information (NEPI).
- (b) The Asbestos Potential Exposure Risk Assessment to be:
  - (i) Carried out on all the Education Facilities identified in paragraph (a) above;

- (ii) Carried out by an experienced, competent and accredited Service Provider specialising on asbestos and to recommend treatments to be implemented;
- (iii) Facilitated by the Provincial Chief Director: Infrastructure;
- (iv) Be carried out per the Asbestos Potential Exposure Risk Assessment in **Annexure C** of GU&M Guidelines and summarised in **Table 7(a)** below:

**Table 7(a): Aspects to be included in the Asbestos Potential Exposure Risk Assessment.**

Aspect Being Assessed	Sub-Aspect	Maximum Scores
<b>Asbestos Exceeded?</b>	<b>OEL</b> None	Not Scored but indicate as either <b>Yes</b> or <b>No</b>
<b>Occupational Exposure Assessment / Human Risk Factors</b>	Normal Occupant Activity	3
	Likelihood of Disturbance	Averaged, 3
	Human Exposure Potential	Averaged, 3
	Maintenance Activity	Averaged, 3
	<b>Total, Human Risk Score (max is 12)</b>	

<b>Material Assessment</b>	Type of Asbestos	3
	Product Type	3
	Surface Treatment	3
	Extent of Damage or Deterioration	3
	<b>Total, Material Risk Score (max is 12)</b>	
<b>OVERALL RISK SCORE (max is 24)</b>		

**Table 7(b): Outcomes and risk levels associated with Asbestos Potential Exposure Risk Assessment.**

<b>Risk Level</b>	<b>Risk Score</b>	<b>General Treatment</b>
<b>Extremely High</b>	Asbestos OEL exceeds 0.2 fibres/ml, as assessed during the normal operating hours.	<ul style="list-style-type: none"> <li>• Section 4 of Asbestos Regulation shall apply;</li> <li>• Vacate the day-to-day users;</li> <li>• Protective gear cannot be used by Education Facility users;</li> </ul>
<b>High Risk</b>	18+	<ul style="list-style-type: none"> <li>• Immediate action required;</li> <li>• Address immediately ACMs with exposed asbestos fibres;</li> <li>• Prioritise for replacement of all the ABSs and ACMs;</li> <li>• Subject ABSs and ACMs to more intensive maintenance measures;</li> </ul>
<b>Medium Risk</b>	13-17	<ul style="list-style-type: none"> <li>• Near term action required;</li> <li>• Subject to regular Preventative Maintenance;</li> <li>• Monitor;</li> </ul>
<b>Low Risk</b>	9-12	<ul style="list-style-type: none"> <li>• Regular inspection required;</li> </ul>

Risk Level	Risk Score	General Treatment
Very Low Risk	8 or below	<ul style="list-style-type: none"> <li>• Annual Inspection;</li> <li>• Subject to normal GU&amp;M interventions;</li> <li>• Rate ABSs using the Standard Prioritisation Matrix and deal other facilities.</li> </ul>

### 9.2.2 Management of ABSs and ACMs

- (a) Asbestos Management Plan (AMP) to be compiled by the Service Provider conducting Risk Assessments for approval by the Provincial Chief Director: Infrastructure.
- (b) Remedial work on ABSs or ACMs to be managed by the Provincial Infrastructure Unit and its implementation monitored by Works Inspectors.
- (c) **Asbestos Work Plan** (AWP) to be:
  - (i) Produced by the Asbestos Accredited Contractor;
  - (ii) Approved by the Asbestos Inspection Authority, before any remedial work commences on site; and
  - (iii) Implementation monitored by Works Inspectors.

- (d) No **remedial work** to be carried out during the **normal operating hours** of an Education Facility or within three (3) hours of starting of normal activities in an Education Facility.
- (e) In case of an **asbestos emergency**:
  - (i) Evacuate area with immediate effect;
  - (ii) Invoke emergency procedures; and
  - (iii) Provincial Chief Director: Infrastructure or by the Provincial Maintenance Director to make arrangements for assessment of Exposure Risk and to propose remedial measures.
- (f) **Air monitoring** to be carried out:
  - (i) Where EOL has been exceeded;
  - (ii) On all the Education Facilities located on and in the vicinity of an Asbestos Belt; or
  - (iii) Where any of the four walls of functional space that is occupied on a daily basis is built of an ACM to assess air quality.
- (g) **Medical Surveillance** to be carried out on:
  - (i) All the regular users of Education Facilities where the Asbestos OEL has been exceeded or within 75% of the OEL; and
  - (ii) All regular users of prefabricated structures built of ACMs.

- (h) **Information, instructions and requisite training** to be provided to affected people where ABS and/or ACMs are found.
  
- (i) **Information** to include:
  - (i) The Risk Ratings of the ABSs or ACMs found in the facility and their interpretation;
  - (ii) Management and GU&M of the ABSs and ACMs found in the facility;
  - (iii) Emergency procedures in event of an accident related to an ACM;
  - (iv) Asbestos waste handling procedures;
  - (v) Medical examination requirements, where required;
  - (vi) The need for air monitoring, where it would be required; and
  - (vii) Provincial infrastructure plans for the facility.

## 10. EDUCATION SERVICES ON PRIVATE PROPERTIES

### 10.1 Leased or Rented Education Facilities

- (a) Section 14 Agreements to be signed between MEC and the owner of the private property.
- (b) The Agreement to specify categorically the obligations of each party with respect to GU&M) interventions and any necessary Refurbishments and Renovations, Upgrades and Additions, and how these would be funded.

### 10.2 Independent Schools

- (a) Need to apply to the Head of Provincial Department of Education (HoD) to register and establish an Independent School.
- (b) Applications to, *inter alia*, demonstrate how the GU&M activities would be managed in the proposed facility.
- (c) Standards to be maintained by Independent Schools not be inferior those in comparable public schools. As a minimum, these standards to include the required GU&M interventions per the provisions of *GU&M Guidelines*.

# 11. CRITICAL RESOURCE FOR GU&M ACTIVITIES

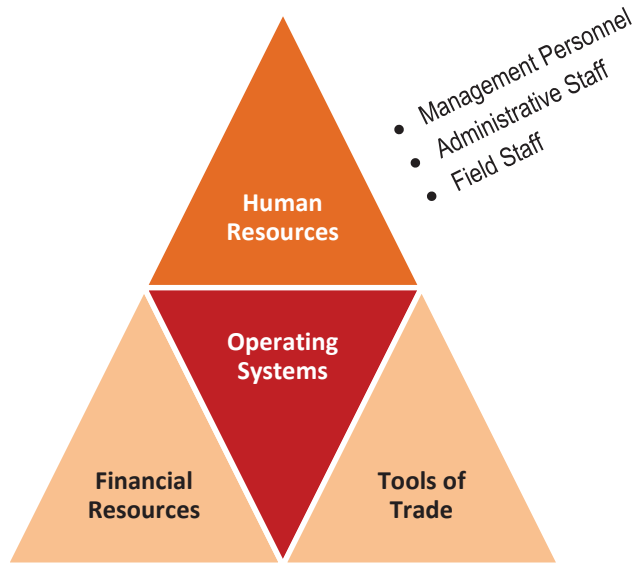


Figure 3: Critical resources required to carry out GU&M activities.

## 11.1 Human Resource Requirements

Table 8: Human Resource for undertaking GU&M activities on ab education facility.

Entity in the Value Chain	Human Resource Requirements	Number	Qualifications
National – Department of Basic Education	National Maintenance Director (NMD)	1	Degree or Btech in the Built Environment
	Deputy-Director	1	Btech in the Built Environment
	Administration Personnel	1	Admin Qualifications



Entity in the Value Chain	Human Resource Requirements	Number	Qualifications
<b>Provincial Education Departments</b>	Provincial Maintenance Director (PMD)	1	Qualifications in the Built Environment
	Assistant Directors	2	Qualifications in the Built Environment
	Administration Personnel	1	Admin Qualifications
<b>District Offices</b>	District Maintenance Manager (DMM)	1	Qualifications in the Built Environment
	Works Inspectors <sup>1</sup>	1 per 100 education facilities	B-tech in the Built Environment
	Administration Personnel	1	Admin Qualifications
	Handyman/ Groundsman	1 per facility	Basic qualifications
	General Cleaners	1 per 650m <sup>2</sup>	Basic qualifications

<b>Entity in the Value Chain</b>	<b>Human Resource Requirements</b>	<b>Number</b>	<b>Qualifications</b>
<b>Circuit Offices</b>	Circuit Maintenance Manager (CMM)	1	B-tech in the Built Environment
	Handyman/ Groundsman	1	Basic qualifications
	General Cleaners	1 per 650m <sup>2</sup>	Basic qualifications
<b>Schools / Boarding Facilities</b>	School Maintenance Co-ordinator (SMC)	1 per school	Teaching + Basic Course in Facilities Management <sup>2</sup>
	Deputy School Maintenance Managers	1 per 500 learners	Teaching
	Administration Personnel	1	Admin Qualifications
	Caretaker	1 per school	Basic qualifications
	Caretaker Assistants	Based on the size of the facility	Basic qualifications
	Groundsman	1 per school	Basic qualifications

Entity in the Value Chain	Human Resource Requirements	Number	Qualifications
<b>Schools / Boarding Facilities</b>	Groundsman Assistants	Based on size of school	Basic qualifications
	General Cleaners	2 per school up to 650m <sup>2</sup> and 1 x additional cleaner after every 650m <sup>2</sup>	Basic qualifications
<b>Implementing Agents</b>	Programme Manager Maintenance	1	Degree or B-Tech in the Built Environment
	Project Managers Maintenance	Per size of portfolio	Degree or B-Tech in the Built Environment
<b>Service Provider to undertake Preventative Maintenance</b>	Account Manager	1	Not Specified
	Call-out Technician	1	Certified in the specific field of operations

Appointed and provided for by the Province and located at Districts.

1. To be acquired after the appointment or nomination.

## 11.2 GU&M Tools of Trade

**Table 9:** *Typical Tools of Trade required for GU&M activities.*

Area of Focus	Typical Required Tool of Trade
National – Dept. of Basic Education	<ul style="list-style-type: none"> <li>• Work Stations (with all the amenities);</li> <li>• Computer Software (for data repository, reporting, and planning);</li> </ul>
Provincial Education Department	<ul style="list-style-type: none"> <li>• Work Stations (with all the amenities);</li> <li>• Computer Software;</li> </ul>
District Office	<ul style="list-style-type: none"> <li>• Work Stations (with all the amenities and separate storage spaces);</li> <li>• Computer Software;</li> <li>• Vehicles for use by Works Inspectors;</li> <li>• GU&amp;M Equipment and Tools (for use by GU&amp;M Personnel);</li> <li>• Protective Clothing;</li> <li>• GU&amp;M replacement parts and consumables;</li> <li>• Solid waste management facility;</li> <li>• Condemnation Area;</li> </ul>
Circuit Office	<ul style="list-style-type: none"> <li>• Work Stations (with all the amenities and separate storage spaces);</li> <li>• Computer Software;</li> <li>• GU&amp;M Equipment and Tools;</li> <li>• Protective Clothing;</li> <li>• GU&amp;M replacement parts and consumables;</li> <li>• Solid waste management facilities;</li> <li>• Condemnation Area;</li> </ul>

Area of Focus	Typical Required Tool of Trade
Schools and Learner Boarding Facilities	<ul style="list-style-type: none"> <li>• Work Stations (with all the amenities and separate storage spaces);</li> <li>• Computer Software;</li> <li>• GU&amp;M Equipment and Tools (for use by GU&amp;M Staff);</li> <li>• Safety and Protective Clothing;</li> <li>• GU&amp;M replacement parts and consumables;</li> <li>• Solid waste management facility;</li> <li>• Condemnation Area;</li> </ul>
Implementing Agent	<ul style="list-style-type: none"> <li>• To provide own Tools of Trade for its personnel.</li> </ul>
Service Provider for Preventative Maintenance	<ul style="list-style-type: none"> <li>• To provide own Tools of Trade for its personnel.</li> </ul>

### 11.3 Operating Systems

**Table 10:** *Operating Systems for GU&M activities and their custodians.*

Operating System	Function/ Purpose	Custodian
1 <b><i>GU&amp;M Guidelines for Education Facilities</i></b>	<ul style="list-style-type: none"> <li>• Guide the sector on the GU&amp;M requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Dept of Basic Education (DBE)</li> </ul>
2 <b><i>Central Computerised Maintenance Management System</i></b>	<ul style="list-style-type: none"> <li>• Recording, Trend Analysis, Reporting, Data Storage.</li> <li>• Tracks building components, systems and FFE by their age and life cycle for calibration of Economic Service Lives.</li> </ul>	<ul style="list-style-type: none"> <li>• DBE</li> </ul>

Operating System	Function/ Purpose	Custodian
3 <b>Centralised Web-based Education Infrastructure Management System</b>	<ul style="list-style-type: none"> <li>Record of the condition of all the Education Facilities.</li> </ul>	<ul style="list-style-type: none"> <li>DBE</li> </ul>
4 <b>Registers:</b>  4.1 Public Immovable Asset Register  4.2 GU&M Tools and Equipment Registers  4.3 GU&M Operations Register	<ul style="list-style-type: none"> <li>Keep records of all the basic education immovable assets;</li> <li>Register of all the tools and equipment to be used for GU&amp;M in each Education Facility;</li> <li>Register of all the GU&amp;M Activities, Incidents and Expenditure;</li> </ul>	<ul style="list-style-type: none"> <li>Dept of Public Works</li> <li>Facility Management (District, Circuit, School, Boarding Facility)</li> <li>Facility Mngnt</li> </ul>

Operating System	Function/ Purpose	Custodian
5 <b>Reporting Templates:</b>		
5.1 GU&M Tools and Equipment Registers	<ul style="list-style-type: none"> <li>Register of all the tools and equipment to be used for GU&amp;M in each Education Facility;</li> </ul>	<ul style="list-style-type: none"> <li>DBE</li> </ul>
5.2 GU&M Operations Registers	<ul style="list-style-type: none"> <li>Register of all the GU&amp;M Activities, Incidents and Expenditure;</li> </ul>	<ul style="list-style-type: none"> <li>DBE</li> </ul>
5.3 Facility GU&M Mngnt Plans	<ul style="list-style-type: none"> <li>Plans, schedules and rosters, indicating how the Facility Management will look after and Maintain the Facility;</li> </ul>	<ul style="list-style-type: none"> <li>DBE</li> </ul>
5.4 Emergency Capital Improvement Works (CIW) Requests	<ul style="list-style-type: none"> <li>Report to Province on natural and man-made catastrophes requiring major CIW;</li> </ul>	<ul style="list-style-type: none"> <li>DBE</li> </ul>
5.5 Request for CIW Interventions	<ul style="list-style-type: none"> <li>Request by Facility Mngnt to Province on need for CIW, other than Emergencies;</li> </ul>	<ul style="list-style-type: none"> <li>DBE</li> </ul>
5.6 Quarterly GU&M Expenditure (School, Circuit, District, Province, Sector)	<ul style="list-style-type: none"> <li>Quarterly expenditures on all the GU&amp;M activities at various levels;</li> </ul>	<ul style="list-style-type: none"> <li>DBE</li> </ul>
5.7 Annual GU&M Reports (School, Circuit, District, Province, Sector)	<ul style="list-style-type: none"> <li>Summary of the annual GU&amp;M activities, Incidents and Expenditure;</li> </ul>	<ul style="list-style-type: none"> <li>DBE</li> </ul>

Operating System	Function/ Purpose	Custodian
6 <b>Maintenance Plans:</b>		
6.1 Custodian Asset Mngnt Plan	<ul style="list-style-type: none"> <li>How the custodian of the Immovable Assets will manage them;</li> </ul>	<ul style="list-style-type: none"> <li>Dept of Public Works</li> </ul>
6.2 User Asset Mngnt Plans	<ul style="list-style-type: none"> <li>How the user of the Immovable Assets will manage them;</li> </ul>	<ul style="list-style-type: none"> <li>Provincial Education Depts (PEDs)</li> </ul>
6.3 Provincial Infrastructure Plans	<ul style="list-style-type: none"> <li>How each Province Plans to roll-out the Capital Improvement Programme over the MTEF given the available budget;</li> </ul>	<ul style="list-style-type: none"> <li>PEDs</li> </ul>
6.4 Facility GU&M Plans	<ul style="list-style-type: none"> <li>Plans, schedules and rosters, indicating how the Facility Mngnt will look after and Maintain the Facility;</li> </ul>	<ul style="list-style-type: none"> <li>Facility Mngnt</li> </ul>

## 11.4 Financial Resource Requirements and Budgeting

### 11.4.1 Unit of Costing of GU&M Activities

- (a) The **combination of both the Per Unit Area and the Per Number of Users methods** to be used.
- (b) The Number of Users to be used in determining the Gross Floor Area to be maintained by considering the Facility Occupancy Factor (FOF):

$$\text{Facility Occupancy Factor, FOF} = \frac{\text{User Design Capacity}}{\text{Actual Number of Users}}$$



- (c) The Combined GU&M Gross Area to be used as Unit of Costing for GU&M in the education sector to be determined as follows:

*Gross Grounds Area, **GGA** = Total Area Facility – GFA*

***Combined GU&M Gross Area** = (GFA x FOF) + GGA*

*Where: GFA = Gross Floor Area*

*FOF = Facility Occupancy Factor*

*GGA = Gross Grounds Area*

#### **11.4.2 Budgeting for GU&M Interventions**

- (a) GU&M Budget to include:
- (i) Recruitment costs, salaries and wages of Field Staff and their allowances;
  - (ii) Tools of Trade for the GU&M personnel;
  - (iii) Operating Systems for GU&M activities, including licences;
  - (iv) Consumables for GU&M activities;
  - (v) Estimated costs for Repairs and Replacements (Minor and Major);
  - (vi) Preventative Maintenance costs (call-outs, where applicable, and replacement parts);

- (vii) Cost of outsourced services (where applicable);
  - (viii) Training interventions;
  - (ix) Management of solid waste;
  - (x) Management of condemned and obsolete materials.
- (b) Budgeting process to be informed by the previous years' expenditure trends on similar facilities and location.
- (c) Budget allocation to be expressed as a function of the Combined GU&M Gross Area.

## 12. EXPECTED LEVEL OF SERVICE

### 12.1 Levels of Maintenance

**Table 11:** *Generic minimum Levels of Service for GU&M activities required in the education facilities.*

Area of Focus	Expected Level of Service
1 <b>Building Envelop</b>	<ul style="list-style-type: none"> <li>• <b>Roofs:</b> <ul style="list-style-type: none"> <li>○ Roof covering and “side panels” in place, roof sheets that were blown away or broken roof tiles replaced;</li> <li>○ Roof not leaking;</li> <li>○ Roof covering not rusted;</li> <li>○ Gutters fixed and/or repaired;</li> </ul> </li> <li>• <b>Gutters and Downpipes:</b> <ul style="list-style-type: none"> <li>○ No weeds, leaves, debris on gutters;</li> <li>○ Gutters and downpipes painted, where this is required;</li> <li>○ Downpipes secured in place;</li> <li>○ Gutter-downpipe joints not leaking;</li> </ul> </li> <li>• <b>Walls:</b> <ul style="list-style-type: none"> <li>○ No cracks;</li> <li>○ Plaster not chipped;</li> <li>○ Paint not peeling off;</li> <li>○ No dirt marks;</li> </ul> </li> <li>• <b>Doors and Windows:</b> <ul style="list-style-type: none"> <li>○ Handles, locks and hinges in place, not loose and operational;</li> <li>○ Frames painted, where this is applicable;</li> <li>○ Door panels not broken and not paint starved;</li> <li>○ Broken window panes replaced with prescribed glass panes per the Norms and Standard and SANS 1263.</li> <li>○ No dirt or dirt marks;</li> </ul> </li> </ul>

Area of Focus	Expected Level of Service
<p>2 <b>Indoor Spaces</b></p>	<ul style="list-style-type: none"> <li>• <b>Ceiling:</b> <ul style="list-style-type: none"> <li>○ Broken ceiling panels replaced;</li> <li>○ Ceiling painted;</li> <li>○ No dirt or dirt marks on ceiling;</li> </ul> </li> <li>• <b>Walls:</b> <ul style="list-style-type: none"> <li>○ No cracks on walls;</li> <li>○ Plaster not chipped;</li> <li>○ Paint not peeling off;</li> <li>○ Correct paint colour on the wall (per the Norms and Standards for Education Facilities);</li> <li>○ No dirt marks;</li> </ul> </li> <li>• <b>Floors:</b> <ul style="list-style-type: none"> <li>○ Floors not cracked or with no ditches;</li> <li>○ Floor covering not worn out;</li> <li>○ Portions of floor covering that either got “peeled” off, torn, broken or loose tiles replaced;</li> <li>○ No waste, dirt or dirt marks on the floor;</li> </ul> </li> <li>• <b>General Indoor Ambience:</b> <ul style="list-style-type: none"> <li>○ Organised;</li> <li>○ Clean and tidy;</li> </ul> </li> </ul>
<p>3 <b>Services and Systems</b></p>	<ul style="list-style-type: none"> <li>• Regular Preventative Maintenance of facility services and systems undertaken at predetermined intervals;</li> <li>• Fully functional at all times when needed;</li> <li>• Fused light bulbs replaced with bulbs of prescribed light intensity (per the <i>Norms and Standards for Education Facilities</i>);</li> <li>• Loose system parts tightened;</li> <li>• Broken and/or faulty parts replaced;</li> <li>• No leaks;</li> <li>• Sewer blockages unblocked;</li> <li>• Components with paint peeling off, repainted;</li> <li>• Dirt and dirt marks removed;</li> </ul>

Area of Focus	Expected Level of Service
4 <b><i>Furniture, Fittings and Equipment (FFE)</i></b>	<ul style="list-style-type: none"> <li>• Adequate FFE provided;</li> <li>• Loose screws and wiggling furniture and fittings tightened;</li> <li>• Malfunctioning equipment repaired;</li> <li>• Broken or worn out components of FFE repaired or replaced;</li> <li>• Totally broken FFE replaced;</li> <li>• FFE cleaned and kept orderly and tidy;</li> </ul>
5 <b>Outdoor Amenities</b>	<ul style="list-style-type: none"> <li>• Grass cut, weeds removed, hedges, ground-covers and trees trimmed;</li> <li>• Learning and Playing Equipment not wiggling, screws tightened, broken components repaired or replaced, components with peeling paint repainted;</li> <li>• Landscapes and flower gardens managed and de-weeded;</li> <li>• Walkways, driveways, assembly areas cleaned and de-weeded;</li> <li>• Pools cleaned;</li> <li>• Faded road-markings repainted;</li> <li>• Debris removed from stormwater channels and drainage inlets;</li> <li>• Drop-off areas de-weeded, cleaned and kept tidy;</li> <li>• Solid waste properly managed – picked up, collected, sorted for recycling (where this practiced), placed in designated waste storage bins and in temporary storage area and disposed of off-site in designated solid waste disposal site or incinerated.</li> <li>• Condemned and obsolete material stored in designated Condemnation Area;</li> <li>• Outdoors generally clean, tidy, and organised.</li> </ul>

## 12.1 Levels of Cleanliness

- (a) The Facility Manager and Facility Maintenance Co-ordinator (FMC) to conduct risk assessment to decide on the Level of Cleanliness required in each Functional Space.
- (b) As a minimum, the Level of Cleanliness in Education Facilities not to be less than Level 3.
- (c) The generic Levels of Cleanliness are reflected in **Table 12** below:

**Table 12:** *Various Levels of Cleanliness.*

Level of Cleanliness	Brief Descriptive Pointers
<b>Level 1 - Orderly Spotless</b>	<ul style="list-style-type: none"> <li>• Establishes cleaning at the highest level;</li> <li>• Results in spotless building as might be found in well-run hospitals or corporate suite environment;</li> <li>• Is a show-quality cleaning.</li> </ul>
<b>Level 2 - Ordinary Tidiness</b>	<ul style="list-style-type: none"> <li>• Is the basic level at which cleaning should be maintained;</li> <li>• Lower levels for washrooms, changing/locker rooms and similar type facilities are not acceptable.</li> </ul>
<b>Level 3 – Casual Inattention</b>	<ul style="list-style-type: none"> <li>• Is the norm for most school facilities and meets standards.</li> <li>• Is acceptable to most stakeholders and does not pose any health issues.</li> <li>• Level reflects the first budget cut, or some other staffing- related problem.</li> <li>• Is lowering of normal expectations.</li> </ul>

Level of Cleanliness	Brief Descriptive Pointers
<p><b>Level 4 – Moderate Cleanliness</b></p>	<ul style="list-style-type: none"> <li>• Is <u>not</u> acceptable in a school environment.</li> <li>• Classrooms cleaned every other day, carpets would be vacuumed every third day, and dusting would occur once a month.</li> <li>• Reflects the second budget cut, or some other significant staffing-related problem.</li> <li>• Areas are becoming unacceptable.</li> </ul>
<p><b>Level 5 – Unkempt Neglect Indicators</b></p>	<ul style="list-style-type: none"> <li>• Is the final and lowest level.</li> <li>• Trucking industry would call this “just-in-time cleaning.”</li> <li>• Facility is always dirty.</li> <li>• Cleaning accomplished at an unacceptable level.</li> <li>• Unhealthy situation.</li> </ul>

# 13. OPERATIONAL AND MANAGEMENT STRUCTURES

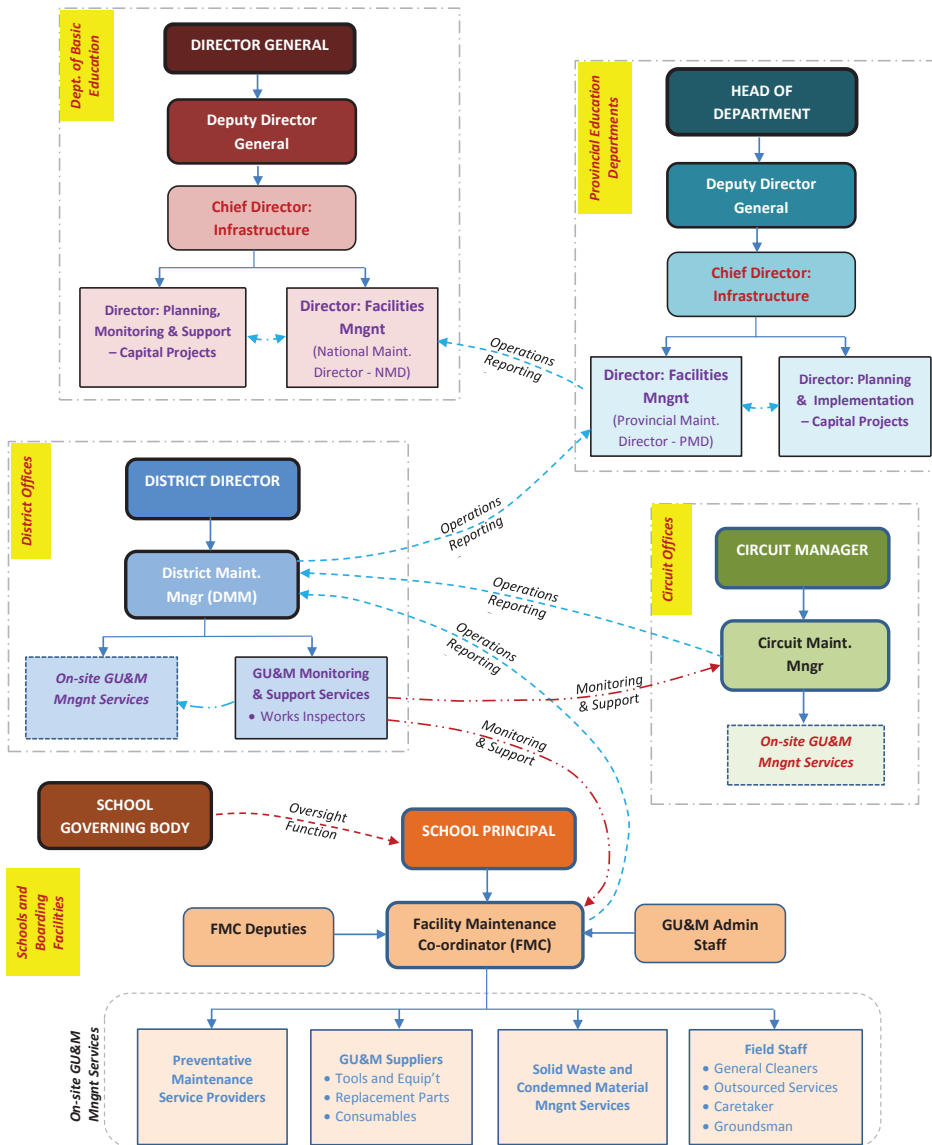


Figure 4: Generic Management and Operational Structure for GU&M activities.



## 14. MONITORING AND EVALUATION

- (a) Managers of Education Facilities to prepare GU&M Plans.
- (b) Facility Maintenance Co-ordinators to assess the condition of their Education Facilities using the Assessment Forms provided in Annexure B of the *GU&M Guidelines* to gauge where they are and to use the outcomes to inform the GU&M Plans.
- (c) PEDs to produce Provincial Education Infrastructure Plans (PEIPs), that include consolidated GU&M Plans, for submission to the Minister on the dates to be communicated by the Minister.
- (d) DBE to conduct site visits to randomly selected Education Facilities to assess progress.
- (e) DBE to provide continued assistance to PEDs on implementation of *GU&M Guidelines*.
- (f) PEDs to submit PEIPs by the Minister for evaluation and monitoring.
- (g) PEDs to submit to the DBE Annual Provincial Education Infrastructure Reports to assess progress made against the PEIPs.

## ANNEXURES

### **Annexure A – Acronyms**

**ACMs:** Asbestos Containing Materials

**ABSs:** Asbestos-built Structures

**AMP:** Asbestos Management Plan

**AWP:** Asbestos Work Plan

**APPA** Association of Physical Plant and Administrators

**CEM:** Council of Education Ministers

**CIP:** Capital Improvement Programme

**CIW:** Capital Improvement Works

**CMMS:** Computerised Maintenance Management System

**COGTA:** Department of **C**ooperative **G**overnance and **T**raditional **A**ffairs

**CSM:** Cleanable Square Meterage

**DBE:** Department of Basic Education

**DMM:** District Maintenance Manager

**DoRA:** Division of Revenue Act

**EFCA:** Education Facilities Condition Assessment

**EFCR:** Education Facilities Condition Report

**EFIMS:** Education Facilities Information Management System

- EIG:** Education Infrastructure Grant
- EOL:** Expected Occupational Level (for asbestos)
- EPWP:** Expanded Public Works Programme
- FFE:** Furniture, Fittings and Equipment
- FMC:** Facility Maintenance Co-ordinator
- FOF:** Facility Occupancy Factor
- FY:** Financial Year
- GAAP:** Generally Accepted Accounting Principles
- GGA:** Gross Grounds Area
- GFA:** Gross Floor Area
- GIAMA:** Government Immovable Asset Management Act (No. 19 of 2007)
- GU&M:** General Upkeep and Maintenance
- GUMRR:** General Upkeep, Minor Repairs and Minor Replacements
- GSM:** Gross Square Meterage
- HVAC:** Heating, Ventilating and Air-Conditioning
- IA:** Implementing Agent
- ICT:** Information and Communications Technology
- IDMS:** Infrastructure Delivery Management System
- IEQ:** Indoor Environmental Quality

**LAN:** Local Area Network

**LEF:** Learner Enrolment Figures

**LSENS:**Schools for Learners with Special Education Needs

**LTSM:** Learning and Teaching Support Material

**MEC:** Member of Executive Council, Provincial Education Department

**MRR:** Major Repairs and Major Replacements

**MTEF:** Medium Term Expenditure Framework

**NIAMMS:**National Immovable Assets Maintenance Management Standard

**NMD:** National Maintenance Director

**NNSSF:**National Norms and Standards for School Funding

**NSNP:** National School Nutrition Programme

**PEDs:** Provincial Education Departments

**PEIP:** Provincial Education Infrastructure Plan

**PES:** Provincial Equitable Share

**PFMA:** Public Finance Management Act (Act No.1 of 1999)

**PMD:** Provincial Maintenance Director

**PSP:** Professional Service Provider

**RTB:** Run-to-Breakdown

**SABS:** South African Bureau of Standards

**SASA:** South African Schools Act (No. of 84 of 1996), as amended

**SANS:** South African National Standards

**SETA:** Skills Education Training Authority

**SGB:** School Governing Body

**SMME:** Small, Medium and Micro Enterprises

**PWDs:** People with Disabilities

**U&A:** Upgrades and Additions

**UoC:** Unit of Costing

**UPS:** Uninterruptable Power Supply

**WAN:** Wide Area Network





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