



**Dr. Shakuntala Misra National Rehabilitation  
University, Lucknow**

**Infrastructure Maintenance Policy**

**Maintenance Department**

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*V.K. Singh*

## **Introduction**

The Maintenance Department of Dr. Shakuntala Misra National Rehabilitation University has an extensive infrastructure to deliver its teaching, learning and research programs. The University has an established system for maintenance and utilization of infrastructure in both the campuses (Main Campus and Allied Campus).

The Maintenance Department of the University is responsible for regular maintenance of all the infrastructural facilities, providing plans for campus development and other allied and incidental activities. It has civil and electrical Wings and it operates under the supervision of Officer In-charge who is nominated by the Vice Chancellor.

This document provides a framework and an outline on the allocation of responsibilities to ensure effective use and maintenance of existing infrastructure facilities.

Diagrammatic representations of a procedure for the maintenance of various infrastructural facilities are presented in this document.

### **1. COMPONENTS OF A MAINTENANCE SYSTEM**

The maintenance system shall include the following components: -

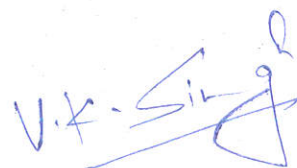
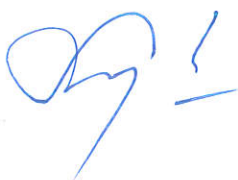
- 1.1 Prioritization of work
- 1.2 Comprehensive work procedures
- 1.3 Performance standards and goals
- 1.4 Work order system
- 1.5 Long-range planning

By developing a maintenance policy that has these components in place, the department will have the tools it needs to control the performance of maintenance work at the University.

#### **1.1 Prioritization of Work**

The work priorities adopted by the Maintenance Department exemplify its philosophy of delivering maintenance services. This priority system ensures that the most important maintenance work is done at a time it can be performed most cost-effectively. The maintenance priorities of the University assets and buildings are as follows:

- i. Emergency repairs
- ii. Planned maintenance
- iii. Resident requests
- iv. General cleaning



v. Inspection

vi. Preventive maintenance

vii. Miscellaneous

This will ultimately decrease on-demand work and maintain the University property in a manner that will keep students and staff satisfied

### **1.2 Comprehensive Work Procedures**

The Officer In-charge will ensure that there are sufficient clear procedures in place to allow staff to implement the Maintenance Policy. All procedures will include the following:

- i. A statement of purpose.
- ii. The job title(s) of the staff member(s) responsible for carrying out the activities in the procedure.
- iii. Forms needed to carry out the activities.
- iv. An annual review of the maintenance procedures.

### **1.3 Performance Standards and Goals**

The Officer In-charge will establish and ensure measures that will allow the effectiveness of maintenance systems and activities to be evaluated. In establishing these standards, the University will take into consideration the following factors:

- i. National/State building and fire safety by laws.
- iii. State Building Codes.
- iii. University Agreements.
- iv. Job descriptions of works to be undertaken.

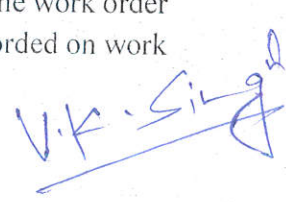
Nothing in the documents listed above will prevent the Maintenance Department from setting a standard that is higher than that contained in the documents. These standards and goals will be used to evaluate current operations and performance and to develop strategies to improve performance and meet the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

### **1.4 Work Order Systems**

The Maintenance Department shall have a comprehensive work order system that includes all work request information, viz. source of work, description of work, priority, cost and days to complete. This information is required for the University 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 schedules which will include at the minimum, the following:



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- i. Source of request (planned, inspection, resident, etc).
- ii. Priority assigned.
- iii. Location of work.
- iv. Date and time received.
- v. Date and time assigned.
- vi. Worker(s) assigned.
- vii. Description of work requested (with task number).
- viii. Description of work performed (with task number).
- ix. Estimated and actual time to complete.
- x. Materials used to complete work.

### **1.5 Long Range Planning**

The Maintenance Department of University will put in place and maintain a long range maintenance planning capability in order to ensure the most cost effective use of University resources and to maximize the useful life of University properties. By developing a work plan, the University will be able to anticipate its staff, equipment and material needs. It will also be possible to determine need for contracting particular services.

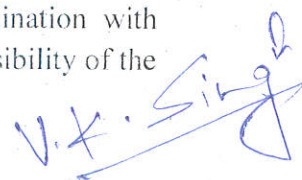
## **2. MAINTENANCE OF PHYSICAL FACILITIES**

The physical facilities in both the campuses of Dr. Shakuntala Misra National Rehabilitation University are maintained by the Maintenance Department comprising of competent civil and electrical engineers. The services of plumbers, electricians, carpenters, etc. are available round the clock in the campus.

Electrical engineer is responsible for the uninterrupted power supply and maintenance of equipment like generator sets, general lighting, power distribution system, solar panels etc. Maintenance of water plumbing plants, sewage and drainage is undertaken by support staff.

The Officer In-charge with a team of members, monitors the maintenance and cleanliness of the buildings, classrooms, labs, furniture, campus ground, sports facilities, staff lounge, students amenity areas, cafeteria and hostel buildings. Transport facilities and all vehicles of the University are also monitored and maintained by the Maintenance Department of University.

Ensuring adequate fire-fighting arrangement in common areas such as Atal Auditorium, Amenities Blocks, ALRC, Stadium, Swami Vivekanand Central Library, Halls, Committee room, etc. at major events organized on campus such as Convocation etc. and coordination with respective departments for any such response in emergency, is an important responsibility of the Maintenance Department of University.



### **3. MAINTENANCE OF CLASSROOMS, FURNITURE AND LABORATORIES**

Classrooms with furniture, teaching aids and laboratories are maintained by the respective department staff and attendants and supervised by the respective Head of the Department. The laboratory assistants take care of their respective laboratories. The Heads of Departments report to the administration weekly for all the maintenance works. Minor repairs are registered in a ledger maintained in the office and are attended on priority basis. Staffs of respective department monitor effective utilization of the laboratories. Students optimally utilize all classrooms during the daylong working hours and are also mentored to upkeep the furniture.

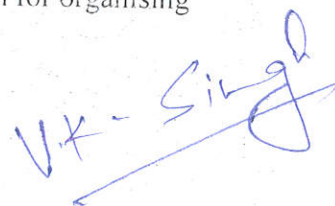
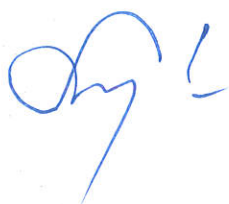
### **4. MAINTENANCE OF LIBRARY AND LIBRARY RESOURCES**

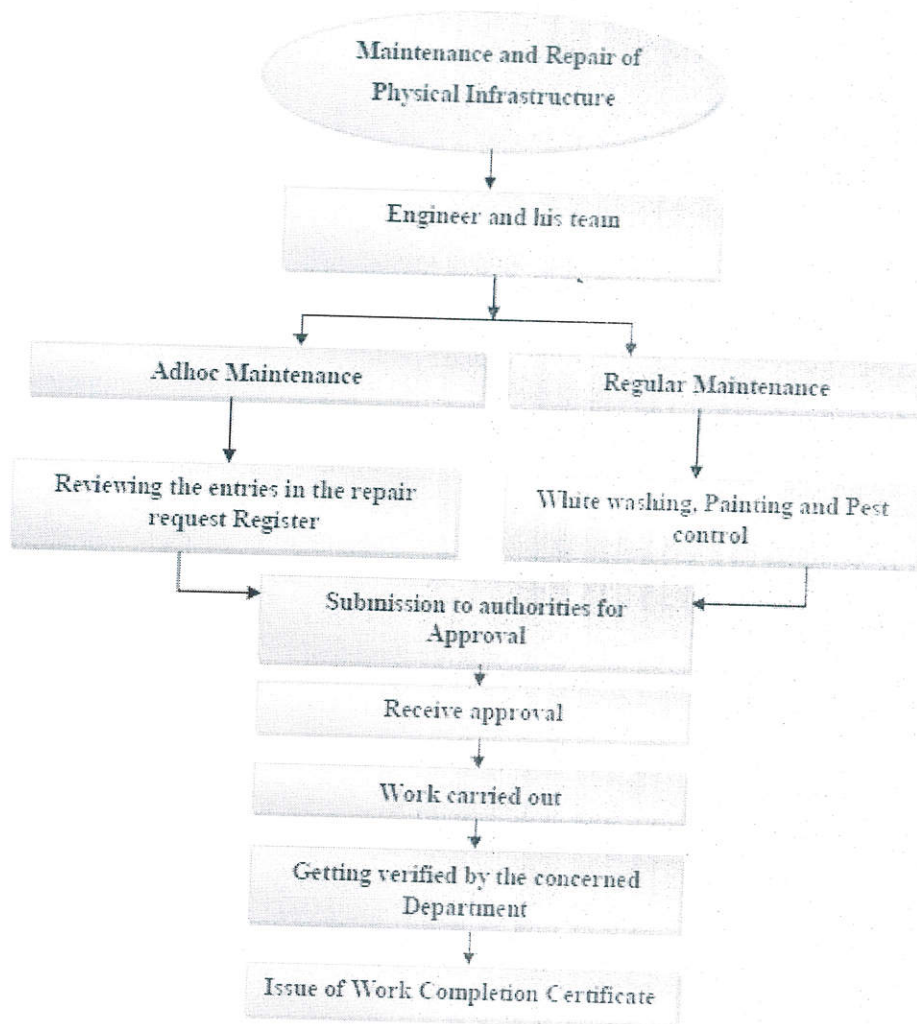
The library staff takes care for library resources. They are properly trained in the handling of library documents, particularly during processing, shelving and conveyance of documents.

Dust should not be allowed to deposit on the documents because this causes staining of documents and promote chemical and biological problems. Cleaning and using vacuum should be done regularly and carefully. Magnetic discs or documents containing disc(s) should not be kept open or near any magnetic or electric equipment, i.e. tape recorders, air-conditioners, etc. Such materials should be kept in a dust-free, temperature and humidity controlled room. Proper pest management is done to minimize the problems caused by insects. Borax or common salt is used to prevent cockroaches. Sodium fluoride is applied to bound volumes to save them from silverfishes. Spread of kerosene oil, DDT or gammaxine powder over the affected area can help in removal of termites or white ants. Proper cleaning, fumigation and exposure to sunlight to the documents are done regularly to reduce the effect of insects in the library. Repellants are used to save materials from Rats.

### **5. MAINTENANCE AND UTILISATION OF SEMINAR HALLS AND AUDITORIUM**

Maintenance of Seminar halls and auditoria are under the purview of the Officer In-charge / Head of Departments. Effective utilisation of seminar halls and auditorium for organising academic meetings, seminars, conferences and cultural events is made.





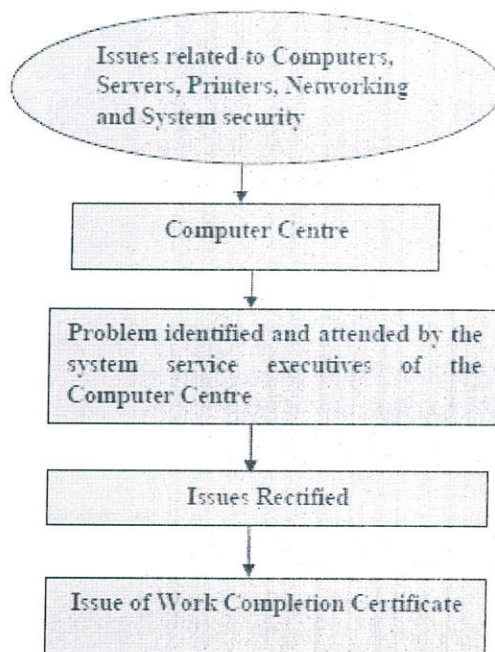
**FLOW CHART OF PHYSICAL INFRASTRUCTURE MAINTENANCE**

## **6. MAINTENANCE OF ICT FACILITIES**

System Analyst, The Computer Centre and its support staff maintain the ICT facilities including computers and servers. The annual maintenance includes the required software installation, antivirus and up gradation. To minimize e-waste, electronic gadgets like projectors, computers, printers, photocopiers are serviced and reused.

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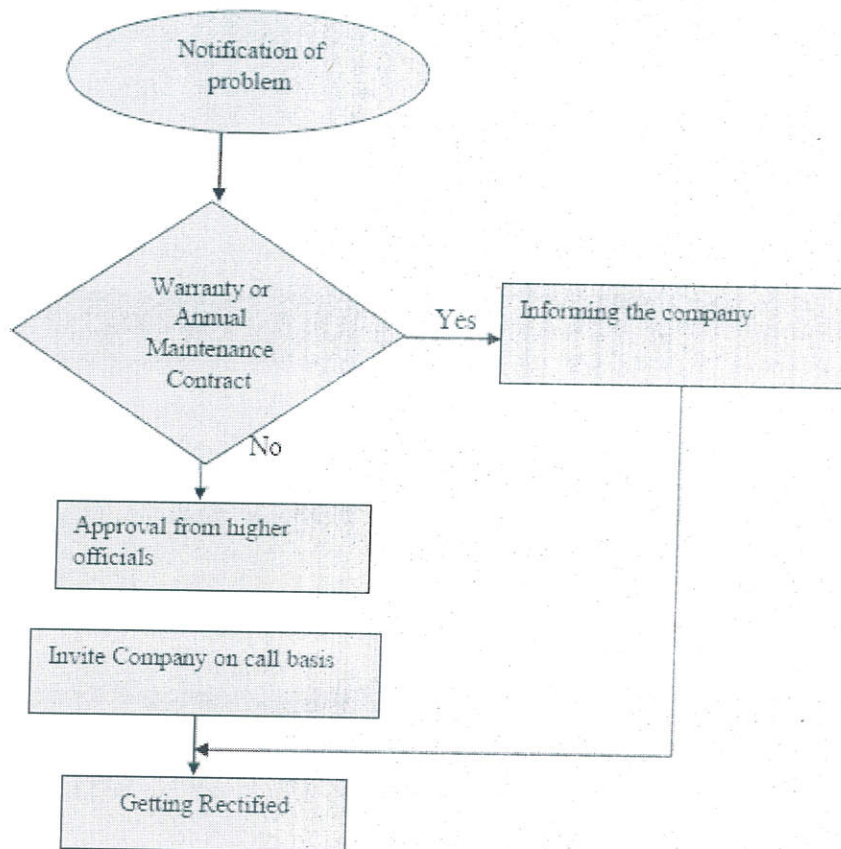


## MAINTENANCE OF ICT FACILITIES

### 7. MAINTENANCE OF SPORTS AND GAMES FACILITY

The sports equipments, fitness equipments, ground and various courts in the Campus are supervised and maintained by the Maintenance Department. Expensive equipments in the fitness lab are maintained through Annual Maintenance Contract. Ground level maintenance is done annually during vacation in addition to the seasonal maintenance performed Once in every four months.

Grounds men, vendors of Sports goods and Sports Department maintain the sport equipments. Seasonal maintenance of all equipments and ground are carried out regularly. Gymnasium and playgrounds are maintained by the staff of the Maintenance Department and Sports Department.



**FLOW CHART FOR MAINTENANCE OF SPORTS FACILITY**

## **8. MAINTENANCE OF CAMPUS CLEANLINESS**

Cleaning of the campus areas including the academic and administrative buildings is performed daily in the morning before the regular classes begin with the help of the outsourced housekeeping staff. Toilets are cleaned twice every day. The whole campus area is maintained by the supervisors who report the completion of work to the concerned authorities.

## **9. CAMPUS DEVELOPMENT ACTIVITY**

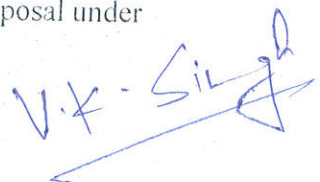
- i. To prepare proposals for infrastructural development in the campus as instructed by the Vice-Chancellor for University funded projects or for seeking funding from UGC/ RUSA, State Government and other Government projects through Registrar.
- ii. To coordinate with nominated government executing agencies for successful execution of such funded projects and submission of utilization certification by the Finance Officer.



- iii. To execute approved proposals for demolition of such dilapidated building structures which are deemed unusable for safety reasons through due process of auction on as-is-where basis.

## **10. ALLIED AND INCIDENTAL MAINTENANCE**

- i. To prepare estimates of maintenance, repair, renovation or new projects as per approved schedule of rates prescribed by the UPRNN/ Public Works Department, seek administrative approvals, carry out due process of inviting quotation, tenders, Expressions of Interest etc. as applicable as per prescribed respective limits for quotations, tenders etc., assign work to successful bidder after ensuring prepared MOU to be signed by Finance Officer.
- ii. To monitor approved works for timely completion and adherence of quality, verify and process bills for payment to Finance Officer after due entry in measurement books, stock register etc.
- iii. To maintain records of all executed works and assist in provision of requisite information as needed to authorities, RTI and audit.
- iv. To install electrical meters in residential units, carry out readings for monthly consumption and ensure deduction of electrical charges from the salary bill of residential allottees through advice note to Finance officer.
- v. To ensure handing over the new added infrastructure facilities to the concerned In-charge of the office after verifying the lists of assets, fittings and fixtures etc.
- vi. To ensure handing over the keys of the allotted residential quarters to the concerned teacher/employee as per the allotment by the Allotment Committee /Vice-Chancellor and also take the vacated quarter keys from outgoing occupant.
- vii. To issue No-Dues Certification to teachers/employees after ensuring all rental dues, electrical charges are paid and all fittings and fixtures are intact.
- viii. To assist in removal of condemned and discarded items of furniture, fixtures and furniture on the request of HOD or In-charge concerned to the scrap yard or store for disposal under the directions of Registrar.



## 11. WASTE MANAGEMENT

For disposal and treatment of solid waste, there is a Garbage Disposal mechanism under the supervision of Contractor- cleanliness is responsible for collecting the garbage daily from all departments, hostels, and residential areas. After collecting the garbage, Non-Biodegradable garbage is separated. Compost is made from Bio-Degradable waste through dug-out pits.

STP (Sewage Treatment Plant) has been provisioned in both the campuses which is maintained and run through Contractor- STP Services on daily basis.

## 12. RAIN WATER HARVESTING

Government of India has decided to make Rain Water Harvesting compulsory in urban areas considering increasing population and burden on water supply. Low rainfall situations and drying ground water level are main challenges in urban as well as rural areas to keep sufficient water supply.

Provision or Construction of Rain Water Harvesting unit is a solution for this problem. Rain Water Harvesting have been installed in the campus. We can develop our campus a model for Water Conservation.

## 13. CORRECTIVE MAINTENANCE

It refers to maintenance wherein defects have been observed in civil, mechanical, electrical or ICT infrastructure during its design life or operation. It includes cracks, seepage, plasters, breakdown of equipment etc.

Table 1 presents the types and Classifications of Maintenance in the University along with an indicative description of works. All other maintenance related to ICT facilities, library, and other support facilities can also be categorized as per this classification.



#### **14. PROCUREMENT POLICY**

Dr Shakunatala Misra National Rehabilitation University has comprehensive procurement policy. The rules are as per the Uttar Pradesh Procurement Manual-2016 which not only protect public funds from unfair uses but to demonstrate fair uses to the public.

##### **Objective:-**

- 1- To ensure that equipment/accessories are procured through standard procedure in major and minor purchases of the institution.
- 2- To provide support to the department for goods/services in efficient, economic and transparent manner.
- 3- To co-ordinate with Divyangjan Sashaktikaran Vibhag, Govt. of Uttar Pradesh through Finance Committee of the University in fund allocation.

All common use goods (stationary, computers, printers, machineries, furniture, electrical items, plumbing items, sports items etc.) and services (cleaning and sanitation, security, manpower, transports, horticulture etc.) are procured through Government e-Market place (GeM) as per Uttar Pradesh Procurement Manual-2016 rules. A GeM Committee has been formed at the University level for effective and efficient procurement process.

The registered Buyers on GeM apply for the bid floated under consideration. The items and service available on GeM portal are procured. Items not available on GeM are procured through an open e-Tender process and on quotation basis wherever urgency exists. GeM is the primary procuring vehicle of the University.


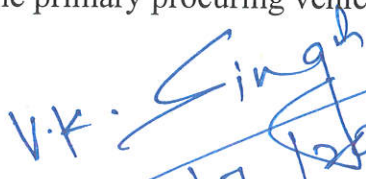
   
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Table 1: Types and Classification of Maintenance in the University

Types	Type of Maintenance	Description of work	Frequency
		Patchwork of roads immediately after rainy season.	Once a year (November) (also as and when required)
		Whitewash of all buildings (academic, main building, central facilities, hostels)	Every four years
		Whitewash of staff residences	Every four years
		Cleaning of Overhead tank, water tanks in hostels and OHTs/Sintex plastic overhead tanks in academic buildings and residences	Every six months
	<b>Routine /normal</b>	Cleaning of offices, buildings, streets, and washrooms in the University	daily
	<b>Preventive</b>	a) Earthquake-resistant design of new buildings b) Damp proofing course c) Water-proofing of roofs	At the time of construction of new buildings
	<b>Corrective</b>	Waterproofing, spalling of plaster from the ceiling	As and when the need arises
	<b>Major</b>	Carpeting of roads	Every seven years
	<b>Complaints/ requests from hostels/residents</b>	Repair and maintenance of civil works	As and when a request is received (within 24 hrs)
	<b>Scheduled</b>	Cleaning of sewer and stormwater drains	Every six months
	<b>Emergent</b>	Major breakdown of pumps resulting in a breakdown in water supply	As and when the situation arises (within 12 hrs)
	<b>Complaints/ requests from hostels/residents</b>	Repair and maintenance of mechanical works	As and when a request is received (within 24 hrs)
	<b>Corrective Emergent</b>	Electric wiring in old buildings	Every five years
		Major breakdown of transformer/fire in transformer	As and when a situation arises
		Power breakdown because of heavy rain/wind and consequent uprooting of electric poles and cables	
	<b>Complaints/requests from offices/ departments/hostels/ residents</b>	Repair and maintenance of electric supply	As and when a request is received (within 06 hrs)

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ICT facilities	Scheduled	All AMC-related aspects of ICT Infrastructure	Every year/as per agreement/warranty period
	Preventive	Installation of antivirus/network security software in university internet facility	At the time of new facility/augmentation of facility/or as per warranty period
	Complaints/requests from faculty/departments/offices/hostels	Repair and maintenance of internet/wi-fi/LAN etc	As and when a request is received (within 12 hrs)
Horticulture	Scheduled	Grass cutting of all playgrounds, lawns in academic areas, playgrounds	Four times a year
	Routine	Plantation maintenance of lawns and gardens in the campus	Routine
	Emergent	Uprooting of trees/scrubs because of heavy rain/wind	As and when the situation arises

Standard procedures have been in place for the maintenance and upkeep of various other departments, offices, facilities, and purchase activities connected to infrastructural maintenance. The Nazarath Section of the University, in collaboration with the Maintenance and other Section In-charges, takes care of the purchase-related activities concerned with the maintenance of various sections.

#### Glossary:

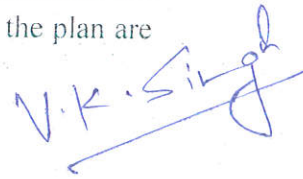
- i. **Maintenance:** Work performed on a facility or the fixed systems and building service equipment therein, for the purpose of maintaining quality and function.
- ii. **Planned maintenance:** Upkeep of property, machinery, and facilities, including buildings, utility systems, roads, and grounds. It is often characterized by its routine or recurring nature.
- iii. **Preventive Maintenance:** Planned actions undertaken to retain an item at a specified level of performance by providing repetitive scheduled tasks that prolong system operation and useful life: inspection, cleaning, lubrication, and part replacement.
- iv. **Repairs:** The reconstruction or renewal of any part of an existing facility for the purpose of maintenance or restoration of its state

#### Note 1:

#### LIFE SAFETY SYSTEMS

The University shall have a comprehensive program for maintenance of life safety systems to ensure that they will be fully functional in the case of an emergency. The Maintenance Department shall be responsible for the development and implementation of a schedule that includes the inspection, servicing and testing of this equipment. The equipment to be included in the plan are the following:





- i. Fire alarms and fire alarm systems
- ii. Fire extinguishers
- iii. Fire hoses
- iv. Emergency generators
- v. Emergency lighting
- vi. Smoke detectors
- vii. Sprinkler systems

The plan will include testing and servicing as per manufacturer's recommendations. It will also include a determination of the most reliable and cost effective way to perform the work including the decision to hire a contractor.

**Note 2:**

All the procedures and protocols related with maintenance of infrastructure are subject to change in accordance with guidelines issued by U P State Public Works Department / Guidelines issued by State Higher Education Department/Guidelines issued by the National building code.

