

DOCUMENTED INFORMATION FOR MENTEINANCE DEPARTMENT



KUC/ADM/MNTC/SOP/002

AUTHORIZATION: All documented information (Quality Objectives, procedures, opportunities and risk register for maintenance department are issued under the authority of:	
MANAGEMENT REPRESENTATIVE	
Signature:	
Date:	
PROCESS OWNER/HOD/DIVISIONAL HEAD	
Signature:	
Date:	 05/06/18

Version 2: Revision 1, 04/2018

DOCUMENTED INFORMATION FOR MENTEINANCE DEPARTMENT

DOCUMENT DETAILS:

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2.	Section B: Procedures	
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		Scope
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		Terminology
		Responsibility
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		Methods
		Output
		Records
		Key performance Indicators
		Appendices
		Flow chart-process map
3.	Section C: Opportunities	
4.	Section D: Risks	

SECTION A: QUALITY OBJECTIVES

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OBJECTIVE	ACTIVITIES	RESOURCES	RESPONSIBILITY.	TIME FRAME.	KEY PERFORMANCE INDICATORS.
<p>To monitor operational performance of transport, building, electrical, audio-visual and mechanical sections on quarterly basis</p>	<ul style="list-style-type: none"> • Ensuring that work orders are responded • Comply to facility and equipment maintenance schedules • Provision of utilities to students and staff 	<p>-Competent technical staff, spares, manufacturers catalogues</p>	<p>Maintenance staff, Management & college council</p>	<p>Quarterly</p>	<p>Reports</p>
<p>To monitor project performance for all college capital projects on quarterly basis.</p>	<p>Direct, coordinate and project cost estimates for all college capital projects on quarterly basis</p>	<p>Competent technical staff. Building by laws and regulation codes</p>	<p>Maintenance staff, Management & college council</p>	<p>Quarterly</p>	<p>Reports</p>

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SECTION B: PROCEDURES

(1)

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1.0 PROCEDURE FOR PROJECT IMPLEMENTATION

2.0 PURPOSE

To ensure timeliness, efficiency in project implementation

3.0 SCOPE

The procedure covers projects identified through annual appraisal of assets and other projects commissioned by the board.

4.0 REFERENCES

Building by laws & Regulations Codes
National Construction Authority (category)
ISO 9001:2015 Standard

5.0 TERMS AND DEFINITIONS

KUC: - Kenya Utalii College
MNTC: - Maintenance
SOP: Standard Operating procedure
CMO: Chief Maintenance Officer

6.0 RESPONSIBILITIES

Chief Maintenance Officer shall ensure this procedure is implemented.

7.0 INPUTS

- 7.1 Appraised asset status
- 7.2 Approved budget
- 7.3 Bill of Quantities

8.0 METHOD

- 8.1 The CMO shall carry out an appraisal of the status of assets on a yearly basis or prepare a project proposal as instructed by the CEO.
- 8.2 The CMO shall prepare an annual budget/ proposal for projects to be undertaken and forward budget to the **College Council** for approval.
- 8.4 If approved, The CMO shall document and prepare Terms of Reference/Bills of Quantities. **If not approved the CMO makes amendments.**
- 8.5 The CMO shall forward the Terms of Reference to Purchasing department for outsourcing the contractor using ERP system.
- 8.6 The outsourced contractor prepares a workplan and forwards to CMO for approval.
- 8.6 If approved, The contractor is engaged, moves to the site and execute the work in liaison with the CMO as per the contract requirements
- 8.8 The Contractor shall hand over work done to The CMO who will inspect and issue a certificate of practical completion noting any defects.
- 8.9 If any there are any defects, Contractor shall undertakes necessary tasks and makes good the reported defects then issues, a Making Good Record form.
- 9.0 The CMO shall issue a certificate of completion and discharge the contractor as per the Terms of Reference.
- 9.2 The CMO shall issue a handover Certificate to the user department

9.3 The CMO shall update the Projects register

9.0 OUTPUTS

9.1 Functional completed facility.

10. RECORD

10.1 Practical completion certificate

10.2 Making good defects record form

10.3 Making good record form

10.4 Hand over certificate

10.6 Update project register

10.7 Approved budget

11. KEY PERFOMANCE INDICATOR

11.1 Number of completion certificates

11.2 Updated project register

(2)

PROCEDURE FOR CORRECTIVE MAINTENANCE

2.0 PURPOSE

To give guidelines on undertaking timely and effective corrective maintenance.

3.0 SCOPE

From receiving a work order to recording and sending copies of the work order to source departments to giving feedback on completed work.

4.0 REFERENCES

Quality manual

Manufacturers' Catalogue

5.0 TERMS AND DEFINITIONS

CMO- Chief Maintenance Officer

D/CMO-Deputy Chief Maintenance Officer

MOII-Maintenance Officer II

6.0 RESPONSIBILITY

6.1 CHIEF MAINTENANCE OFFICER

6.1.1 In charge of maintenance department and delegates duties to maintenance officers for smooth running of the operations and is involved in outsourcing works

6.1.2 Responsible for formulation of policies that are aimed at improving performance of the department

6.1.3 Approves purchase of repair items

6.2 DEPUTY CHIEF MAINTENANCE OFFICER

6.2.1 Ensures that repair works have been undertaken and feedback copies returned to the user

6.2.2 Approves stores requisition forms

6.2.3 Checks and confirms that works have been undertaken to the correct standards

6.2.4 Ensures that safety procedures are followed at all times.

6.3 SENIOR MAINTENANCE OFFICER

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6.3.1 Collects and control copy of the work orders and confirms with the foremen that works have been undertaken before filling

6.3.2 Supervises and control maintenance services to ensure that they are carried out to customers satisfaction

6.3.3 Ensures feedback is given to the source of the work order

6.3.4 Ensures that safety procedures are followed at all times

6.4 MAINTENANCE OFFICER II (In charge of Hotel Maintenance)

6.4.1 Supervises and control maintenance services in the Hotel to ensure that they are carried out to the customers satisfaction

6.4.2 Ensures feedback is given to the source of the work order

6.4.3 Ensure that safety procedures are followed at all times.

6.5 FOREMEN

6.5.1 Collects the pink copy of the work orders and assigns tasks to technicians

6.5.2 Raise requisition forms for materials required for the task

6.5.3 Forwards requisition form for approval by the D/CMO

6.5.4 Supervises and control maintenance services to ensure that they are carried out to the customers satisfaction

6.5.5 Ensures feedback is given to the senior maintenance officer

6.6 TECHNICIANS

6.6.1 Carries out diagnosis of the breakdown

6.6.2 Prepares a list of materials required for the maintenance work

6.6.3 Receive materials and carry outwork

6.6.4 Carry out the required maintenance and upon completion return the pink copy to the foreman

6.7 STAFF

6.7.1 Report any identified faults /complaints requiring corrective maintenance by raising the engineering work orders and depositing it into the work order boxes outside maintenance offices

7.0 INPUTS

1.1.1 Work orders

2.0 METHOD

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- 2.1.1 All departments raise Engineering work orders (Filled In triplicate) on identifying a fault requiring corrective maintenance and depositing it into the letter boxes outside the maintenance offices.**(Yellow copy-to be put in yellow letter box, Pink copy-to be put in pink letter box & Green copy-to remain in requesting department)**
- 2.1.2 The foremen collect the pink work orders during normal working hours and assigns tasks to technicians .(At odd working hours the technicians on duty pick the work orders themselves and sorts out what they are able to execute)
- 2.1.3 The assigned technicians then carries out diagnosis ,identifies the materials and informs the foreman
- 2.1.4 The foreman requisitions for materials.
- 2.1.5 The materials are then received and the service is carried out by the assigned technicians who fill the appropriate sections of the engineering work order.
- 2.1.6 The work order is forwarded to the foreman who checks and confirms that the tasks have been undertaken.
- 2.1.7 The work orders are then forwarded to the SMO for filling and updating of the register and the work orders returned to the user. If the repair takes longer than the normal reasonable time, the SMO issues an engineering delay form.
- 2.1.8 The CMO reviews engineering work order register on weekly basis.

3.0 OUTPUT

- 3.1.1 Corrective maintenance done.

4.0 RECORD

- 4.1.1 Updated work order register/ database
- 4.1.2 Maintenance delay form
- 4.1.3 Fault diagnosis form

5.0 KEY PERFORMANCE INDICATOR

- 5.1.1 Updated database
- 5.1.2 Working facility/equipment

No.3.

1.0 PROCEDURE FOR PREVENTIVE MAINTENANCE

2.0 PURPOSE

To ensure early detection of failures and ensure reliability of equipment's, machines and buildings.

3.0 SCOPE

The procedure covers machines, equipment's, buildings, fumigation and gardening.

4.0 REFERENCES

Manufacturers catalogues
ISO 9001:2015 standard

5.0 TERMS AND DEFINATIONS

KUC: Kenya Utalii College

CMO: Chief Maintenance Officer

6.0 RESPONSIBILITIES

The CMO is responsible for this procedure to be implemented.

7.0 INPUTS

7.1.1 Signed contracts

7.1.2 Scope of work

7.1.3 Approved budget

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7.1.4 Competent staff

8.0 METHOD

8.1.1 CMO shall prepare an annual preventive maintenance schedule with the scope of work at the beginning of every year.

8.1.2 The CMO shall prepare an annual budget/proposal for contracted services and forward budget to the college council for approval.

8.1.3 If approved, the CMO shall prepare terms of references/Bill of Quantities. If not approved the CMO makes amendments.

8.1.4 The CMO shall forward terms of reference to purchasing department for outsourcing the contractor using ERP system.

8.1.6 The outsourced contractor prepares a work plan and forwards to the CMO for approval.

8.1.7 If approved, the contractor is engaged and executes preventive maintenance as per contract requirements. If not approved the contractor makes necessary amendments.

8.1.8 If any faults arises before the schedule service period the CMO will contact the contractor.

8.1.9 The CMO will approve the contractor's job card on every service done satisfactorily.

8.2.1 The CMO shall update preventive maintenance file.

9.0 OUTPUTS

9.1.1 Facilities in good working condition

10.0 RECORD

10.1.1 Signed contract

10.1.2 Job cards

10.1.3 Approved budget

11 KEY PERFORMANCE INDICATOR

11.1.1 Updated preventive maintenance file

12 APPENDICES

Project implementation

- Flowchart
- Record of change
- Forms

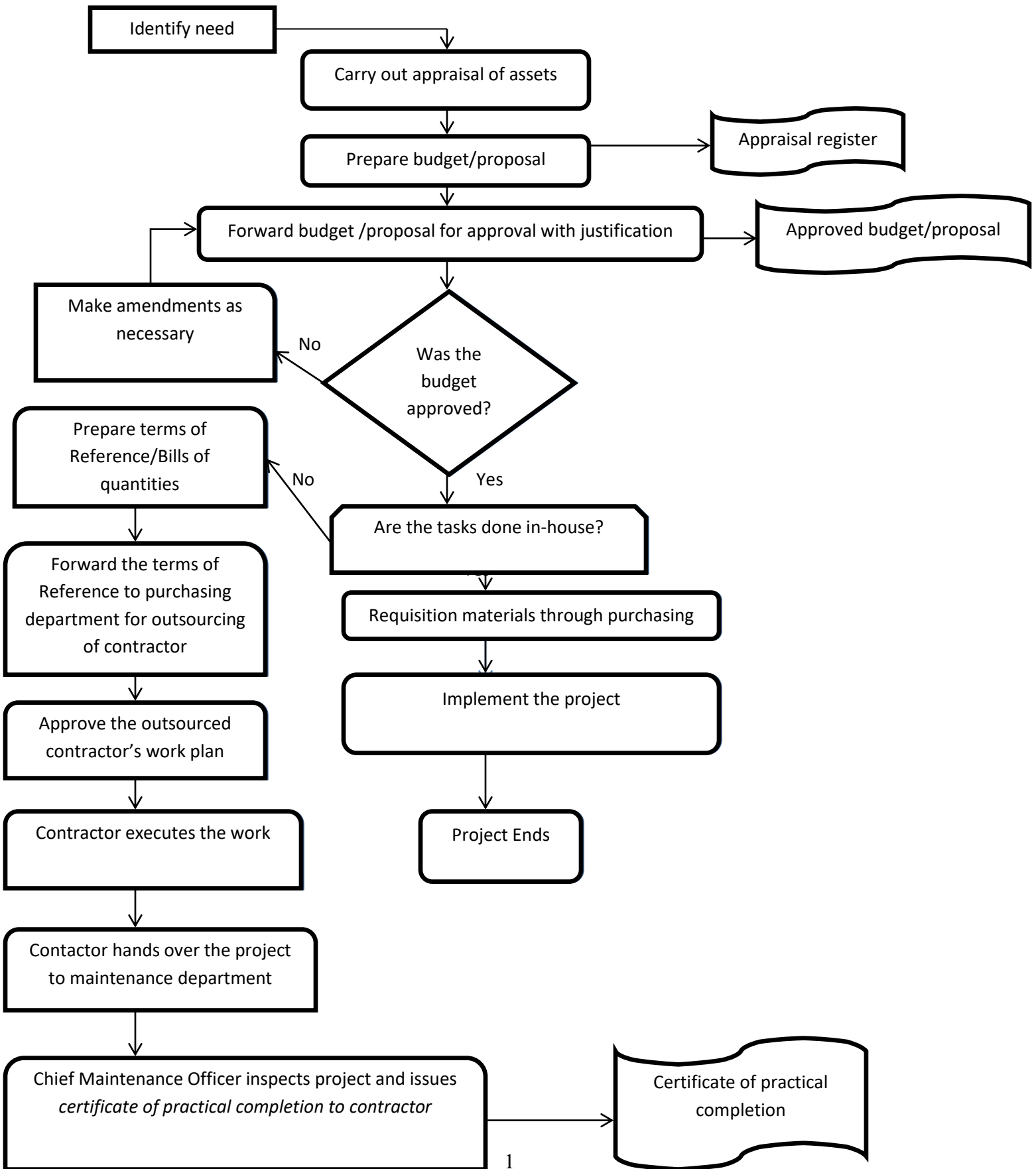
Corrective action

- Flow chart
- Work order register/database format
- Maintenance delay form
- Fault diagnosis form

Preventive action

- Flowchart
- Amendment sheet

MAINTENANCE: Project implementation procedure



1

Carry out inspection during the defect liability period

Are there defects to be made good?

No

Issue making good record form to contractor

Making good defects form

Issue certificate of making good defects after repairs have been undertaken

Certificate of making good defects

Issue handing over certificate

Handing over certificate

If the project cannot be maintained in-house, obtain a maintenance contract

Discharge contractor as per the terms of Reference

Update the project register

Project register

Inform Legal department to review the insurance terms of the corporation's assets

End

Appendix 1:

KUC/ADMIN/R/046

**Kenya Utalii
College**
P.O. Box 31052, Tel. +254-020-8561201, Fax +254-020-
8560514.
Nairobi,
Kenya

CERTIFICATE OF PRACTICAL COMPLETION

From
: Chief Maintenance Officer (KUC)

To: The Contractor

LPO No.

Att: Mr/Ms

.....

Details of Works

Name/Address of
Contractor

Completion of Building
Works
Delete (a) or (b)

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- (a) The Contractors Works
- (b) The part of the works here listed:

_____ are now completed to my satisfaction, and are ready to be handed over to the user Department subject to the items noted on the defects list.

Completion of Mechanical/Electrical Works

The mechanical/electrical installations on the above works have been completed and tested to my satisfaction.

Notes on defects at time of practical completion

_____ Date

opies: Principal, Financial Controller, Contractor,

Appendix 2:

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**Kenya Utalii
College**
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+254-020-
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Kenya

KUC/ADMIN/R/173

HANDING OVER
CERTIFICATE

From: The Contractor

To: Chief Maintenance Officer (KUC)

LPO No.

Details of Work:

Name/Address of
Contractor

Utilities

Electricity Meter Reading

Before: After:

Water Meter Reading

Before: After:

Handing Over

The above works were handed over
by:

Date

Signed for Contractor (stamp)

The above works were taken over
by:

Date
(stamp)

Signed: Chief Maintenance Officer

Remarks

Schedules of keys, fittings, furniture, etc (Delete/Add/Attach as necessary)

Certifica

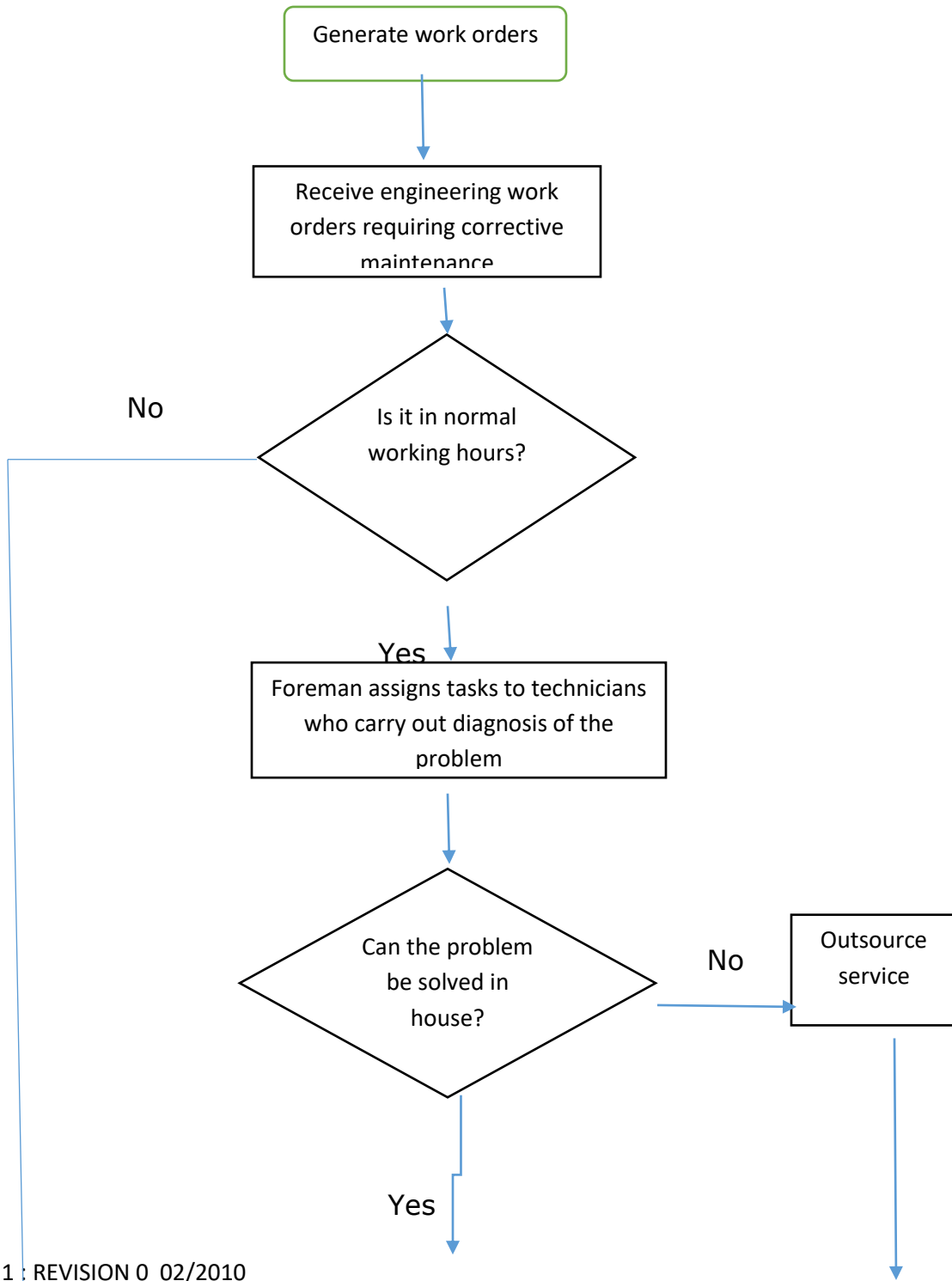
tion Certified that the above buildings were taken

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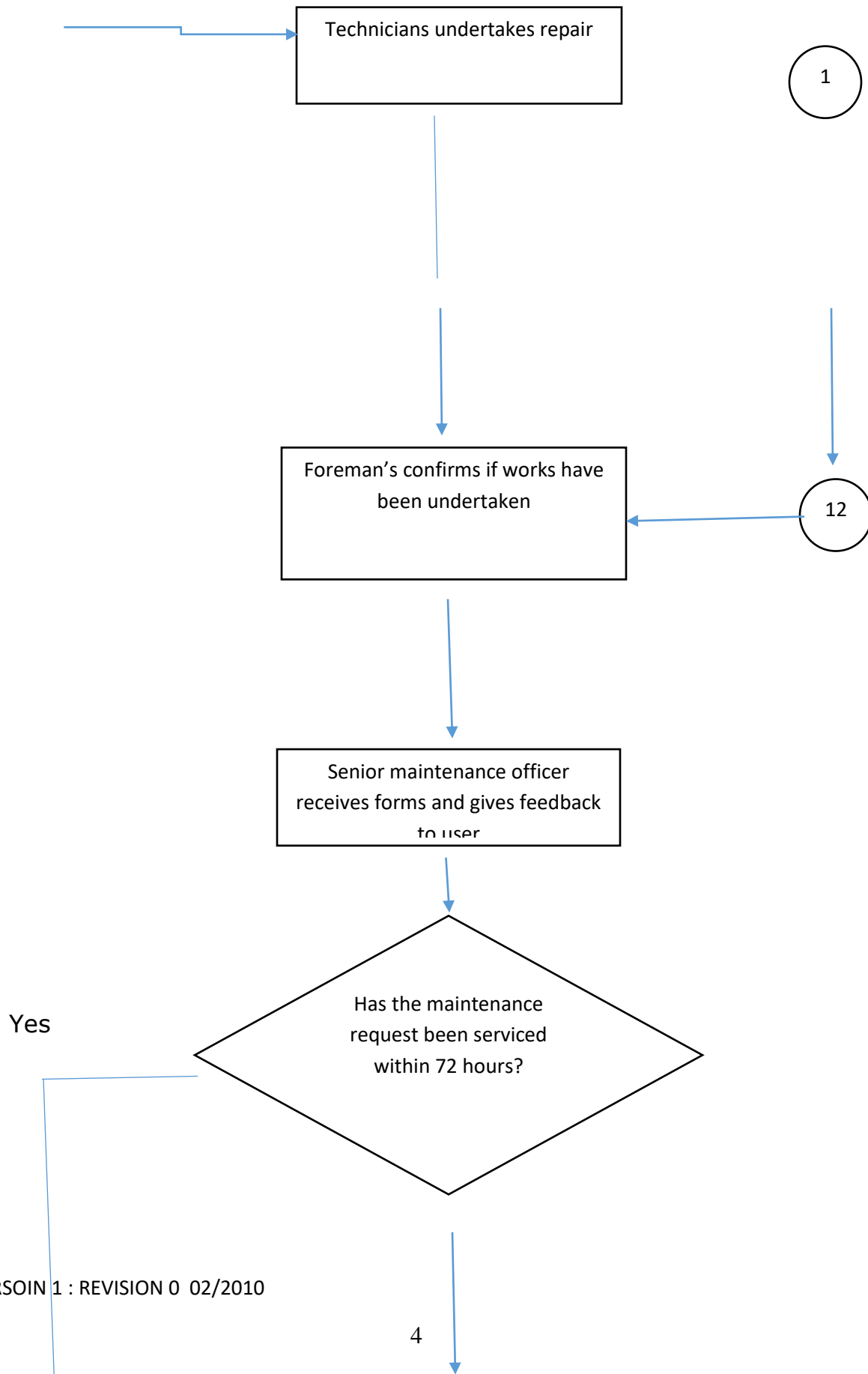
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	Date
Principal, Financial Controller, Client Department, Chief Maintenance Officer	
Copies: Notes on defects, etc, at time of practical completion	

Corrective action flow chart

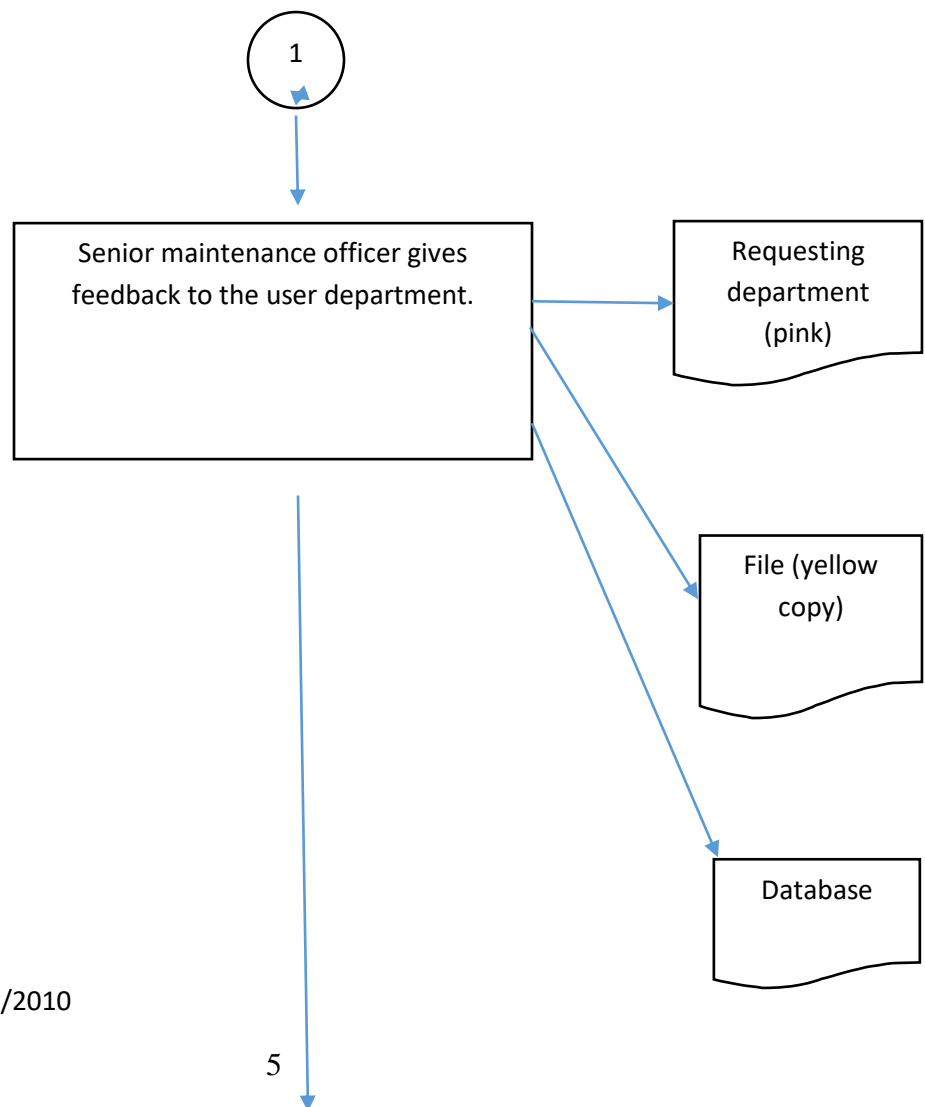
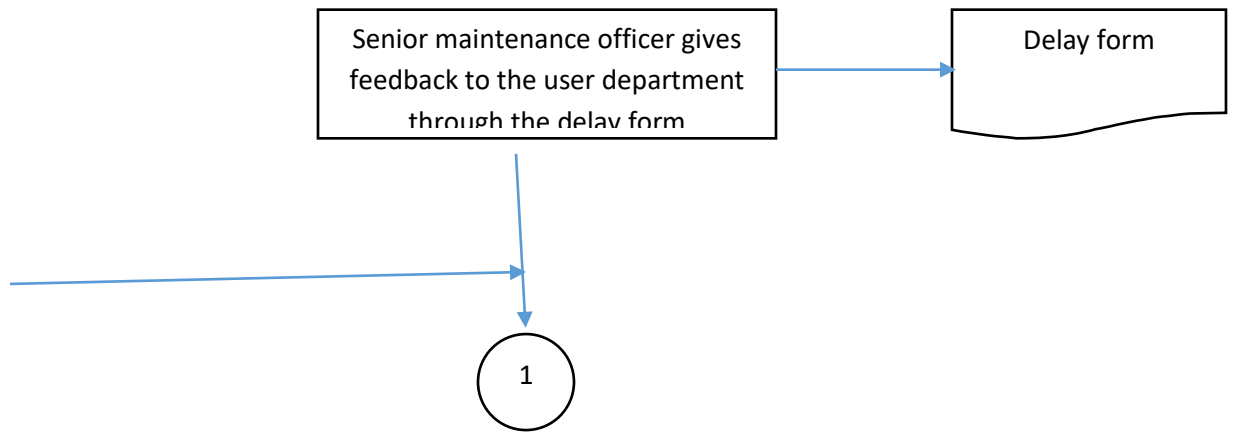


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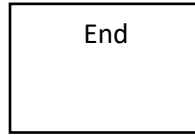
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No



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Making good defects form



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Kenya Utalii College
P.O. Box 31052, Tel. +254-020-8561201, Fax +254-020-8560514
Nairobi, Kenya

MAKING GOOD DEFECTS RECORD FORM

ITEM	DEFECTS	ACTION TAKEN	CHECKED BY

Maintenance repairs were completed on the above works by:

Contractor: _____ Signature: _____
Date: _____

Confirmed By: _____
Date: _____

Chief Maintenance officer

Certificate of making good defects

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Kenya Utalii College
P.O. Box 31052, Tel. +254-020-8561201, Fax +254-020-8560514.
Nairobi, Kenya

CERTIFICATE OF MAKING GOOD DEFECTS

From: _____
Ref: _____
Date: _____

To: Principal
P.O. Box _____
Att: Mr. _____

Details of Work		Description of Job	Department/Agency
WP Item Number			
Vote	Prov.	No.	
Contract Number		Name/Address of Contractor	

Certification

Maintenance repairs were completed on the above works by
Messrs _____ on _____ 20____

Date Building Supervisor (KUC or Consultant)

Date Maintenance Officer (KUC or Consultant)

Release of Retention

Att: Finance Manager

The second moiety of the retention may now be released.

Date Chief Maintenance officer

Copies:
Maintenance Officers
Finance Manager
Chief Supplies Manager

Engineering work order

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Kenya Utalii College
P.O. Box 31652, Tel. +254-020-8561201, Fax +254-020-4560514,
Nairobi, Kenya

ENGINEERING WORK ORDER

Dept:
No:

Room No. /Area: _____

Reported by: _____ Date _____

Description: _____

Job done by: _____

Checked by: _____

Filed by: _____

Fault diagnosis form

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F-EN-3

Kenya Utalii College
P.O. Box 31952, Tel: +254-020-8561201, Fax +254-020-8566814,
Nairobi, Kenya

FAULT DIAGNOSIS FORM

Location/Equipment/Facility _____

Attention: _____

1) Fault Diagnosis Report
.....
.....
.....

2) Materials Required

ITEM NO	ITEM DESCRIPTION	UNIT	QUANTITY

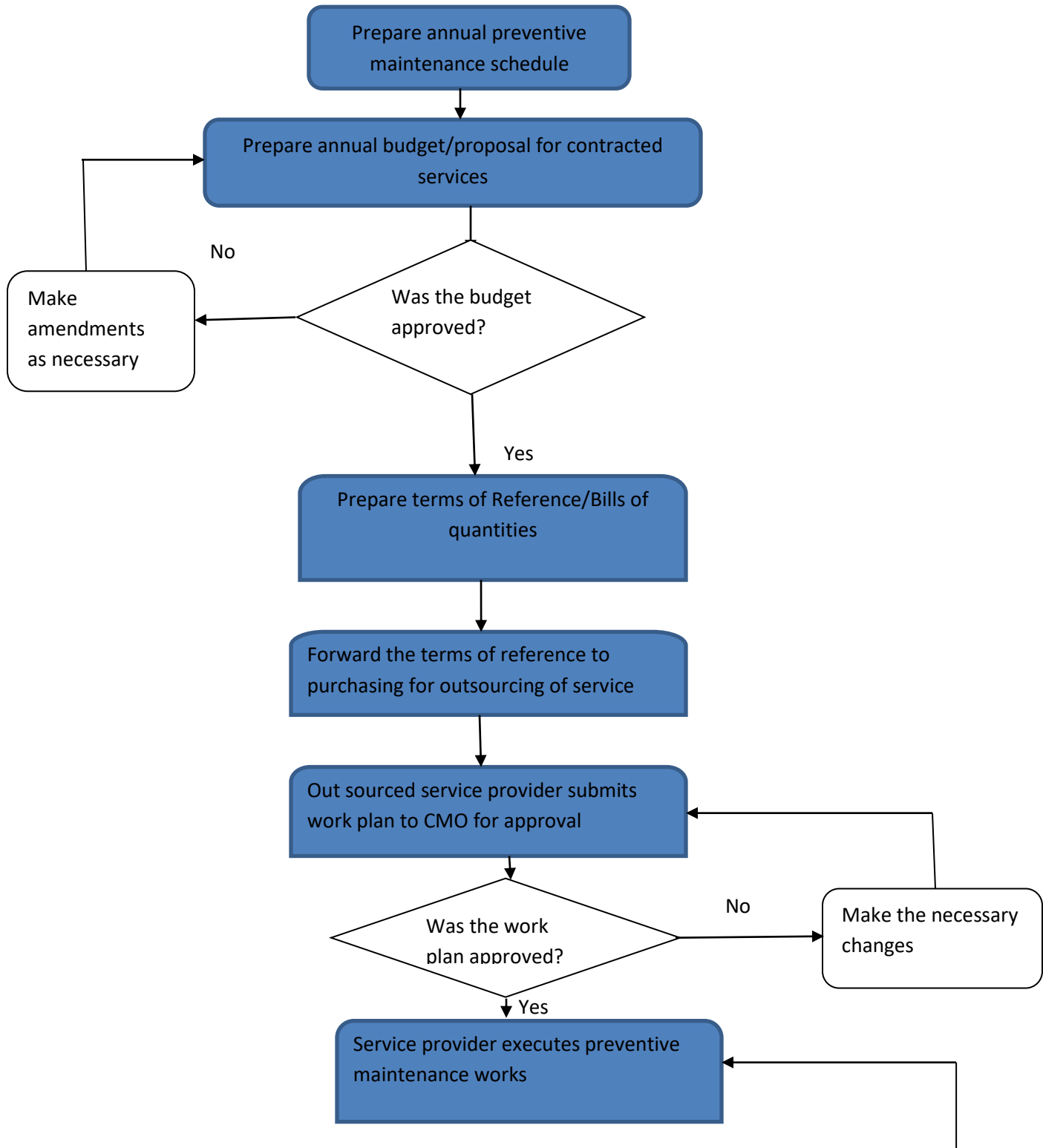
Reported by _____ Signature _____ Date _____

Foreman's Comments
.....
.....
.....

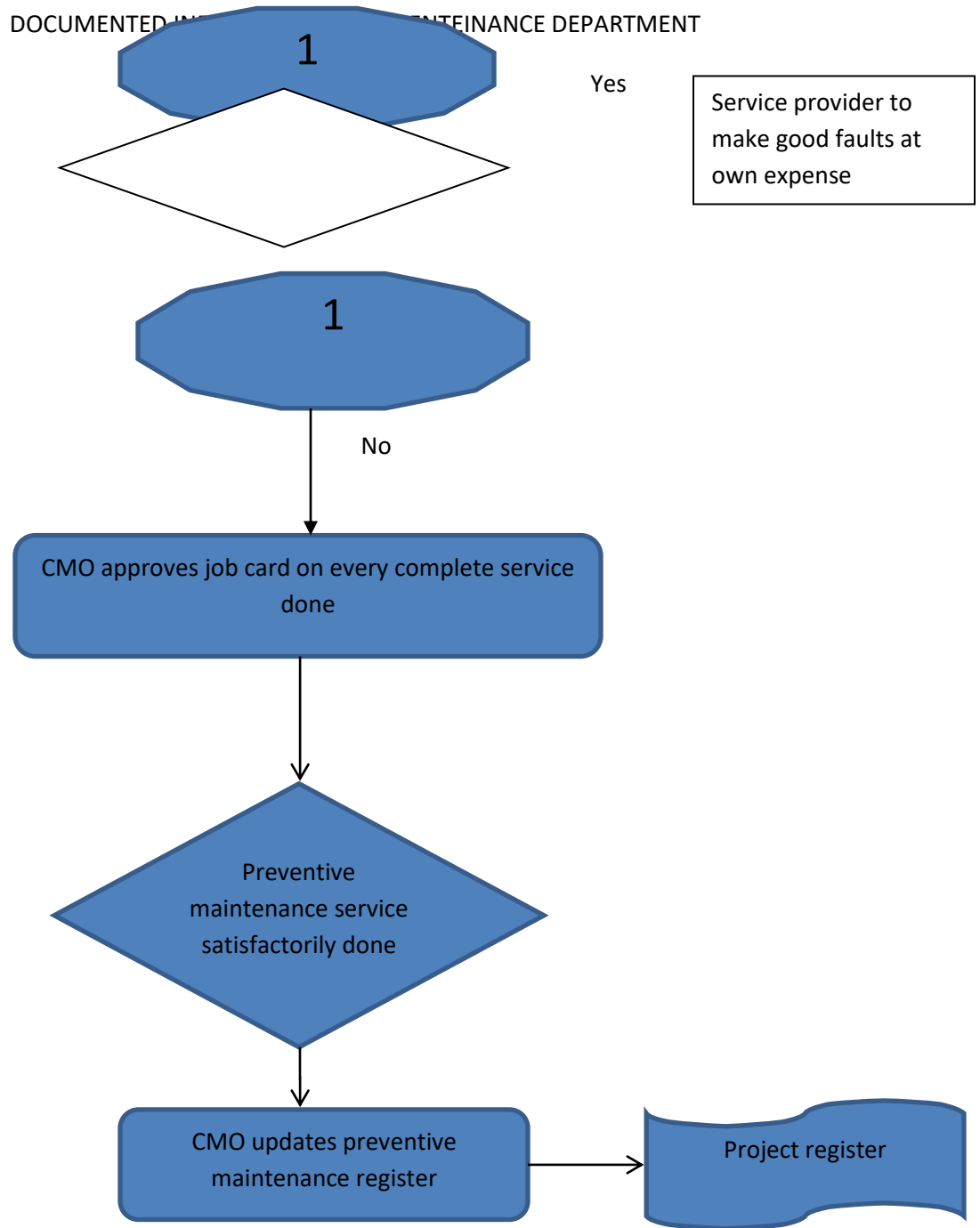
Name _____ Signature _____ Date _____

MAINTENANCE: Preventive maintenance

procedure



DOCUMENTED IN MAINTENANCE DEPARTMENT



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SECTION C: OPPORTUNITIES

OPPORTUNITY	ACTIONS	RESOURCES	RESPONSIBILITY	TIMELINES	KPI
Skills upgrading	Undertake staff training need analysis on yearly basis	Approved budget	Management/Chief maintenance officer	Annually	certificates
Adapting emerging technologies in maintenance	Review of machines and equipment's after every two years	Approved budget	Management/Chief Maintenance officer	Annually	-Reduced costs in terms utilities consumption. (Bills) -Reduced equipment's breakdown/failure (complaints)

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SECTION D: RISKS

No.	DESCRIPTI ON OF RISK	TYPE OF RISK	PROBABILITY OF OCCURANCE			SEVERITY HIGH - 3 MEDIUM - 2 LOW - 1	IMPAC T	MITIGATION	RESPONSIBILI TY	KPI
			H I G H	MEDI UM	L O W					
			H I G H	MEDI UM	L O W					
1.	Power outage	Mechanical				3	Crippling of college operations	Ensure regular service of standby generator.	Management/ Chief maintenance officer	Job card
2.	Breakdown of boilers/ machines					3	Crippling of college operations	Timely annual service of boilers/machines	Management/ Chief maintenance officer	Annual boiler license Signed contract
3.	Accidents/ breakdowns					3	Delay of service delivery	Service of vehicles from reputable dealers, Refresher of drivers annually.	Management/ chief maintenance officer	Job card Certificates
4	Change of technology	Mechanical				3	Crippling of college operations due to machine downtime	Train staff in latest technologies	Management/ Chief maintenance officer	Certificates
5	Inefficient project management	Operational				3	Increase in costs, litigation cases and over use of current facility beyond the designed capacity	Review of project progress as per the project plan.	Management/ Chief Maintenance Officer	Completion certificates Reports

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