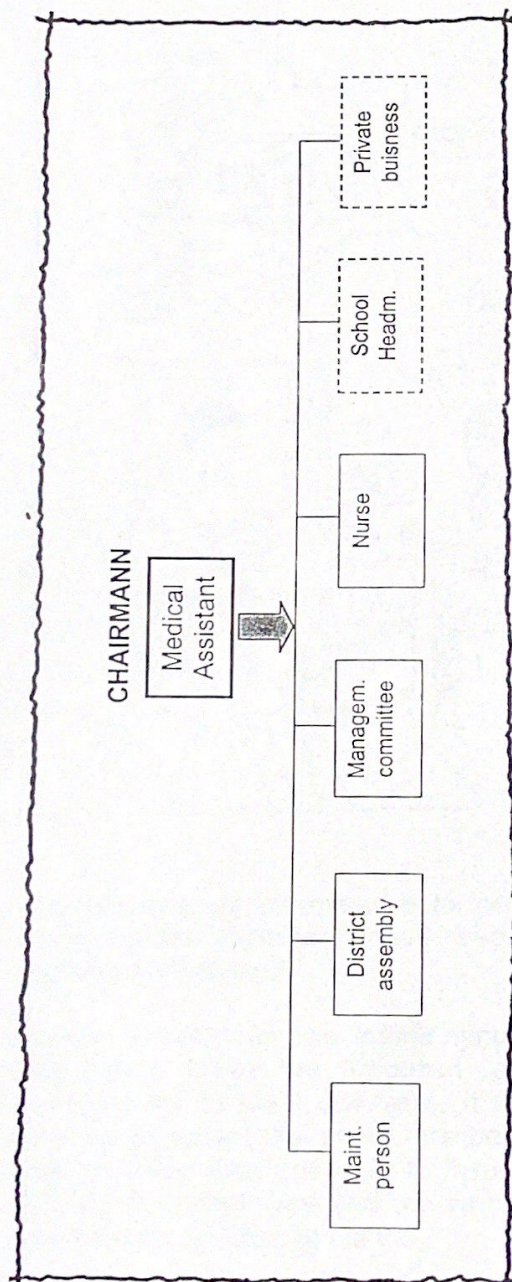


"FORMING THE MAINT. COMMITTEE"



To ensure that maintenance becomes an integrated and sustained part of health management a maintenance committee must be formed to plan, define and organize the programme

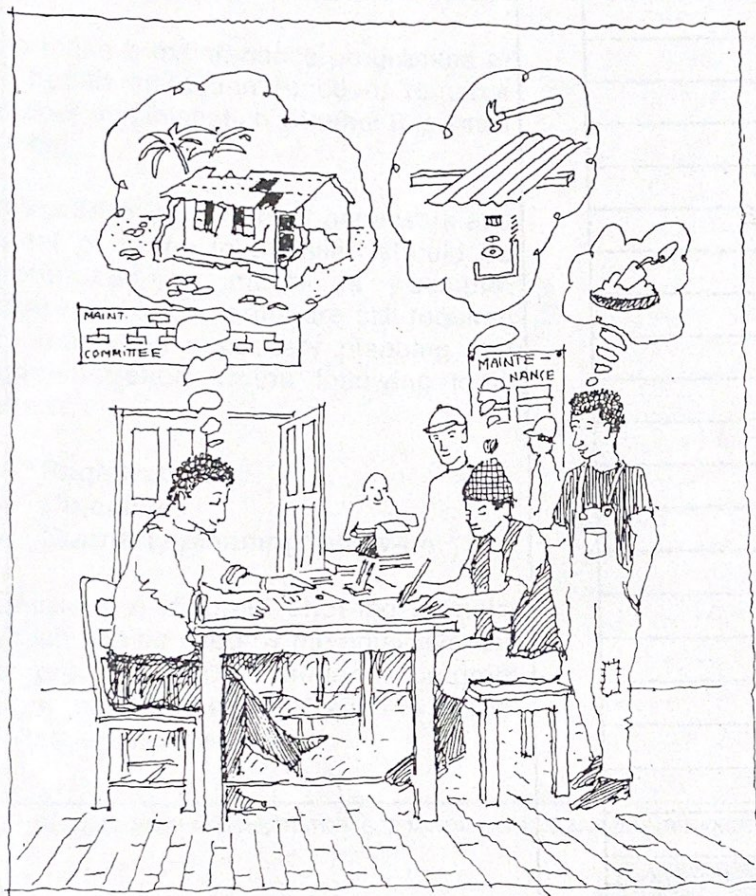
The committee should be responsible for the organization and management of all activities.

This will also include delegation of responsibilities and definition of available resources. Such resources, apart from financial funding will include private donations, community support as well as government ministries and other official organizations.

How to form a maintenance committee:

The number of people to be selected for a maintenance committee will depend on the size of the health institution, and the kind of people to be chosen might also be different. However, the diagram on the left shows a typical example of selection.

"FUNCTIONS OF THE COMMITTEE"



- ♣ long term members
- ♣ administration
- ♣ scheduled meetings
- ♣ prepare agendas
- ♣ make minutes
- ♣ planning
- ♣ action
- ♣ follow-up

same time. This continuity is particularly important if the chairperson is changed. The first thing the committee should do is to decide when, where and how often it should meet. Once a month will probably be enough- with additional meetings if any emergency arises.

The maintenance committee is formed when all its members have been appointed or selected.

People selected for the maintenance committee must be secured as members for at least one year. It is, however important that some members stay for more than one year to insure that there is continuity and the whole committee is not changed at the

An agenda should be prepared and distributed among the members at least one week before every meeting.

For record, minutes of the meetings must be prepared after each meeting where decisions are taken or plans made. The chairman can before the meeting appoint one of the members to take minutes.

maintenance manual

planning and administration

estate management unit - maintenance & preventive maintenance section - ministry of health - ghana

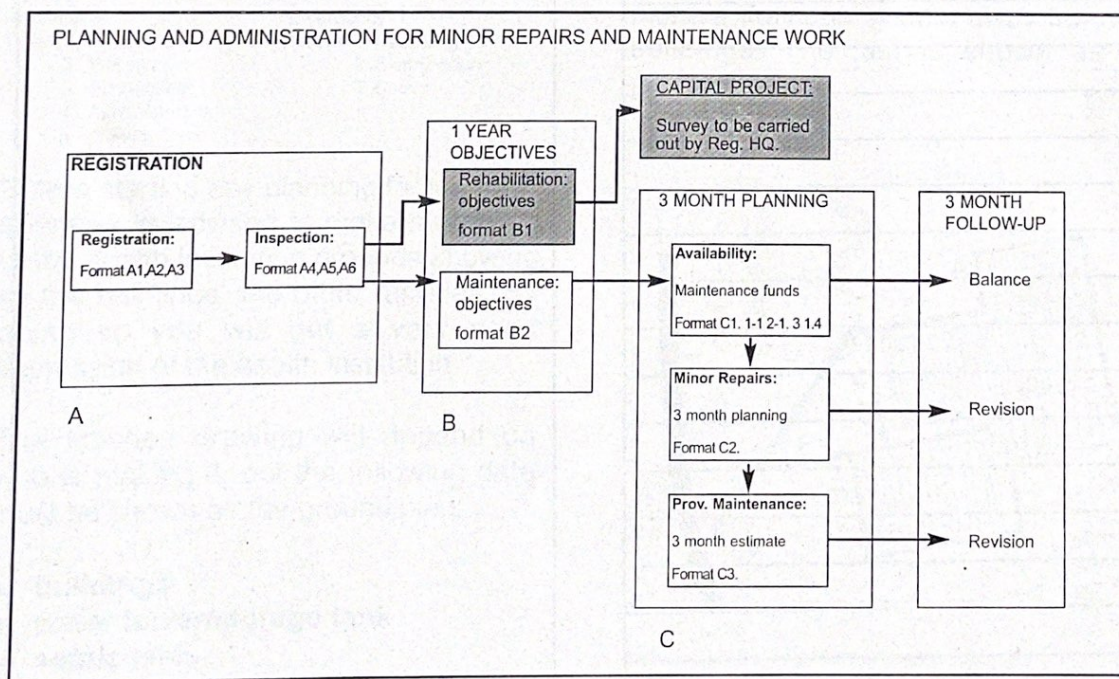
ADMINISTRATION

To make a maintenance programme in a health institution function, requires proper administration whether it is small or big.

Administration in form of paperwork and a lot of forms to be filled should be minimized as much as possible. However, a few forms are still required to make the necessary planning and administration in the following main areas:

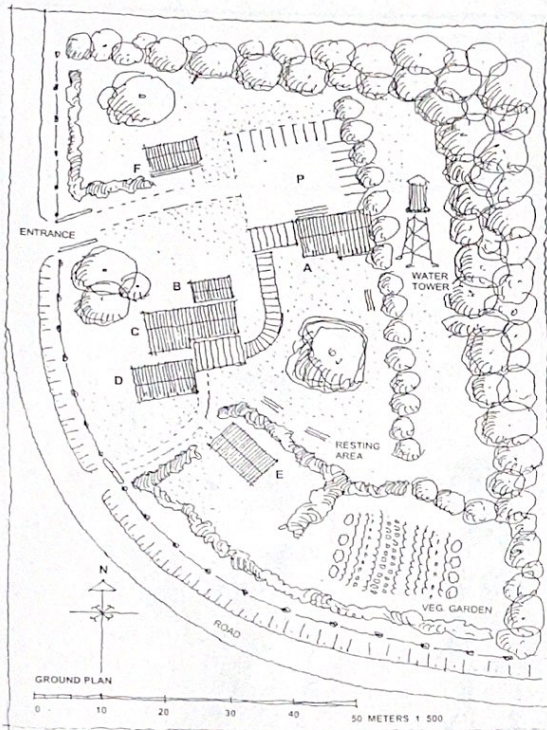
- ♣ Registration
- ♣ Objectives
- ♣ Quarterly planning/follow-up

Below is a diagram showing formats, which can be used by the administration to organize the maintenance program from the phase of registration to budget follow-up and evaluation



estate management unit - maintenance & preventive maintenance section - ministry of health - ghana

DRAWING A GROUND PLAN



BUILDING A.

Administration;
Room 1 Reporting
2 File room
3 Accounting
4 Administration
5 Waiting area

BUILDING B.

Emergency
Room 1 Receiving
2 Examination
3 Doctor

Before starting any planning for maintenance it is advised to make a drawing of the health institution grounds showing all the buildings and other facilities. By doing so you will get a very good impression of the health institution.

The finished drawing will depend on who is making it, but the following data must be shown on the ground plan:

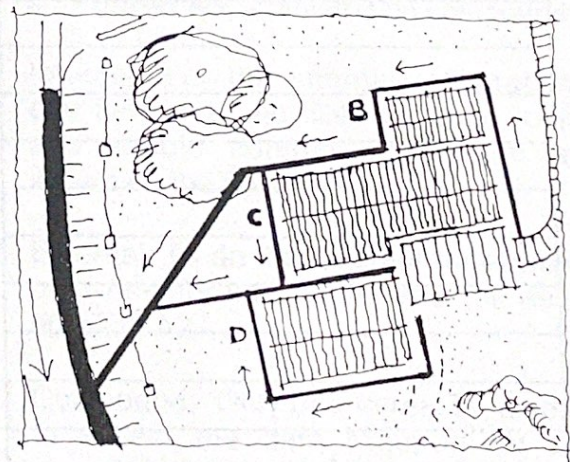
- ♣ buildings
- ♣ water tower/storage tank
- ♣ septic tank

- ♣ entrance, roads, and walkways
- ♣ parking area
- ♣ border of the compound/fence
- ♣ larger trees and bushes

For later identification, the buildings should be given letters e.g. **A, B, C** etc. and under the drawing, or attached, the number and function of the rooms for each building should be indicated. An example is given to the left.

After finishing the drawing with registration of buildings and rooms, you have a tool, which, apart from fast identification, now also makes it easier for you to plan and carry out maintenance work.

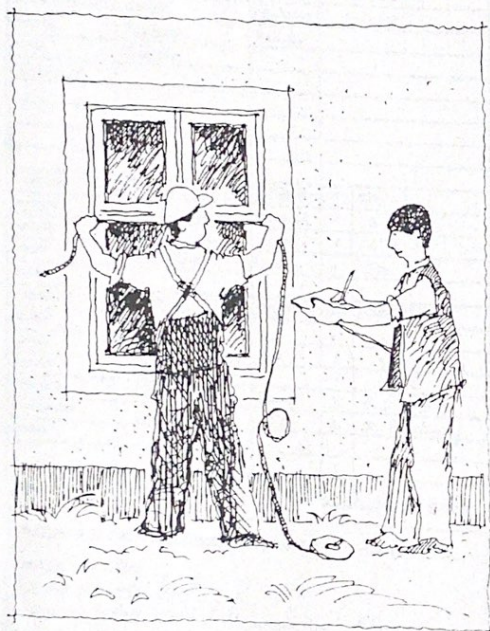
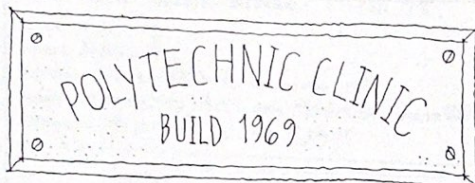
You can for instance make sketches on a copy of the ground plan if you are planning to construct a new building, make an extension or if you just want to make a drainage system away from the buildings. The last is shown as an example below.



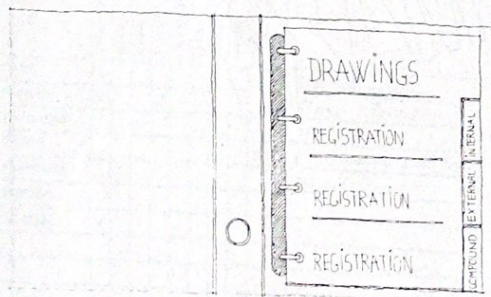
Plan with proposed ditches and water channels

REGISTRATION

WHEN WAS THE BUILDING CONSTRUCTED AND HOW?



FILING



While making the ground plan drawing we identified the buildings and rooms by giving them letters and numbers.

In order to get a clear picture of the building design and construction as well as to develop a filing system for the physical facilities it is important to collect additional information such as the building's year of construction and materials used. This exercise is normally done only once. Additional registration will only be required by extension of a building or new construction.

The following three forms are to be used for the registration:

- ❖ Format A1 - registration internal
- ❖ Format A2 - registration external
- ❖ Format A3 - registration compound

Internal: For the internal registration, one form must be filled for each room and should contain information as shown on the next page, A1.

External: To do the external registration only one format is required for each building, A2

Compound: Only one format is needed to collect the data required for the compound, namely A3

maintenance manual

registration of physical facilities

estate management unit - maintenance & preventive maintenance section - ministry of health - ghana

REGISTRATION: BUILDING INTERNAL YEAR: 1998

REGION: Western

DISTRICT: Ahafo West

INSTITUTION: Shama Health Centre BUILDING YEAR: 1977

BUILDING: Main building A1 ROOM: Maintenance ROOM NR: 25

PREPARED BY: MR. Jacobson DATE: 15 Jan 98

ITEM	MATERIAL	SURFACE	COMMENTS
WALLS	Concrete Blocks	Plastered	Painted
PARTITION WALLS	Bricks	Plastered	Painted
CEILING	Plasterwood	Painted	
FLOOR	Terrazzo		
Electricity			
OPENINGS	MATERIAL	SURFACE	QT. SIZE
WINDOW	Wood/Louvers	Varnish	1 3' x 3 1/2'
WINDOW	Wood/Louvers	Varnish	1 4' x 4'
DOOR	Solid Wood	Varnish	1 2 1/2' x 7'
DOOR			
FURNITURE	MATERIAL	SURFACE	QT. COMMENTS
DESKS	Wood	Oil	1 2' x 6'
TABLE	Wood	Oil	1 3' x 6'
CHAIRS	Steel		1 office
SHelves	Steel	Paint	2 H. 6' x W. 3'
ARMCHAIRS	Wood	Oil	3 W. Polishing
SOFA			

Maintenance section - format A1

REGISTRATION: COMPOUND YEAR: 1998

REGION: Western

DISTRICT: Ahafo

INSTITUTION: Shama Health C. BUILDING YEAR: 1977

TOTAL SIZE OF COMPOUND: 877 M²

PREPARED BY: MR. Jacobson DATE: 15 Jan 98

ITEM	ESTABLISHED YEAR	CONCRETE	BRICKS	STONES	ASBESTOS	WOOD	STEEL	GRAVEL	GRASS	TARMAC	POLES	NUMBERS	COMMENTS
FENCING	1986					X	X				X	36	Worm mesh
GATES	1991						X					2	
ROAD								X					
PARKING										X			
PATHWAYS		X	X										Concrete for Tides should be done
GARDEN								X				1	in front of Entrance
FLOWER POTS		X										16	
ASSEMBLY													
RUBBISH BINS		X										3	
WASTE DUMPS												2	1 for Organic 1 for non-organic
PIT-LATRINES												3	Each 4 Sections
TAP STANDS												3	
RAIN DITCHES		X	X									1	Concrete Borehole

Maintenance section - format A3

REGISTRATION: BUILDING EXTERNAL YEAR: 1998

REGION: Western

DISTRICT: Ahafo West

INSTITUTION: Shama Health Centre BUILDING YEAR: 1977

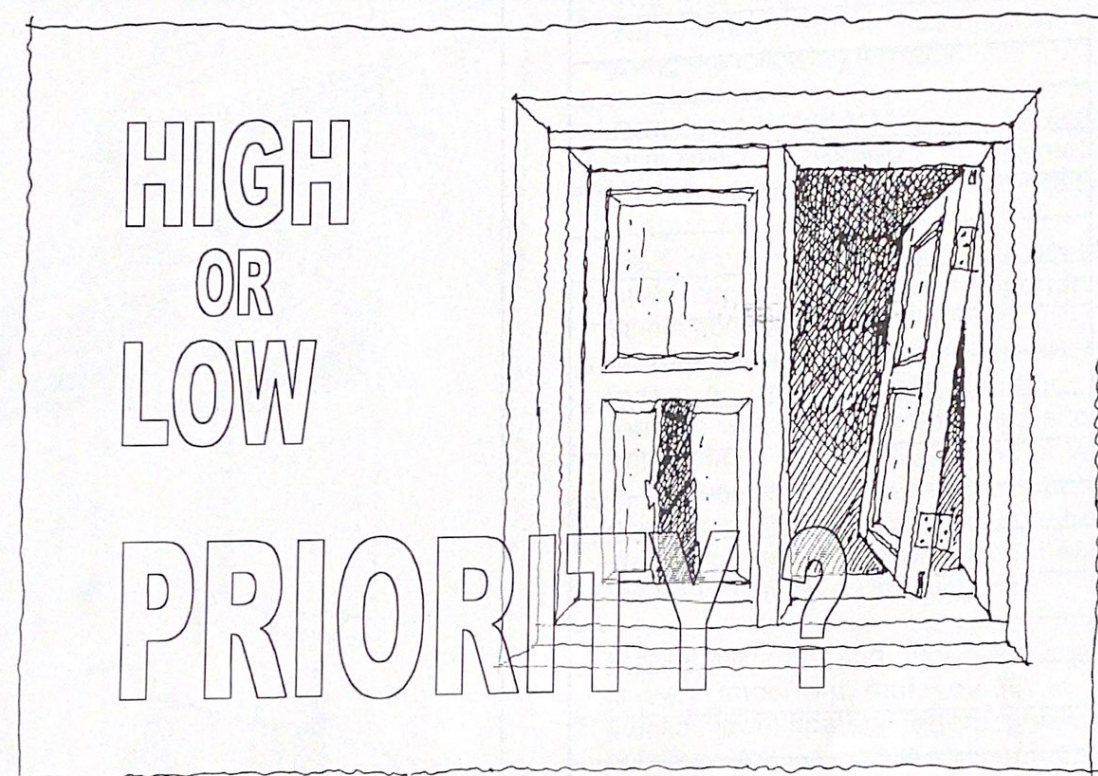
BUILDING: Main building A1

PREPARED BY: MR. Jacobson DATE: 15 Jan 98

ITEM	CONCRETE	BRICKS	STONES	PLASTER	CGI - SHEETS	TILES	ASBESTOS	WOOD	STEEL	COMMENTS
ROOF	X									With 20mm insulation
FAÇADE	X			X						Blocks - Painted
FOUNDATION				X						Plastered
PILLARS								X		8 pps. Boring Steel Pipes
STAIRCASES				X						Cement Stucco
VERANDA										
APRON	X									

Maintenance section - format A2

INSPECTION AND PRIORITY:



Now we know that inspections must be made regularly and on quarterly basis. We also know that we must make additional inspections before and after rainy seasons and storms. In this manner a lot of information can be collected about damaged structures that will have to be repaired. Now comes the question:

In which order do we do the repairs?

To find out we will need to prioritize the work to be done; according to how important we consider it.

However, in order to meet fundamental needs of a health institution as well as securing the basic building structures

there are some issues that always should be given special attention and a high priority as a rule of thumb.

- ♣ **Access to water**
- ♣ **Sewerage and hygiene**
- ♣ **Water proof roofs**
- ♣ **Healthy foundations**

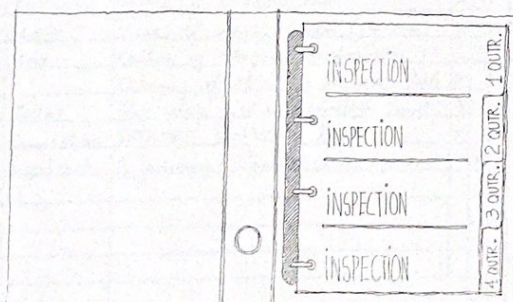
When planning preventive maintenance, the following must always be prioritized.

1. Dry foundations and walls: – avoid erosion - drain water away from the buildings
2. Waterproof roofs: Make slope – drain water away, cut hanging branches
3. Sanitation: change defect pipes/taps.

INSPECTION FORMATS:



FILING



The quarterly routine inspections are carried out in three headings and by using the following formats.

BUILDING INTERNAL	format A4
BUILDING EXTERNAL	format A5
COMPOUND	format A6

Each of the three formats has a heading at the top-end that is very important to fill-out correctly for each quarter.

To reduce the volume of paperwork and make an easier understanding the formats are made simple and should only contain short descriptions of work to be done together with a given priority of either HIGH or LOW. Make sure to list your priorities wisely and by following the previously given instructions.

For identification and later references it is very important that you fill in the correct identification letters given for buildings, followed by the room number if it is for building's internal.

Minor maintenance repair to be done:

The building structure, which is damaged and need repair should be filled in this column with, if possible, only one word.

Short description of work to be done:

The description in this column must equally be as short and precise as possible. However, more rows can be used if required.

Priority:

High or low priority should be given for the repair, according to how urgent and damaged the structure is.

maintenance manual

building inspection

estate management unit - maintenance & preventive maintenance section - ministry of health - ghana

INSPECTION: BUILDING INTERNAL YEAR...1998...

REGION: Western

DISTRICT: Ashanti West

INSTITUTION: Shama Health C. BUILDING YEAR: 1977

PREPARED BY: MR. Jacobson QUARTER: X1234 DATE: 18 Dec 97

BUILDING NO.	ROOM NO.	MINOR MAINTENANCE REPAIR TO BE DONE	SHORT DESCRIPTION OF THE WORK TO BE DONE AND PRIORITY	HIGH	LOW
B	2	Walls	Repair of Walls on 3 walls	X	
			Painting after Repair		X
		Ceiling	new Plywood ceiling - old rotten away	X	
			Painting of ceiling w. oil paint		X
		Windows	new mechanism for Louvers - 3 PIS	X	
			Replace 3 PIS broken Louvers	X	
		Furniture	Repair of 2 tables + one chair	X	
C	5	Electricity	new wiring required + 3 new sockets	X	
	3	Water	3 washbasins to be replaced	X	
			2 new locksets		X
	8	Floor	new linoleum on entire floor	X	
		Walls	Painting of all walls		X

Maintenance section - format A4

INSPECTION: COMPOUND YEAR...1998...

REGION: Western

DISTRICT: Ashanti West

INSTITUTION: Shama Health C. BUILDING YEAR: 1977

PREPARED BY: MR. Jacobson QUARTER: X1234 DATE: 27 Dec 97

ITEM	MINOR MAINTENANCE REPAIR TO BE DONE	SHORT DESCRIPTION OF THE WORK TO BE DONE AND PRIORITY	HIGH	LOW
FENCE		1 new Wooden Pole		X
		71 R/m Wiremesh		X
GATE		1 Gate need new hinges	X	
ROAD		Repair of Potholes (1 end of gravel)	X	
PATHWAYS		Fill up with more stones (small)	X	
		Replace 7 PIS of concrete tiles	X	
GARDEN		Regulating of dead grass approx 20m ²	X	
Waste Dump		Digging 1 new dump for non-organic waste	X	
Pit Latrine		Repair of 3 doors	X	
Tap STANDS		New gackings in 2 Taps	X	
RAIN DITCHES		Cleaning of all ditches	X	
Felling Trees		Felling of 4 Big trees	X	
Branch Cut		Cutting of hanging branches Building A3	X	

Maintenance section - format A6

INSPECTION: BUILDING EXTERNAL YEAR...1998...

REGION: Western

DISTRICT: Ashanti

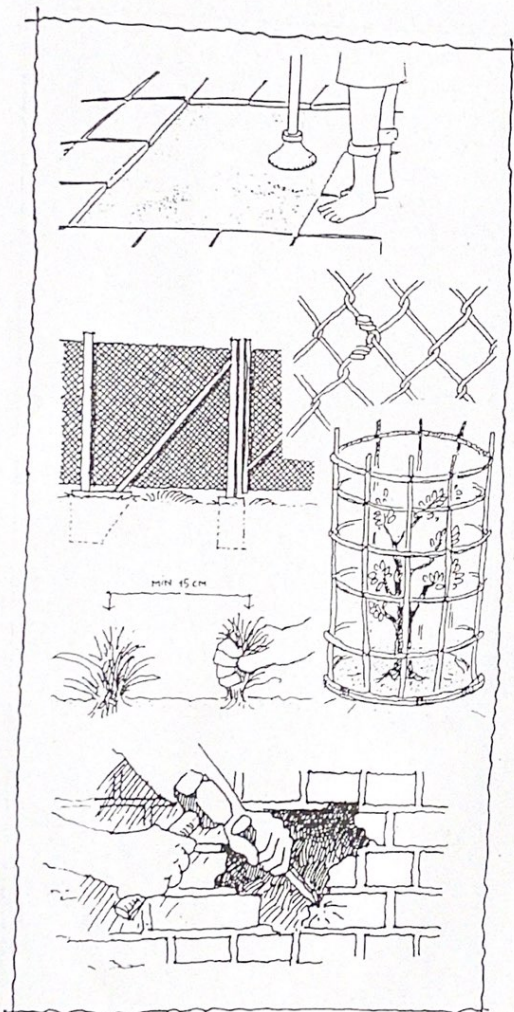
INSTITUTION: Shama Health C. BUILDING YEAR: 1977

PREPARED BY: MR. Jacobson QUARTER: X1234 DATE: 27 Dec 97

BUILDING NO.	ITEM	MINOR MAINTENANCE REPAIR TO BE DONE	SHORT DESCRIPTION OF THE WORK TO BE DONE AND PRIORITY	HIGH	LOW
B	Roof		Repair cracks in concrete - downpipes	X	
			A new pipe for water outlet	X	
	Facade		Repair of holes in plaster	X	
			need new wall paint		X
	Foundation		3 1/2m to be re-plastered	X	
	Apron		Repair of broken corners (concrete)	X	
C	Roof		Cutting of hanging tree branches	X	
			Cleaning of all pipes for water outlet	X	
	Pillars		Steel pipes need anti-corrosion paint	X	
	Foundation		EROSION: Backfill of Soil	X	
	Signboard		Re-painting + Repair of Clinic Signboard	X	

Maintenance section - format A5

MAIN OBJECTIVES



Before planning and budgeting for the first quarter it is advised to look on the biggest and most urgent repairs you would like to have done over the year.

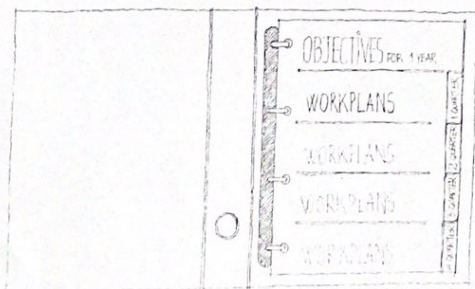
The first inspection in the year will give you an idea of the condition of the institution in general, and from these findings you should make the following main objectives for the year:

- ✦ **OBJECTIVES FOR REHABILITATION**
format B1
- ✦ **OBJECTIVES FOR MAINTENANCE**
format B2

Format B1 for rehabilitation objectives must contain information for bigger and more costly repair works, which in most cases will need to be carried out by a contractor. The format should on request be handed over to the Reg. Estate Officer, since the information is valuable when planning for rehabilitation and a later evaluation.

Format B2 for maintenance objectives are filled to give an overall picture of minor repairs of importance to be completed before the end of the year.

FILING



WORKPLANS AND EVALUATION

By giving priority, the main objectives can now be put in a yearly planning and incorporated into quarterly work plans.

The information is mostly for internal use and should be used as a guideline for the maintenance committee when making evaluation of the quarterly work plans.

maintenance manual

maintenance objectives

estate management unit - maintenance & preventive maintenance section - ministry of health - ghana

OBJECTIVES FOR REHABILITATION YEAR 1998

REGION Western
DISTRICT Ahafo West
INSTITUTION Shama Health C.
PREPARED BY MR. JACOBSEN DATE 25 Jan 98

COMMITTEE MEMBER	TITLE
MRS DAKO	Chairman
E. T. TIDAKBI	Maintenance person
NONOO	Member of Management Committee
M. JACOBSEN	Member of District Assembly
JACOBSEN	Nurse
ANNABELL	Social worker
LEOPOLD - SHAMA S.S.	School headmaster
	Others

MAIN OBJECTIVES FOR THE YEAR

- NEW WINDOWS - 8 PCS BLD 2 - 8 PCS BLD 7 - 2 PCS BLD 15
- NEW POOL - 6 PCS IN MAIN BUILDING
- NEW SEWERAGE SYSTEM - BUILDING 3 AND 4
- NEW FUSE BOXES AND INSTALLATION FOR MAIN SUPPLY
- RENOVATION OF KITCHEN AND 5 TOILETS
- NEW WATERTANK (ROOF) AND BOOSTER PUMP
- NEW TERRASSO IN ASSEMBLY HALL

OBJECTIVES FOR MAINTENANCE REPAIRS YEAR 1998

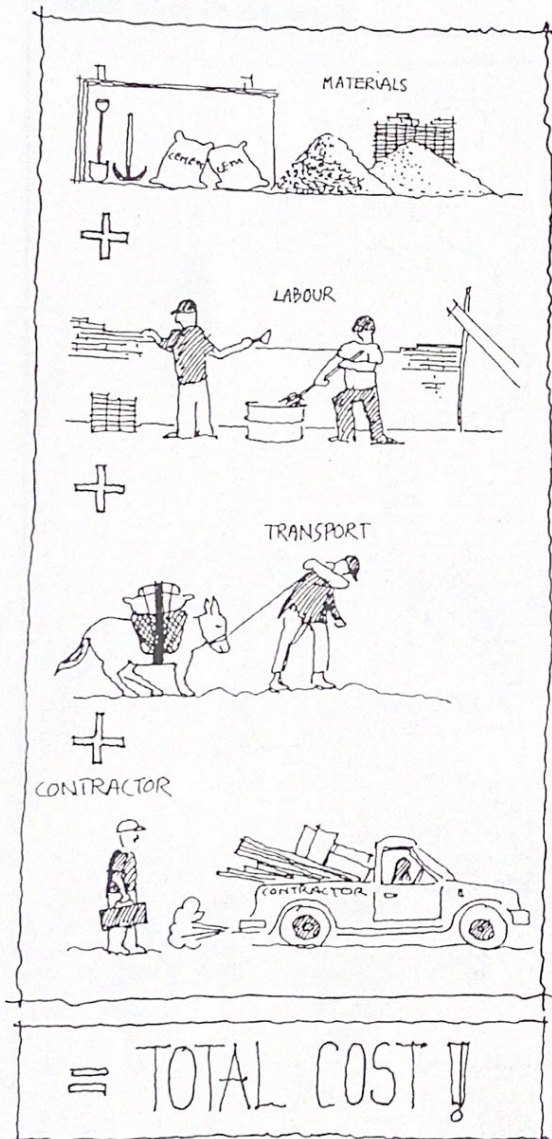
REGION Western
DISTRICT Ahafo West
INSTITUTION Shama Health C.
PREPARED BY MR. JACOBSEN DATE 25 Jan 98

COMMITTEE MEMBER	TITLE
MRS V. DAKO	Chairman
E. T. TIDAKBI	Maintenance person
NONOO	Member of Management Committee
M. JACOBSEN	Member of District Assembly
JACOBSEN	Nurse
ANNABELL	Social worker
LEOPOLD - SHAMA S.S.	School headmaster
	Others

MAIN OBJECTIVES FOR THE YEAR

- Repair of walkways
- New Fence round the Compound
- Repair of cracks in 2. Gabels
- Planting of trees and flowers
- Repair of ditches and water channels
- Repair of broken furniture
- Repair dripping water taps
- Adjust and repair WC - Cisterns

COST AND RESOURCES



An important issue when planning and making budgets for maintenance repair is the cost involved and resources available. Without a proper and well-planned budget the work plans cannot be put into action, or if tried after all, the resources might be exhausted at an

early stage resulting in work being stopped.

Fortunately, maintenance repair do not normally require a big contractors with a team of skilled personnel to carry out the work as major repair of this kind is to be considered as rehabilitation and not maintenance. However, on a smaller scale all the issues are the same and should be dealt with carefully when planning.

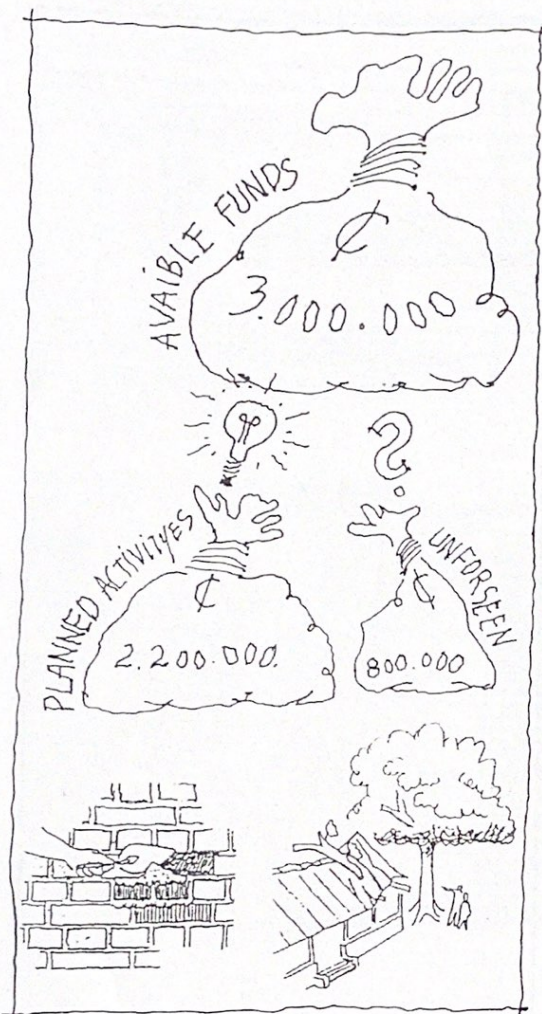
Material costs. For most preventive maintenance jobs, costing involves only the costs of the materials as the maintenance person on the institution can execute the work himself.

Materials + labour. In some situations of more regular maintenance repairs you might sometimes need help from a skilled labourer e.g. an electrician, carpenter or plumber and accordingly include this extra cost.

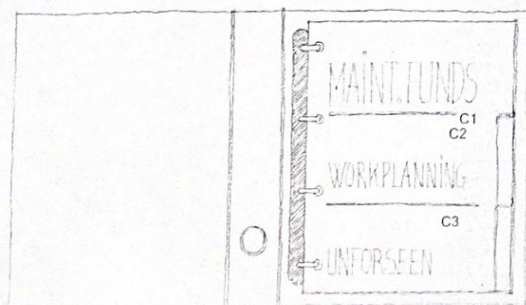
Materials + transport + contractor. In rare cases you might even need a contractor for a short period. For instance in an emergency situation where a storm have pulled up trees and wind blown off parts of pitched roofs leaving the inside rooms none functional. You will have to add the expense for the contractor for material costs and transport.

Finally it is very important you keep records on all completed jobs as the records of past and similar works can be guidelines and help estimating costs of new maintenance jobs.

FUNDS AND PLANNING



FILING



The last step before repair work can start will be to find out:

- ♣ **how much money do we have?**
- ♣ **how much will the repair cost?**

In order to administer the maintenance funds available and make budget for planned activities we need to use 3 forms that must be filled and kept up to date quarterly. The formats are:

- ♣ **maint. funds – balance sheet**
format C1
- ♣ **planning & budget - minor repairs**
format C2
- ♣ **unforeseen expenditures**
format C3

C1 is the format where we keep records of all available maintenance funds and the total balance at the end of the quarter after expenditures have been deducted.

C2. This format is used for planning of minor repairs. **Make sure** that you don't plan to spend all the maintenance funds here as nothing then will be left for unforeseen and emergency repairs. The format has to be filled out in two steps. First step when making the planning and estimate for minor repairs, secondly after the actual cost is known after works has been completed.

The total cost of materials + labour is transferred to format C1 as expenditures

C3. As mentioned, you will need to reserve an amount for unforeseen expenditures. As for C2 this format will also have to be filled in two times. When you make the cost estimate, and after you know the actual cost, which is then transferred to C1 as expenditures.

maintenance manual

planning, budgeting and follow-up

estate management unit - maintenance & preventive maintenance section - ministry of health - ghana

MAINTENANCE FUNDS - BALANCE SHEET

REGION Western DISTRICT Akwai West INSTITUTION Shama Health C. YEAR 1998

TOTAL ALLOCATED FUNDS THIS YEAR				
1 QUARTER ALLOCATION				CEDIS 4,000,000
				CEDIS 3,400,000
QUARTER	DATE	TEXT	CREDIT	DEBIT
STARTING	1 JANUARY	BALANCE FORWARDED (from format C1.4)		
	6 Jan	FUNDS TRANSFER OF 1 QUARTER	3,400,000	
		OTHERS		
	20 Jan	Private Donations	200,000	
	6 Feb	Income from festival as dancing group	50,000	
	16 Feb	Selling of processed from tree cutting	150,000	
	5 March	Income from markets arranged by community	150,000	
	31 MARCH	ACTUAL COST OF MINOR REPAIRS (from format C2)		1,848,000
	31 MARCH	ACTUAL COST OF UN-FORSEEN EXPENDITURES (from format C3)		450,000
CLOSING	31 MARCH	TOTAL BALANCE (to be transferred to second quarter - format C1.2)		6,142,000

Prepared by: NP. Tinko Date: 31 March 98
Checked by: NP. Tinko Date: 1 April 98

Maintenance section - format C1.1

PLAN AND BUDGET FOR MINOR REPAIRS

REGION Western DISTRICT Akwai West INSTITUTION Shama Health Centre DATE 27 Dec 97

Q Number	ACTIVITY	PLAN AND COST ESTIMATE (material + labour)			ACTUAL COSTS			Q Number
		Month Jan.	Month Feb.	Month March	Material	Labour	TOTAL	
5.2	Repair of floor on 3 walls	55,000			62,000		62,000	
	Painting of walls		10,000		7,000		7,000	
	new plywood ceiling - 20 m ²	650,000			680,000	20,000	700,000	
	Painting of ceiling - oil paint		25,000		124,000		24,000	
	new installation of lighting 3 no		15,000		10,000		16,000	
	Replace 3 electrical fuses		9,000		8,000		8,000	
	Repair of furniture	20,000			12,000	12,000	24,000	
5.5	new electrical wiring + 3 sockets	20,000			10,000	25,000	35,000	
	3 new 100w light bulbs		150,000		150,000		150,000	
	2 new 100w light bulbs		50,000		40,000		40,000	
	new installation on floor 16 m ²	550,000			230,000	60,000	290,000	
	Painting of walls			16,000				
B. X	Repair of concrete roof		400,000		215,000	80,000	295,000	
X	4 new pipes		80,000		75,000		75,000	
	TOTAL ESTIMATE	6,142,000	1,145,000	739,000	1,576,000	212,000	1,788,000	

Prepared by: _____ Date: _____
Approved by: _____ Date: _____

Maintenance section - format C2

BUDGET RESERVATION FOR UN-FORSEEN EXPENDITURES

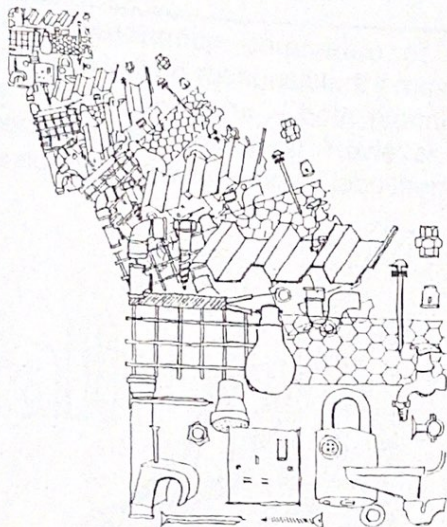
REGION Western DISTRICT Akwai West INSTITUTION Shama Health Centre DATE 27 Dec 97

Q Number	ACTIVITY	COST ESTIMATE			ACTUAL COSTS			Q Number
		Month Jan.	Month Feb.	Month March	Material	Labour	TOTAL	
5.2	2 new hinges on door	6,200,000			3,500		3,500	
8.4	door lock and handle defect - new				4,000		4,000	
6.2	3 new bulbs				4,500		4,500	
X	1 new tubelight				5,000		5,000	
X	2 new tubelight				6,000		6,000	
X	Change sugarcoat broken - walling + paint				4,000	2,000	6,000	
X	Painting of roof for falling trees				6,000		6,000	
X	Repair of broken sewage pipe				10,000	20,000	30,000	
5.5	Toilet seat broken - new one				26,000		26,000	
A.4	new electrical wiring + sockets				23,000	18,000	41,000	
X	new shower - 2 lit				32,000		32,000	
5.1	4 lit. 100w light bulbs of in. 100w				185,000	14,000	199,000	
	TOTAL ESTIMATE	6,600,000			585,000	76,000	661,000	

Prepared by: NP. Tinko Date: 1 April 98
Approved by: NP. Tinko Date: 8 April 98

Maintenance section - format C3

BUDGET & RESOURCE PLANNING



The maintenance committee decides what work should be done on the basis of the activities listed in the plan and budget formats (C2) – making sure that they do not spend more than what is budgeted for.

It is not useful to plan activities if all the resources needed are not available or cannot be obtained when required. It is very important that the committee looks at exactly what resources are needed before deciding that the work is to be started.

For example, if for one reason or another, it is not possible to get all the cement that is needed for a job, then another activity should be chosen – an activity where ALL the resources can be obtained.

Work that is “disqualified” in this way – because of lack of resources should be done on the basis of priority – the job with the lowest priority should be “disqualified” first.

When planning work, it is important to know where, and when, materials and other resources can be obtained. If there is a 4-month delivery time for cement, then all the jobs, which involve using cement should be planned from when it can be delivered – unless the institution has some in stock or can obtain it from another supplier.

In general it is advised that larger health institutions build-up and maintain a smaller stock of the most commonly used materials, provided that the storage facilities are well secured.

ORGANIZING ACTIVITIES

The maintenance committee of the institution will be responsible for most of the work to be done – both planning, execution and evaluation. However, as the committee cannot do all jobs them



selves, it's important that a system is built-up to delegate the work. In general we categorize work as follows:

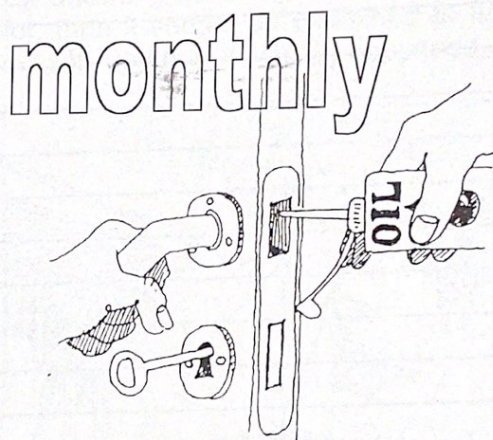
- ✦ daily routines
- ✦ weekly and monthly routines
- ✦ planned minor repairs
- ✦ contractor jobs.

The daily, weekly and monthly routines is considered as **preventive** maintenance as it is all small jobs which are done even when nothing is broken. **It is done to avoid damage.**

The maintenance person in the institution can normally carry out this kind of jobs.

However, sometimes for the planned minor repairs, which the maintenance committee has to plan for quarterly, it can become necessary to have some help from outside such as artisans. If helpers are also needed, the committee

should try to organize community participation and support. The jobs in the committee should be delegated and one person must be appointed to coordinate and supervise the work.



If funds and resources allows, bigger repairs can be started with the help of a contractor. In this case it is advised that the committee contact either the District head office or the Regional Estate manager for technical support and advise in setting-up a contract and for supervision



COST AND RESOURCE EVALUATION

An overall assessment of the maintenance programme must be made once a year which also should include the work done by the committee as well as the total resources used at the end of the 12 month period.

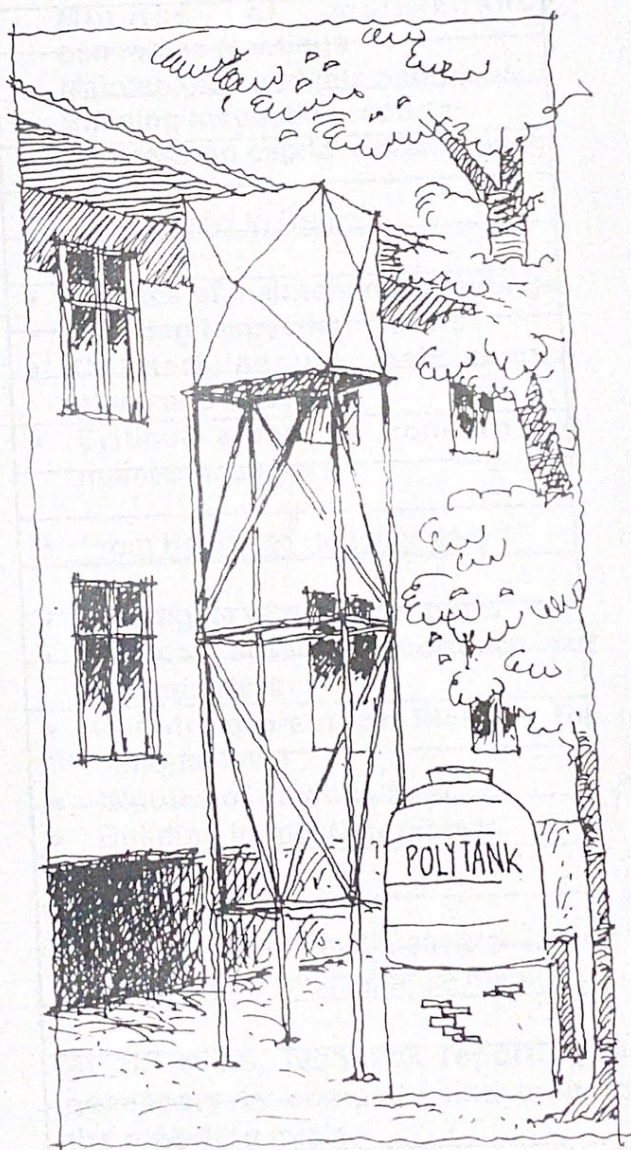
The work of the committee can be evaluated by getting each member of the committee to make a report to the chairperson on what they have done within their area of responsibility. The chairperson will use the reports – together with the regular status reports throughout the year- to make an annual evaluation report covering all the aspects of the maintenance work.

Evaluation could include the following:

- ♣ Performance of the maint. committee
- ♣ Major constraints and achievements.
- ♣ co-operation between the committee, local community, district assembly work groups and others involved.
- ♣ Communication to district and regional officials.
- ♣ Meetings and follow-up from regional estate managers and other officials.
- ♣ Were the work planned actually done?
- ♣ Was there a surplus or deficit in the planned maintenance budget?
- ♣ Were the resources adequate?
- ♣ Response from District and Region?
- ♣ Level of assistance provided?

A resource evaluation should be based on a comparison of the planned and actual amounts of resources used. This should only be done on those activities

where the resources used were greater than the budgeted. In this way experience will be gained that can be used when making the next quarterly maintenance plan. In other words, if the total actual cost of a maintenance activity on format C2 shows greater cost than budgeted for, then it should be examined to find out why and how it actually happened.



REPORTING PROCEDURES



There are three levels of reporting:

- 1 From sub-district to District
- 2 From District to Region
- 3 From Region to Headquarters

Reports must include:

1 From sub-district to District

- Minutes of maintenance committee meetings
- Maintenance budgets and plans
- Building inspection reports
- Progress on capital development

2 From District to Region

- Minutes of maintenance meetings
- Building inspection reports
- Quarterly/annual maintenance plans and budgets
- Critical areas of concern for maintenance

3 From Region to Headquarters

- Aggregate of district reports
- Critical areas of concern for headquarters
- Update project profiles at the national level
- Minutes of meeting held
- Building inspection reports.

Reporting responsibilities are further indicated in the maintenance manuals.

At all levels, feedback reporting is necessary to complete and sustain the reporting cycle.

checklists

CHECKLIST: INTERNAL BUILDING

FLOORS

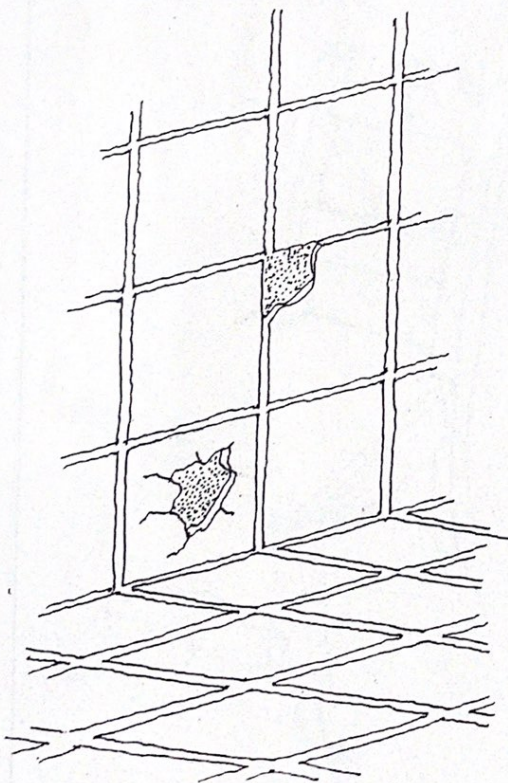
- ♣ materials: concrete, terrazzo, tiles, linoleum - other
- ♣ general condition
- ♣ cracks and holes
- ♣ rot/infestation
- ♣ joints
- ♣ floor wall junction
- ♣ stability
- ♣ surface finish
- ♣ damp/water penetration

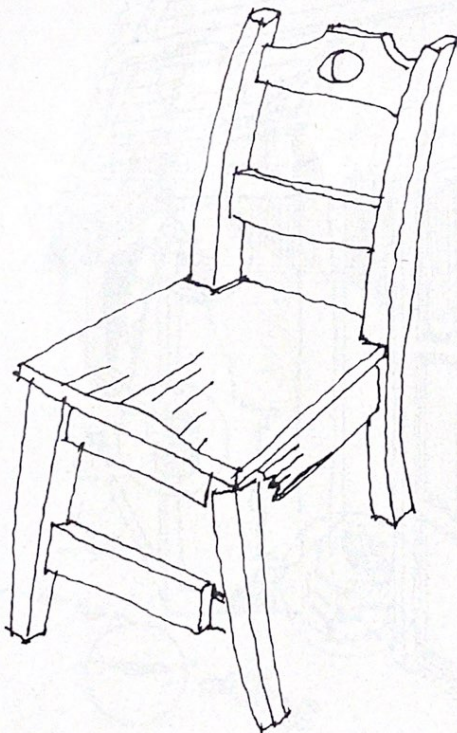
WALLS

- ♣ materials: bricks, concrete, concrete blocks - other
- ♣ construction
- ♣ general condition
- ♣ surface finish
- ♣ stability
- ♣ damp/water penetration
- ♣ condition of floor/wall junction
- ♣ condition of wall/ceiling/roof junction
- ♣ joints to doors and windows
- ♣ rot/infestation
- ♣ cracks and holes

CEILINGS

- ♣ materials: timber, plywood, plaster, sheeting - other
- ♣ construction
- ♣ general condition/sign of leaks
- ♣ ceiling members/support
- ♣ surface finish
- ♣ stability
- ♣ damp/water/dust penetration
- ♣ condition of wall/ceiling/roof junction
- ♣ fastening and joints
- ♣ rot/infestation
- ♣ cracks/holes
- ♣ fittings





SANITATION AND SEWERAGE

- ♣ cracks and holes in wash basins
- ♣ condition of toilet bowls and seats
- ♣ support of wash basins and cisterns
- ♣ flushing effect in toilet cisterns
- ♣ condition of water taps
- ♣ wall mounted fittings
- ♣ shower heads/water pipes/fastening and joints
- ♣ joints from water pipe to floor, walls and ceilings
- ♣ gullies and water traps
- ♣ correct slope on floors in wet rooms
- ♣ drainage effect of disposed water and sewerage

DOORS AND WINDOWS

- ♣ materials: wood/metal
- ♣ construction
- ♣ operational condition
- ♣ surface treatment/finish
- ♣ water/wind/dust penetration
- ♣ joints and stability
- ♣ door locks
- ♣ hinges
- ♣ storm hooks and door stoppers
- ♣ rot/infestation
- ♣ cracks/holes
- ♣ breakage
- ♣ ironmongery/fitting
- ♣ mosquito net
- ♣ security locks/fitings

FURNITURE

- ♣ description: chairs, tables, beds, desks, shelves, cupboards etc.
- ♣ material: wood/metal - other
- ♣ operational condition
- ♣ joints – stable/not stable
- ♣ breakage
- ♣ surface treatment and finish

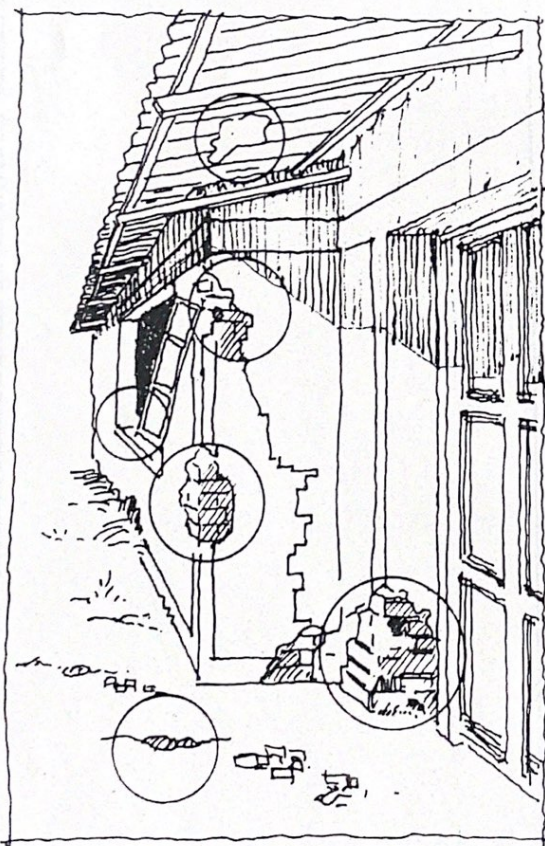
CHECKLIST: BUILDING EXTERNAL

ROOFS

- ♣ material: concrete/cgi-sheets/asbestos/clay tiles/slate/that's – other
- ♣ construction: flat/pitched/ slope
- ♣ general condition
- ♣ specific damage, if any
- ♣ surface finish
- ♣ roof support
- ♣ fastening system
- ♣ stability
- ♣ damp/water penetration
- ♣ condition of wall/roof junction
- ♣ access to roof
- ♣ rot/infestation
- ♣ cracks and holes
- ♣ unwanted growth of vegetation
- ♣ hanging branches from trees
- ♣ water run-off and gutters

WALLS

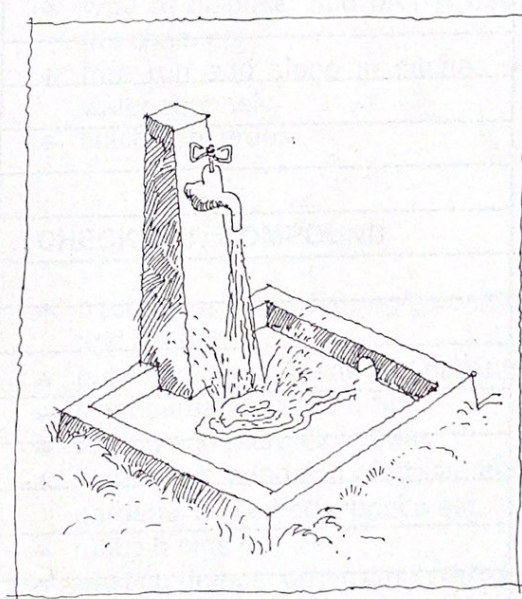
- ♣ material: brick/concrete/concrete blocks/stone – other
- ♣ construction
- ♣ anchoring of roof structure to wall
- ♣ general condition
- ♣ joint to foundation
- ♣ cracks and holes
- ♣ stability
- ♣ surface and finish
- ♣ damp/water penetration
- ♣ condition of wall/ceiling/roof junction
- ♣ bonding and joints
- ♣ finish of wall openings for doors and windows
- ♣ slope away under windows
- ♣ rot or fungi attack in wall/plaster



CHECKLIST: BUILDING EXTERNAL

WATER SUPPLY AND SEWERAGE

- ♣ water source: town supply, bore hole well – other
- ♣ water storage: ground/roof tanks and tower if any
- ♣ booster pumps
- ♣ water pipes and joints
- ♣ tap stands and washbasins
- ♣ drain pipes from roofs
- ♣ waste pipes for water
- ♣ gullies/drains
- ♣ manholes
- ♣ inspection chambers
- ♣ septic tanks
- ♣ soak-away pits
- ♣ pit latrines/water closets



A GENERAL NOTE ON MAINTENANCE

- CONSTRUCTION AND MAINTENANCE GOES HAND IN HAND IN ENSURING THAT USERS HAVE A PLEASANT ENVIRONMENT AND GOOD WORKING CONDITIONS. WHERE CONSTRUCTION STOP, MAINTENANCE TAKES OVER AND CONTINUES RIGHT THROUGH THE LIFESPAN OF THE BUILDING
- MAINTENANCE CONTRIBUTES TOWARDS EXTENDING THE LIFESPAN AND USEFULNESS OF A FACILITY THROUGH REGULAR CARE.
- THE EXTENT OF REPAIRS CAN BE MINIMIZED BY TREATING THEM BEFORE THEY BECOME LARGE AND DIFFICULT TO REPAIR
- TAKE CARE OF YOUR BUILDING AND IT WILL **IN RETURN TAKE CARE OF YOU.**
- THERE ARE MAINLY TWO KINDS OF MAINTENANCE

Corrective maintenance

- DEALING WITH SMALL REPAIRS DETECTED EARLY
- UNPLANNED OR EMERGENCY REPAIRS
- NEGLECTED PROBLEMS WHICH CAN LEAD TO LARGE AND EXPENSIVE REPAIRS

Preventive maintenance

- MAINTENANCE CARRIED OUT AS A ROUTINE IN ORDER TO AVOID A PROBLEM, DEPENDING ON THE COMPONENT, THESE ROUTINES CAN BE AT THE FOLLOWING FREQUENCIES.
- DAILY
- WEEKLY
- COMPONENT SPECIFIC

THE FOLLOWING PAGES OFFERS A SYSTEM FOR SUCH ROUTINES