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PADS REPORT DESCRIPTION OF THE CONDITIONS OF FACILITIES

ANNEX: FACILITIES ASSESSMENT,
REGISTRATION SHEETS

October 1989

Resources for Child Health Project

REACH



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PROVINCIAL AND DISTRICT HEALTH SERVICES STUDY

VOLUME III, PART B:

PROVINCIAL AND DISTRICT HEALTH SERVICES STUDY IN KENYA

Description of the Conditions of Facilities

Annex: Facilities Assessment, Registration Sheets

Prepared by:

**The Danish Hospital Institute
Copenhagen, Denmark**

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October 1989

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ANNEX - FACILITIES ASSESSMENT, REGISTRATION SHEETS

DESCRIPTION OF THE INDIVIDUAL INSTITUTIONS

The registration sheets of all the facilities which surveyed are included in this annex. These sheets provide in detail the conditions of the facilities and the proposals made for their rehabilitation. An overview of the main points made are as follows.

NAKURU PROVINCIAL HOSPITAL

An expansive complex of buildings on an extremely large site, Nakuru Provincial Hospital has over 500 beds, and housed in buildings constructed at regular intervals in the 1940's, 1950's and 1960's, the most recent 1978-1983.

Good points about the hospital are:

1. The complex is correctly zoned, i.e. the departments are correctly positioned in relationship to each other.
2. The buildings are lined by well paved covered walkways.
3. The recently constructed outpatients complex is well designed and adequately dimensioned, with good quality construction.
4. The laundry, kitchen and boiler house are well laid out and adequately dimensioned.

Bad points about the hospital are:

1. Most wards are in older buildings, with many beds to each ward room, (up to 20), and with very bad conditions in toilets and utility rooms;
2. Many roofs leak, and thermoplastic tiled floors are in bad repair;
3. The operating theatre block has very unhygienic conditions;
4. Piped service reticulations leak, in particular the steam reticulations

5. Key equipment in radiology, pathology and operating theatres, and sterilisation does not work
6. Ultra-sound equipment worth over Kshs one million is standing idle, never having been installed.

The following projects are proposed:

Short Term:

Complete rehabilitation of existing buildings, including repairing roof, floors, sanitary installations, electrical and steam reticulations, painting and decorating throughout etc.

Long Term:

1. Construction of new maternity delivery and delivery wards.
2. Construction of new operating theatre block.
3. Construction of new amenity wards.
4. Construction of replacement ward blocks.
5. Construction of new maintenance workshops and stores.
6. Construction of new staff housing.

At the same time as the new wards etc. are being constructed, existing wards must be demolished to provide space.

NAIVASHA DISTRICT HOSPITAL

Situated on a sloping site with 113 beds, Naivasha hospital is built around a complex of buildings erected in 1940, with substantial additions in the 1970's and 1980's.

Good points about the hospital are:

1. Spacious Site.
2. Buildings are correctly orientated and connected by well-constructed covered walkways
3. The buildings are placed correctly in relationship to each other
4. Most buildings are structurally sound.

Bad points about the hospital are:

1. Most buildings are overcrowded and activities are hampered.
2. Sanitary conditions are unacceptable.
3. Key equipment in x-ray, laboratory and operating theatre and sterilization are not working.
4. Certain important functions such as emergency and resuscitation are not provided.
5. There is a lack of staff housing.
6. No stand-by generator, or incinerator.

The following projects are proposed:

1. Renovate and redecorate throughout.
2. Construct external toilets in wards; reuse existing as bath, wash, sluice, etc.
3. Build new outpatient wards.
4. Reduce number of beds in existing wards.
5. Reuse existing outpatient buildings for resuscitation and emergency laboratory and storage.
6. Provide new furniture in wards, and repair furniture in stores, kitchen, etc.
7. Repair or replace equipment in:
 - X-ray
 - laboratory
 - sterilisation
 - physiotherapy
 - operating theatre
 - kitchen, laundry.
8. Provide stand-by operator in operating theatre, maternity and casualty wards.
9. Provide new incinerator.
10. Establish maintenance workshop.

MERCY HOSPITAL AT ELDAMA RAVINE

Good and bad points about the hospital are:

1. The buildings are mainly in good physical condition, but some functional units are quite under-dimensioned and are of poor quality. This includes:
 - operation theatre and sterilisation;
 - delivery facilities;
 - X-ray (only mobile units, no radiation protection);
 - kitchen and laundry (traditional);
 - isolation ward (block C); and
 - intensive care unit.
2. Latrines are tidy, but need refurbishing.
3. Wards, except isolation wards, are overcrowded.
4. New isolation ward is unused and old isolation ward under-utilised.
5. Waste problem is unsolved.

Comments:

1. Extension on of diagnostic and treatment facilities is planned, but not under construction/financing problems

The following projects are proposed:

1. Reduce number of beds in wards of block A.
2. Reorganization of old isolation wards (C for general ward?).
3. Reuse of operation and delivery facilities to ward facilities.
4. Construction of operation, delivery, X-ray and intensive care facilities.

ELBURGON HEALTH CENTRE

Good points about the hospital are:

1. Adequate space on site.

Bad points about the hospital are:

1. The building is actually in very poor condition.
2. The floor is partly lacking in several rooms.
3. The furniture is poor as is the linen in the maternity ward.
4. Outside toilets are not usable.

Comments:

1. A new ward building has been built on the site close to this building. There is outpatient department, laboratory and dispensing room on the ground floor and 72 beds on the next floor. Laundry and kitchen facilities are lacking
2. It has been planned to remove the outpatient services from the old health centre to this new building except maternity ward and MCH services
3. The site of the new building is spacious.

The following projects are proposed:

1. The building is in unacceptable condition and should be condemned.
2. Facilities for the maternity and MCH services be built on the site of the NYAYO building together with the lacking laundry and kitchen facilities.
3. Repair costs of this building for any health care use would be unreasonably high.

LANGALANGA HEALTH CENTRE

Good points about the hospital are:

1. The situation in town is good.
2. The site is big enough should a water enlargement be needed.
3. The layout is functionally quite good except some details.

Bad points about the hospital are:

1. Some examination rooms are unused while maternity and family planning rooms are overcrowded.
2. Private areas for waiting, dressing, injections, etc. rooms are overcrowded.
3. The flat roof has been leaking, except waiting areas, where it has already been repaired.

The following projects are proposed:

1. Replanning of rooms 16-27 to utilise unused examination facilities.
2. Replace 30 percent of the softboard ceilings.
3. Removing ceilings above the covered waiting area and replacing with new roof.
4. Repainting and refurnishing of all rooms.

MOGOTIO HEALTH CENTRE

Good points about the hospital are:

1. The layout.
2. The spacious site.

Bad points about the hospital are:

1. The roof has been leaking, with severe damages in two blocks; the roof has already been repaired in blocks A and C.
2. Water treatment is out of order.
3. Cleaning processes have put the furniture in bad condition.
4. Furniture and linen are missing.
5. The electrical system is in disrepair.
6. Observation and maternity wards are under-utilised, lack clean water, and lack sufficient supplies of electricity and oxygen.

The following projects are proposed:

1. Refurbishing of the water system, sanitary installation and electrical system.
2. Replacement of roof on block B.
3. Repair and repainting of ceilings, especially on blocks A and B.
4. Repaint the walls.
5. Repair doors, windows and ironmongery.
6. Repair furniture and replace linens.

NJORO HEALTH CENTRE

Good points about the hospital are:

1. Spacious site.
2. Building is in reasonably good physical condition.

Bad points about the hospital are:

1. Several rooms are functionally too large and used at the same time for different purposes.

2. Because of the lack of water, facilities such as the laboratory and maternity, are under-utilised.
3. Building construction is of poor quality.
4. Transport problems/lack of vehicles.
5. Security problems.

Comments:

1. Designed for a hospital in 1979.

The following projects are proposed:

1. The water problem should be solved.
2. Changing the room partitions.
3. Renovate and repair throughout.
4. Repair the roof.
5. Depending on the extend of functions, the maternity ward should be either enlarged or reconstructed.

KARATE DISPENSARY

Good points about the hospital are:

1. Spacious site.

Bad points about the hospital are:

1. The entire building is falling down.
2. There is not a sufficient water supply as it is difficult to get on the site.
3. There is no electricity in building, although there is on the site.

Comments:

1. There is a new dispensary, two rooms under construction.

NAIVASHA PRISON DISPENSARY

Good points about the hospital are:

1. Spacious site.
2. Rooms are clean and well maintained.
3. The waiting area is spacious.

Bad points about the hospital are:

1. Some rooms are too small.
2. Treatment rooms are without water.
3. Furnishings are in poor condition.

The following projects are proposed:

1. Repair of the roof and replace some of the soft board plates.
2. Repaint the walls and ceilings.
3. Replace some of the ironmongery.

NDABIBI DISPENSARY

Good points about the hospital are:

1. Spacious site of 5,000 acres (12,000 sq. metres).
2. Rooms are clean and well maintained.
3. Modest but neat furniture.

Bad points about the hospital are:

1. There is no electricity.
2. The roof leaks.

Comments:

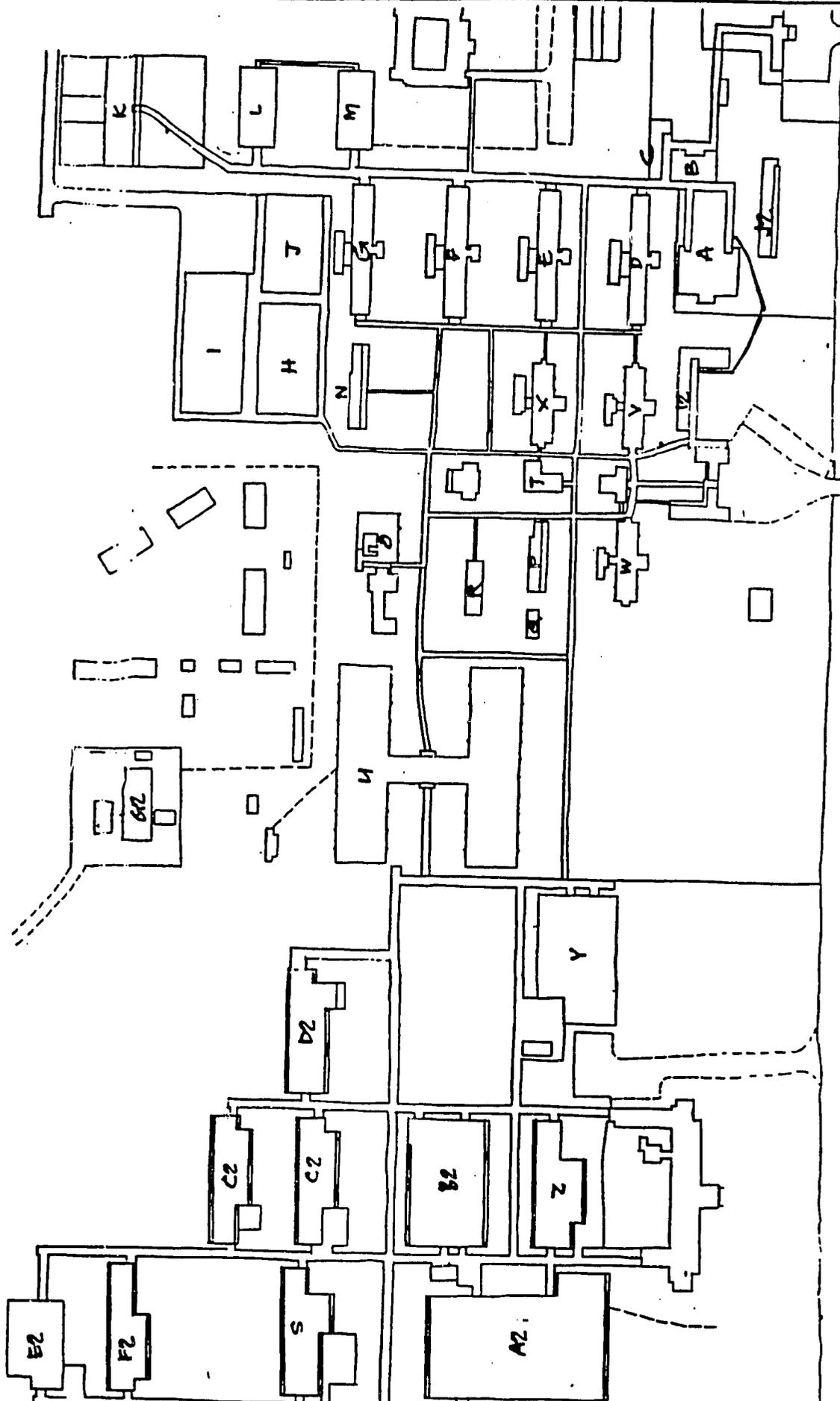
1. The original layout (1977) for a health centre (1977) still exists.
2. The maternity ward (6 patients) has been under construction since 1988.

The following projects are proposed:

1. Introduce electricity.
2. Repair roof and replace ceiling panels.
3. Repaint walls and replace ironmongery.
4. Provide additional furnishings.

MASTERPLAN FOR: NAKURU PROVINCIAL HOSPITAL

BLOCK PLAN LAYOUT OF BUILDINGS ON SITE



MASTERPLAN FOR: NAKURU PROVINCIAL HOSPITAL

LAYOUT PLANS OF INDIVIDUAL BLOCKS : COMMENTS

GOOD POINTS:

Very well designed and layout of OPD.
Good zoning in general (position & relationship of departments).
Modern kitchen & laundry.

BAD POINTS:

Most wards are of old type and in bad condition.
Operating theatre block should be condemned.
Many roofs leak.

MASTERPLAN FOR: NAKURU PROVINCIAL HOSPITAL

LOCATION OF DEPARTMENTS WITH AREAS, CAPACITY, FUNCTIONAL CONDITION

DEPARTMENT/ ROOM	NAME	BLOCK	AREA M ²	COMMENT ON AREA	CAPACITY OPTIMUM/ACTUAL	UNIT USED	FUNCTIONAL CONDITION	COMMENTS
A	OPERATION THEATRE		406	C	2(3)	OPTH.	4(5)	
B	FORMER XRAY		110	-	-	-	-	NOT IN USE
C	STORE, DRS' TEAROOM		68	B	15	SPACES	2	
D	PEDIATRIC WARD		261	C	40/31	BEDS	4	6.5/8.4 sqm/bed
E	GYNAECOLOGY WARD		261	C	40/31	BEDS	4	
F	MATERNITY WARD		261	C	40/33	BEDS	4	
G	TB		261	B	40/28	BEDS	4	25 PATIENTS
H	KITCHEN		568	A	600x3	MEALS A DAY	2	
I	LAUNDRY		680	A	-	-	3	MACHINES OUT OF ORDER
J	BOILER HOUSE		490					
K	PSYCHIATRY WARD		360	C	40/50	BEDS (SOMETIMES 90)	4	9 sqm/bed
L	MALE ORTHOPAEDIC W.		210	C	24/32	BEDS	3	8.7 sqm/bed
M	MALE SURGICAL W.		210	C	24/32	BEDS	3	
N	PEDIATRIC ISOL. W.		90	C	20/5	COTS./BEDS	4	4.5 sqm/bed
O	MATERNITY WARD		270	C	33/5	BEDS/DELIV. B.	5	6.3 sqm/bed+del.
P	STORE		80	C	-	-	3	
Q	STORE		32	C	-	-	3	
R	PHARMACY STORE		75	C	-	-	3	
S	PHARMACY		390	A	22-25	STAFF INCL STUD	2	500-800 CUST./DAY
T	PLASTER ROOMS/STBS		55	B	20-30	PATIENTS./DAY	2	STAFF 11
U	MEDICAL W./FEMALE		473	B(C)	36/50	BEDS/PATIENTS	3E	
	MEDICAL W./MALE		473	B(C)	36/6A	BEDS/PATIENTS	3E	1 NYAYO
	SURGICAL W./CHILDR.		473	B	36/38	BEDS/PATIENTS	3E	+ 2 MOTHERS
	SURGICAL W./MALE		473	B(C)	36/41	BEDS/PATIENTS	3E	TOLD 45 P
V	PED. MEDICAL WARD		174	B	28/32	BEDS/COTS (3 PAT.)	4	6.2 sqm/bed
W	PED. OBSERVATION W.		174	B	25/-	BEDS	3	UNUSED @

- COMMENTS:
- 1) SEEMS TO BE UNTRUE
 - 2) REDUCING THE NUMBER OF PATIENTS/FUNCT. COND. 2
 - 3) REPAINTED
 - U) NYAYO WARDS' TOTAL AREA 13.1 sqm/bed

FOR COMMENTS ON AREA:

- A = TOO LARGE
- B = SUFFICIENT
- C = TOO SMALL

FOR FUNCTIONAL CONDITION:

- 1 = GOOD
- 2 = MEDIUM
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: NAKURU PROVINCIAL HOSPITAL.

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
A	1	406	1974	4	3(5)	3	3(4)	3	3	3	3(4)	3	
B	1	110	1974	1									NOT IN USE
C	1	68	1974	2	1(3)	1	3	2	2	2	2	3	
D	1	261	1940	4	3	2	3	2(3)	4	3	3	3(4)	
E	1	261	1940	4	3	2	3	2	4	3	3	3(4)	
F	1	261	1940	4	3	2	3	2	4	3	3	3(4)	
G	1	265	1940	4	3	2	3	2	4	3	3	3(4)	
H	1	568	1982	2	2(5)	2	2	2(5)	2(4)	3	2(4)	1	3 COLD RMS. 1 WORKING
I	1	680	1982	3	2(5)	2(5)	2	2	3	3	2	1	
J	1	490	1982										
K	1	360	1962	4	4	2	4	3	4	3(4)	3	4	
L	1	210	1978	3	2(5)	2	3	2(4)	4	3	3	3	
M	1	210	1978	3	2(5)	2	3	4	4	3	3	3	
N	1	90	1940	4	2(3)	2	3	3	4	3	3	3	
O	1	270	1950	5	3(4)	3(4)	3(4)	4	4	4	4	4	
P	1	80	1950	3	2	2	3	3	-	-	3	4	
Q	1	32	1950	3	2	2	3	3	-	-	3	4	
R	1	75	1950	3	2	2	3	3	-	-	3	4	
S	1	390	1983	2	2	2	2	2	2	2	2	2	
T	1	55	1940	2	2	2	3	2	4	4	4	3	
U	1	892	1983	3	2(4)	2	2(3)	2	2(4)	3	3(4)	2	
V	1	174	1940	4	4	4	4	4	4	3	3	4	
W	1	174	1940	3	2	2	2	2(4)	2	2	2	2	UNUSED
X	1	174	1940	3	1(2)	2	2	2	4	4	3	3	
Y	1	74	1980	2	1	2	2(4)	2(4)	2/3	2	2(4)	1	
Z	1	386	1980	2	1	2	1	1(2)	2	2	2	1(3)	

COMMENTS: SANITARY CONDITIONS IN MANY CASES CAN BE IMPROVED WITH CAREFUL CLEANING.

FOR DESCRIPTION OF CONDITION: 1 = GOOD
 2 = MEDIUM
 3 = POOR
 4 = UNACCEPTABLE
 5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: NAKURU PROVINCIAL HOSPITAL

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
A 2	1	1650	1980	2	1	1	1(4)	1(3)	2	2	2	1	
B 2		780	1980	2	1*	1	1	1	1	1	2	1	
C 2		320	1980	2	1	1	1	1	1	1	2	1	
D 2		386	1980	2	1	1	1	2(4)	1	1	4	1	
E 2		320	1980	2	1	1	1	1	1	1	2	1	
F 2		280	1980	2	1	1	1	1	1	1	2	1	
G 2		200	1975	2	1	1	2	1	1	1	2	2	
H 2		360	1940	5	5	5	5	5	5	5	5	5	
I 2		237	1950	2	2/3	2	2	2	2	2	2	3	
J 2		100	1950	3	2	3	3	2	1	1	2	3	
K													
L													
M													
N													
O													
P													
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													

COMMENTS: *

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MASTERPLAN FOR: NAKURU PROVINCIAL HOSPITAL

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONWORKERY	COMMENTS
A	1	1650	1980	2	1	1	1(4)	1(3)	2	2	2	1	
B		780	1980	2	1*	1	1	1	1	1	2	1	
C		320	1980	2	1	1	1	1	1	1	2	1	
D		386	1980	2	1	1	1	2(4)	1	1	4	1	
E		320	1980	2	1	1	1	1	1	1	2	1	
F		280	1980	2	1	1	1	1	1	1	2	1	
G		200	1975	2	1	1	2	1	1	1	2	1	
H		360	1940	5	5	5	5	5	5	5	5	5	
I		237	1950	2	2/3	2	2	2	2	2	2	2	
J		100	1950	3	2	3	3	2	1	1	2	3	
K													
L													
M													
N													
O													
P													
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													

COMMENTS: *

- FOR DESCRIPTION OF CONDITION:
- 1 = GOOD
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MASTERPLAN FOR: NAKURU DISTRICT HOSPITAL.

MECHANICAL ENGINEERING, WATER AND DRAINAGE:
EXISTING CONDITIONS

5

A MECHANICAL	CONDITION
1 STEAM SYSTEM	
Boilers 5 no., 1 not working, further 2 boilers to school.	3
Pipe system insulated steel piping, insulation in bad condition	3
Distribution points	2
2 KITCHEN EQUIPMENT	
Cookers 4 gas cookers, but no gas. 2 electrical cookers	4
Boilers 0 boilers, 4 are not working	3
Ovens -- in canteen	-
Refrigerators none	-
Freezers none	-
Other equipment --	-
3 LAUNDRY EQUIPMENT	
Washing machines 5 machines, 4 are not working	4/5
Dryers 3 no., 2 are not working	4
Ironing machine 3 small, 1 large. The large one not used	2
4 COLD STORES	
Food stores 2 no. 1 is not working	3/4
Pharmacy stores 1 no.	2
Body chambers 0 no with 4 drawers each. 1 room is not used.	4/5
5 VENTILATION	
AC plant none	
AC units none	
Ventilation natural ventilation.	3

B WATER AND DRAINAGE

6 WATER SYSTEM	
Wells none	-
Reservoir / tank for storage, 1 tank for pressure	3/4
Pumps - natural pressure	-
Mains reticulation steel piping to canteen.	2
Water heating only in operation department, from boiler.	3
7 DRAINAGE	
Sewage mains	2/3
Top-water open drains to mains.	3
Reticulation	2

NB. Capacity of washing machines is too low

• Cold rooms to food stores should be repositioned as the space is required

FOR CONDITION:

- 1 = GOOD
- 2 = SATISFACTORY
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

A ELECTRICAL POWER SUPPLY	CONDITION
1 SUBSTATION Situated at school.	2
Situation connection to main distribution board	2
Voltage 200 V / 220 V.	2
Load breaker 200 A in main distribution board	2
Outgoing lines A to main switch boards in departments	2
B (doctors too many)	
C	
D	
Power demand - sufficient for present use	2
2 EMERGENCY SUPPLY	
Op. theatre department A Batteries - do not function but can be repaired	4/5
other areas B Generator by transformer 125 kva, 180 A	2
C	
3 MAINS DISTRIBUTION	
Switch boards - main switchboard in order.	2
Mains distribution	2
Outgoing feeder A Operation Department	2
B Wards	2
C Wards	2
D Wards	2
E Old X-ray department. - disconnected	-
F	
Distribution protection Earthing - should be investigated.	3
4 OVERVOLTAGE PROTECTION none: should be provided.	4

B ELECTRICAL INSTALLATIONS

5 INSTALLATIONS IN BUILDING	
Distribution boards - placed in separate departments.	3
Installations - combined conduit pipe/cable. 25% should replace	3
Socket, power outlets 80% require replacement	3/4
6 STREET LIGHTING - on buildings and covered ways	3
7 TELEPHONES SYSTEM	
Switch board wires: old type	4
Trunk lines 5 no. at present it is only possible to receive calls	3/4
Extensions 85 no. of	2

NB. 20% of street lighting should be repaired.

- FOR CONDITION:
- 1 = GOOD
 - 2 = SATISFACTORY
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: NAKURU HOSPITAL

KEY EQUIPMENT: EXISTING CONDITIONS

7.1

DESCRIPTION	LOCATION	MANUFACTURER / Number	YEAR OBTAINED	CONDITION	CAPACITY / REMARKS
Op. theatre lamp	Op. theatre	2	-	1	
Surgical diathermy	-||-	2	86	1	
Op. th. Standby bath	-||-	1	-	4	
Sterilizers	-||-	3	75	1	
Suction pumps	-||-	2	75	1	
Medical gases	-||-	-	-	1	
Anesthetic machine	-||-	3	86	1	Including ventilators
Infant incubators	Maternity	2	-	1/2	
Dental chair units	Dental dept.	5 Siemens	-	3	
Amalgam stirrers	-||-	5 Degussa	-	1	
Dent. X-Ray film dev.	-||-	1	-	1	
Chemical autoanalytic	Laboratory	-	-	-	1 no. required
Air tissue processor	-||-	1 Sakura	-	1	
Microscopes	-||-	6 Olympus/Leitz	-	3 1/2	
Colorimeters	-||-	2 Corning	-	1 1/2	
Spectrophotometers	-||-	-	-	-	1 no. required
Incubators	-||-	2 Memmert	-	1 1/2	1 more required
Hot air oven	-||-	2 Memmert/Thyragam	-	1 1/2	-||-
Autoclaves	-||-	1 Esteroclave	-	1	2 more required
Centrifuges	-||-	5 MSE / Herrens	-	2 1/2	
Haematocrit Centrifuge	-||-	1	-	1	
Flame Photometer	-||-	1 Dr Lange	-	1	1 more required
Hot Plates	-||-	1 -||-	-	1	-||-
Sterilizers (d. needles)	-||-	1 -||-	-	1	-||-
Analytical balance	-||-	1 Satorina	-	1	-||-
Water distiller	-||-	1 -||-	-	3	-||-
Electrophoretic tank	-||-	-	-	-	-||-
Refrigerated Centrifuge	-||-	-	-	-	-||-
Blenders	-||-	-	-	-	10 more required
Anaerobic Jars	-||-	2	-	1	2 -||-
Digital pipettes	-||-	3	-	3 1/2	7 -||-
Multipipette digital	-||-	1	-	1	1 -||-
Rotary Microtome	-||-	1	-	1	
Rocker Microtome	-||-	1	-	1	
Refrigerators	-||-	3	-	1 1/2	
V.D.R. or Kahn Stoker	-||-	1 Satorina	-	1	1 -||-
Ephygmomanometers	-||-	2	-	1	2 -||-
Water baths	-||-	1	-	1	4 -||-

- FOR DESCRIPTION OF CONDITION:
- 1 = SATISFACTORY WORKS AT THE TIME
 - 2 = BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
 - 3 = BROKEN DOWN FOR SOME TIME NOW, SPARE PARTS ARE REQUIRED
 - 4 = NEVER WORKS, REPLACEMENT REQUIRED
 - 5 = NEVER COMMISSIONED/INSTALLED

MASTERPLAN FOR: DAKURU HOSPITAL

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION	MANUFACTURER / Number	YEAR OBTAINED	CONDITION	CAPACITY/ REMARKS
Kiermayer Lamp	Phys. therapy	1 Hanovia, Slough	-	1	Should be serviced
Megatherm	"	1 SWD	-	2	Should be repaired
Conrmed	"	1 SWD, Enraf	-	3	"
Conrmed	"	1 SWD, Namco	-	3	"
Microton	"	1	-	3	"
Therasonic	"	1	-	2	"
Ultrax lamp	"	1 Hanovia	-	3	"
Intra red lamp	"	1 Seltan	-	3	"
"	"	1 Non-luminous	-	1	"
Trimodine stimulator	"	1	-	1	Ought to be serviced
Dynatron	"	1	-	2	Should be serviced
Dynapoda	"	1	-	2	"
Craddle	"	1 Luminous	-	1	Ought to be serviced
Eva Craddle	"	1 Non-luminous	-	1	"
"	"	1 "	-	1	"
Cervical Traction	"	1	-	2	Should be repaired
Traction bed manual	"	1	-	1	Should be serviced
Static Bicycle	"	1	-	2	Should be repaired
Puller system	"	1	-	1	"
Suspension frame	"	1	-	3	"
Parallel bars	"	1	-	1	"
Ultratherm s.w. D	Phys. therapy	1 Siemens	-	1	Should be serviced
Microton minor	"	1 E.M.S.	-	2	Should be repaired
Therasonic ultrasonic	"	1 "	-	2	"
Endomed	"	1 Enraf	-	2	"
Seltan intra red	"	1 Herain	-	3	"
Intra red Ray Craddle	"	1 Stanley Cox	-	1	Ought to be serviced
Myedyne	"	1 E.M.S.	-	3	Should be repaired
Ultrax lamp	"	1 Stanley Cox	-	1	"
Radio Ray intra red	"	1 Hinder's	-	1	"
Intra-red rigid	"	1	-	1	"
"	"	1	-	3	"
Intra-red BioRay	"	1	-	3	"
Stimulator	"	1 Medical supply Co	-	3	"
Wax-bath	"	1	-	1	"
Vanitherm Waxbath	"	1 E.M.S.	-	3	"
Static bicycle	"	1	-	3	"

Annex

hospital

FOR DESCRIPTION OF CONDITION:

- 1 - SATISFACTORY WORKS AT THE TIME
- 2 - BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
- 3 - BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
- 4 - NEVER WORKS, REPLACEMENT REQUIRED
- 5 - NEVER COMMISSIONED/INSTALLED

MASTERPLAN FOR: DAKURU HOSPITAL

KEY EQUIPMENT: EXISTING CONDITIONS

	DESCRIPTION	LOCATION	MANUFACTURER	YEAR OBTAINED	CONDITION	CAPACITY/ REMARKS
ANNEX	Rehabilitation unit	Phys.therapy	1 Berkshire	-	2	Should be repaired
	Pump- Exerciser	-||-	1 ENRAF	-	2	-||-
	Suspension frame	-||-	1	-	2	-||-
	Selex Electrical heater	-||-	1	-	2	-||-
	Baby walker	-||-	1 Carters	-	1	-||-
	Radiant Cradle	-||-	1	-	2	-||-
	Heat Cradle	-||-	1 Non-diminin	-	2	-||-
	Radiant heat Cradle	-||-	1	-	3	-||-
	-||-	-||-	1	-	3	-||-
	Baby walker	-||-	1	-	2	-||-
ANNEX	Walking frame	-||-	1	-	3	-||-
	Aut. Tissue Processor	Histology lab	1 Sakami	71	5	Should be replaced
	Aut. Knife Sharpener	-||-	1 American optic	79	5	-||-
	Hot plate	-||-	1 Water Jacketed	72	5	-||-
	Sliding Microtome	-||-	1	72	5	-||-
	Water bath	-||-	1	79	5	-||-
	Hot Air oven	-||-	1	72	5	-||-
	-||-	-||-	1	84	4	-||-
	-||-	-||-	1	73	5	-||-
	De-ionizer	-||-	1 Resin	-	3	-||-
HOSPITAL	Distiller	-||-	1	-	3	-||-
	Casualty x-ray machine	X-ray dep.	1	86	1	Ought to be repaired
	x-ray machine	-||-	1	86	1	-||-
	Screening x-ray machine	-||-	1	86	1	-||-
	X-ray machine	-||-	1 Siemens	84	3	Should be repaired
	Odelca camera	-||-	1 -||-	84	3	-||-
		IVP room	1 Toshiba	84	1	-||-
	C. Arms	-||-	1 Siemens	84	3	-||-
	OPG	-||-	1 -||-	84	1	-||-
	Dental x-ray	X-ray dep	1 -||-	84	1	-||-
-||-	Dental clinic	1 -||-	84	1	-||-	
Portable set	-||-	1 Philips	-	5	-||-	
-||-	-||-	2 Siemens	79	5	Should be replaced / 1	
X-ray machine	Annex	1 Picker	-	5	Should be replaced	

- FOR DESCRIPTION OF CONDITION:
- 1 - SATISFACTORY WORKS AT THE TIME
 - 2 - BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
 - 3 - BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
 - 4 - NEVER WORKS, REPLACEMENT REQUIRED
 - 5 - NEVER COMMISSIONED/INSTALLED

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MASTERPLAN FOR: DAKURU HOSPITAL

KEY EQUIPMENT: EXISTING CONDITIONS

7.4.

OLD X-RAY REPAIRMENT. FUNCTIONAL BUT NOT IN USE?

DESCRIPTION	LOCATION	MANUFACTURER	YEAR OBTAINED	CONDITION	CAPACITY/REMARKS
X-ray machine	Screening room	1 Philips	77	3	Should be repaired
Medic - 2	General room	1 -	-	3	Removed to Marsabit
	-	1 Hitachi	-	3	Should be replaced
Camera	-	1 Ods	-	3	-
Portable x-ray	Digayo w.	1			Required
-	ward 9.10	1			-
-	Oor. theatre	2			-
aut. film processor		1			-
ultrasound x-ray		1	82	5	Never installed
C-arms		1	-	3	Should be repaired
-		2	-	3	-
Drying system		1		3	-
Wood bandsaw	Orthop W.S.	1	-	-	
Electric hand grinder	-	2	-	-	
Cementing machine	-	1 Otto-beck	83	1	Ought to be serviced
Polishing machine	-	1 -	83	2	- repaired
Dusting machine	-	1 -	83	1	- serviced
Leather splinting mach	-	1 -	83	3	Should be repaired
Leather punchin -	-	1 -	83	2	Ought to be -
Leather cutting -	-	1 -	83	1	- serviced
Sawing machine	-	4 -	7 1/2	3 1/2	Should be repaired
Bandsaw -	-	1 -	83	3	-
Umr. bandsaw -	-	1 -	82	1	Ought to be -
Drilling machine	-	4 Peugeot/otto be	7 1/2	1	-
Prier -	-	1 Otto-beck	83	1	-
Vacuum compressor	-	1 -	83	1	-
Sand-paper machine	-	1 -	83	3	Should be -
Trailmans -	-	2 -	83	1	Ought to be -
Spraying -	-	1 -	83	3	Should be -
Grinding -	-	1 -	70	3	-
Grinding & polishing	-	1 -	83	3	-
Sheers/cutter machine	-	3	-	1	Ought to be -
Lathe machine	-	2 -	83	1	-
Ark. welding -	-	1 -	83	1	-
Gas welding	-	1 DBI	70	3	Should be -

FOR DESCRIPTION OF CONDITION:

- 1 - SATISFACTORY WORKS AT THE TIME
- 2 - BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
- 3 - BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
- 4 - NEVER WORKS, REPLACEMENT REQUIRED
- 5 - NEVER COMMISSIONED/INSTALLED

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MASTERPLAN FOR: NAKURU PROVINCIAL HOSPITAL

PRODUCTION/CAPACITY

NUMBER OF PATIENTS	ON DAY OF SURVEY	THEORETICAL			COMMENTS
		PER DAY	PER WEEK	PER YEAR	
OUTPATIENT CONSULTATIONS					
General outpatients	254 *				* THESE FIGURES ARE CORRECT
Pediatric O/P CASUALTY	243				ARE POSSIBLY LOWER THAN AVERAGE
Maternity	110				
Mother and child	-				
TB FAMILY PLANNING	12				
SPECIALIST CONSULTATIONS		AT LEAST 2000			
Doctor	(254)				RELATIONSHIP BETWEEN FILTER CL/DOCT. CL UNCLEAR.
Other specialists					
RADIOLOGY					
X-rays A					FIGURE GIVEN WITH REFERENCE TO RI BEDS, THERE WERE NOT SO MANY PATIENTS.
B	100	150	(WITH ALL MACHINES WORKING)		
C					
D					
E					
SURGERY					
Minor operations	20 *	30			* IN MAIN THEATRE ONLY.
Major surgery					
LABORATORY TESTS					
Clinical chemistry					
Microbiology	250	± 800			
Other					
KITCHEN					
Number of portions	600 x 3	± 1000 x 3 *			* WITH ALL EQUIPMENT WORKING.
LAUNDRY					
Linen	does not				THE LAUNDRY MAN HAD NO SCALE - ABSOLUTELY NO WAY HOW MUCH LAUNDRY PROCESSED PER DAY.
Uniforms	known				
Blankets					
IN-PATIENTS					
Surgery male	138	100			THERE ARE 5 TOTAL OF 573 BED SPACES/BEDS IN USE AT THE HOSPITAL, THE HIGH OCCUPANCY CLAIMED ON DAY OF SURVEY COULD NOT BE COMPLETED/VERIFIED. N.B HOWEVER CONDITIONS ARE V. BAD.
Surgery female / GYN/ECOLOG	31	40			
Medical male	68	30			
Medical female	50	76 *			
Pediatrics	41	70			
Pediatrics isolation	7	20			
Isolation	20	20			
Maternity	79 (?)	33			
* PSYCHIATRY	50	40 -			
DELIVERY					
Births	32 *	28-36			
* PLEASE NOTE: THERE IS SOME DISCREPANCY ABOUT THE NUMBER OF BEDS.					
1. MORE BEDS ARE AVAILABLE THAN OFFICIAL PROVISION.					
2. IT WAS IMPOSSIBLE TO VERIFY HIGH NUMBERS OF PATIENTS IN ALL CASES.					

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RENOVATION PLAN FOR: NAKURU PROVINCIAL HOSPITAL.

REPAIRS REQUIRED IN INDIVIDUAL BLOCKS

BLOCK	DEPARTMENT	AREA M ²	REPAIR ROOF	REPAIR DOORS AND WINDOWS	REPAIR FLOOR	REPLACE SANITARY	REFURBISH WATER AND DRAINING	REFURBISH ELECTRIC INSTALL.	REPLACE IRONMONGERY	REALLOCATE PARTITIONS	REFURBISH AND REDECORATE			
A	OP. THEATRE	406	80%	20%	40%	20%	20%	80%	20%	-	100%			
B	OLD X-RAY	110	-	-	-	-	-	-	-	-	100%			
C	DOCTORS TEA	68	-	20%	-	-	-	-	-	-	100%			
D	PEDIATRIC W	241	-	-	-	-	-	-	-	-	-			
E	GYNEC. W.	201	20%	40%	40%	100%	100%	60%	40%	-	100%			
F	MATERN. W.	261	-	-	-	-	-	-	-	-	-			
G	TB WARD	261	-	-	-	-	-	-	-	-	-			
H	KITCHEN	568	50%	20%	40%	40%	10%	20%	-	-	100%			
I	LAUNDRY	680	30%	20%	-	10%	10%	10%	-	-	100%			
J	BOILER HOUSE	490	-	-	-	-	-	-	-	-	-			
K	PSYCHIATRY W.	360	30%	80%	30%	80%	80%	100%	80%	-	100%			
L	M. ORTH. W.	210	30%	30%	50%	30%	50%	40%	40%	-	100%			
M	GEN. SURG. W.	210	30%	30%	50%	30%	50%	40%	40%	-	100%			
N	PED. ISOL. W.	70	-	-	-	-	-	-	-	-	-			
O	MATERNITY W.	270	30%	30%	80%	80%	80%	50%	50%	-	100%			
P	STORE	80	-	-	-	-	-	-	-	-	100%			
Q	STORE	32	-	-	-	-	-	-	-	-	100%			
R	PHARM. ST	75	-	-	-	-	-	-	-	-	100%			
S	PHARMACY	300	-	-	10%	10%	-	-	-	-	40%			
T	PLASTER RM.	55	-	-	-	20%	20%	-	-	-	100%			
U														
V	NYAYO WARD	1892	10%	20%	50%	80%	80%	40%	-	-	100%			
W														
X														
Y		728												
Z		386												
A2		1650												
B2	OPD	780	-	-	-	10%	10%	-	-	-	40%			
C2		320												
D2		380												
E2		320												
F2		280												
G2	MORTUARY	280	-	-	-	-	-	-	-	-	-			
H2	ISOLATION	360	20%	30%	30%	80%	60%	70%	40%	-	100%			
I2	ADMINISTR.	380	-	20%	-	-	-	10%	-	-	100%			
J2		100												

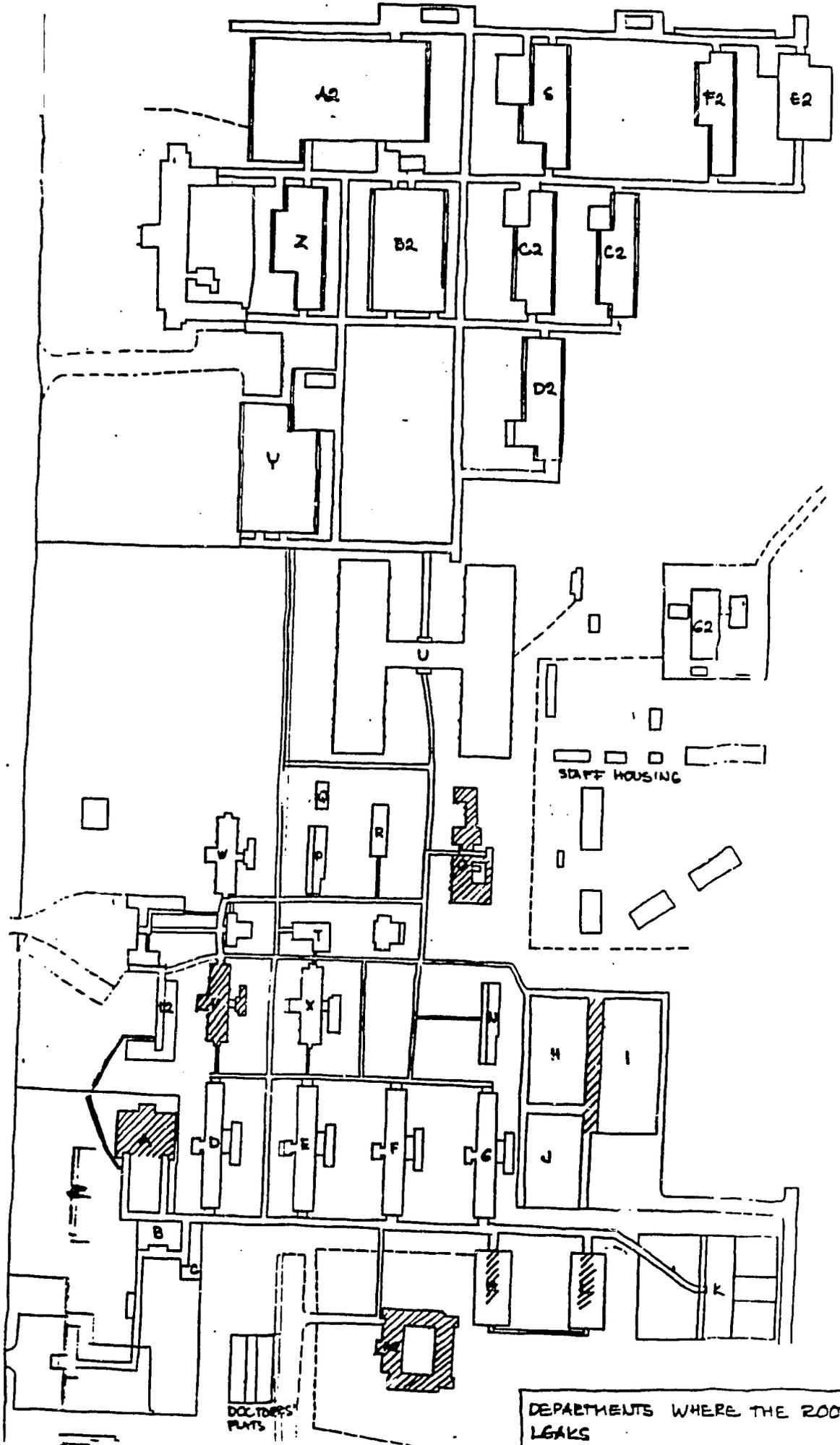
26

MASTERPLAN FOR:

LIST OF PROPOSED CAPITAL PROJECTS [TO BE COMPLETED LATER]

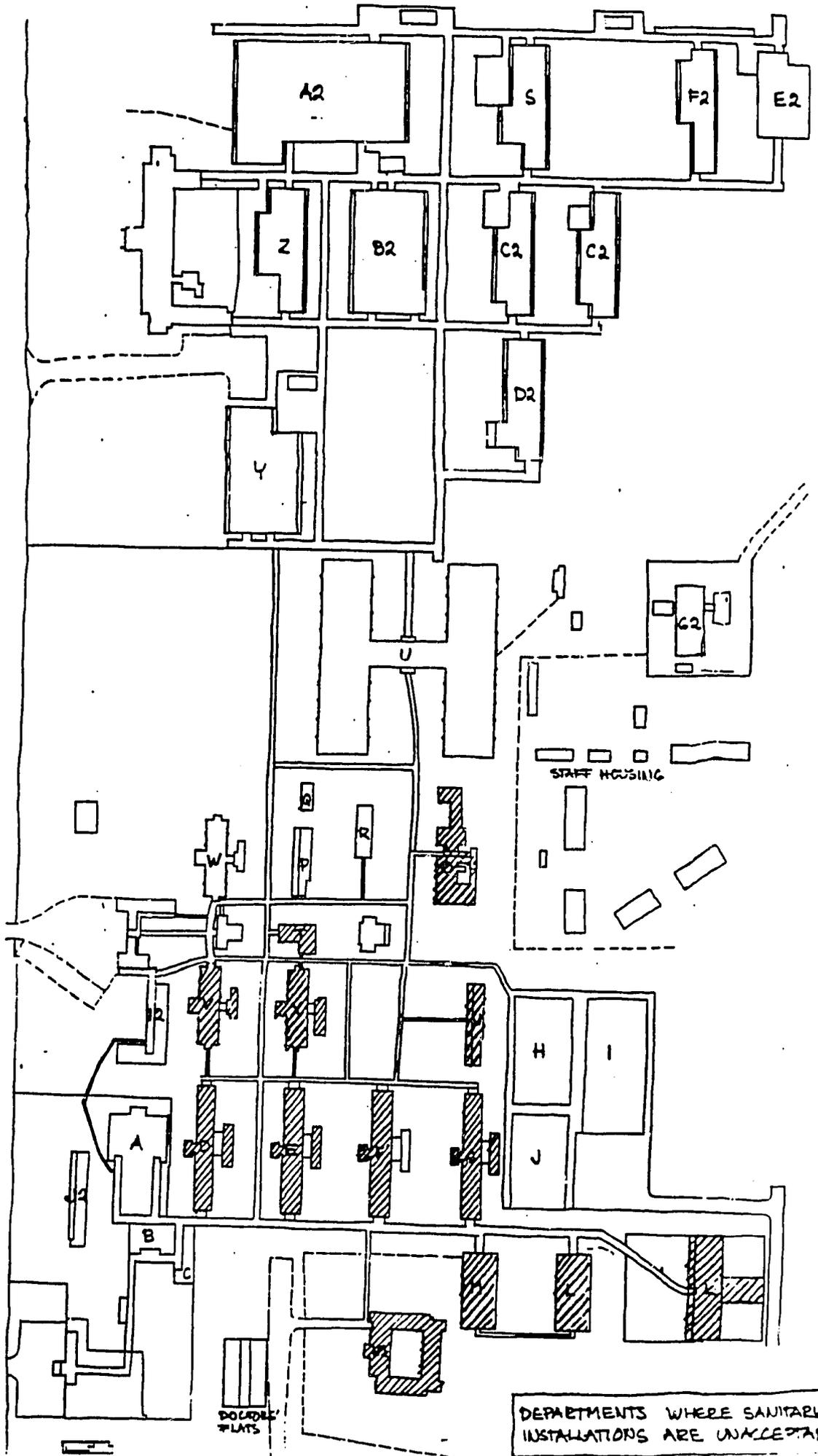
PROJECT	ESTI- MATED COST	PRIO- RITY	EFFECT ON RECURR. COST	PREPA- RATION MONTHS	COMPLE- TION MONTHS
Rehabilitation of existing buildings Rehabilitate as req. toilets to wards New amenity ward New maintenance workshops/stores New maternity delivery-wards New ward Block 2 New ward Block 3 New operating thea. New staff housing					

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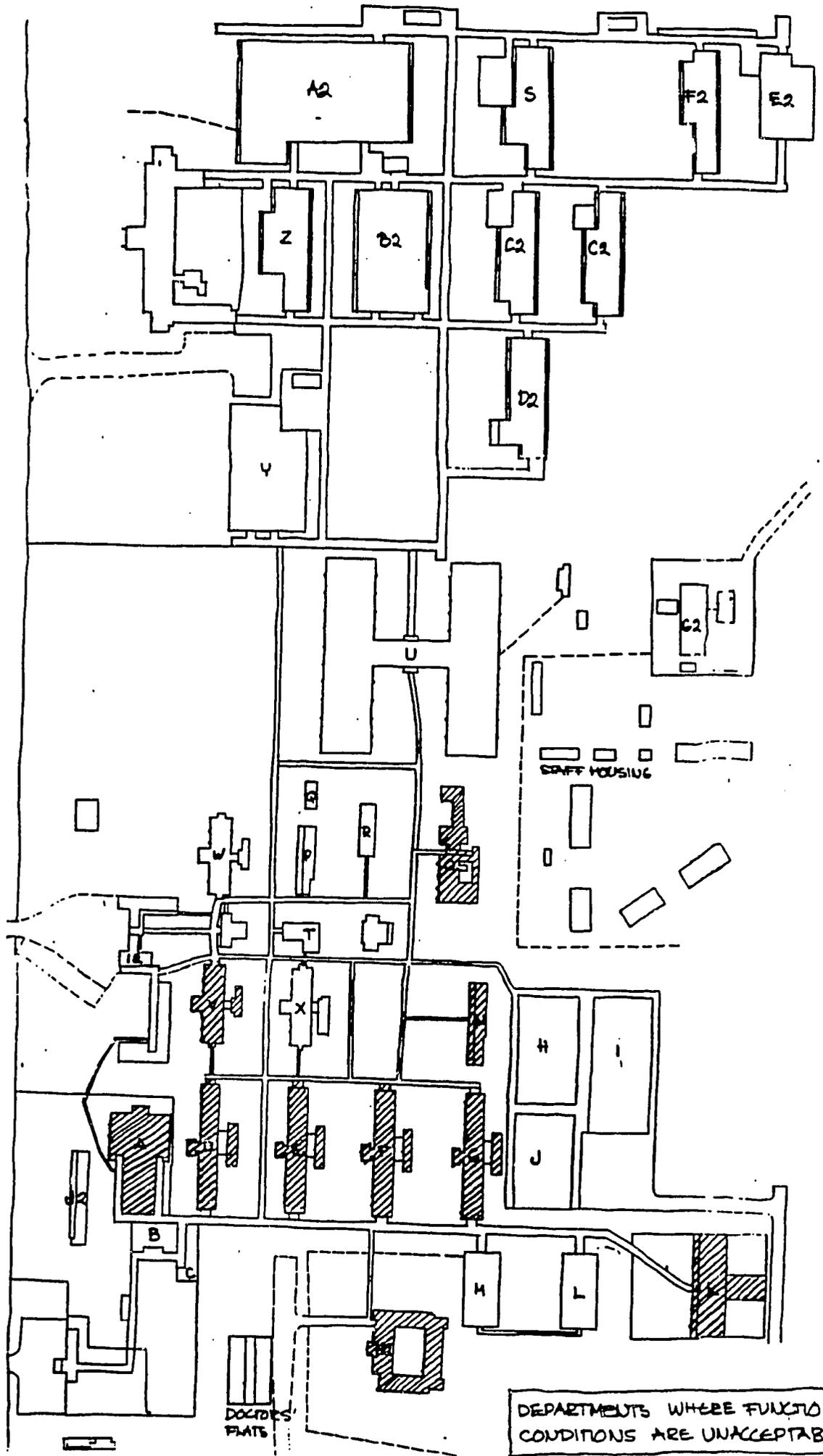


DOCTORS' PLATS

DEPARTMENTS WHERE THE ROOF LEAKS

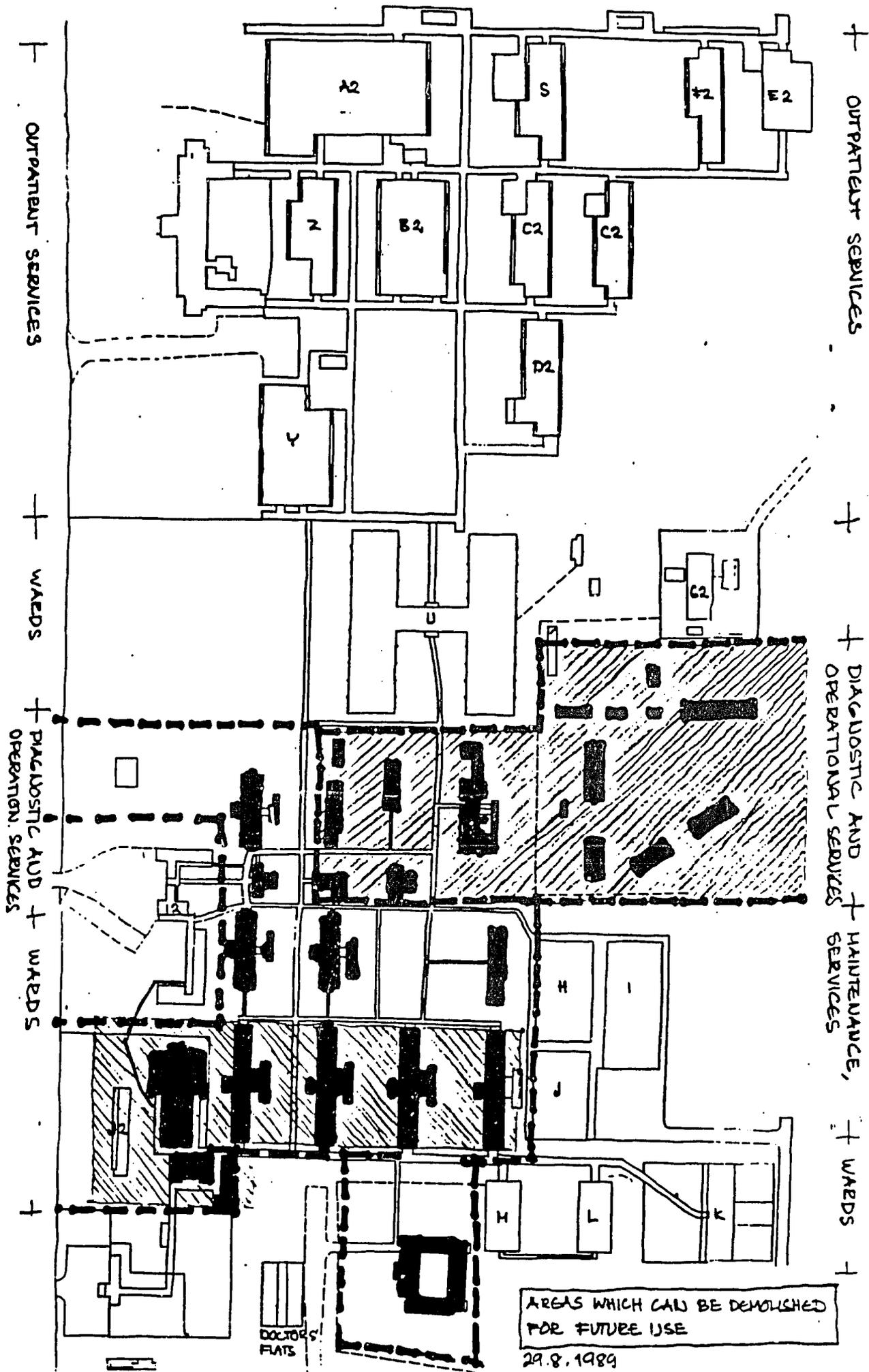


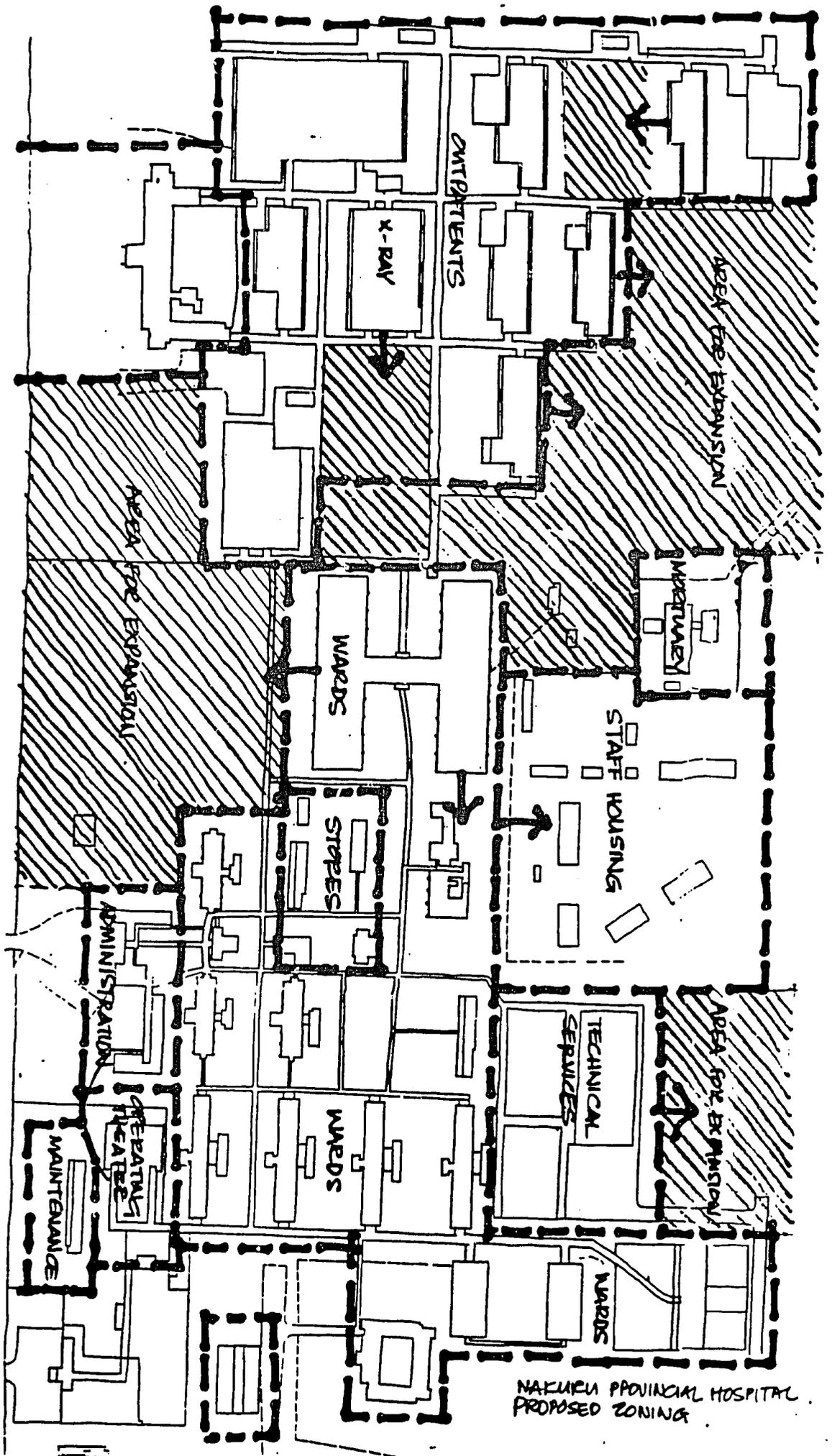
DEPARTMENTS WHERE SANITARY
INSTALLATIONS ARE UNACCEPTABLE



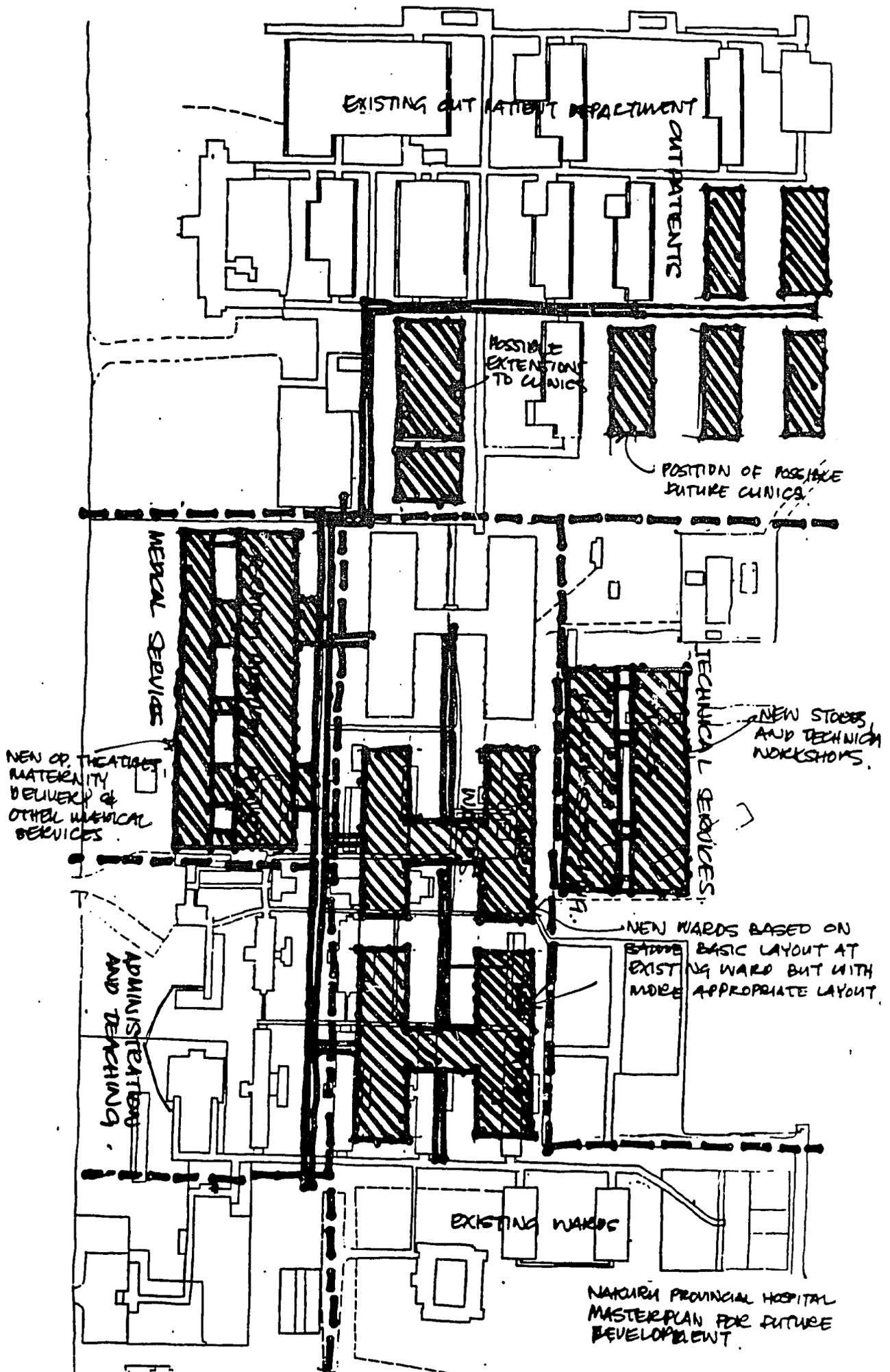
DEPARTMENTS WHERE FUNCTIONAL
CONDITIONS ARE UNACCEPTABLE

DOCTORS'
FLATS





NAKURU PROVINCIAL HOSPITAL
 PROPOSED ZONING



EXISTING OUTPATIENT DEPARTMENT

EXISTING PATIENTS

POSSIBLE EXTENSIONS TO CLINICS

POSITION OF POSSIBLE FUTURE CLINICS

MEDICAL SERVICES

NEW OP. THEATRE, MATERNITY DELIVERY & OTHER MEDICAL SERVICES

ADMINISTRATIVE AND TEACHING

TECHNICAL SERVICES

NEW STORAGES AND TECHNICAL WORKSHOPS

NEW WARDS BASED ON BASIC LAYOUT AT EXISTING WARD BUT WITH MORE APPROPRIATE LAYOUT

EXISTING WARDS

NAKURU PROVINCIAL HOSPITAL MASTERPLAN FOR FUTURE DEVELOPMENT

LABORATORY EQUIPMENT

EQUIPMENT	TOTAL PRESENT	NOT WORKING	REQUIRED
1 Chemical Autoanalyser (20 tests)	-	-	1
2 Automatic tissue Processor (Sakura)	1	-	1
3 Microscopes (Olympus Leitz)	6	3	5
4 Colorimeters (Corming)	2	1	2
5 Spectrophotometers	-	-	1
6 Incubators (Memmert)	2	1	3
7 Hot Air Oven (Memmert, Hivajana)	2	1	3
8 Autoclaves (R. Steroclave)	1	-	3
9 Centrifuges (MSE 4 Herneus)	5	3	3
10 Haematocrit Centrifuge	1	-	2
11 Flame Photometer (Dr. Lange)	1	-	1
12 Hot Plates	1	-	2
13 Sterilizers (for Needles)	1	-	2
14 Analytical balance (Satorius)	1	-	1
15 Water distiller	1	1	2
16 Electrophoretic Tank (apparatus)	-	-	1
17 Refrigerated Centrifuge	-	-	1
18 Blenders	-	-	10
19 Anaerobic Jars	2	-	5
20 Digital pipettes (various sizes from 20-5000 pil)	3	1	10
21 Multipipette - Digital ?	1	-	2
22 Rotary Microtome ?	1	-	1
23 Rocker Microtome ?	1	-	1
24 Refrigerators	5	2	3
25 V.D.R.L. or Kahn Shaker (Sakura)	1	-	2
26 Sphyomanometers	2	-	4
27 Water baths	1	-	5

JH ANNEX - PHYSIOTHERAPY DEPT.

Equipment Type	Manufacturer	Year bought	Condition	Equipment problem	Alternative Solution
1. Kromayer Lamp MODEL 10 Hanovia	England(Slough)		Good	Needs service	Service
2. Megatherm (SWD) (Senior five)	England		Poor	Ultraviolet Goggles out of order	Repair
3. Curamed 401 (SWD)	Enraf (Holland)		W.Poor	Out of order	Repair
4. Curamed 402 (SWD)	Nomeq (Holland)		V.Poor	Out of order	Repair
5. Microton (Microwave)	Japan		V.Poor	Out of order	Repair
6. Therasonic Mark 3	England		Poor	Out of order	Repair
7. Ultraviolet Lamp (Air cooled) Hanovia	England		V. Poor	Out of order	Repair
8. Infra Red Lamp(Soltan)	England		V. Poor	Out of order	Repair
9. Infra Red Lamp (Non- luminous)	England				

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Equipment Type	Manufacturer	Year bought	Condition	Equipment problem	Alternative Solution
10. Traedyne Stimulation	England		Good	None	Service
11. Dynatron 406	Holland		Fair	Requires plug tops	Service & Repair
12. Dynapuls 424	Holland		Fair	Requires plug tops	Service
13. Cradle (Luminous)	Kenya (Rentals & Equipment Ltd)		Good	None	Service
14. Era Cradle (non-luminous)	W. Germany		Fair	Requires plug top	Service
15. Era Cradle Non-luminous	W. Germany		Fair	Requires plug top	Service
16. Cervical Traction	England		Poor	Requires repair	Repair
17. Manual Traction Bed	Kenya		Fair	Requires lubrication	Service
18. Static Bicycle	England		Fair	Requires fixation and a sitting pad	
19. Pulley system	Holland		Good	None	
20. Guthrie Smith Suspension frame	England			Needs slings, hooks, springs cleat	
21. Parallel bars	Kenya		Good	Need Allan key	

PHYSIOTHERAPY DEPARTMENT - PGH NAKURU

a) Equipment type	b) Manufacturer	c) Year bought	d) Condition excellent good, poor, very poor	e) Equipment problem	f) Alternative Solutions to problem
1. Ultratherm 708S (short wave Diathermy)	Siemens German	.....	Good	general service required	Urgent service
2. Microtron 200 (Microwave)	E.M.S.(ENGLAND)	.....	Good	Timer, treatment light spoilt	Repair
3. Therasonic (Ultrasound)	E.M.S.(England)	.....	Good	dented unit broken head	Replacement of Head repair of Dent on the main unit.
4. Endomed	ENRAF Holland	.....	Good	broken cable	Replacement of cable of four Electrodes.
5. Sollux 760 (Infra-Red lamp)	HANA(HERAUS) W. GERMANY	.....	Poor	Timer (not functioning) bulb	Repair of Timer and replacing bulb.
5. Infra-red Ray Craddle	Staneley Cox Ltd.	.....	Good		General Re-servicing.
7. Myodyne	E.M.S. (England)	Poor	Machine doesn't show any current	To be Repaired.
3. Ultra-violet Air-cooled	Stanely Cox Ltd.	Good		

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a) Equipment type	b) Manufacturer	c) Year bought	d) Condition excellent good, poor, very poor	e) Equipment problem	f) Alternativ. Solutions to problem.
9. RadioRay Infra-red	Hinders(England)	.....	Good		
10. Infra-red rigid		.....	Good		
11. Infra-red lamp (rigid)		.....	Poor	Not conducting current	Needs repair
12. Infra-Red (Bio-Ray)	.....		Poor	Broken holder	Replace holder - buy an Emitter for it
13. Stimulator (Obselate machine)	Medical supply Association (England)	.....	V. Poor	No mains cable	
14. Wax-bath			Good	Missing a regulator knob	Requires regulator knob
15. Varitherm Wax-bath	E.M.S. London		V.Poor	No filament holes in the bath. Thermostat defective. Control knobs defective.	Replace this wax-bath with a New one.
16. Static bicycle			Poor	Strength controller defective.	Need repair.
17. Rehabilitation Unit	Berkshire (England)		Poor	No cord No weight holder-rod	Needs repair of the weight-holder and replacement of cord.

g) Equipment type	b) Manufacturer	c) Year bought	d) Condition excellent good, poor, very poor	e) Equipment problem	f) Alternative Solution to problem
18. Byro-Exerciser	ENRAF Holland	.....	Poor	No Springs. No feet bolts No hooks Back rest is broken.	Need repairs and replacements.
19. Suspension frame		.....	Poor	No Springs, hook No pulleys, slings No cord ropes.	Needs replacement of all these.
20. Selex Electrical heater		.....	Good	Regulating knob is broken.	Needs replacement of thermostat and the regular knob.
21. Carters' baby walker	U.K. ..		Good	N/A	N/A
22. Radiant Cradle	Germany	.....	Good	No bulbs(screwed bulbs).	It needs 12 screwed bulbs.
23. Non luminous Heat cradle	Germany	.....	Good	No plug.	It needs a plug top.
24. Radiant heat cradle(small-ERA)	Germany	.....		It causes short circuit when put on. Requires 3 bulbs	Should be examined to determine the nature of problem it has - Should have a plug top.
25. Radiant heat cradle(small Rheotherm.	Germany		Not tested lach of plug top Requires 4 bulbs	Have a plug top and then tested. Repair the body.

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26)

a) Equipment	b) Manufacturer	c) Year bought	d) Condition excellent good, poor, very poor	e) Equipment problem	f) Alternative solution to problem.
26. Babywalker	SWISS		Good	Lacks a screw for one wheel	Needs repair of the wheel only.
27. Walking Frame	England		Poor	Bolts for joining together.	Replacement

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PHYSIOTHERAPY DEPARTMENT - PGH NAKURU

A) Equipment type	b) Manufacturer	c) Year bought	d) Condition excellent good, poor, very poor	e) Equipment problem	f) Alternative Solutions to problem
1. Ultratherm 708S (short wave Diathermy)	Siemens German	.....	Good	general service required	Urgent service
2. Microtron 200 (Microwave)	E.M.S.(ENGLAND)	.....	Good	Timer, treatment light spoilt	Repair
3. Therasonic (Ultrasound)	E.M.S.(England)	.....	Good	dentured unit broken head	Replacement of Head repair of Dent on the main unit.
4. Endomed	ENRAF Holland	.....	Good	broken cable	Replacement of cable of four Electrodes.
5. Sollux 760 (Infra-Red lamp)	HANA(HERAUS) W. GERMANY	.....	Poor	Timer (not functioning) bulb	Repair of Timer and replacing bulb
6. Infra-red Ray Cradle	Staneley Cox Ltd.	.....	Good		General Re-servicing.
7. Myodyne	E.M.S. (England)	Poor	Machine doesn't show any current	To be repaired.
8. Ultra-violet Air-cooled	Stanely Cox Ltd.	Good		

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a) Equipment type	b) Manufacturer	c) Year bought	d) Condition excellent good, poor, very poor	e) Equipment problem	f) Alternative Solutions to problem
9. RadioRay Infra-red	Hinders(England)	.....	Good		
10. Infra-red rigid		.....	Good		
11. Infra-red lamp (rigid)		.....	Poor	Not conducting current	Needs repair
12. Infra-Red (Bio-Ray)	.....		Poor	Broken holder	Replace holder - buy an Emitter for it
13. Stimulator (Obselete machine)	Medical supply Association (England)	.....	V. Poor	No mains cable	
14. Wax-bath			Good	Missing a regulator knob	Requires regulator knob
15. Varitherm Wax-bath	E.M.S. London		V. Poor	No filament holes in the bath. Thermostat defective. Control knobs defective.	Replace this wax-bath with a New one.
16. Static bicycle			Poor	Strength controller defective.	Need repair.
17. Rehabilitation Unit	Berkshire (England)		Poor	No cord No weight holder-rod	Needs repair of the weight holder and replacement of cord.

a) Equipment type	b) Manufacturer	c) Year bought	d) Condition excellent good, poor, very poor	e) Equipment problem	f) Alternative Solution to problem
18. Byro-Exerciser	ENRAF Holland	.....	Poor	No Springs. No feet bolts No hooks Back rest is broken.	Need repairs and replacements.
19. Suspension frame		.....	Poor	No Springs, hook No pulleys, slings No cord ropes.	Needs replacement of all these.
20. Selex Electrical heater		.....	Good	Regulating knob is broken.	Needs replacement of thermostat and the regular knob.
21. Carters' baby walker	U.K.		Good	N/A	N/A
22. Radiant Cradle	Germany	.....	Good	No bulbs(screwed bulbs).	It needs 12 screwed bulbs
23. Non luminous heat cradle	Germany	.....	Good	No plug.	It needs a plug top.
24. Radiant heat cradle(small-ERA)	Germany	.....		It causes short circuit when put on. Requires 3 bulbs	Should be examined to determine the nature of problem it has - Should have a plug top.
25. Radiant heat cradle(small Rheotherm.	Germany		Not tested lack of plug top Requires 4 bulbs	Have a plug top and then tested. Repair the body.

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26)

a) Equipment	b) Manufacturer	c) Year bought	d) Condition excellent good, poor, very poor	e) Equipment problem	f) Alternative solution to problem.
26. Babywalker	German		Good	Lacks a screw for one wheel	Needs repair of the wheel only.
27. Walking Frame	England		Poor	Bolts for joining together.	Replacement

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PGH ANNEX - PHYSIOTHERAPY DEPT.

Equipment Type	Manufacturer	Year bought	Condition	Equipment problem	Alternative Solution
1. Kromayer Lamp MODEL 10 Hanovia	England(Slough)		Good	Needs service Ultraviolet Goggles	Service
2. Megatherm (SWD) (Senior five)	England		Poor	Out of order	Repair
3. Curamed 401 (SWD)	Enraf (Holland)		V. Poor	Out of order	Repair
4. Curamed 402 (SWD)	Nomeq (Holland)		V. Poor	Out of order	Repair
5. Microton (Microwave)	Japan		V. Poor	Out of order	Repair
6. Therasonic Mark 3	England		Poor	Out of order	Repair
7. Ultraviolet Lamp (Air cooled) Hanovia	England		V. Poor	Out of order	Repair
8. Infra Red Lamp(Soltan)	England		V. Poor	Out of order	Repair
9. Infra Red Lamp (Non- luminous)	England				

Equipment Type	Manufacturer	Year bought	Condition	Equipment problem	Alternative Solution
10. Triodyne Stimulation	England		Good	None	Service
11. Dynatron 406	Holland		Fair	Requires plug tops	Service & Repair
12. Dynapuls 424	Holland		Fair	Requires plug tops	Service
13. Craddle (Luminous)	Kenya (Rentals & Equipment Ltd)		Good	None	Service
14. Era Craddle (non-luminous)	W. Germany		Fair	Requires plug top	Service
15. Era Craddle Non-luminous	W. Germany		Fair	Requires plug top	Service
16. Cervical Traction	England		Poor	Requires repair	Repair
17. Manual Traction Bed	Kenya		Fair	Requires lubrication	Service
18. Static Bicycle	England		Fair	Requires fixation and a sitting pad	
19. Pulley system	Holland		Good	None	
20. Guthrie Smith Suspension frame	England			Needs slings, hooks, springs cleat	
21. Parallel bars	Kenya		Good	Need Allan key	

MINISTRY OF HEALTH

Telegram: "PROVMD", Nakuru
Telephone: Nakuru 42560/6
When replying please quote
L/C.VOI.I/89
Ref. No.
and date



PROVINCIAL GENERAL HOSPITAL
RIFT VALLEY PROVINCE
P.O. Box 71
NAKURU
17th August 1989

PROVINCIAL GENERAL HOSPITAL NAKURU
ANNEX HISTOLOGY LABORATORY

RE: FAULTY OR BCRKEN DOWN
LABORATORY MACHINES OR EQUIPMENTS:

1. Automatic Tissue Processor (Sakura)
- This machine has been used for the last 18 years and is now unreliable.
2. Automatic Knife Sharpener (American Optic)
- 10 years old-unreliable.
3. Hot plate (water Jacketed) 17 years old-unreliable.
4. Sliding Microtome - 17 years old-unreliable.
5. Water Bath (for floating tissue sections) 10 years old-unreliable.
6. Hot Air Oven (No. Y 320229 Cat No. 240) 17 years old - unreliable.
7. Hot Air Oven - 5 years old and has ^{not} worked from the start.
8. Hot Air Oven (No. Y 31C1236) 16 years old not working.
9. De-ionizer - Resin - Not working
10. Distiller - Not working.


Dr. N. C. Kamidigo
PROVINCIAL GENERAL HOSPITAL
ANNEX - NAKURU

NCK/jko

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MINISTRY OF HEALTH

Tel.gram: "Pharmas" Nakuru
Telephone: Nakuru 2560/6
When replying please quote
Ref. No. XRAY/DEPT/89
and date



PROVINCIAL GENERAL HOSPITAL
RIFT VALLEY PROVINCE
P.O. Box 71
NAKURU
27th JULY 1989

The Medical Superintendent
Provincial General hospital
P.O. Box 71
NAKURU (ATTENTION: MR. MUTWIWA)

RE: X-RAY EQUIPMENT CENSUS

In reference to your letter dated 6.7.89 on the above topic,
below is the full list of all xray equipments and under
what conditions they are:

1. CASUALTY XRAY MACHINE

- (a) Type CGR 500MA with 1.50KVP. Italian make.
- (b) Commissioned 1986
- (c) In good working condition
- (d) No major problem except the Knobs for coning which are broken

2. GENERAL XRAY MACHINE

- (a) Type CGR 500MA and 150KVP. Italian make.
- (b) Commissioned 1986
- (c) In good condition except a few tomographic attachments which are broken

3. SCREENING XRAY MACHINE

- (a) Type CGR 500MA with 150 KVP
- (b) Commissioned 1986
- (c) In good working condition
- (d) Needs some repair to the ordinary tube for general purpose

4. SKULL XRAY MACHINE

- (a) Type Siemens from West Germany 500 MA 150 KVP
- (b) Commissioned 1984
- (c) In poor condition
- (d) Needs servicing which has never been done since installation
 - (1) The bucky holder broken
 - (2) Both protectors for centering are broken.

5. ODELCA CAMERA

- (a) Type Siemens from West Germany with 125 KVP
- (b) Commissioned 1984
- (c) Out of order since 1986
- (d) It worked for only 2 years and broke down. It has never been serviced since installation.
The main problem is that there is no power supply to the equipment

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MINISTRY OF HEALTH

Telegram: "Phovmas", Nakuru
Telephone: Nakuru 42560/6
When replying please quote
Ref. No
and date



PROVINCIAL GENERAL HOSPITAL
UFT VALLEY PROVINCE
P.O. Box 71
NAKURU

..... 19.....

- 2 -

6. IVP ROOM

- (a) Type Toshiba 500MA and 120KV
Made from Japan with two separate tubes and two tables.
- (b) Commissioned 1984
- (c) In good condition
- (d) Needs repairs to the tomographic attachments
and light beam diaphragms

7. C. ARIS

- (a) Two in number
- (b) Type Siemens with image intensifiers (TV)
- (c) Commissioned 1984
- (d) Condition at the moment not in use as the image does
not appear on the TV screen (both)

8. OPG

This ~~was~~^{is} installed at the Dental department

- (a) Type- Siemens West Germany
- (b) Commissioned - 1984
- (c) In good working condition

9. DENTAL MACHINES

One at the Dental clinic and another at xray department.

- (a) Type Both Siemens
- (b) Commissioned 1984
- (c) Both in good working condition

9. PORTABLE SETS

- (a) Philips Portable set

Too older and worn out. Not serviceable any longer.

- (b) Siemens - Portable set (2)

Bought 1979 and one was loaned to Kabarnet District hospital 1!
and the other one is out of order. It was never serviced since
it was brought.

ANNEX

We have an old xray machine which stopped working in 1982

Type: Picker with other mixtures It is too old and no
longer serviceable.

VA

MINISTRY OF HEALTH

Telegram: "Pau-mad", Nakuru
Telephone: Nakuru 42560/6
When replying please quote
Ref. No.
and date



PROVINCIAL GENERAL HOSPITAL
EFT VALLEY PROVINCE
P.O. Box 71
NAKURU

....., 19...

- 3 -

OLD XRAY DEPARTMENT

1. SCREENING ROOM

- (a) Type: Philips xray machine
- (b) Commissioned ~~not~~ in working condition but can be repaired and transferred to another station or Annex.
- (c) Commissioned 12 years ago 1977

2. General room

Medio 20 Philips not working transformer removed to Marsabit

- 3. Hitachi Japanes - out of order too old
- 4. Odel ca camera - too old and out of order.

NEW NEEDS

- (a) ~~4~~ new portable xray machine
 - (1) Nyayo ward - one
 - (2) Ward 9 and 10 - one
 - (3) Theatre - 2 portable set..
- (b) We need a new machine automatic film processor
- (c) The ultrasound xray machine lying here for the last 7 years should be installed
- (d) The C-arms should be repaired immediately.
- (e) There are also 2 C-arms machines incratew which should be put into use
- (f) We would like to know who maintains all siemens equipments here .
- (g) The Engineers who maintain the other equipments should always be paid immediately e.g. UI Agencies.
- (h) The present automatic film processors should be overhauled by replacing all racks e.g. metal with metal or plastic with plastic not to mix both.

MINISTRY OF HEALTH

Telegram: "PROVEMED", Nakuru
Telephone: Nakuru 42560/6
When replying please quote
Ref. No
and date



PROVINCIAL GENERAL HOSPITAL
RIFT VALLEY PROVINCE
P.O. Box 71
NAKURU

..... 19.....

- 4 -

- (1) We have a very poor drying system so this should be looked into.

In conclusion I request that at least action will be taken on these.

Yours faithfully,

JOHNSON MACHELE
RADIOGRAPHER INCHARGE
RIFT VALLEY PROVINCIAL G. HOSPITAL
XRAY DEPARTMENT

P.5 - KABARAK HIGH SCHOOL

MINISTRY OF HEALTH

Telegrams: "Provid", Nakuru
Telephones: Nakuru 42560/6
When replying please quote
Ref. No. ORTH/GEN/89
and date



PROVINCIAL GENERAL HOSPITAL
RIFT VALLEY PROVINCE
P.O. Box 71
NAKURU

12th July, 1989

The Medical Superintendent
Provincial General Hospital
NAKURU

RE: ORTHOPAEDIC W/SHOP
EQUIPMENT CENSUS

In response to your letter reference No O.10/89(148) dated 6th July 1989, I have attached a list of equipments we have here as required by item number one.

Your item number two required our equipment need. They are as follows:

- 1) Wood bandsaw for heavy duty work - 1
- 2) Electric hand grinder - 2
- 3) Assorted sizes of band saw blades - 50
- 4) Sand paper belts for our sand paper machine (20) polishing machine (19) and for grinding and polishing machines (20).

Some of these parts are about to finish and if they do, their machines shall be grounded.

Thanking you in advance.

CHARLES G. MBUGUAH
ORTHOPAEDIC TECHNOLOGIST I/C
PGH/NAKURU

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EQUIPMENT IN ORTHOPAEDIC W/SHOP

	EQUIPMENT TYPE	MANUFACTURER	YEAR BOUGHT	CONDITION	PROBLEM	SC
1	Cementing Machine	Otto-bock Germany	1983	Good	Nil	-
2	Polishing machine No - 1	"	1983	Not good	Dust sucking system Faulty	Re
3	Dusting machine (No - 1)	"	1983	Good	Nil	-
4	Leather splintin machine No - 1	"	1983	Poor	Broken	Ne: Re:
5	Leather punch machine No - 1	"	1983	Not good	Some holes are not working	Re: me: ne:
6	Leather cutting No - 1	"	1983	good	Nil	-
7	Singer Sawing machine No -4	"	2-1983 2-1970	3-working 1-poor	Does not stitch one of them	Rep:
8	Barndsaw machine No - 1	"	1983	Poor	Blades Not available	Rep:
9	Universal Barnd saw machine No - 1	Otto Bock	1982	Good	The blades	Rep men
10	Drilling Machine No 4	Pegeot otto Bock	2-1983 2-1970	Good Good	Nil	-
11	Drier Machine No - 1	Otto-Bock	1983	good	Nil	-

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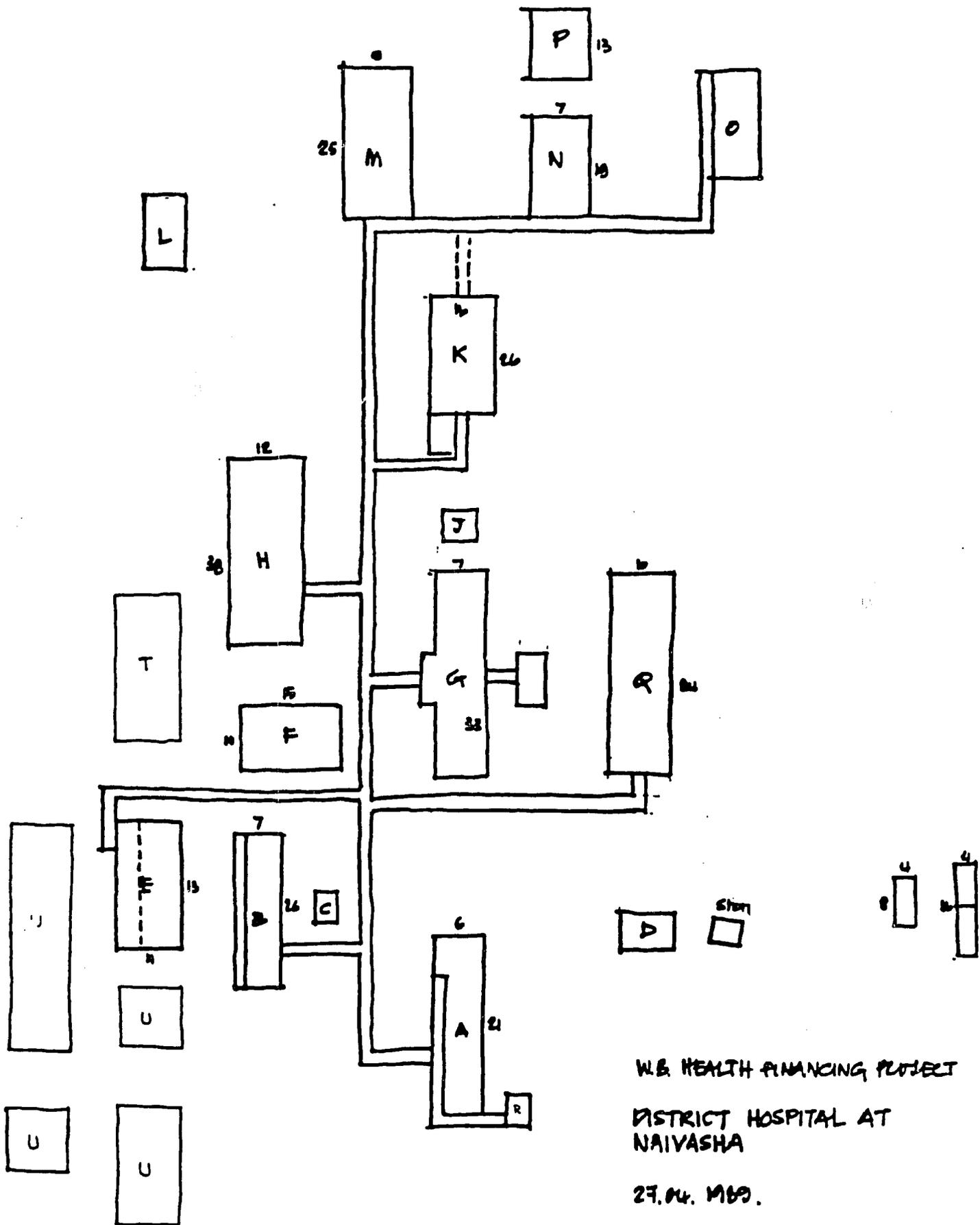
	Equipment type	Manufacturer	Year Bought	Condition	Problem	Solution
12	Vacum Compressor No - 1	Otto-Bock	1983	Good	Nil	-
13	Sand Paper Machine No - 1	"	1983	Faulty	Dust sucking System not Functioning	Repair
14	Trautmans Machine No - 2	"	1983	Good	Cannot Suck Dust	Repair
15	Spraying Machine	Details Not Available	1983	Poor	Automatic Switch not working	Replace
16	Grinding Machine Grief and Wolf	Wolf Otto-Bock	1970	Wolf is not working	Switch is faulty	Repair
17	Grinding and Polishing machine	Otto Bock	1983	Poor	Polishing Belt is not available	Replace ment
18	Sheers cutter machine No 3	Details Not Available		Good	Nil	-
19	Lathe Machine No 2	Otto-Bock	1983	Good	Nil	-
20	Ark Welding Machine No - 1	Otto Bock	1983	good	Nil	-
21	Gas Welding No - 1	East Africa Oxygen NBI	1970	Foor	Acetyline Gauge faulty	Replace ment

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MASTERPLAN FOR:

NAIVASHA DISTRICT HOSPITAL

1963



W.B. HEALTH FINANCING PROJECT

DISTRICT HOSPITAL AT
NAIVASHA

27.04.1969.

UNFINISHED:

- † NEW OP. TH.
- U RECORDS
- U PHARMACY
- U OUTPATIENT DEPTS

Unfinished.



Staff housing

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MASTERPLAN FOR: NAIVASHA DISTRICT HOSPITAL

LAYOUT PLANS OF INDIVIDUAL BLOCKS : COMMENTS

GOOD POINTS:

- Spacious site
- Buildings are correctly orientated and connected by well-constructed covered walkways
- The buildings are placed correctly in relationship to each other
- Most buildings are structurally sound

BAD POINTS:

- Most buildings are overcrowded and activities are hampered
- Sanitary conditions are unacceptable
- Key equipment in x-ray, laboratory and operating theatre and sterilization are not working
- Certain important functions such as emergency and resuscitation are not provided
- There is a lack of staff housing
- No stand-by generator, or incinerator.

PROPOSALS

- Renovate and redecorate throughout
- Construct external toilets to wards, reuse existing as bath, wash, sluice etc.
- Build new ward and new outpatients
- Reduce number of beds in existing wards
- Reuse existing O.P. buildings for resuscitation and emergency, etc., laboratory and stores
- Provide new furniture in wards, and some fixed furniture in stores, kitchen etc.
- Repair or replace equipment in : x-ray
laboratory
sterilization
physiotherapy
Op. theatre table
Kitchen and laundry
- Provide stand-by operator to OP theatre, maternity and casualty
- Provide new incinerator
- Establish maintenance workshop.

MASTER PLAN
FOR: DISTRICT HOSPITAL AT NAIVACHA . 27.04.1989.

DEPARTMENTS AND ROOMS: RECORD OF EXISTING FUNCTIONAL CONDITION

2 **B**

DEPARTMENT/ ROOM	NAME	BLOCK	AREA M ²	COMMENT ON AREA	CAPACITY	UNIT USED	FUNCTIONAL CONDITION	COMMENTS
A	DRESSINGS, INJECTIONS, LABA		126	A		- 5 -	2/3	being replaced
B	PHARMACY, OFFICE, FOR OPD		182	A			2/3	by new structure
C	STAFF TOILET		-	-			-	
D	MALE OUTPATIENTS		20	A	√1	CANS/PAPER	5	
E	X-RAY		143	B	1	X-r. machine	2/4	not working.
F	OPERATING THEATRE		150	A			3	
G	GENERAL WARD, MALE		270	A	15+6	beds	3/4	12.8 m ² /bed
H	MATERNITY WARD		450	A	24/9	beds/deliv.	4	+ M & C, 10 m ² /b.
I	STORE		16	-			-	
K	GENERAL WARD FEMALE		400	B	36	beds.	2	11 m ² /bed
L	RECORDS		45	B	80m	shelving	3	
***	M	KITCHEN	225	A/B			2/3	replanning?
	N	LAUNDRY/OCCUP. THERAPY	130	B:A			1:3	
	O	MORTUARY	100	B	4/12	Casket/beds	1	
**	P	PHYSIOTHERAPY/INCLIN.	90	A			3	
	Q	PEDIATRICS WARD.	240		32	beds:cots	3	7.5 m ² /bed.
	R	INV. TESTING LABORATORY	12	A			3	
	S	STAFF HOUSING	96	-	3	FAMILIES	-	

TOTAL AREA, NOT INCLUDING HOUSING: 2609: WITH 113 BEDS = 23 m²/bed.

COMMENTS

- * PLUS GENERAL STORE
- ** ORIGINALLY INTENDED FOR STANDBY GENERATOR
- *** KITCHEN IS GAS FIRED BUT SUPPLY IS IRREGULAR

For comments on Area:

- A = TOO SMALL
- B = SUFFICIENT
- C = TOO LARGE

For Functional Condition:

- 1 = GOOD
- 2 = MEDIUM
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS ADVISED

5/0

MASTER PLAN
FOR: DISTRICT HOSPITAL AT NAIVASHA, 27th 1989.

BUILDINGS AND DEPARTMENTS: RECORD OF EXISTING PHYSICAL CONDITION

4 A

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEAR OF CONSTRUCTION	FUNCTIONAL CONDITION	ROOF	WALLS	DOORS AND WINDOWS	FLOORS	SANITARY INSTALLATIONS	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
A	1	126	1940	4/5	3	2	2/3	2/3	2/3	3	2/3	2/3	
B	1	162	1940	3/4	2	2	2/3	2/3	-	2/3	2/3	3	
C	1	-	1940	-	-	-	-	-	4	-	-	-	
D	1	30	1940	5	4	4	4	4	5	3	3	3	
E	1	143	1986	2/4	3	3	2	2	-	2/3	2/3	2	
F	1	150	1976	3	2	2	2	2/3	3	3	2	2	
G	1	270	1940	3/4	3/4	2	2	2/3	4	3	3	3	Overcrowded
H	1	450	1976	4	4	2	2	2	4	3	2	2	Overcrowded
J	1	16	1930	-	-	-	-	-	-	-	-	-	
K	1	400	1985	2	2	2	2	2	4	3/4	2	2/3	Overcrowded
L	1	45	temporary	3	3	3	3	3	-	-	-	3	
M	1	225	1980	2/3	3	3	3	3	3	2	3	2	
N	1	130	1980	1:3	2/3	2	2	2	-	2	2	2	
O	1	100	1980	1	2	2	2	2	-	2	2	2	
P	1	90	1980	3	2	2	2	2	-	5	2	2	
Q	1	240	1976	3	2/3	2	2	3	4	3	2/3	2	overcrowded.
R	1	17	1988	3	2	2	2	2	-	2	2	2	
S	1	26	-	-	-	-	-	-	-	-	-	-	
T													
U													
V													
W													
X													
Y													
Z													

COMMENTS

Toilet and ablution facilities throughout are insufficient and in bad repair.
There is no standby - and the incinerator is not working.
Storm water is a problem
Sanitation facilities are inadequate
Hard furniture is not good - lack of linen.
Walkways need some repair

For description of condition: 1 = GOOD
2 = MEDIUM
3 = POOR
4 = UNACCEPTABLE
5 = URGENT REPLACEMENT IS ADVISED

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A MECHANICAL	CONDITION
1 STEAM SYSTEM None.	
Boilers	-
Pipe system	-
Distribution points	-
2 KITCHEN EQUIPMENT	
Cookers 2 gas cookers, 1 electrical w/fin grill: grill defect.	2
Boilers 3, 1 defect + 1 steam boiler	3
Ovens in cookers.	-
Refrigerators none	-
Freezers None	-
Other equipment 1 shiner, 1 slicer, 1 grid. 2 water boilers, one is defect.	3
3 LAUNDRY EQUIPMENT	
Washing machines 1 no. not enough capacity	3
Dryers 2 no. 1 gas, 1 electric.	2
Ironing machine 1 no. electrical,	2
2 centrifuges should be repaired.	3
4 COLD STORES	
Food stores 1 no. in order.	2
Pharmacy stores none	-
Body chambers 4 no. each with 3 drawers.	2
5 VENTILATION	
AC plant - none	-
AC units - 1 no. in operating theatres. in order	2
Ventilation 7 no in op. & no defect.	4

B WATER AND DRAINAGE

6 WATER SYSTEM	
Wells None. supply from mains.	3
Reservoir large tank as reserve: untight/leaks	3
Pumps - None.	-
Mains reticulation in order, steel piping, some repairs.	2
Water heating 7 unit. in order.	2
7 DRAINAGE	
Sewage to main sewer. - in order.	2
Top-water open drain to main sewer.	2
Reticulation in order.	2.

FOR CONDITION:

- 1 = GOOD
- 2 = SATISFACTORY
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

		CONDITION
A ELECTRICAL POWER SUPPLY		
1	SUBSTATION none, connected directly to main outside	-
	Situation earth cable	2
	Voltage 380V/ 220 V.	2
	Load breaker in new main switch board	2
	Outgoing lines A None	-
	B -	-
	C -	-
	D -	-
	Power demand in order, is related to demand from new beds	2
2 EMERGENCY SUPPLY		
	Batteries A Operating theatre/ maternity deliv	2/3
	B	-
	C	-
3 MAINS DISTRIBUTION		
	Switch boards 2 no. new & old, old meter missing	2/3
	Mains distribution - in order.	2
	Outgoing feeder A Operation dept -	2
	B X-ray	2
	C New building	2
	D Old building	2
	E New building	2
	F	-
	Distribution protection further to be checked.	3
4 OVERVOLTAGE PROTECTION none, but there should be		
		-

B ELECTRICAL INSTALLATIONS

5 INSTALLATIONS IN BUILDING		
	Distribution boards 50% without fuses to be repaired	3/4
	Installations - cable/conduit 30% to be repaired	3
	Socket, power outlets 50% to be repaired	3
6 STREET LIGHTING in order 10% to be repaired		
		2
7 TELEPHONES SYSTEM		
	Switch board more than 10 years old. functions.	2
	Trunk lines 2 in -	2
	Extensions 2 in. all in order.	2

* Standby generator does not function - should be repaired
 * Main distribution boards are without fuses and should be repaired.

- FOR CONDITION:
- 1 - GOOD
 - 2 - SATISFACTORY
 - 3 - POOR
 - 4 - UNACCEPTABLE
 - 5 - URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: DISTRICT HOSPITAL AT NAIVASHA

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION	MANUFACTURER & NUMBER	YEAR OBTAINED	CONDITION	CAPACITY/REMARKS
OP.TH. LAMPS	OP. THEATRE	1 STATIONARY/1 MOBILE		1	BULBS TOO EXPENSIVE
OP. TH TROLLEYS	"	8		1	
OP. TH STANDBY BATTERY	"	1		3	
SURGICAL DIATHERMY	"	"			
STERILIZERS	OP. TH. WARDS,	7, JARDU WHITE ASCO W/IDER		1/2	PLASTER ROOM, LABORATORY
SUCTION PUMPS	OP. TH. MATERNITY	2, AEROSOL. 2	82/80	1	
MEDICAL GASSES	OP. THEATRE	1, NITROUS OXIDE		1	1 SET AMBUBAG
VENTILATORS					
ANAESTHETIC MACHINE	OP. THEATRE	1, BOYLE SUPP OFF HEDH	78	1	
DIALYSIS MACHINE	"	"			
INFANT INCUBATORS	MATERNITY	4, WICKERS	78/85	1/3	2 OUT OF ORDER / THEM.
ECG'S	"	"			
MONITORING EQUIPMENT	ICU -	"			
SHORT WAVE DIATHERMY	"	"			
DEFIBRILLATORS	"	"			
DENTAL CHAIR UNITS	DENTIST	1	OLD	2	IN STORE
AMALGAM STIRRERS	"	"			
DEVT. X-RAY FILM DEV.	"	"			
X-RAY FILM DEVELOP.	X-RAY DPT	1, FWI X-RAY FILM PROC.	-84	1	+ DRYER + MANUAL PROC.
X-RAY EQUIPMENT.	X-RAY DPT	SHIMATSU STAT/MOBIL	-84	3/3	
PH) METERS, COLORIM.	LABORAT.	CORNING 252	-84	1	+ DR RANGE NOT IN USE
SPECTROPHOTOMETER	"	"			
CENTRIFUGES	LABORATORY	DR RANGE	-86	1	
HOT AIR OVEN	"	IKEMOTO	-86	1	
BALANCES	"	1, MANUAL		1	+1 NOT IN USE
MICROSCOPES	"	2 LEITZ	-93/86	1	NOT ENOUGH
FLAME PHOTOMETER	"	"			
WATER SOFTENER	"	"			
WATER DISTILLER	"	"			
INCUBATOR	LABORATORY	YAMATO	-86	1	
STANDBY GENERATOR	"	"			
VENTILATION UNITS	OP. THEATRE	1		1	
BOILER UNITS	"	"			
INCINERATORS	BLOCK P	UNIVERSAL INC.	-86	1	NOT IN USE (EXPENSIVE)
WATER HEATERS	OP. TH (1 IN USE 6/1 OUT OF OR.)	WATERON, MATERNITY, FEMALE W, PED. W. (NOT IN USE)			
SHEETS/PILLOWCASES		30 PC			POOR
UNIFORMS		30 PC			POOR
NIGHT CLOTHES		"			

*

* + LAUNDRY
 OPERATION TABLE OP. THEATRE PENSIKUMAJA, BRITON 1 NOT ADJUSTABLE
 *** SEE SEP. SHEET

- FOR DESCRIPTION OF CONDITION:
- 1 = SATISFACTORY WORKS AT THE TIME
 - 2 = BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
 - 3 = BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
 - 4 = NEVER WORKS, REPLACEMENT REQUIRED
 - 5 = NEVER COMMISSIONED/INSTALLED

DISTRICT HOSPITAL AT NAIWASHA
EQUIPMENT

TA.

STERILIZERS :

- INJECTION ROOM	1	ASCO	-86	2	
- LABORATORY	1	?		1	NOT IN USE
- PLASTER ROOM	1	JACOV WHITE	-86	1	
- GENERAL WARD	1	"	-86	1	
- MCH CLINIC	1	"	-86	1	
- FEMALE WARD	1	W BIDER	OLD	1	
- OP. THEATRE	1	JACOV WHITE	-78	1	

SUCTION PUMPS

- OP. THEATRE	1	AEROSOL	-82	2	
- MATERNITY	1	FROM GREAT BRITAIN	OLD	1	

LABORATORY EQUIPMENT

- MEDIFUGE	1	HERAEUS CHRIST.	-88	1	AIDS LAB.
- CENTRIFUGE	1	STABILAC	-88	1	"
	1	THERTEC UMISCANI	-88	1	"
- AUTOCLAVE	1				
	1	HEMOFUGE	-86	1	NOT IN USE
-	1	REFLOMAT, BOEHRINGER	-86	1	"
	1	HEMOGLOBINOMETER	OLD	1	COUNTER OUT
	1	KANSHUGA	?	2	NOT IN USE (
					OF READER
- COUNTER	1	ERMA	OLD	1	MANUAL

MATERNITY

- AUTOCLAVE	1	JACOV WHITE	OLD	1	
-------------	---	-------------	-----	---	--

OP. THEATRE

- AUTOCLAVE	2	JACOV WHITE	-78, -88	1	
-------------	---	-------------	----------	---	--

PHYSIOTHERAPY

- SHORT WAVE	1	CURAMED 402	-84	1	
- INFRARED LAMP	2	-	-84	1	
- MICRO WAVE	1	MICROTRON 210		1	
-	1	TRIODYNE		3	
- STIMULATOR	1	ENDOMED		3	
- WAX BATH MACHINE	1	EMS	OLD	1	
-	1	DYLPULS			NEVER USED

LAUNDRY (40 SHEETS/DAY)

- WASHING MACHINE	1	GOLDER GIBBAU	-86	1	
- BOILER	2	"	"	3	
- DRYING MACHINE	2	" GAS/ELECTEC	"	1	NOT IN USE/E
- PRESSING MACHINE	1	"	"	1	

KITCHEN 2 x (90-120) PORTIONS

- PANS	3				
- COOKER - OVEN	2				
- MINCE					
- 'MEAL TRANSPORT CARRIAGE'	5 ?				NOT IN USE
- 'MEAL HEATER'					

6/1

MASTERPLAN FOR: NAIVASHA DISTRICT HOSPITAL .

PRODUCTION/CAPACITY

8

NUMBER OF PATIENTS	ON DAY OF SURVEY	THEORETICAL			COMMENTS
		PER DAY	PER WEEK	PER YEAR	
OUTPATIENT CONSULTATIONS					
General outpatients					
Pediatric O/P					
Maternity					
Mother and child					
TB					
SPECIALIST CONSULTATIONS					
Doctor					
Other specialists					
RADIOLOGY					
X-rays A					
B					
C					
D					
SURGERY					
Minor operations					
Major surgery					
LABORATORY TESTS					
Clinical chemistry					
Microbiology					
Other					
KITCHEN					
Number of portions					
LAUNDRY					
Linen					
Uniforms					
Blankets					
IN-PATIENTS					
Surgery male					
Surgery female					
Medical male					
Medical female					
Pediatrics					
Pediatrics isolation					
Isolation					
Maternity					
DELIVERY					
Births					

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RENOVATION PLAN FOR: NAIUASHA DISTRICT HOSPITAL.

REPAIRS REQUIRED IN INDIVIDUAL BLOCKS

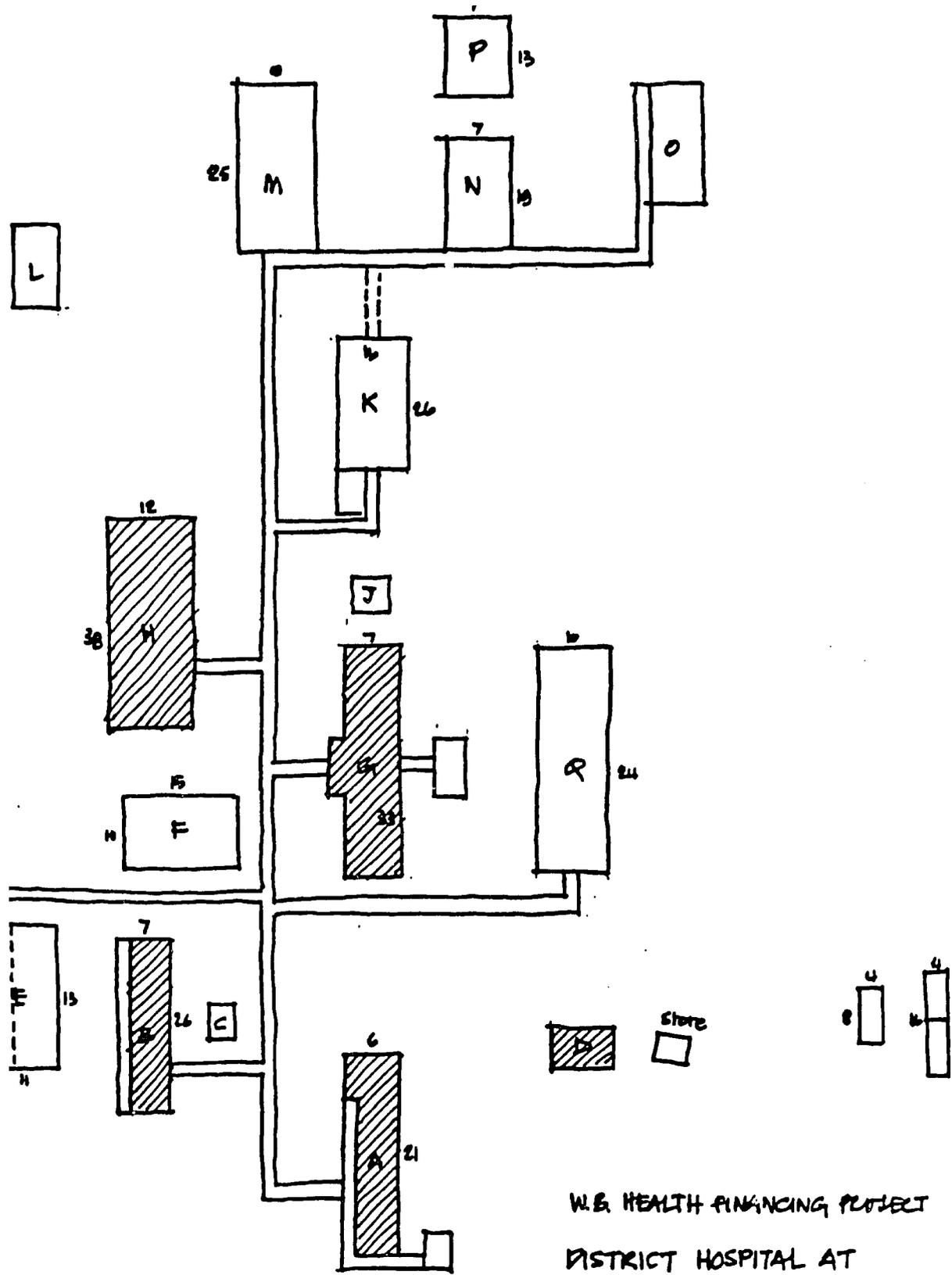
BLOCK	DEPARTMENT	AREA M ²	REPAIR ROOF	REPAIR DOORS AND WINDOWS	REPAIR FLOOR	REPLACE SANITARY	REFURBISH WATER AND DRAINING	REFURBISH ELECTRIC INSTALL.	REPLACE IRONMONGERY	REALLOCATE PARTITIONS	REFURBISH AND REDECORATE				
A	DRESSINGS INJECT. LAB.	126	-	10%	10%	100%	100%	40%	40%	✓	100%				
B	PHARMACY, OFFICE, OPD, P	182	-	10%	10%	100%	100%	40%	40%	✓	100%				
C	STAFF TOILET	20		10%	10%	100%	100%	100%	100%	-	100%				
D	OPD, MALE	30	- THIS BUILDING SHOULD BE DEMOLISHED									-			
E	X-RAY.	143	-	0	0	0	0	0	-	-	100%				
F	OP. THEATRE	150	-	-	-	100%	100%	100%	100%	-	100%				
G	GEN. WARD, M.	290	20%	10%	10%	100%	100%	40%	40%	-	100%				
H	MATERNITY, NURS.	450	20%	10%	20%	100%	50%	50%	-	-	100%				
J	STORE	16	- SHOULD BE DEMOLISHED									-			
K	GEN. WARD, FEMALE.	400	-	-	-	60%	20%	-	-	-	100%				
L	RECORDS.	45.	SHOULD BE DEMOLISHED												
M.	KITCHEN.	225	-	-	-	20%	20%	20%	-	-	100%				
N	LAUNDRY OCC. THERAPY.	130	-	-	-	10%	10%	10%	-	-	100%				
O	MORTUARY	100	-	-	-	-	-	-	-	-	100%				
P	PHYSIOTHER.	20	-	-	-	-	-	-	-	-	100%				
Q.	REDMTR. NURS.	240	20%	-	-	100%	100%	-	-	-	100%				
R.	HIV TESTING LAB.	12	-	-	-	-	-	-	-	-	100%				
S	STAFF HOUSE.	96	-	-	-	-	-	-	-	-	-				

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MASTERPLAN FOR: NAIVASHA DISTRICT HOSPITAL .

LIST OF PROPOSED CAPITAL PROJECTS

PROJECT	ESTI- MATED COST	PRIO- RITY	EFFECT ON RECURR. COST	PREPA- RATION MONTHS	COMPLE- TION MONTHS
1. RENOVATE & DECORATE					
2. CONSTRUCT EXTERNAL TOIL TO WARDS					
3. BUILD NEW WARD - NEW A OUTPATIENTS . B					
4. REHABILITATE WARDS . EXISTING OPD .					
5. PROVIDE NEW FURNITURE					
6. REPAIR OR REPLACE EQUIPMENT					
7. STAND-BY GENERATOR					
8. INCINERATOR					
9. MAINTENANCE W/STOP					



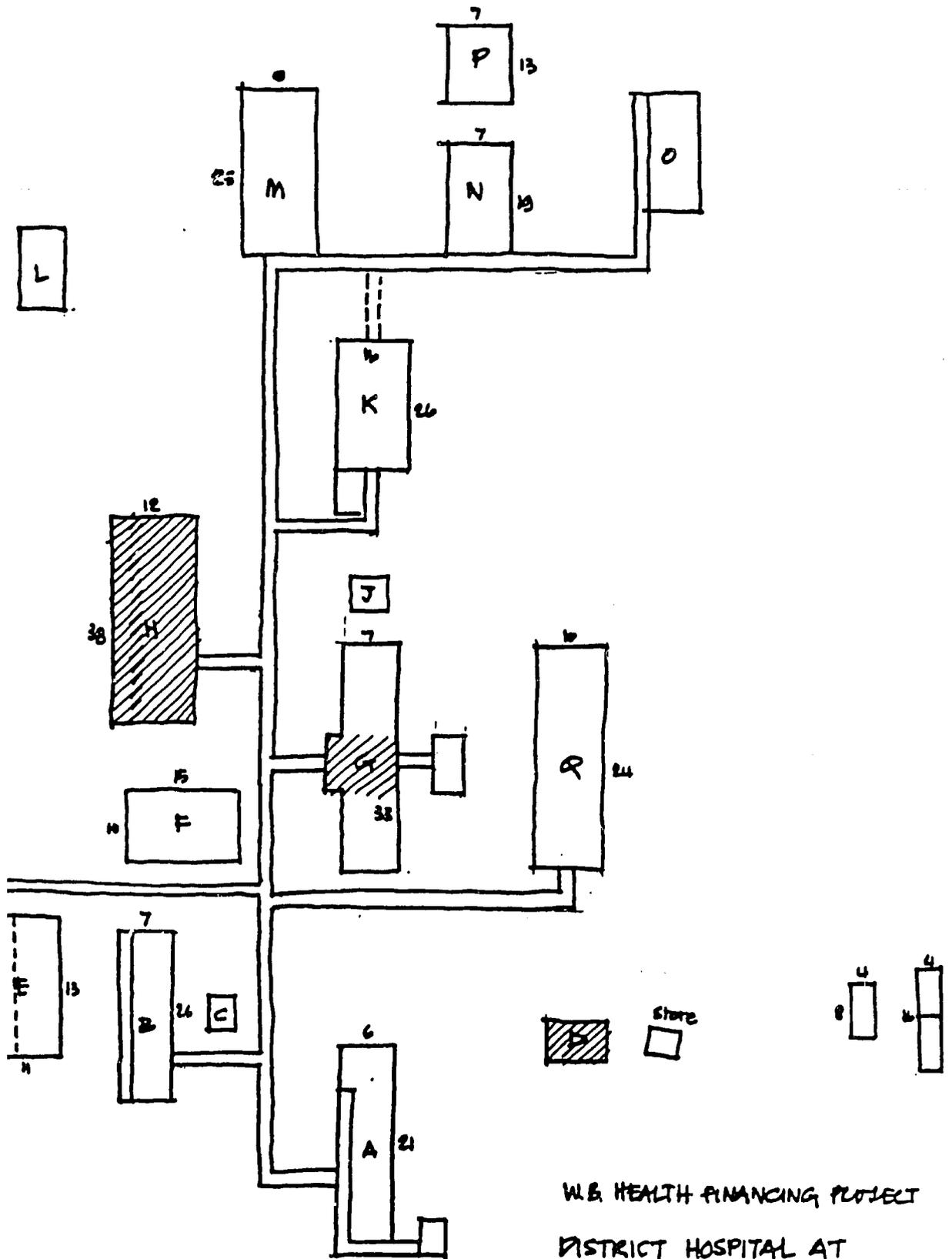
W.B. HEALTH FINANCING PROJECT

DISTRICT HOSPITAL AT
NAIVASHA

27.04.1969.

DEPARTMENTS WHERE FUNCTION
CONDITIONS ARE UNACCEPTABLE

Unfinished.
dents
Staff housing



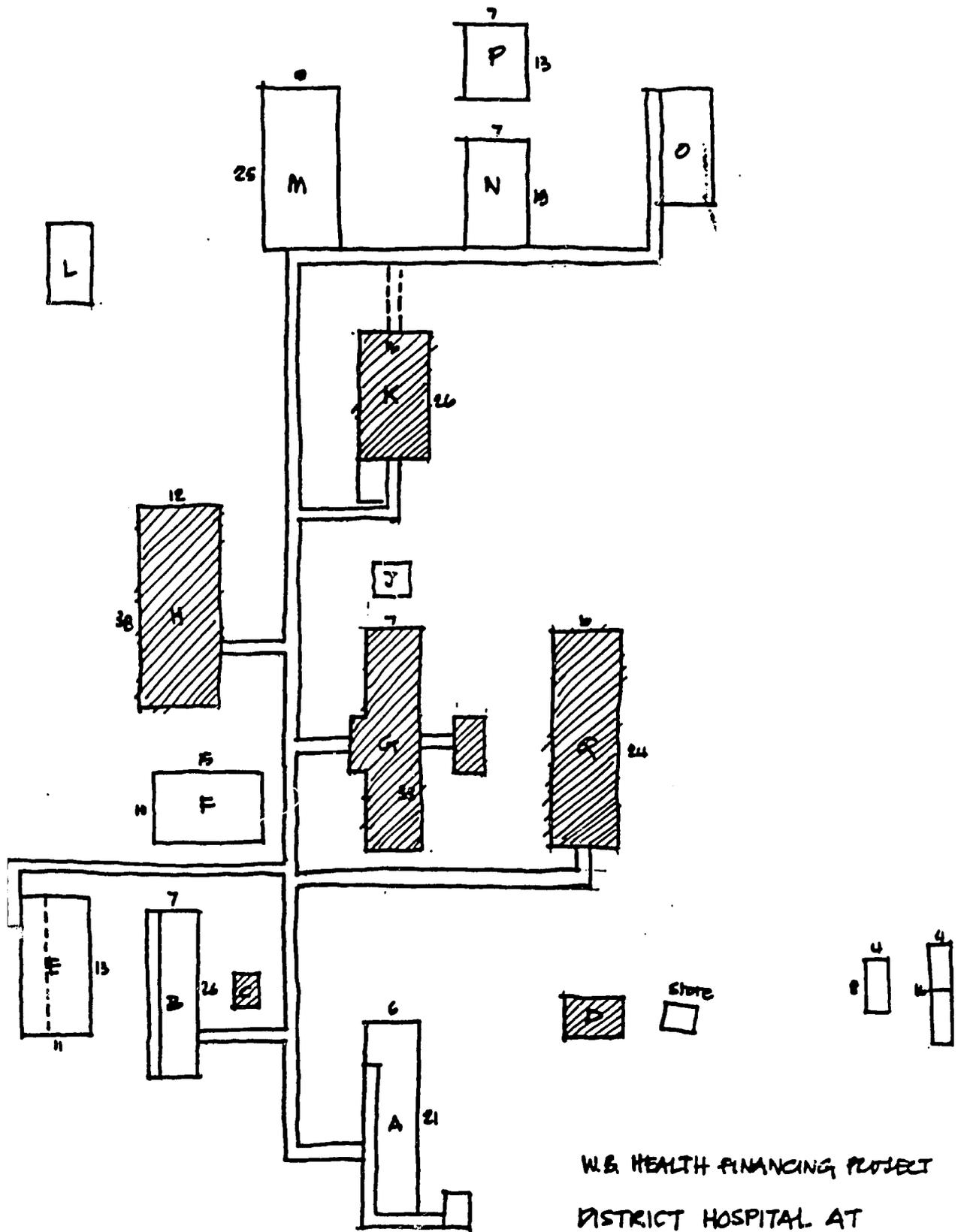
W.B. HEALTH FINANCING PROJECT

DISTRICT HOSPITAL AT
NAIVASHA

27. IV. 1969.

DEPARTMENTS WHERE THE
ROOF LEAKS.

Unfinished.
dentist
staff housing



U.S. HEALTH FINANCING PROJECT

DISTRICT HOSPITAL AT
NAIVASHA

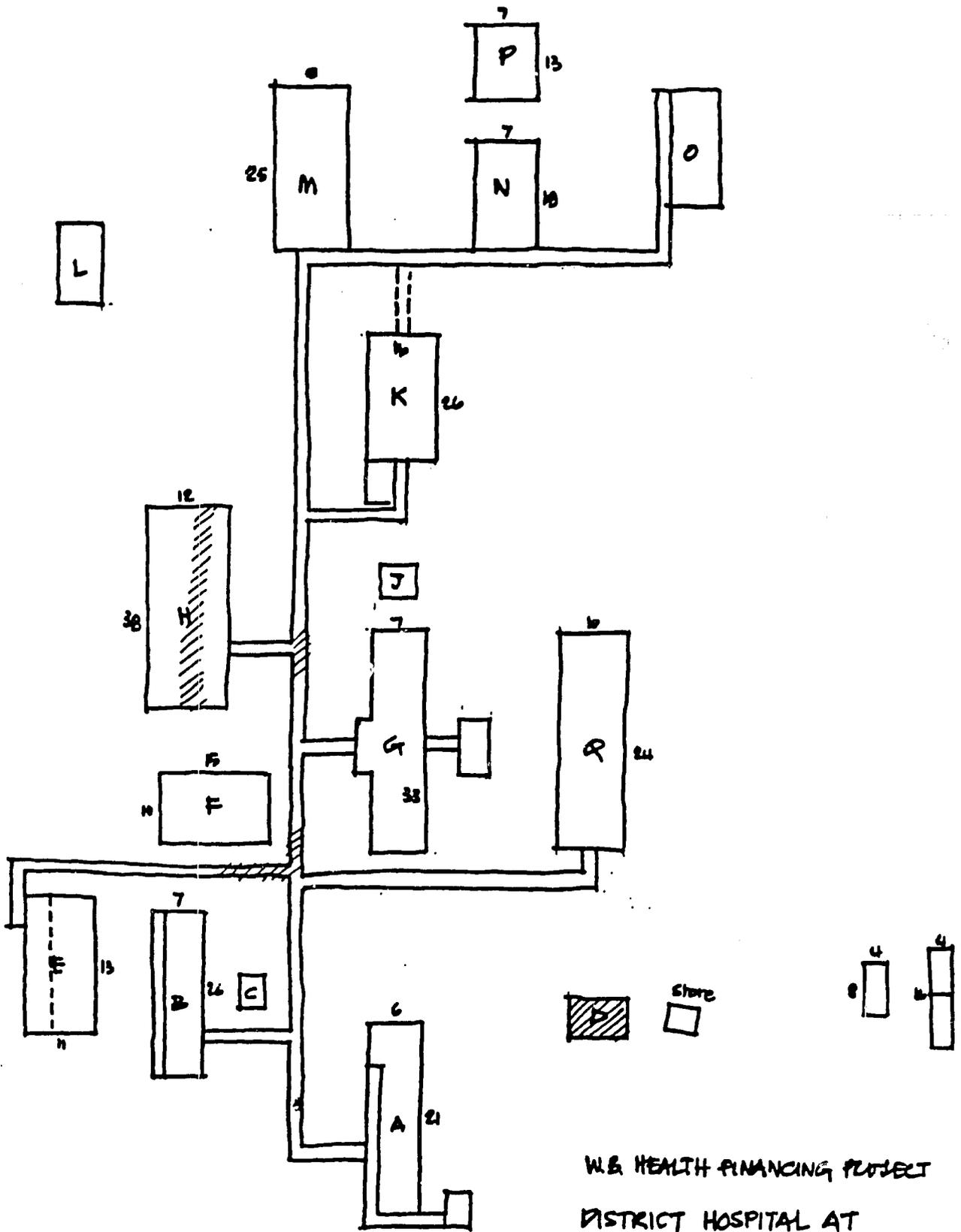
27.04. 1969.

DEPARTMENTS WHERE SANITARY
INSTALLATIONS ARE UNACCEPTABLE

Unfinished.

dormitory

Staff housing

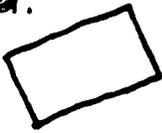
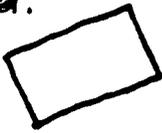


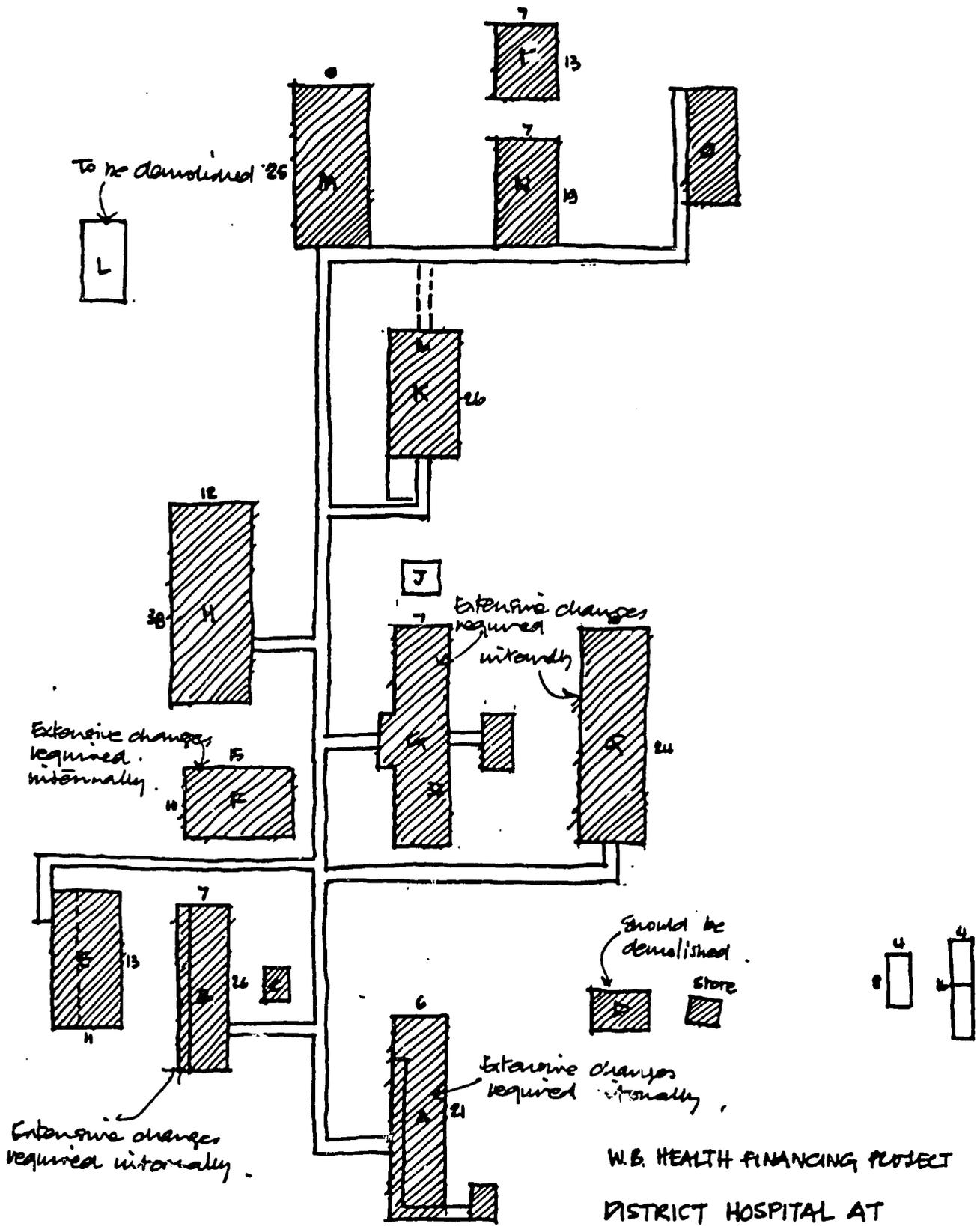
W.B. HEALTH FINANCING PROJECT

DISTRICT HOSPITAL AT
NAIVASHA

27.04. 1989.

AREAS WHERE FLOORS BADLY
NEED REPAIR

dentist  Unfinished  Staff housing 

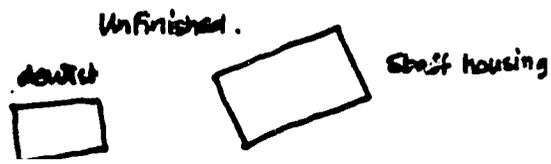


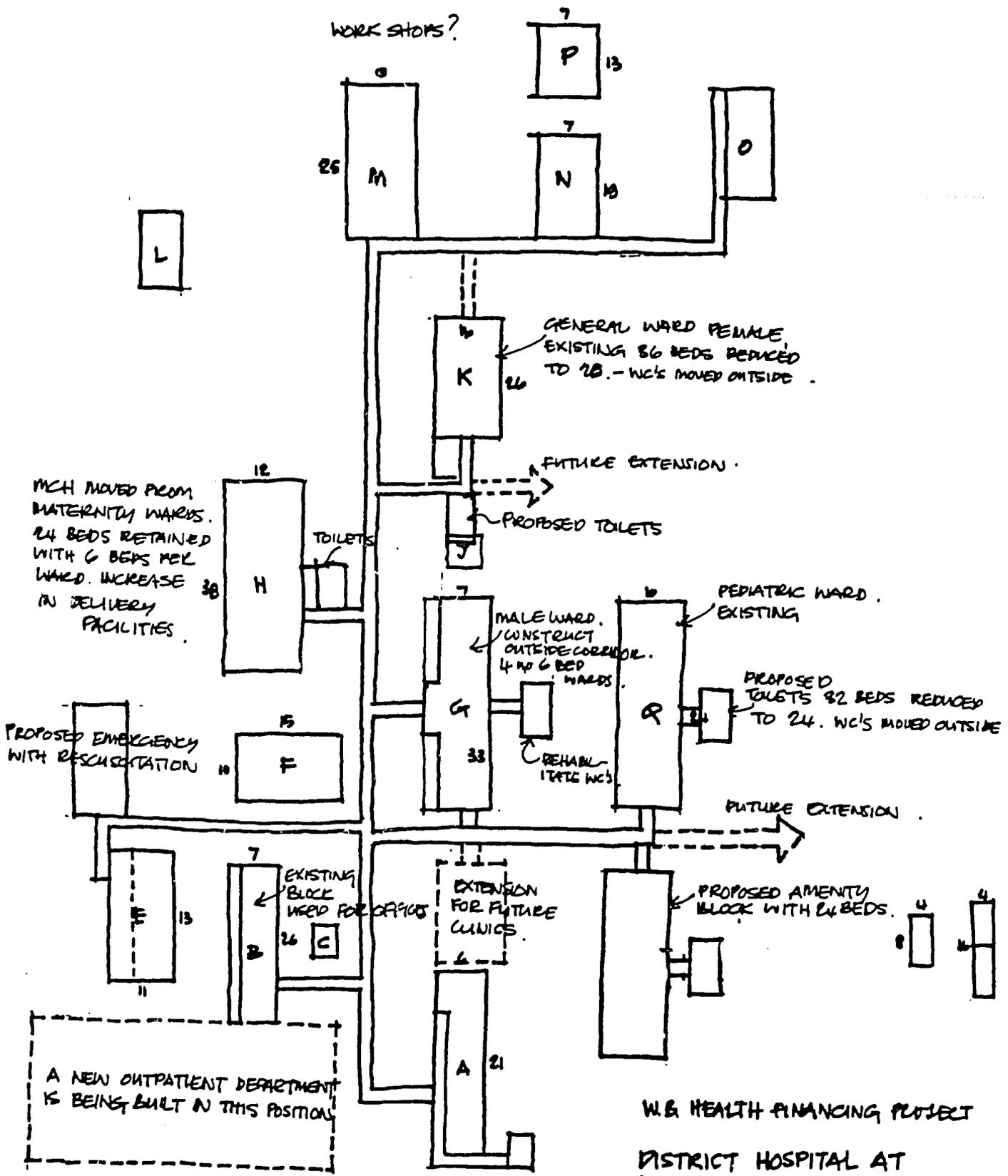
W.B. HEALTH FINANCING PROJECT

DISTRICT HOSPITAL AT
NAIVASHA

27.04.1989.

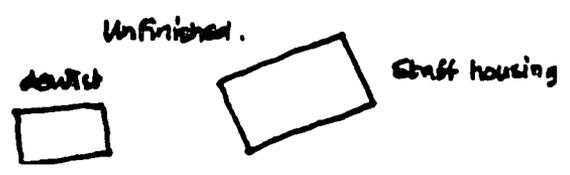
DEPARTMENTS WHICH REQUIRE
REDECORATING





W.B. HEALTH FINANCING PROJECT
 DISTRICT HOSPITAL AT
 NAIVASHA
 27.11.1969.
 MASTERPLAN FOR FUTURE
 DEVELOPMENT.

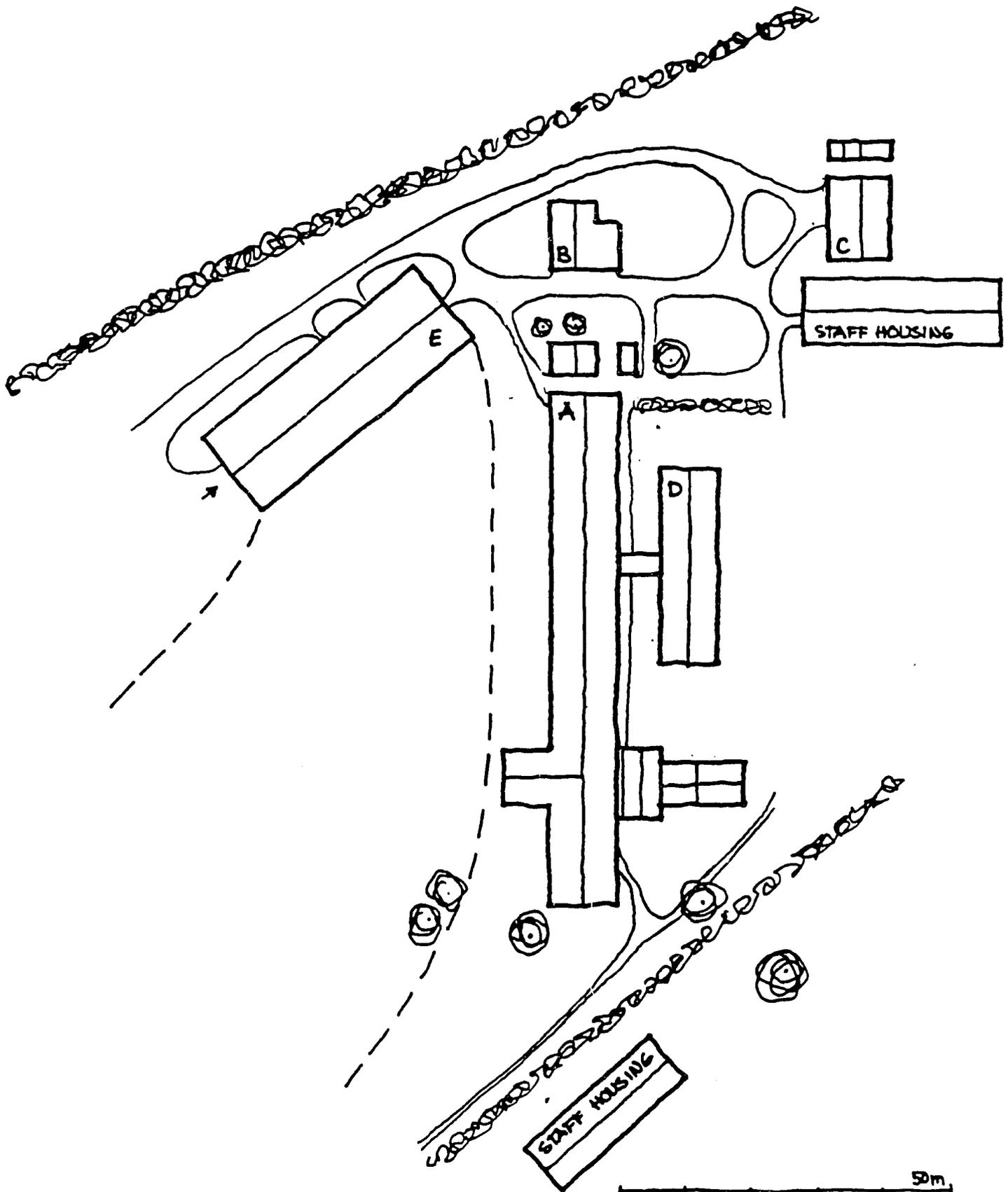
WORKSHOPS?



**MASTERPLAN FOR:
MERCY NGO HOSPITAL**

MASTERPLAN FOR: MERCY HOSPITAL

BLOCK PLAN LAYOUT OF BUILDINGS ON SITE



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MASTERPLAN FOR: MERCY HOSPITAL AT ELDAMA RAVINE

LAYOUT PLANS OF INDIVIDUAL BLOCKS : COMMENTS

GOOD AND BAD POINTS:

The buildings are mainly in good physical condition, but some functional units are quite underdimensioned and poor quality

- operation theatre and sterilisation
- delivery facilities
- x-ray (only mobile x-ray, no radiation protection)
- kitchen and laundry (both traditional)
- isolation ward (block C)
- intensive care unit

Latrines are tidy, but used refurbishing.

Wards (except isolation wards) are slightly overcrowded.

New isolation ward is unused and old isolation ward underutilised.

Waste problem is unsolved.

COMMENTS:

- Extension of diagnostic and treatment facilities is planned, but not under construction/financing problems.

PROPOSALS:

- Reduce number of beds in wards of block A,
- Reorganization of old isolation wards (C for general ward?)
- Reuse of operation and delivery facilities to ward facilities
- Construction of operation, delivery, x-ray and intensive care facilities.

MASTERPLAN FOR: **WECHE NGO HOSPITAL, BLOCK A**

LOCATION OF DEPARTMENTS WITH AREAS, CAPACITY, FUNCTIONAL CONDITION

DEPARTMENT/ ROOM	NAME	BLOCK	AR. M ²	COMMENT ON AREA	CAPACITY OPTIMUM/ACTUAL	UNIT USED	FUNCTIONAL CONDITION	COMMENTS
1	ASS + SEP TL SECT 7/4	A	2	C	2	TABLES	2	
2	WATSON	A	10	C	1	TABLE	2	
3	TOILET, STAFF	A	5	B	2	TOILETS	2	
4	LABOUR ROOM	A	21	B	3/4	BEDS	3	1 PATIENT
5	DELIVERY ROOM	A	33	A	2	DELIVERY BEDS	2/3	FURNITURE POOR
6	CHANGING ROOM	A	13	B			2	INCLUDING TOILET
7	OPERATION THEATRE	A	56	A	1	OP TABLE	2	
8	STERILISATION ROOM	A	19	A	2/20	TABLES/CHWKS M.	2	
9	POST OPER. WARD	A	24	BC	3/4	BEDS, 6sqm/b	3	
10	ISOLATION ROOM, 2	A	2x7	B	1	BED	2	
11	STORE, 2	A	2x2				2	
12	FEMALE WARD	A	87	BC	18/20	BEDS, 4.4sqm/b	2/3	3 PATIENTS
13	INTENSIVE CARE UNIT	A	30	C	4/6	BEDS, 5.0sqm/b	3	2 PATIENTS
14	NURSES' STATION	A	16	B	1	TABLE	2	
15	STORE, 2	A	2x6				2	LINEN, DISPENSING
16	MALE WARD	A	25	C	4/6	BEDS	3	
17	MALE WARD	A	30	BC	8	BEDS	2	
18	POST NATAL WARD	A	65	BC	18	BEDS	2	NO PATIENTS
19	WASHING CLASS	A	4				2	ONE BED
20	TOILET, SHOWER etc	A	8		3+2	TOILET + SHOWER		OUTSIDE
21	BEDDING STORE	A	4				2	OUTSIDE
22	TOILET SHOWER FCU	A	4		2+1	TOILET SHOWER		OUTSIDE
23	TOILET SHOWER M-3	A	4		2-1			OUTSIDE
24	TOILET, STAFF	A	4		1		2	OUTSIDE

COMMENTS: 12) 4.4 sqm / BED
 13) 5.0 sqm / BED
 18) 3.6 sqm / BED
 17) 4.3 sqm / BED

TOTAL AREA OF BLOCK A 640 sqm.

5) EXCESS TO THE LABOUR ROOM THROUGH THE DELIVERY ROOM

FOR COMMENTS ON AREA:

- A = TOO LARGE
- B = SUFFICIENT
- C = TOO SMALL

FOR FUNCTIONAL CONDITION:

- 1 = GOOD
- 2 = MEDIUM
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: MERCY NGO HOSPITAL, BLOCK E

LOCATION OF DEPARTMENTS WITH AREAS, CAPACITY, FUNCTIONAL CONDITION

DEPARTMENT/ ROOM	NAME	BLOCK	AREA M ²	COMMENT ON AREA	CAPACITY OPTIMUM/ACTUAL	UNIT USED	FUNCTIONAL CONDITION	COMMENTS
1	WAITING DEMONSTRATION	E	38	A	40	PERSONS	1	IN AVERAGE
2	ANTE-NATAL, EXAMIN.	E	30	B	3	CUE CASES	2	
3	STORE	E	18	A	25	SHELVES, M	2	HIKED
4	RECORD ROOM	E	7	B	20	SHELVES, M	2	
5	X-RAY STORE	E	10	B			2	MOBILE X-RAY M.
6	DEVELOPING ROOM	E	10	A			3	NO WATER
7	WAITING	E	20	B	20/3		2	
8	DISPENSING ROOM	E	8	B	1/1	COACH/TABLE	2	
9	PHARMACY STORE	E	10	B	1	TABLE	1	
10	TOILETS, STAFF	E	2				-	
11	WAIT. PHARMACY	E	27	A			1	SECURITY NET
12	TREATMENT ROOM	E	10	A	1	COACH	1	2
13	COMPANIONING ROOM	E	24	A	24	SHELVES, M	1	2
14	EXAMINATION ROOM	E	17	A	1/1	COACH/TABLE	1	2
15	EXAMINATION ROOM	E	15	B	1/1	COACH/TABLE	1	2
16	WAITING	E	17		15/4	PATIENTS	2	25 P. IN CORR'DOR
17	HEARLY	E	8				-	
18	NEEDLE/BLU	E	21	B	3/	TABLE/SHELVES	2	40 PAPER/5/DAY
19	TOILETS, PATIENT	E	13				2	SAMPLE TAKING
20	COMPANIONING ROOM	E	11	B			2	FOR INFUSIONS
21	TREATMENT ROOM	E	15				-	UNUSED

COMMENTS: X¹ ONLY FOR A X-RAY MACHINE
TOTAL AREA OF THE BUILDING 500 SQM

FOR COMMENTS ON AREA:

- A - TOO LARGE
- B - SUFFICIENT
- C - TOO SMALL

FOR FUNCTIONAL CONDITION:

- 1 - GOOD
- 2 - MEDIUM
- 3 - POOR
- 4 - UNACCEPTABLE
- 5 - URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: HERBY HOSPITAL, BLOCK A

BUILDING ELEMENTS: EXISTING CONDITIONS

4a

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
R 1	1	9	1966-1969	2	3	2	2	2	1	1	3	3	
R 2	1	10		2	2	2(4)	1	2	1	1	2	1	
R 3		5		2	2	2	2(2)	2	3	3	2	1	
R 4		21		3	3	2	1	2(4)	1	1	2	2	
R 5		33		2	2	2	1	3	2	2	2	3	
R 6		13		2	2	1	2	2	3	3	2	3	
R 7		52		2	2	1	2	2	2	2	2	2	
R 8		19		2	2	1	2	1	3	3	3	2	
R 9		24		2	2	2	3	3	1	1	2	4	
R 10		2x7		2	2	2	2	2	1	1	2	2	
R 11		2x2		2	2	2	2	2	1	1	2	2	
R 12		87		2	3	2	2	2	1	1	2	2(3)	
R 13		30		2	2	2	3	3	1	1	2	4	
R 14		16		2	3	2	2	2(4)	2	2	2	4	
R 15		2x6		2	2	2	2	3	1	1	2	3	
R 16		25		2	3	2	2	2(4)	1	1	3	2	
R 17		39		2	3	2(1)	2	2	2	2	2	4	
R 18		65		2	3(4)	2	3	2	1	1	3	2	
R 19		4		2	3	2	2	2	4	4	3	2	
R 20		8		2/3	3	2	2	2	4	4	3	2	
R 21		4		2	3	2	2	2	1	1	2	2	
R 22		4		2/3	3	2	2	2	3	3	3	2	
R 23		4		2/3	3	2	2	2	3	3	3	2	
R 24		4		2	3	2	2	2	3	3	3	2	
R													
R													

COMMENTS:

- FOR DESCRIPTION OF CONDITION:
- 1 - GOOD
 - 2 - MEDIUM
 - 3 - POOR
 - 4 - UNACCEPTABLE
 - 5 - URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: HEICY HOSPITAL, BLOCKS B, G, D

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
K C	1	36	1969	2/4	2(3)	2	2	2	-	-	3	2	BLACK BOARD
B C		36		2/4	2(3)	2	2	2	-	-	3	2	
B C		9		2/3	2	2	2	2				2	OUTSIDE
B C		9		3	2	2	2	2				2	OUTSIDE
E													
F D	1	6x9	1966-1968	1	2	2	2	2	2	2	2	1	
B D		2x32		3	2	2	2	3	2	2	2	2	
B D		9		2	2	2	2	2	-	-	2	2	
Z D		72		2/4	2	2(s)	2	2(s)	2	2	2	2	
Z													
K B	1	18	1966-1968	3	2	2	2	3	3	3	3	2	
K B		18		2	2	2	2	2	-	-	2	2	
K B		24		3	4	2	2	3	2	2	2	2	
K B		15		2	2	2	2	2				2	
Ø													
X													
Ø													
X													
X													
X													
X													
X													
X													
X													
X													

COMMENTS: *) ROOF LEAKING AT STORM / NAIL HOLES
BLOCK D, ISOLATION WARD UNUSED

FOR DESCRIPTION OF CONDITION: 1 = GOOD
2 = MEDIUM
3 = POOR
4 = UNACCEPTABLE
5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: MERCY HOSPITAL, BLOCK E

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
X 1	1	38	1969		2	2	2	2	-	-	3	2	
X 2		30			2(3)	2(4)	3	2(3)	3	3	3	2	
X 3		18			2	2	2	3	-	-	3	2	
X 4		7			2(3)	2	2	2	-	-	3	2	
X 5		10			2	2	2	2	2	2	2	2	
X 6		10			2	2	2	2	-	-	2	2	
X 7		20			1	1(3)	2	2	-	-	2	2	
X 8		8			1	1	2	2	3	3	2	2	
X 9		10			1	1	2	2	-	-	2	2	
X 10		7			1	1	2	2				2	
X 11		27			1	1	2	2	-	-	2	1	
X 12		19			1	1	2	2	3	3	3	1	
X 13		21			1	1(3)	2	2	3	3	3	2	
X 14		17			1	1	2	2(3)	2	2	3	2	
X 15		15			1	1	2	2	2	2	3	2	
X 16		17			1	2	2	2(3)	-	-	2	-	
X 17		8					3						
X 18		21			2	2	3	1	3	3	2	2	
X 19		13			2	2	2	2	3	3	3	2	LOCKED
X 20		11			3	2	3	1	2	2	2	2	
X 21		15											UNUSED
X													
X													
X													
Y													
Y													

COMMENTS:

- FOR DESCRIPTION OF CONDITION:
- 1 = GOOD
 - 2 = MEDIUM
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

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A MECHANICAL	CONDITION
1 STEAM SYSTEM <i>None</i>	
Boilers	-
Pipe system	-
Distribution points	-
2 KITCHEN EQUIPMENT	
Cookers <i>none</i>	X -
Boilers <i>old solid fuel boiler</i>	4
Ovens	-
Refrigerators	-
Freezers	-
Other equipment	-
3 LAUNDRY EQUIPMENT	
Washing machines <i>none</i>	-
Dryers <i>one centrifuge which does not work</i>	4
Ironing machine	-
4 COLD STORES <i>None</i>	
Food stores	-
Pharmacy stores	-
Body chambers	-
5 VENTILATION: <i>None</i>	
AC plant	-
AC units	-
Ventilation	-

B WATER AND DRAINAGE

6 WATER SYSTEM	
Wells <i>15m deep combined with school, connected to main ret.</i>	2
Reservoir - <i>large</i>	2
Pumps <i>Underground: requires 6 hours to fill reservoir</i>	3
Mains reticulation <i>in order</i>	2
Water heating <i>None, 2 house water relay variation unit</i>	4
7 DRAINAGE	
Sewage & <i>septic tanks, all relative new, have not been assessed</i>	C
Top-water <i>in order</i>	2
Reticulation <i>in order</i>	2

FOR CONDITION:

- 1 = GOOD
- 2 = SATISFACTORY
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

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		CONDITION
A ELECTRICAL POWER SUPPLY		
1	SUBSTATION None, connected directly to mains	
	Situation Buried cable, 20 meters to main switch board.	2
	Voltage 380 V / 220 V.	2
	Load breaker in main switch board.	2
	Outgoing lines A none	-
	B	-
	C	-
	D	-
	Power demand sufficient.	2
2	EMERGENCY SUPPLY - Generator 380 V / 220 V. B Unit 20.4/3	2
	A to switch on sub-switch board.	3
	B	-
	C	-
3	MAINS DISTRIBUTION	
	Switch boards - in main switch board.	2
	Mains distribution in order.	2
	Outgoing feeder: A distribution board, orig. building.	2
	B distribution board - building.	2
	C	-
	D	-
	E	-
	F	-
	Distribution protection Earthing should be checked.	3
4	OVERVOLTAGE PROTECTION None, though there should be	-

B ELECTRICAL INSTALLATIONS

5	INSTALLATIONS IN BUILDING	
	Distribution boards 5 no. in order	2
	Installations 10% require replacing	2/3
	Socket, power outlets 15% require replacing.	2/3
6	STREET LIGHTING in order	2
7	TELEPHONES SYSTEM	
	Switch board None	-
	Trunk lines - 1	2
	Extensions - 1 from main board/telephone.	2

- FOR CONDITION:
- 1 = GOOD
 - 2 = SATISFACTORY
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

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MASTERPLAN FOR: MERCY NGO HOSPITAL

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION/ ROOM NR.	MANUFACTURER & NUMBER	YEAR OBTAINED	CONDITION	CAPACITY/ REMARKS
OP. TH. LAMPS	OP. THEATRE	1	-	1	Small Model
OP. TH. TROLLEYS	"	1	-	1	
OP. TH. STANDBY BATTERY		None	-	-	
SURGICAL DIATHERMY		None	-	-	
STERILIZERS	5/8/0/12/20	1/3/1/1/1	-	1	
SUCTION PUMPS	14	1	-	1	
MEDICAL GASSES		None	-	-	
VENTILATORS		None	-	-	
ANESTHETIC MACHINE	OP. THEATRE	1	-	1	
DIALYSIS MACHINE		None	-	-	
INFANT INCUBATORS	0/18	2/1	-	1	homemade.
ECG'S					
MONITORING EQUIPMENT	15/1				
SHORT WAVE DIATHERMY					
DEFIBRILLATORS		None			
DENTAL CHAIR UNITS	DENTIST				
AMALGAM MIXERS					
DENT. X-RAY FILM DEV					
X-RAY FILM DEVELOP.	5	1 Shimaden.	1988	1	Mobile unit
X-RAY EQUIPMENT.	5/14/14	1/0/0* ~ required	-	1	X-ray screen.
PH. METERS	LABORAT.	none			
SPECTROPHOTOMETER	18	1	-	1	no handbook for use
CENTRIFUGES	18	1 (HETTICH) 1			1 (of) 1 manual.
HOT AIR OVEN		None			
BALANCES		None			
MICROSCOPES	19	2	-	1/2	
FLAME PHOTOMETER	18	1 CORNING	-	1.	
WATER SOFTENER		None			
WATER DISTILLER	20	2	-	1	
STANDBY GENERATOR					
VENTILATION UNITS					
BOILER UNITS					
INCINERATORS		None			
SHOES/PILLOWCASES					
UNIFORMS					
NIGHT CLOTHES					

* In room 3 block E there is an old X-ray (PRATO) not in use.

FOR DESCRIPTION OF CONDITION:

- 1 - SATISFACTORY WORKS AT THE TIME
- 2 - BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
- 3 - BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
- 4 - NEVER WORKS, REPLACEMENT REQUIRED
- 5 - NEVER COMMISSIONED/INSTALLED

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NUMBER OF PATIENTS	ON DAY OF SURVEY	THEORETICAL			COMMENTS
		PER DAY	PER WEEK	PER YEAR	
OUTPATIENT CONSULTATIONS					
General outpatients	90				AT TIMES VERY BUSY.
Pediatric O/P		900 (IF STAFF AVAILABLE)			
Maternity					
Mother and child (MCU)	186				MOBILE UNIT FOR BOTH MCH & GEN.
TB ANTE NATAL	86	120			OPD CARRIED OUT.
SPECIALIST CONSULTATIONS					
Doctor	3	(see above)			- OPD, MAX. 600 .
Other specialists					
RADIOLOGY					
X-rays A	-	30			
B					
C					
D					
SURGERY					
Minor operations	-	± 10			
Major surgery	-				
LABORATORY TESTS					
Clinical chemistry	40	40			
Microbiology					
Other					
KITCHEN					
Number of portions	30 x 3 = 107	250			
LAUNDRY					
Linen		NO. OF IN PATS.			SUFFICIENT CAPACITY.
Uniforms					
Blankets					
IN-PATIENTS					
Surgery male	-	-			
Surgery female	-	-			
SURGERY/Medical male	6	14			
SURGERY/Medical female	8	20			
Pediatrics	-	-			
Pediatrics isolation	-	-			
Isolation	5	12 *			RARELY FULLY UTILISED
Maternity ICU	18	18			
DELIVERY	4	4-6			
Births	5	6			
* PLUS 18 ISOLATION BEDS WHICH ARE NOT USED .					

RENOVATION PLAN FOR: MERCY HOSPITAL.

REPAIRS REQUIRED

BLOCK	DEPARTMENT	AREA M ²	REPAIR ROOF / CEILING	REPAIR DOORS AND WINDOWS	REPAIR FLOOR	REPLACE SANITARY	REFURBISH WATER AND DRAINING	REFURBISH ELECTRIC. INSTALL.	REPLACE IRONMONGERY	REALLOCATE PARTITIONS	REFURBISH AND REDECORATE			
	ELEPHANTA H.C.		20%/20%	20%	60%	25%	10%	15%	20%	-	100%			
	HIJORO H.C.		10%/10%	20%	-	25%	80%	20%	30%	⊖	100%			
	INDOGOTIO H.C.		30%/60%	15%	-	50%	80%	80%	10%	-	100%			
	LAIYALAIYIA		57%/30%	20%	20%	40%	50%	50%	20%	10%	100%			
*	MERCY HOSP. (In. r.)		30%/40%	30%	20%	30%	15%	20%	35%		100%			
	NAKURU													
	- OLD BUILDS					75%	50%	50%						
	- LEWER B. (KITCH. SANITARY, PORT. ROOMS, etc.)		See other sheets			50%	35%	40%		See other sheets				
	- OUTPATIENT BUILDINGS					25%	15%	25%						
	FR. LEON DISP. AT NAIWASHA		10%/20%	10%	20%	50%	50%	20%						
	INDABIBI HD		100%/50%	20%	-	-	50%	100%						
	KARATE HD		100%	100%	100%	100%	100%	100%	100%		100%			

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MASTERPLAN FOR: MERCY HOSPITAL .

LIST OF PROPOSED CAPITAL PROJECTS [TO BE COMPLETED LATER]

PROJECT	ESTI- MATED COST	PRIO- RITY	EFFECT ON RECURR. COST	PREPA- RATION MONTHS	COMPLE- TION MONTHS
<p>RENOVATE, DECORATE .</p> <p>REORGANISATION OF WARD → Keahocau .</p> <p>CONSTRUCTION OF : OPERATING THEATRE DELIVERY X-RAY INTENSIVE CARE .</p> <p>REORGANISE OP. TH & DELIVERY AS WARDS</p>					

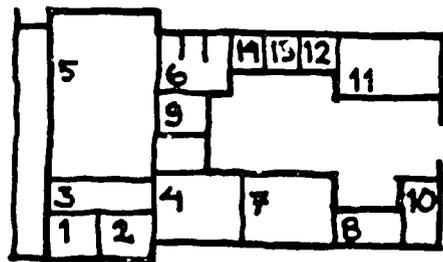
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**MASTERPLAN FOR:
ELBURGON HEALTH CENTRE**

MASTERPLAN FOR: ELBURGON HEALTH CENTRE

BLOCK PLAN LAYOUT OF BUILDINGS ON SITE

15 



 10m



MASTERPLAN FOR: ELBURGON HC.

LAYOUT PLANS OF INDIVIDUAL BLOCKS : COMMENTS

GOOD POINTS:

- adequate space on site

BAD POINTS:

- the building is actually in very poor condition
- the floor is partly lacking in several rooms
- the furniture is poor as the linen in the mat.ward
- the outside toilets are unacceptable

COMMENTS:

- a new ward building has been built on the site close to this building. There is outpatient department, laboratory and dispensing room on the ground floor and 72 beds on the next floor. Laundry and kitchen facilities are lacking
- it has been planned to remove the outpatient services from the old health centre to this new building except maternity ward and MCH services
- the site of the new building is spacious

PROPOSALS:

- the building is in unacceptable condition and should be condemned
- facilities for the maternity and MCH services should be built on the site of the NYAYO building together with the lacking laundry and kitchen facilities
- repair costs of this building for any health care use would be unreasonably high

MASTERPLAN FOR: ELBURGON HEALTH CENTRE

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK / ROOM	(NO. OF FLOORS)	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
A 1			1958	4	2	2	2	3	3	3	3	3	
B 2				4	2	2(4)	2	3	3	3	3	3	
C 3				4	2	2	2	3	3	3	3	3	
D 4				4	2	2	2	4	3	3	3	3	
E 5				3	2	2	2	3(4)	3	3	3	3	
F 6				3	2	2	2(4)	3	3	3	3	3	
G 7				4/5	2	3	3	5	3	3	3	3	MISSING FLOOR
H 8				4/5	2	3	3	5	1	1	3	3	MISSING FLOOR
I 9				3	2	2	2	3	1	1	3	3	
J 10				3	3	4	3	4	1	1	1	4	
K 11				4/5	4	3	3	5	3	3	3	3	MISSING FLOOR
L 12				4	4	3	3	5	1	1	3	3	
M 13				3	4	3	3	5	1	1	3	3	
N 14				4	4	3	3	5	3	3	3	3	
O													
P 15				4	3	3	3	3	1	1	1	3	
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													

- COMMENTS:
- THE ROOF DOES NOT LEAK THOUGH CEILING NEEDS REPAINTING
 - THE WALLS HAVE MIND CRACKS AND NEED REPAIRING AND RE-PAINING
 - THE FLOOR IS MISSING PARTLY IN SEVERAL ROOMS
 - THE FURNITURE IS POOR
 - SANITARY INSTALLATION IS GENERALLY IN CONDITION 3 THOUGH MOST SINKS NEED REFURBISHING
 - THE WATER SYSTEM AND ELECTRICAL INSTALLATION NEED REFURBISHING

- FOR DESCRIPTION OF CONDITION:
- 1 = GOOD
 - 2 = MEDIUM
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: ELBURGON HEALTH CENTRE.

MECHANICAL ENGINEERING, WATER AND DRAINAGE:
EXISTING CONDITIONS

A MECHANICAL	CONDITION
1 STEAM SYSTEM - NONE	
Boilers	-
Pipe system	-
Distribution points	-
2 KITCHEN EQUIPMENT - NONE	
Cookers	-
Boilers	-
Ovens	-
Refrigerators	-
Freezers	-
Other equipment	-
3 LAUNDRY EQUIPMENT - NONE	
Washing machines	-
Dryers	-
Ironing machine	-
4 COLD STORES - NONE	
Food stores	-
Pharmacy stores	-
Body chambers	-
5 VENTILATION - NONE	
AC plant	-
AC units	-
Ventilation	-

B WATER AND DRAINAGE

6 WATER SYSTEM	
Wells	-
Reservoir - too small, new reservoir for new hospital should be connected	4
Pumps - Gravity system	-
Mains reticulation: C.I. piping, no problems, taps need refurbishing	3
Water heating	-
7 DRAINAGE	
Sewage: Septic tank draft/water to toilets. (?) must be emptied etc.	2
Top-water - land drains, no apparent problems but.	3
Reticulation	2

* Staff tank must be emptied 2 times annually
Patient tank " " " " every 5 years.

FOR CONDITION: 1 = GOOD
2 = SATISFACTORY
3 = POOR
4 = UNACCEPTABLE
5 = URGENT REPLACEMENT IS NECESSARY

		CONDITION
A ELECTRICAL POWER SUPPLY		
1	SUBSTATION - no substation, direct connection to main line	
	Situation - power line crossing site. connection at 50m. from lda	2
	Voltage - 220v only. though 3 phase could be available	2
	Load breaker - only 1 switch board with load breaker.	2
	Outgoing lines A None	-
	B	-
	C	-
	D	-
	Power demand, AC for present demand but increase is not possible	2
2	EMERGENCY SUPPLY None	
	A	-
	B	-
	C	-
3	MAINS DISTRIBUTION See above	
	Switch boards	-
	Mains distribution	-
	Outgoing feeder A	-
	B	-
	C	-
	D	-
	E	-
	F	-
	Distribution protection - Earthing throughout must be tested.	2
4	OVERVOLTAGE PROTECTION None (though bulbs need frequent replacing)	-(4)

B ELECTRICAL INSTALLATIONS

5	INSTALLATIONS IN BUILDING	
	Distribution boards (one only placed with load breaker)	3
	Installations mixed conduit / flat cable. 10% needs replacing	3
	Socket, power outlets (20% need replacing)	3
6	STREET LIGHTING . Attached to buildings - adequate	2
7	TELEPHONES SYSTEM	
	Switch board - none	-
	Trunk lines - one line only 80% reliability	2
	Extensions - none, in fact required	-

FOR CONDITION:

- 1 - GOOD
- 2 - SATISFACTORY
- 3 - POOR
- 4 - UNACCEPTABLE
- 5 - URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: ELBURGON HEALTH CENTRE

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION	MANUFACTURER & NUMBER	YEAR OBTAINED	CONDITION	CAPACITY/REMARKS
OP. TH. LAMPS	OP. THEATRE				
OP. TH. TROLLEYS					
OP. TH. STANDBY BATTERY		none			
SURGICAL DIATHERMY					
STERILIZERS	Injection	1	1	1	
SUCTION PUMPS					
MEDICAL GASSES					
VENTILATORS					
ANAESTHETIC MACHINE					
DIALYSIS MACHINE					
INFANT INCUBATORS					
ECG'S					
MONITORING EQUIPMENT	HEAT				
SHEET WAVE DIATHERMY					
DEFIBRILLATORS					
DENTAL CHAIR UNITS	DENTIST				
AMALGAM STIRRERS					
DENT. X-RAY FILM DEV.					
X-RAY FILM DEVELOP.					
X-RAY EQUIPMENT					
PH. METERS	LABORAT.	none			
SPECTROPHOTOMETER					
CENTRIFUGES					
HOT AIR OVEN					
BALANCES					
MICROSCOPES					
FLAME PHOTOMETER					
WATER SOFTENER					
WATER DISTILLER					
STANDBY GENERATOR					
VENTILATION UNITS					
BOILER UNITS					
INCINERATORS					
SHEETS/PILLOWCASES					
UNIFORMS					
NIGHT CLOTHES					

- FOR DESCRIPTION OF CONDITION:
- 1 - SATISFACTORY WORKS AT THE TIME
 - 2 - BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
 - 3 - BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
 - 4 - NEVER WORKS, REPLACEMENT REQUIRED
 - 5 - NEVER COMMISSIONED/INSTALLED

MASTERPLAN FOR: ELBURGON HEALTH CENTRE

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION	MANUFACTURER & NUMBER	YEAR OBTAINED	CONDITION	CAPACITY/REMARKS
OP.TH. LAMPS	OP. THEATRE				
OP.TH TROLLEYS					
OP.TH STANDBY BATTERY		none			
SURGICAL DIATHERMY					
STERILIZERS	Injection.	1	1	1	
SUCTION PUMPS					
MEDICAL GASSES					
VENTILATORS					
ANESTHETIC MACHINE					
DIALYSIS MACHINE					
INFANT INCUBATORS					
ECG'S					
MONITORING EQUIPMENT	HEAT				
SHORT WAVE DIATHERMY					
DEFIBRILLATORS					
DENTAL CHAIR UNITS	DENTIST				
AMALGAM MIXERS					
DENT. X-RAY FILM DEV.					
X-RAY FILM DEVELOP.					
X-RAY EQUIPMENT.					
PH. METERS	LABORAT.	none			
SPECTROPHOTOMETER					
CENTRIFUGES					
HOT AIR OVEN					
BALANCES					
MICROSCOPES					
FLAME PHOTOMETER					
WATER SOFTENER					
WATER DISTILLER					
STANDBY GENERATOR					
VENTILATION UNITS					
BOILER UNITS					
INCINERATORS					
SHEETS/PILLOWCASES					
UNIFORMS					
NIGHT CLOTHES					

- FOR DESCRIPTION OF CONDITION:
- 1 = SATISFACTORY WORKS AT THE TIME
 - 2 = BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
 - 3 = BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
 - 4 = NEVER WORKS, REPLACEMENT REQUIRED
 - 5 = NEVER COMMISSIONED/INSTALLED

MASTERPLAN FOR: ELBURGAN HEALTH CENTRE

PRODUCTION/CAPACITY

NUMBER OF PATIENTS	ON DAY OF SURVEY	THEORETICAL			COMMENTS
		PER DAY	PER WEEK	PER YEAR	
OUTPATIENT CONSULTATIONS					
General outpatients	147	160			
Pediatric O/P					
Maternity ANTENATAL	21	40			
Mother and child	35	40			
FB FAMILY PLANNING	4				
SPECIALIST CONSULTATIONS					
Doctor					
Other specialists					
RADIOLOGY					
X-rays A					
B					
C					
D					
SURGERY					
Minor operations					
Major surgery					
LABORATORY TESTS					
Clinical chemistry					
Microbiology					
Other					
KITCHEN					
Number of portions					
LAUNDRY					
Linen					
Uniforms					
Blankets					
IN-PATIENTS					
Surgery male					
Surgery female					
Medical male					
Medical female					
Pediatrics					
Pediatrics isolation					
Isolation					
Maternity	?	8			
DELIVERY					
Births	2.	6			

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RENOVATION PLAN FOR:

REPAIRS REQUIRED

BLOCK	DEPARTMENT	AREA M ²	REPAIR ROOF / CEILING	REPAIR DOORS AND WINDOWS	REPAIR FLOOR	REPLACE SANI- TARY	REFURBISH WATER AND DRAINING	REFURBISH ELEC- TRIC. INSTALL.	REPLACE IRONMONGERY	REALLOCATE PARTITIONS	REFURBISH AND REDECORATE			
→	ELLIPGATHIC		20%/20%	20%	60%	25%	10%	15%	20%	-	100%			
	HIJORO H.C.		10%/8%	20%	-	25%	80%	20%	30%	⊖	100%			
	INDOGATIO.H.C		30%/6%	15%	-	50%	80%	80%	10%	-	100%			
	LAIYALAIKIA		50%/3%	20%	20%	40%	50%	50%	20%	10%	100%			
	MERCY (In r.c.)		30%/40%	30%	20%	30%	15%	20%	35%		100%			
	NAKURU - OLD BUILDS					75%	50%	50%						
	- NEWER B. (KITCH. WASHING MORT. BATH P.H.) IN R.C.					50%	35%	40%						
	- OUTPATIENT BUILDINGS					25%	15%	25%						
	DR. KENIS DISP. AT NAIYASHI		10%/20%	10%	20%	50%	50%	20%						
	NDABIBI HD		100%/5%	20%	-	-	50%	100%						
	KARATE HD		100%	100%	100%	100%	100%	100%	100%		100%			

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MASTERPLAN FOR: ELBURGON HEALTH CENTRE

LIST OF PROPOSED CAPITAL PROJECTS

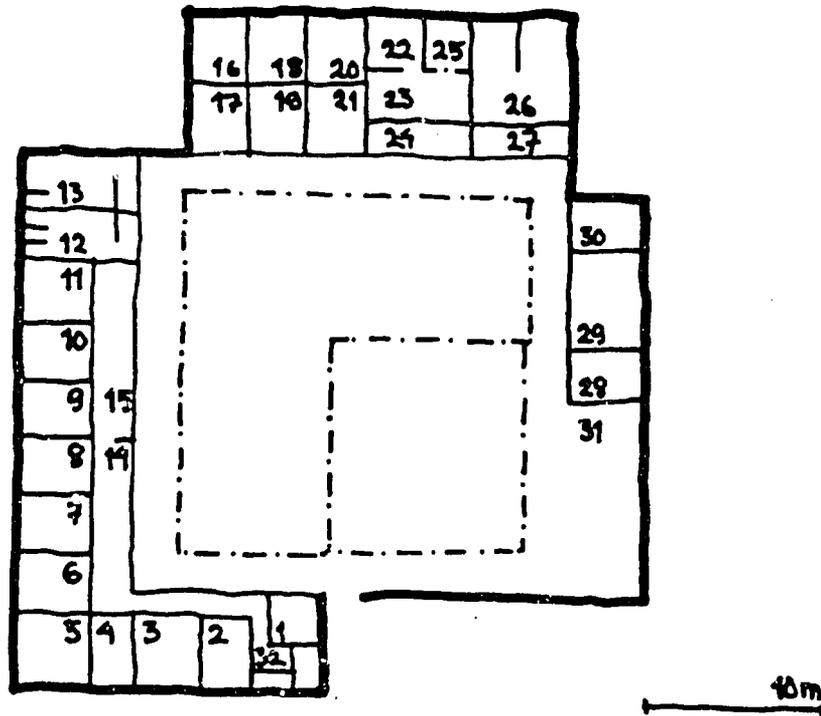
PROJECT	ESTI- MATED COST	PRIO- RITY	EFFECT ON RECURR. COST	PREPA- RATION MONTHS	COMPLE- TION MONTHS
<p>Demolition of the old building (other purposes?)</p> <p>Construction of new maternity ward and MCH services close to the new NYAYO-building</p> <p>Construction of kitchen and laundry to the NYAYO building</p>					

MASTERPLAN FOR:

LANGALANGA HEALTH CENTRE

MASTERPLAN FOR: LANGA LANGA HEALTH CENTRE

BLOCK PLAN LAYOUT OF BUILDINGS ON SITE



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MASTERPLAN FOR: LANGALANGA

LAYOUT PLANS OF INDIVIDUAL BLOCKS : COMMENTS

GOOD POINTS:

- The situation in town is good
- The site is big enough if water enlargement is needed
- The layout is functionally quite good except some details

BAD POINTS:

- Some examination rooms are unused and at the same time maternity and family planning rooms are overcrowded
- Separate waiting areas for dressing, injection etc. rooms are overcrowded
- The flat roof has been leaking, except waiting areas, it has been already changed

PROPOSALS:

- Replanning of rooms 16-27 utilizing the unused examination facilities
- Replacing 30% of softboard ceilings
- Removing ceilings above the covered waiting area and replacing with new roof
- Repainting and refurbishing of all rooms

MASTERPLAN FOR: LAHGT LANCA HEALTH CENTRE , NAKURU 1(2)

LOCATION OF DEPARTMENTS WITH AREAS, CAPACITY, FUNCTIONAL CONDITION

DEPARTMENT/ ROOM	NAME	BLOCK	AREA M ²	COMMENT ON AREA	CAPACITY OPTIMUM/ACTUAL	UNIT USED	FUNCTIONAL CONDITION	COMMENTS
1	RECEPTION, RECORDS		6	B	1/1	PERSONS	2	
2	PUBLIC HEALTH OFF		12	B	1/1	PERSONS	2	
3	REC. ROOM, STUDENTS		14	B	8/1	STUDENTS	2	
4	WAITING ROOM		7	B	6/0	PERSONS	2	DISHELD
5	CONSULTATION ROOM		14	B	1	TABLE/COACH	2	UNUSED
6	CLINICAL OFFICER		12	B	1/1	PERSONS	2	
7	EXAMINATION ROOM		12					USED AS STDEE
8	EXAMINATION ROOM		12	B		TABLE/COACH	2	
9	LABORATORY OFFICE		12	B	1/1		2	
10	LAB. SAMPLE TAKING		12	B	40	PATIENTS/DAY	2	
11	LAB. WASHING		12	B			2	
12	PATIENTS TOILET FEM		16	B	3	TOILETS	4	
13	PATIENTS TOILET M		16	B	1-2	TOILETS/URNS	4	
14	WAITING, CLIN OFF		17	C	10/30	PERSONS	2	
15	WAITING LAB.		20	B	10	PERSONS	2	
16	DRESSING ROOM		12	B	1	COACH		
17	WAITING		12	B	10/8	PERSONS	2	
18	INJECTION ROOM		12	B			2	
19	WAITING		12	B	10			
20	EXAMINATION, MIDW		12	B	1	COACH	2	
21	WAITING, TESTING		12	C	4/8	PERSONS		
22	EXAMINATION, F.A.H.P.		11	C	1	COACH	4	
23	WAITING		13	C				

COMMENTS: 30% OF SOTTREAFED CEILING SHOULD BE REPAIRED
 ALL CEILING NEED REPAIRING
 WASHING NEED REPAIRING
 4,5) DOCTOR'S CONSULTATIONS ONCE A WEEK (THIS TIME NOT AT ALL)
 5) CRACK IN THE WALL
 22) COACH ONLY BEHIND A CURTAIN

FOR COMMENTS ON AREA:

- A = TOO LARGE
- B = SUFFICIENT
- C = TOO SMALL

FOR FUNCTIONAL CONDITION:

- 1 = GOOD
- 2 = MEDIUM
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

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MASTERPLAN FOR: LANGA LANGA HEALTH CENTRE, NAKURU

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
A	1		1973	2(4)	1(4)	2	2	2	3	2(3)	3	2	
B													
C													
D													
E													
F													
G													
H													
I													
J													
K													
L													
M													
N													
O													
P													
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													

COMMENTS: ROOF OF THE COVERED WAITING NEEDS REPLACING, AS THE CEILING
 30% OF THE CEILINGS IN THE ROOMS NEED REPLACING
 70% REPAINTING
 WALLS HAVE SOME MINOR CRACKS AND NEED SOME REPAINTING.
 AS DOORS ALSO
 THE WATER SYSTEM SHOULD BE MAINTAINED

FOR DESCRIPTION OF CONDITION: 1 = GOOD
 2 = MEDIUM
 3 = POOR
 4 = UNACCEPTABLE
 5 = URGENT REPLACEMENT IS NECESSARY

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MASTERPLAN FOR: LANGALANGA HEALTH CENTRE

MECHANICAL ENGINEERING, WATER AND DRAINAGE:
EXISTING CONDITIONS

A MECHANICAL	CONDITION
1 STEAM SYSTEM <i>none</i>	
Boilers	-
Pipe system	-
Distribution points	-
2 KITCHEN EQUIPMENT <i>none</i>	
Cookers	-
Boilers	-
Ovens	-
Refrigerators	-
Freezers	-
Other equipment	-
3 LAUNDRY EQUIPMENT <i>none</i>	
Washing machines	-
Dryers	-
Ironing machine	-
4 COLD STORES <i>none</i>	
Food stores	-
Pharmacy stores	-
Body chambers	-
5 VENTILATION <i>none</i>	
AC plant	-
AC units	-
Ventilation	-

B WATER AND DRAINAGE

6 WATER SYSTEM	
Wells - <i>none, health centre is connected to mains.</i>	2
Reservoir - <i>none</i>	-
Pumps - <i>none</i>	-
Mains reticulation <i>steel piping in earth and painted on bars</i>	3
Water heating <i>none but is required.</i>	4
7 DRAINAGE	
Sewage - <i>OK.</i>	2
* Top-water - <i>form of roots gives problems</i>	3
Reticulation - <i>OK.</i>	2

* There are many water damaged elements. Roof outlets are too small.

FOR CONDITION:

- 1 = GOOD
- 2 = SATISFACTORY
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

A ELECTRICAL POWER SUPPLY	CONDITION
1 SUBSTATION <i>none, directly connected power line.</i>	
<i>Situation power line across site in earth cable.</i>	2
<i>Voltage 240v/220v.</i>	2
<i>Load breaker - in meter board.</i>	2
<i>Outgoing lines A none.</i>	-
<i>B</i>	-
<i>C</i>	-
<i>D</i>	-
<i>Power demand - sufficient.</i>	2
2 EMERGENCY SUPPLY - <i>none</i>	
<i>A -</i>	-
<i>B -</i>	-
<i>C -</i>	-
3 MAINS DISTRIBUTION <i>see above.</i>	
<i>Switch boards</i>	-
<i>Mains distribution</i>	-
<i>Outgoing feeder A</i>	-
<i>B</i>	-
<i>C</i>	-
<i>D</i>	-
<i>E</i>	-
<i>F</i>	-
<i>Distribution protection - earthing - should be tested.</i>	3
4 OVERVOLTAGE PROTECTION <i>none: should be provided</i>	-

B ELECTRICAL INSTALLATIONS

5 INSTALLATIONS IN BUILDING	
<i>Distribution boards placed with mains switch.</i>	2
<i>Installations - conduit/cable. 15% replaced.</i>	3
<i>Socket, power outlets 40% replaced.</i>	2
6 STREET LIGHTING <i>on the building: 15% should be repaired.</i>	3
7 TELEPHONES SYSTEM	
<i>Switch board - in order.</i>	2
<i>Trunk lines 2 lines</i>	2
<i>Extensions 6 lines</i>	2

- FOR CONDITION:
- 1 = GOOD
 - 2 = SATISFACTORY
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

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MASTERPLAN FOR: LANGALANGA Health CENTRE

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION/ ROOM NUMBER	MANUFACTURER # NUMBER	YEAR OBTAINED	CONDITION	CAPACITY/ REMARKS
OP.TH. LAMPS	OP. THEATRE	none			
OP. TH TROLLEYS	6/10	1/1	-	1	
OP. TH STANDBY BATTERY		none			
SURGICAL DIATHERMY	9	1	-	1	
STERILIZERS	8/10/16/18/20	1/1/1/1/3	-	1	
SUCTION PUMPS		none			
MEDICAL GASSES		none			
VENTILATORS		none			
ANAESTHETIC MACHINE		none			
DIALYSIS MACHINE		none			
INFANT INCUBATORS	8/10.	1/1	-	1	
EKG'S		none			
MONITORING EQUIPMENT	10/11	none			
SHOET NAWE DIATHERMY		none			
DEFIBRILLATORS		none			
DENTAL CHAIR UNITS	DENTIST	none			
AMALGAM STIRRERS		none			
DEVT. X-RAY FILM DEV.		none			
X-RAY FILM DEVELOP.		none			
X-RAY EQUIPMENT.		none			
PH. METERS	LABORAT.	none			
SPECTROPHOTOMETER		none			
CENTRIFUGES	8/8.	1/1	-	1	
HOT AIR OVEN		none			
BALANCES		none			
MICROSCOPES	9/ laboratory	2	-	1	
FLAME PHOTOMETER	8. (ex. room)	1	-	1	No instruction book.
WATER SOFTENER		none			
WATER DISTILLER		none			
		none			
STANDBY GENERATOR		none			
VENTILATION UNITS		none			
BOILER UNITS		none			
INCINERATORS		none			
		none			
SHOES/PILLOWCASES		none			
UNIFORMS		none			
NIGHT CLOTHES		none			

- FOR DESCRIPTION OF CONDITION:
- 1 = SATISFACTORY WORKS AT THE TIME
 - 2 = BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
 - 3 = BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
 - 4 = NEVER WORKS, REPLACEMENT REQUIRED
 - 5 = NEVER COMMISSIONED/INSTALLED

MASTERPLAN FOR: LANGA LANGA HEALTH CENTRE, NAKURU

PRODUCTION/CAPACITY

NUMBER OF PATIENTS	* ONE DAY 8 HOURS LAST HOUR IN JULY ON DAY	THEORETICAL			COMMENTS
		OF -SURVEY	PER DAY	PER WEEK		PER YEAR
OUTPATIENT CONSULTATIONS					
(General) outpatients	257	240			
Pediatric O/P					
(Maternity) ANTE NATAL CLINIC	61	72			
(Mother and child) FAM. PLAN	36	36			
TB					
	354				
N/A * SPECIALIST CONSULTATIONS					
* Doctor					
* Other specialists					
* RADIOLOGY					
X-rays A					
B					
C					
D					
* SURGERY					
Minor operations					
Major surgery					
✓ LABORATORY TESTS					
Clinical chemistry	40	40			
Microbiology					
Other					
* KITCHEN					
Number of portions					
* LAUNDRY					
Linen					
Uniforms					
Blankets					
* IN-PATIENTS					
Surgery male					
Surgery female					
Medical male					
Medical female					
Pediatrics					
Pediatrics isolation					
Isolation					
Maternity					
* DELIVERY					
Births					
STAFF					
TRAINED	11				
STUDENTS	6				
UNTRAINED	8				

RENOVATION PLAN FOR:

REPAIRS REQUIRED

BLOCK	DEPARTMENT	AREA M ²	REPAIR ROOF / CEILING	REPAIR DOORS AND WINDOWS	REPAIR FLOOR	REPLACE SANITARY	REFURBISH WATER AND DRAINING	REFURBISH ELECTRIC. INSTALL.	REPLACE IRONMONGERY	REALLOCATE PARTITIONS	REFURBISH AND REDECORATE			
	ELLENPGIWHC		20%/20%	20%	80%	25%	10%	15%	20%	-	100%			
	NIJOKO H.C.		10%/8%	20%	-	25%	80%	20%	30%	⊖	100%			
	MOGOTIO H.C.		30%/6%	15%	-	50%	80%	80%	10%	-	100%			
→	LAIYALAI H.C.		57%/3%	20%	20%	40%	50%	50%	20%	10%	100%			
	MERCY (H.C.)		30%/40%	30%	20%	30%	15%	20%	35%		100%			
	NAKURU - OLD BUILDS					75%	50%	50%						
	- LEWER B. (KITCH. LAMINATE, FLOOR, ROOF, H.C.)					50%	35%	40%						
	- OUTPATIENT BUILDINGS					25%	15%	25%						
	OBISIBI DISP. AT NAIYASHA		10%/20%	10%	20%	50%	50%	20%						
	UDABIBI HD		100%/5%	20%	-	-	50%	100%						
	KARATE HD		100%	100%	100%	100%	100%	100%	100%		100%			

MASTERPLAN FOR: LANGALANGA HEALTH CENTRE

LIST OF PROPOSED CAPITAL PROJECTS

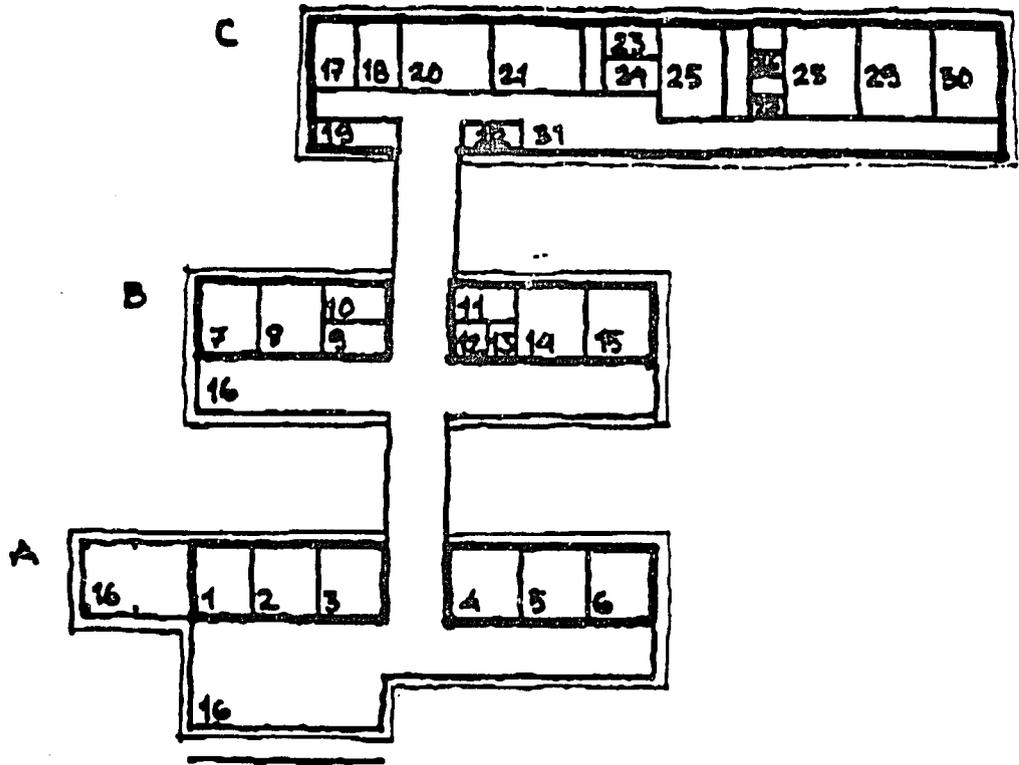
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PROJECT	ESTI-MATED COST	PRIO-RITY	EFFECT ON RECURR. COST	PREPA-RATION MONTHS	COMPLE-TION MONTHS
<p>Removing of roof cover and ceiling on the covered waiting area and replacement with new roof cover (on-going?)</p> <p>Repair and painting of ceilings in rooms</p> <p>Reorganisation of crowded and uncrowded functions and minor changes of room partitions</p> <p>Minor repair of floors, walls, doors windows and ironmongery</p> <p>Repair of sanitary installations</p> <p>Refurbishing of water and drainage</p> <p>Refurbishing of electrical installation</p> <p>Refurbish and redecorate throughout</p>					

1/2

MASTERPLAN FOR: HOGOTIO HEALTH CENTRE

BLOCK PLAN LAYOUT OF BUILDINGS ON SITE



1/2

MASTERPLAN FOR:

MOGOTIO RURAL HEALTH CENTRE

MASTERPLAN FOR: HOGOTIO RURAL HEALTH CENTRE 1(2)

LOCATION OF DEPARTMENTS WITH AREAS, CAPACITY, FUNCTIONAL CONDITION

DEPARTMENT/ ROOM	NAME	BLOCK	AREA M ²	COMMENT ON AREA	CAPACITY OPTIMUM/ACTUAL	UNIT USED	FUNCTIONAL CONDITION	COMMENTS
1	FILTER CLINIC	A	15	B	2/1	COACH/TABLE	2	
2	NUTRITION FIELD W.	A	15	A	1	TABLE	3	MISSING CHAIR
3	RECORDS ROOM	A	15	A	8	TABLE (M)	2	
4	ANTENATAL EXAM.	A	15	B	1/1	COACH/TABLE	2	
5	CHILD WELFARE R	A	15	B	1/1	COACH/TABLE	2	CROWDED ON MONDAY
6	FAMILY PLANNING	A	15	B	1	TABLE	2	
7	TREATMENT ROOM	B	15	B	1/2	COACH/TABLE	2	150 INJECT./DAY
8	DISPENSING	B	15	A	1	PERSONS	2	
9	STORE	B	7	B			2	
10	TOILET	B	2					UNUSED
11	LABORATORY	B	7	B	1	TABLE	2	
12	NAB OFFICE	B	11					
13	NAB OFFICE	B	11					
14	MEDICAL OFFICER	B	15	A	1	TABLE	2	
15	PUBLIC HEALTH TECH.	B	15	A	1	TABLE	2	MISSING CHAIR
16	COVERED WAITING	A, B		B			2	
17	LAUNDRY	C	8	B			3	
18	KITCHEN	C	8	B			3	
19	STORE	C	7	-				
20	OBSERVATION ROOM	C	20	B	3	BEDS	3	POOR FURNITURE
21	OBSERVATION ROOM	C	20	B	3	BEDS	3	POOR FURNITURE
22	TOILETS	C	6	B	2	TOILETS	3	
23	SWICE	C	6	B			3	
24	STORE	C	6	B			2	
25	DELIVERY ROOM	C	21	B	2	DELIVERY BEDS	2	UNDERUTILIZED

COMMENTS:

TOTAL AREA:
 BLOCK A 90 sqm
 BLOCK B 90 sqm
 BLOCK C 270 sqm

COVERED WAITING AREAS 200 sqm
 COVERED CORRIDORS 80 sqm

FOR COMMENTS ON AREA:

- A = TOO LARGE
- B = SUFFICIENT
- C = TOO SMALL

FOR FUNCTIONAL CONDITION:

- 1 = GOOD
- 2 = MEDIUM
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: MOGOTIO

LAYOUT PLANS OF INDIVIDUAL BLOCKS : COMMENTS

GOOD POINTS:

- Layout generally good
- Spacious site

BAD POINTS:

- Roof has been leaking, damages are quite bad in two of the blocks, on block A and C the roof has already been changed
- water treatment out of order, only water in use (dirty)
- the furniture as poor and in bad condition because of the way of cleaning
- some furniture and linen are missing
- problems with the electricity
- observation and maternity wards are underutilized/lack of good water, insecure electricity and oxygen (no operations)
- lack of drugs, dressings

PROPOSALS:

- refurbishing of the water system, sanitary installation and electricity (?)
- replacement of roof cover on the block B
- repair and repainting of ceilings, especially on blocks A and B
- repainting of walls
- minor repair of doors, windows and ironmongery
- repair of furniture and some new furniture and linen

MASTERPLAN FOR: MOGOTIO RURAL HEALTH CENTRE 1(2)

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
A 1	1	15	1979	2	1/4	2	2	2	3	3/4	3/4	2	
B 2		15		2	1/4	2	2	2	3	3/4	3/4	2	
B 3		15		2	1/4	2	2	2	1	-	3/4	2	
B 4		15		2	1/4	2(3)	2	2	3	3/4	3/4	2	
B 5		15		2	1/4	2	2	2	3	3/4	3/4	2	
B 6		15		2	1/4	2	2	2	3	3/4	3/4	2	
B 7		15		2	4	2(3)	2	2	3	3/4	3/4	2(4)	
B 8		15		2	4	2	2	2	-	-	3/4	2(4)	
B 9		3		2	4	2	2	2	-	-	3/4	2	
B 10		3			4	2	2	2	3	3/4	3/4	2	
B 11		3		2	4	2	2	2	3	3/4	3/4	2	
B 12		4			4	2	2	2	-	-	3/4	2	
B 13		4			4	2	2	2	-	-	3/4	2	
B 14		15		2	4	2(3)	2	2	3	3/4	3/4	2	
B 15		15		2	4	2(3)	2	2	3	3/4	3/4	2	
B 16				2	4	2	2	2	-	-		2	
B 17		8		3	1/2	2	2	2	3	3/4	3/4	2	
B 18		8		3	1/2	2	2	2	3	3/4	3/4	2	
B 19		3			1/2	2	2	2	-	-	3/4	2	
B 20		20		3	1/2	2	2	2	4	3/4	3/4	2(4)	
B 21		20		3	1/2	2	2	2	3	3/4	3/4	2	
B 22		6		3	1/2	2	2	2	3	3/4	3/4	2	
B 23		6		3	1/2	2	2	2	3	3/4	3/4	2	
B 24		6		3	1/2	2	2	2	-	-	3/4	2	
B 25		24		2	1/2	2	2	2	3	3/4	3/4	2	

COMMENTS: THE ROOF IN BLOCKS A AND C HAS BEEN CHANGED
THE CEILING NEEDS REPLACING

FOR DESCRIPTION OF CONDITION: 1 = GOOD
2 = MEDIUM
3 = POOR
4 = UNACCEPTABLE
5 = URGENT REPLACEMENT IS NECESSARY

A MECHANICAL	CONDITION
1 STEAM SYSTEM - none	
Boilers	
Pipe system	-
Distribution points	-
2 KITCHEN EQUIPMENT - none	
Cookers	
Boilers	-
Ovens	-
Refrigerators	-
Freezers	-
Other equipment	-
3 LAUNDRY EQUIPMENT - none	
Washing machines	
Dryers	-
Ironing machine	-
4 COLD STORES - none	
Food stores	
Pharmacy stores	-
Body chambers	-
5 VENTILATION - none	
AC plant	
AC units	-
Ventilation: has been dismantled due to fears of asbestos.	-

B WATER AND DRAINAGE

6 WATER SYSTEM	
Wells, none	
Reservoir 2 reservoir tanks, 1 filter tank, water from river	-
Pumps - in order, but require maintenance	3/4
Mains reticulation in order.	3
Water heating 3 units all defect with thermostat problem.	3
	2/4
7 DRAINAGE	
Sewage, Septic tank.	
Top-water open drains - no problems.	3
Reticulation - some pipes are blocked	3
	3/4

- Water distribution system should be replaced, only one reservoir tank is in use 1 tank has not been used since 1982
- Hot water system should be repaired.

FOR CONDITION:

- 1 = GOOD
- 2 = SATISFACTORY
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: MOGOTIO HEALTH CENTRE 2(2)

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
K 26	1	9	1978	2	1/2	2	2	2	4	3/4	3/4	2	
K 27		2			1/2	2	2	2				2	
K 28		26		2	1/2	2	2	2	3	3/4	3/4	2	
K 29		26			1/2	2	2	2	3	3/4	3/4	2	
K 30		26		2	1/2	2	2	2	4	3/4	3/4	2	
K 31		36		2	1/2	2(3)	2(4)	2	-	-	3/4	2	
G													
H													
I													
J													
K													
L													
M													
N													
O													
P													
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													

COMMENTS:

- FOR DESCRIPTION OF CONDITION:
- 1 - GOOD
 - 2 - MEDIUM
 - 3 - POOR
 - 4 - UNACCEPTABLE
 - 5 - URGENT REPLACEMENT IS NECESSARY

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A ELECTRICAL POWER SUPPLY	CONDITION
1 SUBSTATION none	
Situation Generator 22A ~ 33 kVA is not sufficient.	2/4
Voltage 400V/210 V.	2
Load breaker in generator house	2
Outgoing lines A - Staff housing	2
B - health centre	2
C	-
D	-
Power demand greater than generator can supply	4
2 EMERGENCY SUPPLY - none	
A	-
B	-
C	-
3 MAINS DISTRIBUTION	
Switch boards in generator house : very dirty	3
Mains distribution	2.
Outgoing feeder A see above.	-
B	-
C	-
D	-
E	-
F	-
Distribution protection : earthing, should be checked.	3
4 * OVERVOLTAGE PROTECTION None, but should be provided	-

B ELECTRICAL INSTALLATIONS

5 INSTALLATIONS IN BUILDING	
Distribution boards - in order.	2
Installations - 50% should be repaired.	3/4
Socket, power outlets 50% should be repaired.	3/4.
6 STREET LIGHTING on buildings: 20% should be repaired.	3/4
7 TELEPHONES SYSTEM	
Switch board none	-
Trunk lines 1. damaged by lightning.	2/4
Extensions - none.	-

○ ELECTRICAL INSTALLATIONS REQUIRE MAINTENANCE
 ○ TELEPHONE LINES HAVE BEEN DAMAGED BY LIGHTNING
 ○ GENERATOR SUPPLIES HC + 4 STAFF HOUSES. AN OLDER GENERATOR HAS NOT WORKED SINCE 1985. - NO EXHAUSTS IN GENERATOR HOUSE. EVERYTHING IS VERY DIRTY -

FOR CONDITION:

- 1 = GOOD
- 2 = SATISFACTORY
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: MOGOTID

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION/ ROOM NO.	MANUFACTURER & NUMBER	YEAR OBTAINED	CONDITION	CAPACITY/ REMARKS
OP. TH. LAMPS	OP. THEATRE	none			
OP. TH. TROLLEYS		none			
OP. TH. STANDBY BATTERY		none			
SURGICAL DIATHERMY		none			
STERILIZERS	B/11/25	1/1/1	-	1	FOR GAS
SUCTION PUMPS					
MEDICAL GASSES					
VENTILATORS					
ANESTHETIC MACHINE					
DIALYSIS MACHINE					
INFANT INCUBATORS					
ECG'S					
MONITORING EQUIPMENT	HCU				
SHORT WAVE DIATHERMY					
DEFIBRILLATORS					
DENTAL CHAIR, UNITS	DENTIST				
AMALGAM STRIPPERS					
DEVT. X-RAY FILM DEV					
X-RAY FILM DEVELOP.					
X-RAY EQUIPMENT		none			
PH. METERS	LABORAT.				
SPECTROPHOTOMETER					
CENTRIFUGES					
HOT AIR OVEN					
BALANCES					
MICROSCOPES					
FLAME PHOTOMETER					
WATER SOFTENER					
WATER DISTILLER					
STANDBY GENERATOR					
VENTILATION UNITS					
BOILER UNITS					
INCINERATORS					
SHEETS/PILLOWCASES					
UNIFORMS					
NIGHT CLOTHES					

- FOR DESCRIPTION OF CONDITION:
- 1 - SATISFACTORY WORKS AT THE TIME
 - 2 - BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
 - 3 - BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
 - 4 - NEVER WORKS, REPLACEMENT REQUIRED
 - 5 - NEVER COMMISSIONED/INSTALLED

RENOVATION PLAN FOR:

REPAIRS REQUIRED

BLOCK	DEPARTMENT	AREA M ²	REPAIR ROOF / CEILING	REPAIR DOORS AND WINDOWS	REPAIR FLOOR	REPLACE SANITARY	REFURBISH WATER AND DRAINING	REFURBISH ELECTRIC. INSTALL.	REPLACE IRONMONGERY	REALLOCATE PARTITIONS	REFURBISH AND REDECORATE			
	ELENGONHC		20/20%	20%	80%	25%	10%	15%	20%	-	100%			
	NJOKO H.C.		10/40%	20%	-	25%	80%	20%	30%	⊖	100%			
←	MOGOTIO.H.C		30%/60%	15%	-	50%	80%	80%	10%	-	100%			
	LANGALANGA		50/30%	20%	20%	40%	50%	50%	20%	10%	100%			
	MECCY. (In 2)		30%/40%	30%	20%	30%	15%	20%	35%		100%			
	NAKURU													
	- OLD BUILDS					75%	50%	60%						
	- NEWER B. (KITCH. WARDEN, MORT. ROOM, P.H.) WATER					50%	35%	40%						
	- OUTPATIENT BUILDINGS					25%	15%	25%						
	DR. JENIS DISP. AT MAIVASHA		10%/20%	10%	20%	50%	50%	20%						
	NDABIBI HD		100/50%	20%	-	-	50%	100%						
	KARATE HD		100%	100%	100%	100%	100%	100%	100%		100%			

MASTERPLAN FOR: MOGOTIO RURAL HEALTH CENTRE

PRODUCTION/CAPACITY

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NUMBER OF PATIENTS	ON DAY OF SURVEY	THEORETICAL			COMMENTS
		PER DAY	PER WEEK	PER YEAR	
OUTPATIENT CONSULTATIONS					
General outpatients	206				
Pediatric O/P		400			
Maternity ANTENATAL	10				
Mother and child	2-3				
TB INJECTIONS	160?				19-42 ON MON
SPECIALIST CONSULTATIONS					
Doctor					
Other specialists					
RADIOLOGY					
X-rays A					
B					
C					
D					
SURGERY					
Minor operations					
Major surgery					
LABORATORY TESTS					
Clinical chemistry					
Microbiology					
Other					
KITCHEN					
Number of portions					
LAUNDRY					
Linen					
Uniforms					
Blankets					
IN-PATIENTS					
Surgery male					
Surgery female					
Medical male					
Medical female					
Pediatrics					
Pediatrics isolation					
Isolation					
Maternity					
OBSERVATION (24 HOURS)	-	9			
DELIVERY	-	6			
Births		2			5 DAY BEFORE SURVEY

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MASTERPLAN FOR: MOGOTIO HEALTH CENTRE

LIST OF PROPOSED CAPITAL PROJECTS

PROJECT	ESTI- MATED COST	PRIO- RITY	EFFECT ON RECURR. COST	PREPA- RATION MONTHS	COMPLE- TION MONTHS
<p>Replacement of roof cover on block B (on-going)</p> <p>Replacement of ceilings in blocks A and B, minor repair</p> <p>Minor repair of doors, windows, ironmongery</p> <p>Repair of furniture and supply some new furniture</p> <p>Refurbish water and drainage, sanitary and isolation</p> <p>Refurbish and redecorate throughout</p> <p>Repair of the telephone system</p> <p>Repair of the water heating</p> <p>Repair of the reservoir</p>					

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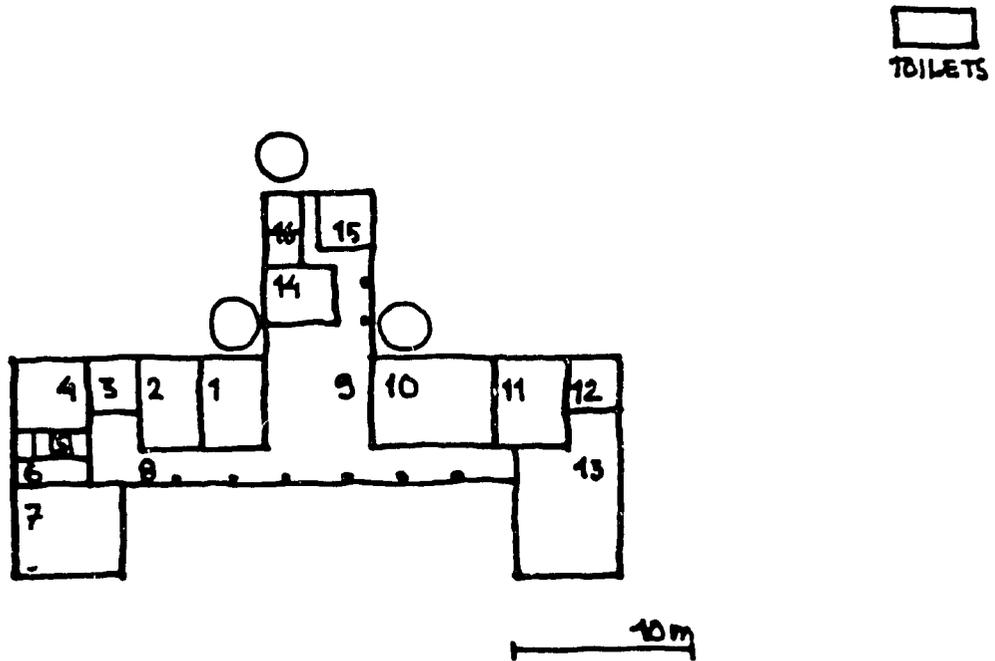
MASTERPLAN FOR:

NJORO HEALTH CENTRE

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MASTERPLAN FOR: NJORO HEALTH CENTRE

BLOCK PLAN LAYOUT OF BUILDINGS ON SITE



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MASTERPLAN FOR: NJORO HEALTH CENTRE

LAYOUT PLANS OF INDIVIDUAL BLOCKS : COMMENTS

GOOD POINTS:

- spacious site
- the building is generally in reasonable good physical condition

BAD POINTS:

- several rooms are functionally too large and used at the same time for different purposes
- because of the lack of water facilities are underutilized as laboratory, maternity (since 1986)
- construction work is of bad quality
- transport problems/lack of vehicles
- security problems (nothing happened yet)

COMMENTS:

- designed for a hospital 1979

PROPOSALS:

- the water problem should be solve_
- changing some room partitions
- renovating and reparating throughout
- roof valley should be repaired
- depending on the extend of functions - either enlargement or construction of the maternity ward.

MASTERPLAN FOR: NJORD HEALTH CENTRE

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK / ROOM	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
A 1		17	1979	2	3	2	2(3)	2	2/3	3/4	3	2	
B 2		12		4	4	2(3)	2	2(3)	2/3	3/4	3	2	
C 3		9		2	3	2	2	2	2/3	3/4	3	4	
D 4		16		3	3	2	2	2	-	-	3	2	
E 5		4			3	2	2	2	2/3	3/4	3	2	UNUSED
F 6		6			3	2	2	2	2/3	3/4	3	2	UNUSED
G 7		30		4	3	2	2	2	2/3	3/4	3	3	
H 8				1	3	2	-	2	-	-	3	-	
I 9				1	3	2	-	2(3)	-	-	3	-	
J 10		35		4	2	2	2	3	2/3	3/4	3	2	
K 11		20		1	3	2	2	2(3)	2/3	3/4	3	2	
L 12		9		2	3	2	2	2	2/3	3/4	3	2	
M 13		48		2	3/4	2(3)	2(3)	2(3)	2/3	3/4	3	2	
N 14		12		2	3	2	2	2	-	-	3	2	
O 15		9		2	3	2	2	2	2/3	3/4	3	2	
P 16		8		-	2	2	2	2	2/3	3/4	3	2	UNUSED
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													

COMMENTS: ALL CEILINGS NEED REPAIR AND REPAINTING
 ALTHOUGH ROOF DOESNT LEAK
 THE SANITARY INSTALLATION IS GENERALLY IN CONDITION 2/3
 THE WATER SYSTEM IS GENERALLY IN CONDITION 3/4
 THE ELECTRICAL INSTALLATION IS GENERALLY IN CONDITION 3

- FOR DESCRIPTION OF CONDITION:
- 1 = GOOD
 - 2 = MEDIUM
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: NTORO HEALTH CENTRE

MECHANICAL ENGINEERING, WATER AND DRAINAGE:
EXISTING CONDITIONS

A MECHANICAL		CONDITION
1	STEAM SYSTEM - none	
	Boilers	-
	Pipe system	-
	Distribution points	-
2	KITCHEN EQUIPMENT - none	
	Cookers	-
	Boilers	-
	Ovens	-
	Refrigerators	-
	Freezers	-
	Other equipment	-
3	LAUNDRY EQUIPMENT - none	
	Washing machines	-
	Dryers	-
	Ironing machine	-
4	COLD STORES - none	
	Food stores	-
	Pharmacy stores	-
	Body chambers	-
5	VENTILATION - none	
	AC plant	-
	AC units	-
	Ventilation	-

B WATER AND DRAINAGE		
6	WATER SYSTEM	
	Wells none, connection to town mains.	5
	Reservoir - collection of rainwater	3
	Pumps - none	-
	Mains reticulation - in order	1
	Water heating - in order	3
7	DRAINAGE	
	Sewage - septic tank, emptying every 3-4 months.	2
	Top-water - collection from asbestos roofs.	4
	Reticulation - in order.	2

o Water supply has not functioned since 1986

- FOR CONDITION:
- 1 = GOOD
 - 2 = SATISFACTORY
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

A ELECTRICAL POWER SUPPLY		CONDITION
1	SUBSTATION - ingen	
	Situation - Earth cable from main line on road.	2
	Voltage - 380V/220V.	2
	Load breaker in meter board.	3
	Outgoing lines A None	-
	B	-
	C	-
	D	-
	Power demand sufficient	2
2	EMERGENCY SUPPLY - none	
	A	-
	B	-
	C	-
3	MAINS DISTRIBUTION See above	
	Switch boards	-
	Mains distribution	-
	Outgoing feeder A	-
	B	-
	C	-
	D	-
	E	-
	F	-
	Distribution protection Earthing: should be checked	3
4	OVERVOLTAGE PROTECTION None.	-

B ELECTRICAL INSTALLATIONS

5	INSTALLATIONS IN BUILDING	
	Distribution boards In meter board	3
	Installations mixed conduit/cable 20% should be replaced.	3
	Socket, power outlets 25% should be replaced.	3
6	STREET LIGHTING - minimal on buildings.	3
7	TELEPHONES SYSTEM	
	Switch board - none	-
	Trunk lines - 1 works only sporadically.	3
	Extensions - None. local. app. in delivery is required.	4

- FOR CONDITION:
- 1 = GOOD
 - 2 = SATISFACTORY
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

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MASTERPLAN FOR: NJORO HEALTH CENTRE.

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION	MANUFACTURER & NUMBER	YEAR OBTAINED	CONDITION	CAPACITY/REMARKS
OP.TH. LAMPS	OP. THEATRE	Ingen. None.			
OP.TH. TROLLEYS		None			
OP.TH. STANDBY BATTERY		None			
SURGICAL DIATHERMY		None.			
STERILIZERS	10/30/	2/1	-	1	
SUCTION PUMPS					
MEDICAL GASSES					
VENTILATORS					
ANESTHETIC MACHINE					
DIALYSIS MACHINE					
INFANT INCUBATORS					
ECG'S					
MONITORING EQUIPMENT	ICU	None			
SHORT WAVE DIATHERMY					
DEFIBRILLATORS					
DENTAL CHAIR UNITS	DENTIST				
AMALGAM STIRRERS					
DENT. X-RAY FILM DEV.					
X-RAY FILM DEVELOP.					
X-RAY EQUIPMENT.					
PH. METERS	LABORAT				
SPECTROPHOTOMETER					
CENTRIFUGES	3	1	-	1	
HOT AIR OVEN		None			
BALANCES		None			
MICROSCOPES	3	1	-	1	
FLAME PHOTOMETER		None			
WATER SOFTENER		None			
WATER DISTILLER		None			
VIBRATOR	3	1	-	1	
STANDBY GENERATOR					
VENTILATION UNITS					
BOILER UNITS					
INCINERATORS					
		None			
SHEETS/PILLOWCASES					
UNIFORMS					
NIGHT CLOTHES					

FOR DESCRIPTION OF CONDITION:

- 1 - SATISFACTORY WORKS AT THE TIME
- 2 - BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
- 3 - BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
- 4 - NEVER WORKS, REPLACEMENT REQUIRED
- 5 - NEVER COMMISSIONED/INSTALLED

MASTERPLAN FOR: NIOBO HEALTH CENTRE

PRODUCTION/CAPACITY

NUMBER OF PATIENTS	ON DAY OF SURVEY	THEORETICAL			COMMENTS
		PER DAY	PER WEEK	PER YEAR	
OUTPATIENT CONSULTATIONS	168 1989				
General outpatients	112				
Pediatric O/P					
Maternity ante NATAL	27	240			
Mother and child	31	50			
TB FAM PL-1 111/2	-	40			
SPECIALIST CONSULTATIONS	180				
Doctor					
Other specialists					
RADIOLOGY					
X-rays A					
B					
C					
D					
SURGERY					
Minor operations					
Major surgery					
LABORATORY TESTS					
Clinical chemistry					
Microbiology					
Other					
KITCHEN					
Number of portions					
LAUNDRY					
Linen					
Uniforms					
Blankets					
IN-PATIENTS					
Surgery male					
Surgery female					
Medical male					
Medical female					
Pediatrics					
Pediatrics isolation					
Isolation					
Maternity		7			
DELIVERY					
Births		6			

RENOVATION PLAN FOR:

REPAIRS REQUIRED

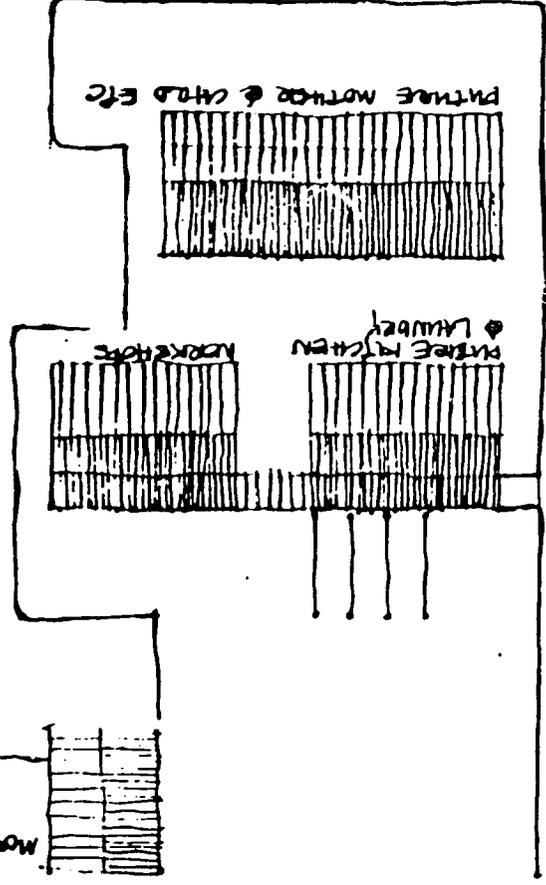
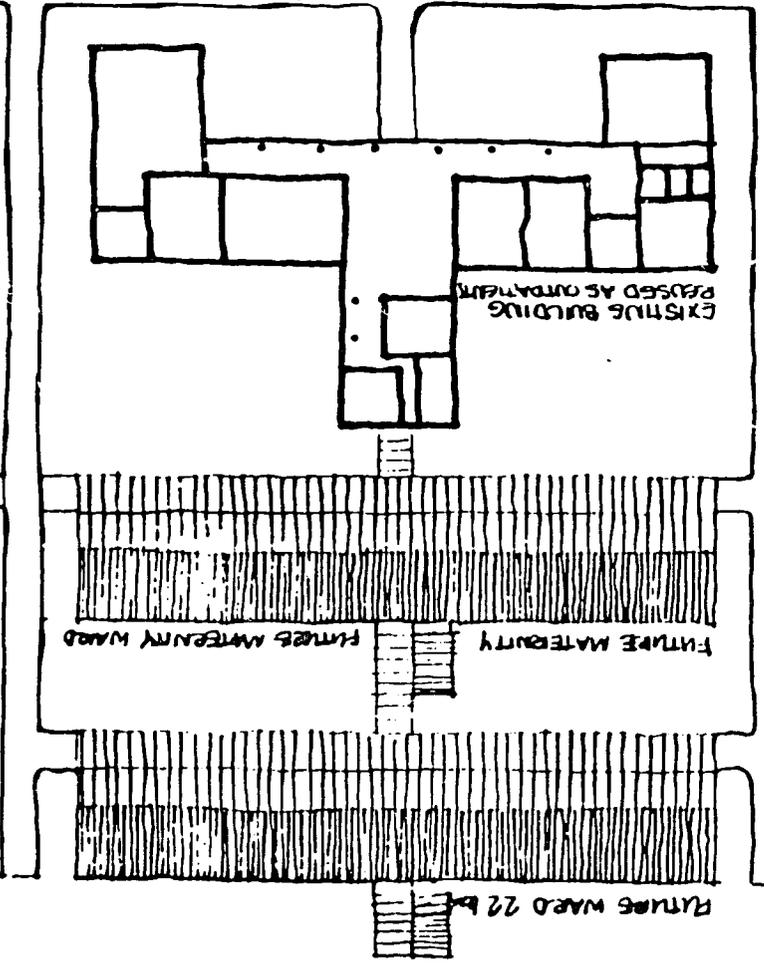
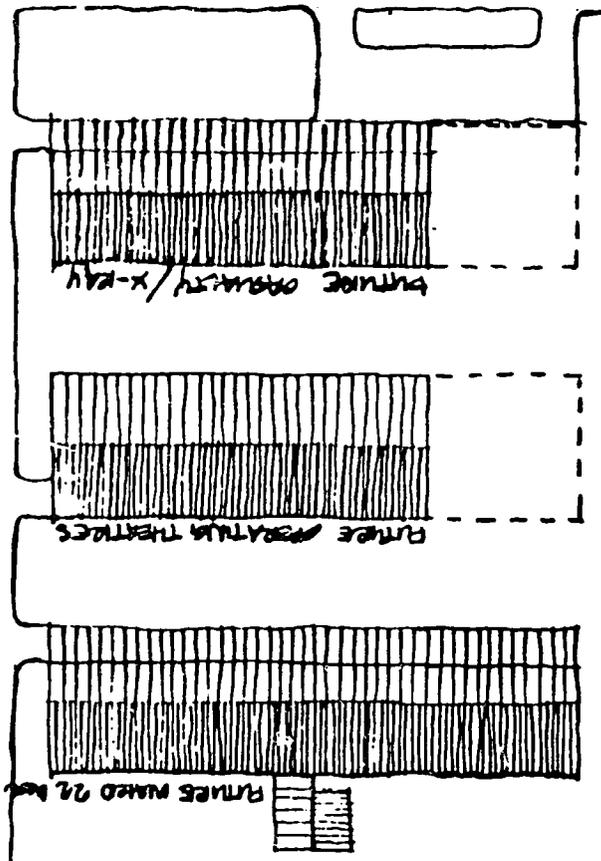
BLOCK	DEPARTMENT	AREA M ²	REPAIR ROOF / CEILING	REPAIR DOORS AND WINDOWS	REPAIR FLOOR	REPLACE SANITARY	REFURBISH WATER AND DRAINING	REFURBISH ELECTRIC. INSTALL.	REPLACE IRONMONGERY	REALLOCATE PARTITIONS	REFURBISH AND REDECORATE			
	ELEMPGRIJHC		20/20%	20%	60%	25%	10%	15%	20%	-	100%			
	NIJORD H.C.		10/98%	20%	-	25%	80%	20%	30%	⊖	100%			
	MOGOTIO H.C.		30/6%	15%	-	50%	80%	80%	10%	-	100%			
	LAIYALAIYIA		57/3%	20%	20%	40%	50%	50%	20%	10%	100%			
	MERCY (In. ca.)		30/40%	30%	20%	30%	15%	20%	35%		100%			
	NAKURU													
	- OLD BUILDS					75%	50%	60%						
	- NEWER B. (KITCH. WAREH. HOOT. BOND P.H.)					50%	35%	40%						
	- OUTPATIENT BUILDINGS					25%	15%	25%						
	DR. IENI DISP. AT NAIVASHA		10/20%	10%	20%	50%	50%	20%						
	NDABIBI HD		100/50%	20%	-	-	50%	100%						
	KARATE HD		100%	100%	100%	100%	100%	100%	100%		100%			

MASTERPLAN FOR: NJORO HEALTH CENTRE

LIST OF PROPOSED CAPITAL PROJECTS

PROJECT	ESTI-MATED COST	PRIO-RITY	EFFECT ON RECURR. COST	PREPA-RATION MONTHS	COMPLE-TION MONTHS
<p>Minor repair of roof construction and cover</p> <p>Reorganisation of crowded functions - changes in room partitions:</p> <ul style="list-style-type: none"> - MCA functions/family planning - dressing/infection - dispensing/store - delivery/maternity <p>Extension or building of the maternity ward (incl. deliv. and kitchen facilities) depending on the extract of functions</p> <p>Removing and painting of ceiling</p> <p>Minor repair of doors windows and ironmongery (security)</p> <p>Refurbish water and drainage (toilets!)</p> <p>Minor replace of sanitary</p> <p>Provide telephone connection to delivery</p> <p>Refurbish and redecorate throughout, refurbish electrical installations</p>					

WARD HEALTH CENTRE
PROPOSED MASTERPLAN FOR
FUTURE DEVELOPMENT.



MORNING

MASTERPLAN FOR:
KARATE DISPENSARY

MASTER PLAN FOR: KARATE DISPENSARY

LAYOUT PLANS OF INDIVIDUAL BLOCKS : COMMENTS

GOOD POINTS:

- spacious site on the hill

BAD POINTS:

- the whole building is falling down
- no water/difficult to get on the site
- no electricity in building, but on site

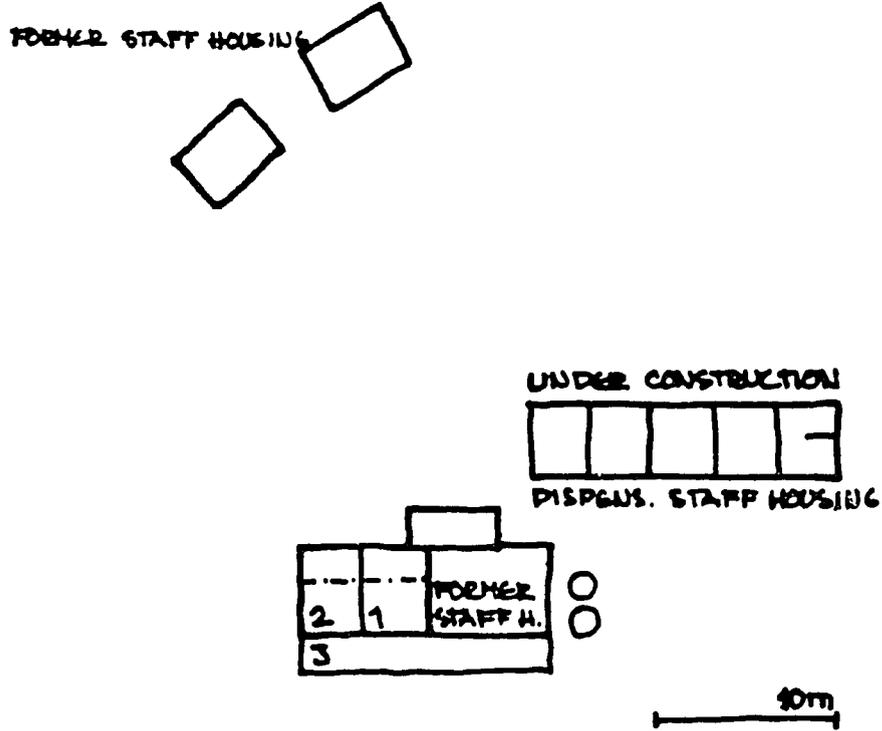
COMMENTS:

- new dispensary, two rooms under construction

PROPOSALS:

MASTERPLAN FOR: KARATE DISPENSARY

BLOCK PLAN LAYOUT OF BUILDINGS ON SITE



MASTERPLAN FOR: KARATE DISCIPLINARY

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
A	1	12		3/4	3/5	4	3	4/5	-	-	-	-	
B	2	12		2/4	3/5	4	3	4/5	-	-	-	-	
C	3	25		2	3/5	1	1	3	-	-	-	-	
D													
E													
F													
G													
H													
I													
J													
K													
L													
M													
N													
O													
P													
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													

COMMENTS: (5) THE BUILDING HAS BEEN CONDEMNED

- FOR DESCRIPTION OF CONDITION:
- 1 = GOOD
 - 2 = MEDIUM
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - (5) = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: KARATE DISPENSARY.

MECHANICAL ENGINEERING, WATER AND DRAINAGE:
EXISTING CONDITIONS

A MECHANICAL		CONDITION
1	STEAM SYSTEM - None	
	Boilers	-
	Pipe system	-
	Distribution points	-
2	KITCHEN EQUIPMENT - None	
	Cookers	-
	Boilers	-
	Ovens	-
	Refrigerators	-
	Freezers	-
	Other equipment	-
3	LAUNDRY EQUIPMENT - None	
	Washing machines	-
	Dryers	-
	Ironing machine	-
4	COLD STORES - None	
	Food stores	-
	Pharmacy stores	-
	Body chambers	-
5	VENTILATION - None	
	AC plant	-
	AC units	-
	Ventilation	-

B WATER AND DRAINAGE

6	WATER SYSTEM	
	Wells - none	-
	Reservoir - 2 tanks filled periodically by tankers.	4
	Pumps - none	-
	Mains reticulation - none	-
	Water heating - none	-
7	DRAINAGE - none	
	Sewage -	-
	Top-water - surface drainage	-
	Reticulation	-

FOR CONDITION:

- 1 - GOOD
- 2 - SATISFACTORY
- 3 - POOR
- 4 - UNACCEPTABLE
- 5 - URGENT REPLACEMENT IS NECESSARY

A ELECTRICAL POWER SUPPLY		CONDITION
1	SUBSTATION - none	
	Situation - New reticulation considered (in new bldg)	2
	Voltage - 220 V	2
	Load breaker none	-
	Outgoing lines A	-
	B	-
	C	-
	D	-
	Power demand 5-10 KVA.	2
2	EMERGENCY SUPPLY - none	
	X	-
	B	-
	C	-
3	MAINS DISTRIBUTION - none	
	Switch boards	-
	Mains distribution	-
	Outgoing feeder A	-
	B	-
	C	-
	D	-
	E	-
	F	-
	Distribution protection - none	-
4	OVERVOLTAGE PROTECTION - none	-

B ELECTRICAL INSTALLATIONS

5	INSTALLATIONS IN BUILDING - none	
	Distribution boards	-
	Installations	-
	Socket, power outlets	-
6	STREET LIGHTING - none	-
7	TELEPHONES SYSTEM - none	
	Switch board	-
	Trunk lines	-
	Extensions	-

FOR CONDITION:

- 1 = GOOD
- 2 = SATISFACTORY
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

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MASTERPLAN FOR: KARATE DISPENSARY

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION	MANUFACTURER & NUMBER	YEAR OBTAINED	CONDITION	CAPACITY / REMARKS
OP. TH. LAMPS	OP. THEATRE				
OP. TH. TROLLEYS					
OP. TH. STANDBY BATTERY		- None			
SURGICAL DIATHERMY					
STERILIZERS	Injection. R	1.	1.	2.	
SUCTION PUMPS					
MEDICAL GASSES					
VENTILATORS					
ANESTHETIC MACHINE					
DIALYSIS MACHINE					
INFANT INCUBATORS					
EKG'S					
MONITORING EQUIPMENT	HSA				
SHORT WAVE DIATHERMY					
DEFIBRILLATORS					
DENTAL CHAIR UNITS	DENTIST				
AMALGAM STIRRERS					
DENT. X-RAY FILM DEV.					
X-RAY FILM DEVELOP.					
X-RAY EQUIPMENT.					
PH. METERS	LABORAT.	- None			
SPECTROPHOTOMETER					
CENTRIFUGES					
HOT AIR OVEN					
BALANCES					
MICROSCOPES					
FLAME PHOTOMETER					
WATER SOFTENER					
WATER DISTILLER					
STANDBY GENERATOR					
VENTILATION UNITS					
BOILER UNITS					
INCINERATORS					
SHEETS / PILLOWCASE					
UNIFORMS					
NIGHT CLOTHES					

FOR DESCRIPTION OF CONDITION:

- 1 - SATISFACTORY WORKS AT THE TIME
- 2 - BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
- 3 - BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
- 4 - NEVER WORKS, REPLACEMENT REQUIRED
- 5 - NEVER COMMISSIONED/INSTALLED

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MASTERPLAN FOR: KARATE DISPENSARY

PRODUCTION/CAPACITY

NUMBER OF PATIENTS	ON DAY OF SURVEY	THEORETICAL			COMMENTS
		PER DAY	PER WEEK	PER YEAR	
OUTPATIENT CONSULTATIONS					
General outpatients	50 *	100 .			
Pediatric O/P					
Maternity					
Mother and child					
TB					
SPECIALIST CONSULTATIONS					
Doctor					
Other specialists					
RADIOLOGY					
X-rays A					
B					
C					
D					
SURGERY					
Minor operations					
Major surgery					
LABORATORY TESTS					
Clinical chemistry					
Microbiology					
Other					
KITCHEN					
Number of portions					
LAUNDRY					
Linen					
Uniforms					
Blankets					
IN-PATIENTS					
Surgery male					
Surgery female					
Medical male					
Medical female					
Pediatrics					
Pediatrics isolation					
Isolation					
Maternity					
DELIVERY					
Births					
* USED TO BE OVER 100 BEFORE (COST SHARING) WAS INTRODUCED					

RENOVATION PLAN FOR:

REPAIRS REQUIRED

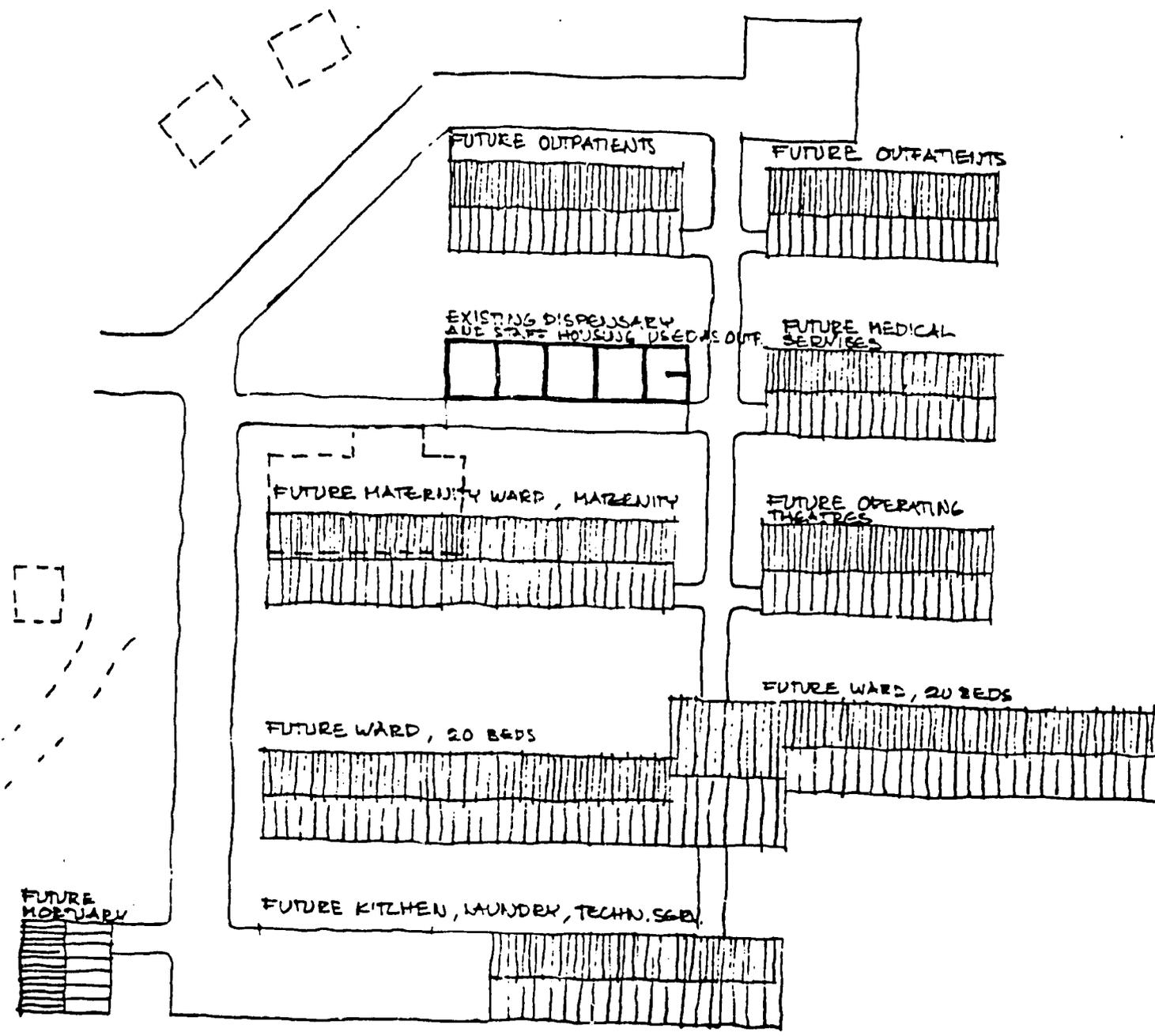
BLOCK	DEPARTMENT	AREA M ²	REPAIR ROOF / CEILING	REPAIR DOORS AND WINDOWS	REPAIR FLOOR	REPLACE SANI- TARY	REFURBISH WATER AND DRAINING	REFURBISH ELEC- TRIC. INSTALL.	REPLACE IRONMONGERY	REALLOCATE PARTITIONS	REFURBISH AND REDECORATE			
	ELEPHANTA H.C.		20%/20%	20%	60%	25%	10%	15%	20%	-	100%			
	NIJORO H.C.		10%/8%	20%	-	25%	80%	20%	30%	⊖	100%			
	MOGOTIO H.C.		30%/6%	15%	-	50%	80%	80%	10%	-	100%			
	LAIYAN LAIYAN		57%/3%	20%	20%	40%	50%	50%	20%	10%	100%			
	MERCY. (In r.c.)		30%/40%	30%	20%	30%	15%	20%	35%		100%			
	NAKURU													
	- OLD BUILDS					75%	56%	50%						
	- NEWER B. (KITCH. LABS, etc. MORT. ROOF P.H.) IN R.C.					50%	35%	40%						
	- OUTPATIENT BUILDINGS					25%	15%	25%						
	DR. KENNEDY DISP. AT NAIIVASHA		10%/20%	10%	20%	50%	50%	20%						
	NDABIBI HD		100%/5%	20%	-	-	50%	100%						
→	KARATE HD		100%	100%	100%	100%	100%	100%	100%		100%			

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MASTERPLAN FOR: KARATE DISPENSARY

LIST OF PROPOSED CAPITAL PROJECTS

PROJECT	ESTI- MATED COST	PRIO- RITY	EFFECT ON RECURR. COST	PREPA- RATION MONTHS	COMPLE- TION MONTHS
Demolition of the old building Construction of new dispensary (on-going)					



KARATE DISPENSARY
 PROPOSED MASTERPLAN FOR
 FUTURE DEVELOPMENT

30.8.1985 HK

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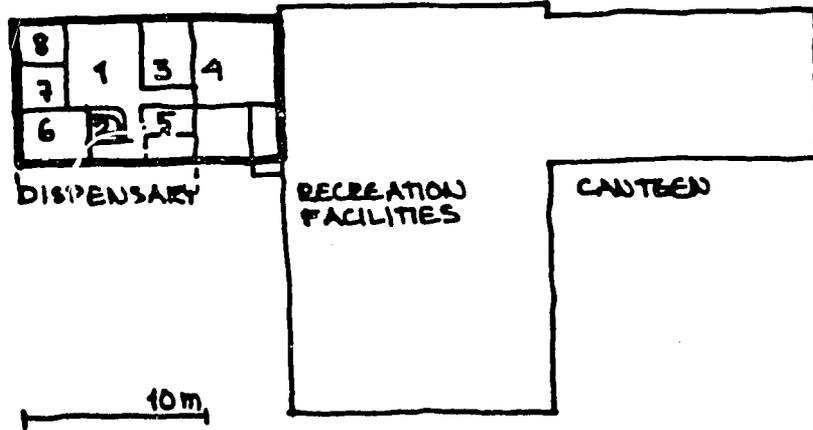
MASTERPLAN FOR:

NAIVASHA PRISON DISPENSARY

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MASTERPLAN FOR: PRISON DISPENSARY NAIVASHA

BLOCK PLAN LAYOUT OF BUILDINGS ON SITE



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MASTERPLAN FOR: PRISON DISPENSARY NAIVASHA

LAYOUT PLANS OF INDIVIDUAL BLOCKS : COMMENTS

GOOD POINTS:

- spacious site
- rooms are quite well maintained and clean
- waiting area spacious

BAD POINTS:

- some rooms quite small
- some treatment rooms without water installation
- furnishings quite poor

PROPOSALS:

- repair of the roof (if necessary) and replace some softboard plates
- repaint of walls and ceiling
- replace partly the ironmongery
- dressing room + supply room + new wall + water ?

MASTERPLAN FOR: PRISON DISPENSARY AT UJUKUHA

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
A 1	1	20	1970	2	2	2	2	2	-	-	2	2	
B 2		4		2	2	2	2	2	-	-	2	2	
C 3		12		3	2	3	2	2	2	2	2	2	
D 4		25		3	3	3	2	3	-	-	2	2	LEAKING ROOF?
E 5		9		4	2	2	2	2	-	-	2	2	
F 6		12		3	2	2	2	3	-	-	2	3	
G 7		7		2	2	2	2	2	3	3	2	3	
H 9		7		2	4	2	2	2	3	3	2	3	LEAKING ROOF?
I													
J													
K													
L													
M													
N													
O													
P													
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													

COMMENTS:

- FOR DESCRIPTION OF CONDITION:
- 1 = GOOD
 - 2 = MEDIUM
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

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A MECHANICAL	CONDITION
1 STEAM SYSTEM - None	
Boilers	-
Pipe system	-
Distribution points	-
2 KITCHEN EQUIPMENT - None	
Cookers	-
Boilers	-
Ovens	-
Refrigerators	-
Freezers	-
Other equipment	-
3 LAUNDRY EQUIPMENT - None	
Washing machines	-
Dryers	-
Ironing machine	-
4 COLD STORES - None	
Food stores	-
Pharmacy stores	-
Body chambers	-
5 VENTILATION - None	
AC plant	-
AC units	-
Ventilation	-

B WATER AND DRAINAGE	
6 WATER SYSTEM	
Wells - None from mains, often interrupted.	3
Reservoir - None	-
Pumps - None	-
Mains reticulation steel piping.	2
Water heating - None	-
7 DRAINAGE	
Sewage - To septic tanks, 3 no. OK	2
Top-water - to surface	3
Reticulation - none	2

FOR CONDITION:

- 1 = GOOD
- 2 = SATISFACTORY
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

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		CONDITION
A ELECTRICAL POWER SUPPLY		
1	SUBSTATION - None - direct from mains	-
	Situation - Dispensary - common with other buildings	2
	Voltage - 220 V	2
	Load breaker - Placed in other building	2
	Outgoing lines <i>A</i> None	-
	<i>B</i>	-
	<i>C</i>	-
	<i>D</i>	-
	Power demand in order	2
2	EMERGENCY SUPPLY - None	-
	<i>A</i>	-
	<i>B</i>	-
	<i>C</i>	-
3	MAINS DISTRIBUTION	-
	Switch boards - None	-
	Mains distribution - None	-
	Outgoing feeder <i>A</i>	-
	<i>B</i>	-
	<i>C</i>	-
	<i>D</i>	-
	<i>E</i>	-
	<i>F</i>	-
	Distribution protection Earthing should be checked.	3
4	OVERVOLTAGE PROTECTION None - OK.	-

B ELECTRICAL INSTALLATIONS

5	INSTALLATIONS IN BUILDING	-
	Distribution boards - Placed in main switch board	2
	Installations - in order. 10% to be replaced	2
	Socket, power outlets - in order. 10% to be replaced	2
6	STREET LIGHTING - None	-
7	TELEPHONES SYSTEM - None	-
	Switch board	-
	Trunk lines	-
	Extensions	-

FOR CONDITION:

- 1 = GOOD
- 2 = SATISFACTORY
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

MASTERPLAN FOR: NAIVASHA PRISON DISPENSARY

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION	MANUFACTURER & NUMBER	YEAR OBTAINED	CONDITION	CAPACITY/REMARKS
OP. TH. LAMPS	OP. THEATRE	none			
OP. TH. TROLLEYS					
OP. TH. STANDBY BATTERY					
SURGICAL DIATHERMY					
STERILIZERS	Injection rm	1	-	1	In order
SUCTION PUMPS					
MEDICAL GASSES					
VENTILATORS					
ANESTHETIC MACHINE					
DIALYSIS MACHINE					
INFANT INCUBATORS					
ECG'S					
MONITORING EQUIPMENT	TCU				
SHORT WAVE DIATHERMY					
DEFIBRILLATORS					
DENTAL CHAIR UNITS	DENTIST				
AMALGAM STIRRERS					
DENT. X-RAY FILM DEV.					
X-RAY FILM DEVELOP.					
X-RAY EQUIPMENT.					
PH. METERS	LABORAT.	none			
SPECTROPHOTOMETER					
CENTRIFUGES					
HOT AIR OVEN					
BALANCES					
MICROSCOPES					
FLAME PHOTOMETER					
WATER SOFTENER					
WATER DISTILLER					
STANDBY GENERATOR					
VENTILATION UNITS					
BOILER UNITS					
INCINERATORS					
SHEETS/PILLOWCASES					
UNIFORMS					
NIGHT CLOTHES					

FOR DESCRIPTION OF CONDITION:

- 1 - SATISFACTORY WORKS AT THE TIME
- 2 - BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
- 3 - BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
- 4 - NEVER WORKS, REPLACEMENT REQUIRED
- 5 - NEVER COMMISSIONED/INSTALLED

MASTERPLAN FOR: PRISON DISPENSARY AT NAIWASHA

PRODUCTION/CAPACITY

NUMBER OF PATIENTS	ON DAY OF SURVEY	THEORETICAL			COMMENTS
		PER DAY	PER WEEK	PER YEAR	
OUTPATIENT CONSULTATIONS	10-15	100			
General outpatients					
Pediatric O/P					
Maternity					
Mother and child					
TB					
SPECIALIST CONSULTATIONS					
Doctor					
Other specialists					
RADIOLOGY					
X-rays A					
B					
C					
D					
SURGERY					
Minor operations					
Major surgery					
LABORATORY TESTS					
Clinical chemistry					
Microbiology					
Other					
KITCHEN					
Number of portions					
LAUNDRY					
Linen					
Uniforms					
Blankets					
IN-PATIENTS					
Surgery male					
Surgery female					
Medical male					
Medical female					
Pediatrics					
Pediatrics isolation					
Isolation					
Maternity					
DELIVERY					
Births					

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RENOVATION PLAN FOR:

REPAIRS REQUIRED

BLOCK	DEPARTMENT	AREA M ²	REPAIR ROOF / CEILING	REPAIR DOORS AND WINDOWS	REPAIR FLOOR	REPLACE SANITARY	REFURBISH WATER AND DRAINING	REFURBISH ELECTRIC. INSTALL.	REPLACE IRONMONGERY	REALLOCATE PARTITIONS	REFURBISH AND REDECORATE			
	ELLENBOROUGH		20%/20%	20%	60%	25%	10%	15%	20%	-	100%			
	NIJORO H.C.		10%/8%	20%	-	25%	80%	20%	30%	⊖	100%			
	MOGOTIO H.C.		30%/6%	15%	-	50%	80%	80%	10%	-	100%			
	LAIYALAIYA		50%/3%	20%	20%	40%	50%	50%	20%	10%	100%			
	MERCY (In. r.)		30%/40%	30%	20%	30%	15%	20%	35%		100%			
	NAKURU													
	- OLD BUILDS					75%	50%	50%						
	- NEWER B. (KITCH. WASH. BATH. PORT. ROOMS)					50%	35%	40%						
	- OUTPATIENT BUILDINGS					25%	15%	25%						
←	DR. KENNEDY DISP. AT NAIYASHA		10%/20%	10%	20%	50%	50%	20%						
	NDABIBI HD		100%/50%	20%	-	-	50%	100%						
	KARATE HD		100%	100%	100%	100%	100%	100%	100%		100%			

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MASTERPLAN FOR: PRISON DISPENSARY AT NAIVASHA

LIST OF PROPOSED CAPITAL PROJECTS

PROJECT	ESTI- MATED COST	PRIO- RITY	EFFECT ON RECURR. COST	PREPA- RATION MONTHS	COMPLE- TION MONTHS
<p>Repair of roof cover (if needed) and replace some ceiling plates</p> <p>Minor changes in room partitions</p> <p>Extend sanitary installation to some rooms</p> <p>Refurbish water and drainage and electrical installations</p> <p>Minor refurbishing and redecoration throughout the building</p>					

MASTERPLAN FOR:

NDABIBI DISPENSARY

MASTERPLAN FOR: NDABIBI DISPENSARY

LAYOUT PLANS OF INDIVIDUAL BLOCKS : COMMENTS

GOOD POINTS:

- spacious site, 5000 acres (12.000 sqm.)
- rooms are clean and well maintained
- the furniture quite modest but neat (?)

BAD POINTS:

- no electricity
- roof has been leaking (nail pads)

COMMENTS:

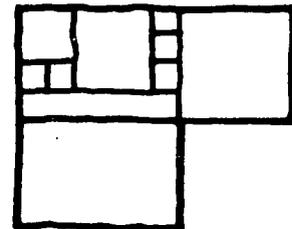
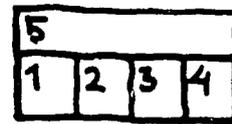
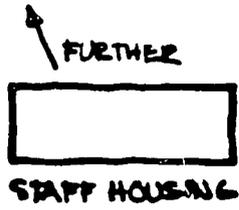
- layout for a health centre (1977) exists
- maternity ward (6 patients) under construction since 1988

PROPOSALS:

- electricity needed when maternity ward introduced
- repair of roof cover and replacing of the ceiling panels
- repainting of walls and replacing some ironmongery
- needs some furnishings

MASTERPLAN FOR: NDAIBI DISPENSARY

BLOCK PLAN LAYOUT OF BUILDINGS ON SITE



MATERNITY WARD
UNDER CONSTRUCTION (198

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MASTERPLAN FOR: NDABIBI DISPENSARY

BUILDING ELEMENTS: EXISTING CONDITIONS

BLOCK	NO. OF FLOORS	AREA M ²	APPROXIMATE YEARS OF CONSTRUCTION	FUNC. CONDITION	ROOF	WALLS	DOORS/WINDOWS	FLOORS	SANITARY INST.	WATER	ELECTRICAL	IRONMONGERY	COMMENTS
A 1	1	10	1982	2	3	2	2/3	2	1	1	1	3	
B 2		10		2	3	2	2/3	2	2	2	1	3	
C 3		10		2	3	2	3	2	2	2	1	3	
D 4		10		2	3	2	3	2	1	2	1	3	
E 5		25		2	3	2	1	2	1	1	1	3	
F													
G													
H													
I													
J													
K													
L													
M													
N													
O													
P													
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													

COMMENTS: ONLY COLD WATER
NO ELECTRICITY

- FOR DESCRIPTION OF CONDITION:
- 1 = GOOD
 - 2 = MEDIUM
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

A MECHANICAL	CONDITION
1 STEAM SYSTEM - none	
Boilers	-
Pipe system	-
Distribution points	-
2 KITCHEN EQUIPMENT - none	
Cookers	-
Boilers	-
Ovens	-
Refrigerators	-
Freezers	-
Other equipment	-
3 LAUNDRY EQUIPMENT - none	
Washing machines	-
Dryers	-
Ironing machine	-
4 COLD STORES - none	
Food stores	-
Pharmacy stores	-
Body chambers	-
5 VENTILATION - none	
AC plant	-
AC units	-
Ventilation	-

B WATER AND DRAINAGE

6 WATER SYSTEM	
Wells - none - water supply from adjacent farm	2
Reservoir None	-
Pumps None	-
Mains reticulation - steel piping OK	2
Water heating none	-
7 DRAINAGE	
Sewage - to septic tank	2
Top-water - surface	2
Reticulation - in order	2

FOR CONDITION:

- 1 = GOOD
- 2 = SATISFACTORY
- 3 = POOR
- 4 = UNACCEPTABLE
- 5 = URGENT REPLACEMENT IS NECESSARY

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A ELECTRICAL POWER SUPPLY		CONDITION
1	SUBSTATION - none	
	Situation	-
	Voltage	-
	Load breaker	-
	Outgoing lines A	-
	B	-
	C	-
	D	-
	Power demand	-
2	EMERGENCY SUPPLY - none	
	A	-
	B	-
	C	-
3	MAINS DISTRIBUTION - none	
	Switch boards	-
	Mains distribution	-
	Outgoing feeder A	-
	B	-
	C	-
	D	-
	E	-
	F	-
	Distribution protection - none	-
4	OVERVOLTAGE PROTECTION - none	-

B ELECTRICAL INSTALLATIONS		CONDITION
5	INSTALLATIONS IN BUILDING - none	
	Distribution boards	-
	Installations	-
	Socket, power outlets	-
6	STREET LIGHTING - none	-
7	TELEPHONES SYSTEM - none	
	Switch board	-
	Trunk lines	-
	Extensions	-

There are no electrical or telephone installations.

- FOR CONDITION:
- 1 = GOOD
 - 2 = SATISFACTORY
 - 3 = POOR
 - 4 = UNACCEPTABLE
 - 5 = URGENT REPLACEMENT IS NECESSARY

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MASTERPLAN FOR: NDABIBI, DISPENSARY.

KEY EQUIPMENT: EXISTING CONDITIONS

DESCRIPTION	LOCATION	MANUFACTURER & NUMBER	YEAR OBTAINED	CONDITION	CAPACITY/REMARKS
OP.TH. LAMPS	OP. THEATRE				
OP.TH. TROLLEYS		none			
OP.TH. STANDBY BATTERY					
SURGICAL DIAPHEM/STERILIZERS	Injection k.	1	1	1	In order
SUCTION PUMPS					
MEDICAL GASSES					
VENTILATORS					
ANESTHETIC MACHINE					
DIALYSIS MACHINE					
INFANT INCUBATORS					
ECG'S					
MONITORING EQUIPMENT	ICU				
SHORT WAVE DIATHERMY					
DEFIBRILLATORS					
DENTAL CHAIR UNITS	DENTIST				
AMALGAM STIRRERS					
DEVT. X-RAY FILM DEV					
X-RAY FILM DEVELOP.					
X-RAY EQUIPMENT.					
PH. METERS	LABORAT.				
SPECTROPHOTOMETER		none			
CENTRIFUGES					
HOT AIR OVEN					
BALANCES					
MICROSCOPES					
FLAME PHOTOMETER					
WATER SOFTENER					
WATER DISTILLER					
STANDBY GENERATOR					
VENTILATION UNITS					
BOILER UNITS					
INCINERATORS					
SHEETS/PILLOWCASES					
UNIFORMS					
NIGHT CLOTHES					

FOR DESCRIPTION OF CONDITION:

- 1 - SATISFACTORY WORKS AT THE TIME
- 2 - BREAKS DOWN OCCASIONALLY, BUT CAN BE REPAIRED
- 3 - BROKEN DOWN FOR SOME TIME NOW, SPARES ARE REQUIRED
- 4 - NEVER WORKS, REPLACEMENT REQUIRED
- 5 - NEVER COMMISSIONED/INSTALLED

NUMBER OF PATIENTS	ON DAY OF SURVEY	THEORETICAL			COMMENTS
		PER DAY	PER WEEK	PER YEAR	
OUTPATIENT CONSULTATIONS					
General outpatients	20	80			
Pediatric O/P					
Maternity					
Mother and child					
TB					
SPECIALIST CONSULTATIONS					
Doctor					
Other specialists					
RADIOLOGY					
X-rays A					
B					
C					
D					
SURGERY					
Minor operations					
Major surgery					
LABORATORY TESTS					
Clinical chemistry					
Microbiology					
Other					
KITCHEN					
Number of portions					
LAUNDRY					
Linen					
Uniforms					
Blankets					
IN-PATIENTS					
Surgery male					
Surgery female					
Medical male					
Medical female					
Pediatrics					
Pediatrics isolation					
Isolation					
Maternity					
DELIVERY					
Births					

RENOVATION PLAN FOR:

REPAIRS REQUIRED

BLOCK	DEPARTMENT	AREA M ²	REPAIR ROOF / CEILING	REPAIR DOORS AND WINDOWS	REPAIR FLOOR	REPLACE SANITARY	REFURBISH WATER AND DRAINING	REFURBISH ELECTRIC. INSTALL.	REPLACE IRONMONGERY	REALLOCATE PARTITIONS	REFURBISH AND REDECORATE			
	ELNEGWAHC		20/20%	20%	60%	25%	10%	15%	20%	-	100%			
	IIJORD H.C.		10/40%	20%	-	25%	80%	20%	30%	⊖	100%			
	MOGOTIO H.C.		30/60%	15%	-	50%	80%	80%	10%	-	100%			
	LAIYALAIKIA		50/30%	20%	20%	40%	50%	50%	20%	10%	100%			
	MERCY. (In c.)		30/40%	30%	20%	30%	15%	20%	35%		100%			
	IIAKIYU - OLD BUILDS					75%	50%	50%						
	- NEWER B. (KITCH. LABS, MORT. ROOMS, etc.)					50%	35%	40%						
	- OUTPATIENT BUILDINGS					25%	15%	25%						
	DISPENSARY AT IIAIYASHA		10/20%	10%	20%	50%	50%	20%						
	UDABIBI HD		100/50%	20%	-	-	50%	100%						
	KARATE HD		100%	100%	100%	100%	100%	100%	100%		100%			

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MASTERPLAN FOR: NDABIBI DISPENSARY

LIST OF PROPOSED CAPITAL PROJECTS

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PROJECT	ESTI- MATED COST	PRIO- RITY	EFFECT ON RECURR. COST	PREPA- RATION MONTHS	COMPLE- TION MONTHS
<p>Repair of roof cover</p> <p>Replace ceiling panels</p> <p>Refurbish and redecorate throughout</p> <p>Supply some new furnishings and equipment</p> <p>Construction of maternity ward</p> <p>Supply electricity</p>					