



BRIEFING DOCUMENT FOR THE
Concept Masterplan
OF SIX HOSPITALS IN SEYCHELLES

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HOSPITAL MASTER PLANNING IN SEYCHELLES

1 INTRODUCTION

This report has been prepared for the Seychelles Ministry of Health, and considers the existing Seychelles Health Facilities and their functioning, and seeks to propose a functional overlay in the form of a master plan, against which an improvement in services and spatial operational relationships can be proposed for implementation.

2 CLIENT'S BRIEFING DOCUMENT

At a meeting held on Monday 9 November 2015 at the Ministry of Health Offices at the Seychelles Hospital, Victoria, Mahé, attended by representatives of:

- The Ministry of Land Use & Housing, Planning Authority
- The Seychelles Ministry of Health & The Health Care Agency
- Dr Todorovic, Lead Health Planner
- Prodesign
- J&A Architects
- FGG Architects Inc.

The following aims and objectives were agreed upon as the basis for the re-planning of the existing government hospital facilities in the Seychelles:

3 AIMS

To develop a concept master plan for the redevelopment of tertiary and secondary health facilities in Seychelles in line with international standards and best practices in view of providing high class health services to the residents & visitors of Seychelles.

4 MASTER PLANNING OBJECTIVES

- To develop a master plan for Seychelles hospitals in line with British European Standards and to provide services and facilities, systems and functions that would meet requirements for a JCI accreditation
- To develop a master plan aligned with the Seychelles Strategic Plan prepared by the Planning Authority

- To prepare a master plan that will meet the demand for health care services for the next 20 years
- To prepare a phased implementation of the master plan which takes into account identified priorities of functions & services to meet demand for the next five years.
- To align implementation of the master plan so as to cause minimal disruptions to the hospital operations and making optimal use of land resources.
- To propose a financial plan associated with the phased implementation.

5 THE BRIEF

5.1 MASTERPLAN CONSIDERATIONS

The Masterplan shall take into consideration inter alia the following:

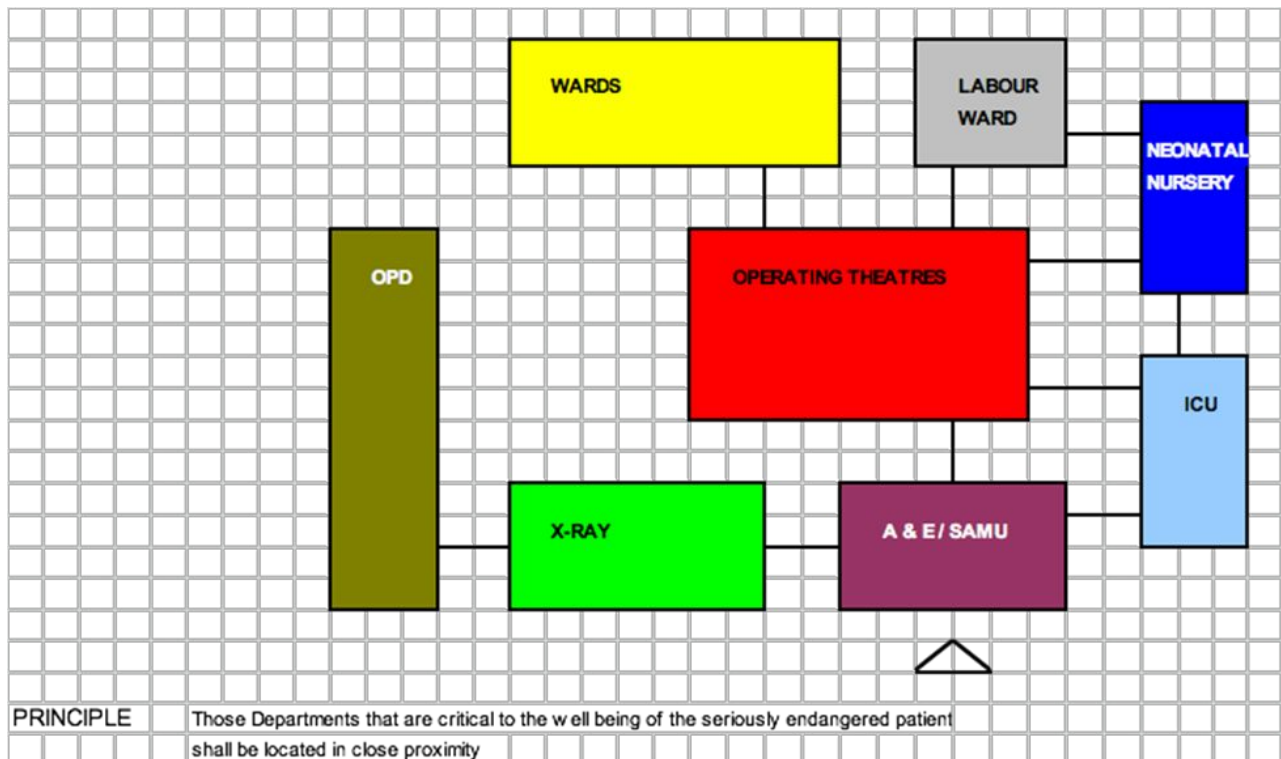
- Prepare a gap analysis between the current state of the services provided on the six hospitals and the requirements of JCI;
- Make a forecast of services which will be required over the next 20 years based on the health statistics and demographics evaluation of the islands;
- Identify new services which will be required to provide a comprehensive health service to the Seychellois in the short term /+ medium term (Next 5 years);
- Review existing standards, procedures, quality management systems and make proposals for complying with JCI standards;
- Survey existing biomedical engineering equipment and assess their conditions and suitability - Advise on re-use;
- Condition survey of all existing plant and equipment and advise on their state, due possibility for re-use and capacity to support for both medium and long term development;
- Review access and exit to the hospital vehicles, pedestrian and cycle access, painting, access and circulation to A&E, emergency access and exits – evacuation, access for fire engines;
- Address/Review the functionality and circulation within the hospitals with subordination in the system;
- Ensure smooth/proper space relationships and efficient workflow;
- Review current standards on safety and security and address issues with respect to requirements of JCI.

5.2 EXTENSION OF EXISTING SERVICES

An initial survey of the existing 6 medical facilities on Mahé (Victoria, North East Point, Anse Royale and Les Cannelles), and on Praslin and La Digue and in consultation with Dr. Todorovic, revealed that the extension of the following services are required to meet with adequate medical service requirements for Seychelles.

The existing and proposed facilities at the 6 Seychelles Health Facilities can be found listed in Appendix A and serve as a guide in rationalizing the following discussion.

The ideal relationship between critical departments in hospitals is as below:



5.3 VICTORIA HOSPITAL

- The current configuration of between existing buildings, hospital buildings at Victoria reveals an incremental growth pattern of building placement, with some compromising interventions in the interspaces, poor linkages and some functionally stretched relationships and a shortage of space.
- **OPD** – The hospital lacks a comprehensive Outpatients Department and it is proposed that the existing “Green Roof Building” be demolished to make way for new building to house: OPD consultation rooms, Ambulatory diagnostic services,

Doctors' offices, Day Care, vital signs, dressing, diagnostic with portable x-ray, blood sampling, minor non-invasive diagnostic procedures, gastroscopy, endoscopy, ECG, Ultrasound, cardiac ultrasound, stress testing, 1 minor OT (intervention room for minor procedures) and an OPD pharmacy. A small section is to be for 24/7 service. It is important to separate out-patients from the other functions of the hospital and the siting of this department near the main arrival point is opportune.

5.3.1 **Head and Neck Clinic/ Yellow Roof**

- It is proposed that the existing "Yellow Roof" building be converted into a Head and Neck Clinic with a new building block being inserted alongside the existing building and connected by a covered atrium, to add additional facilities for aligned services.
- Ophthalmology, Ear Nose and Throat, Dentistry, Maxillofacial and Cosmetology with Plastic Surgery.

5.3.2 **Doctors' Offices/Blue Roof**

As discussed, it is recommended that the existing non-hospital facilities be moved from the existing "Blue Roof" building, to make way for Doctors' offices. This building can also house facilities for non-communicable diseases.

5.3.3 **Operating Theatres – 5 Existing Theatres;**

2 Additional theatres recommended: Cardiac (hybrid OT) and Kidney OT - interconnected for Kidney transplants. Also to be used for orthopaedic or neuro-surgery; both with the ICU, and at the same level of Laboratories and CSSD, plus 2 theatres in the Yellow Roof for ENT, Ophthalmology, Dental and Plastic Surgery. (In total 4 New Theatres proposed). Again it is important to consider the relationship of the Theatres to the other essential areas (see diagram above). In the current situation, the distance between A&E and the Theatres is stretched, and there is little space for expansion of the Theatre Block;

The proposed extra theatres are mainly for additional specialisations. In relation to the position of the new theatres, the positioning of these to be such that would allow support services and staff to be optimised between the various OTs. The consultant was asked in looking at position of the OT's to also consider the long term in relation to structural condition of the existing theatres.

5.3.4 **I.C.U –**

Ideally the ICU should be directly accessible or in close proximity, and on the same level as the main Operating Theatres.

5.3.5 **Laboratories**

It is recommended that the Clinical labs be relocated to the 1st Floor of the Khalifa Building creating a real Diagnostic Centre. Accommodation should be provided for Clinical Pharmacology / Toxicology.

5.3.6 **Transfusion Centre**

The Blood Bank should be relocated to free space or sited under the existing the Paediatric Block or alternatively in the new OPD Building;

5.3.7 **Dialysis**

To be aligned with the location of the Kidney Centre

5.3.8 **Accident & Emergency**

to be reserved exclusively for ambulance or vehicle driven patients. Space is needed for patient drop-off with the possibility of the smooth flow of traffic in and out of this area.

5.3.9 **Bariatrics & Diabetic Centre**

A new facility is proposed for non-acute cases, to deal with the rise in need for this health problem in the community. This is not an essential element within the critical planning and can occupy space on the periphery of the hospital plan

5.3.10 **Oncology**

The current facilities are well located and offer patient consultation and Chemotherapy services;

5.3.11 **CSSD**

This must be located in close proximity to the Operating Theatres, but also enable access for vehicular servicing of the department, and for delivery to other hospitals.

5.3.12 **Wards**

There is a need to relook at the allocation of the Ward Blocks. Separation of Gynae Surgery from General Surgery is preferred, ideally in its own ward.

It is understood that to provide for the growing population, additional Maternity Ward space and beds are to be planned and provided for. This also holds true for the planning for an increase in size/beds for the Paediatric Wards. The new women & Children's hospital at Ile Perseverance being built under Grant of the Khalifa foundation, and was alerted that in considering future expansion of maternity & pediatric facilities these should rather feature at that site rather than at Seychelles Hospital. (the implementation of the project is to start early 2016).

Single Rooms should be provided within existing ward space for abdominal surgeries. It would be ideal to create a new Orthopaedic Centre or Wing which could include trauma surgery.

5.3.13 **Physiotherapy**

The Hospital's Ward Physiotherapy department could remain in its existing position and possibly extended, but with outpatient Physiotherapy being provided at ground floor level in the new OPD Building;

5.3.14 **Psychiatry**

It is recommended that the acute psychiatric facilities are relocated back to Victoria and that a new building be created for this purpose. Chronic cases are to remain at the regional hospitals.

5.3.15 **New Services Centre**

It would be beneficial to create a new home for Kitchen facilities, Laundry, Medical Stores, Waste Management and accommodation for the Bio-Technical Engineers, to be located near to the existing Maintenance Workshops;

5.3.16 **Mortuary**

Demolish the existing facility to make way for parking and create a new facility located near to the proposed new circulatory road and adjacent to the Services centre. Provision to be made for Pathology and family waiting and viewing.

5.3.17 **Heli-Pad**

Provision must be made on the hospital property for emergency helicopter landings, to ferry in emergencies and tertiary care patients from the Islands.

5.3.18 **Nursing School**

As this is the major tertiary hospital in the country, it is appropriate that the location of the Nursing School be on this site. The site of the existing Nursing School ruin would be suitable for this facility.

NEW FACILITIES

5.3.19 **Parking**

A major problem on the hospital site relates to vehicular movement and parking facilities. Visitors and family members clog the existing vehicular pathways and there are inadequate parking spaces for a hospital of this magnitude. Parking for Staff and Visitors should be provided along the edge of the hospital property with ease of access from the main feeder routes.

5.3.20 **Ambulance parking**

Ambulance parking and docking station should be provided alongside a new service circulatory route around the site, and located near to the Services area

5.3.21 **Staff and Visitor Accommodation**

It is recommended that a new building be constructed to house visiting doctors and their families, nurses, foreign consultants, and the families of patients from the other islands.

5.3.22 **Cardio-Vascular Centre**

Create a new facility at Theatre level in close proximity to the ICU, and it can share the OT with kidney transplants.

5.3.23 **Kidney Transplant Theatre**

See Items 4.2.4 and 4.3.3 above. This can also be used for Neurosurgery and Orthopaedics).

5.3.24 **New Admissions**

This is a problem in the current configuration and requires easy access for patient drop-off and access to the wards.

5.3.25 Isolation Wards

Provision is to be made within the existing hospital wards for patient isolation. Major epidemics are to be isolated at Anse Royale.

5.3.26 OTHER PROBLEMATIC SITE LAYOUT CONSTRAINTS

It is functionally problematic having the Ministry of Health offices and Public Health Laboratories located, in essence, in the centre of the hospital, and consideration should be given to the Department's relocation to outside of the hospital precinct. This relocation will assist in the creation of new axial links along existing corridors within this building.

The existing Public Laboratory is situated near the heart of the hospital site, and this building is better allocated to critical hospital functions;

Public Health Services, currently located in the "Blue Roof" building are better located away from the central operations of the hospital. The existing functions located on the upper floor of the Khalifa Building should make way for the relocated laboratories.

5.3.27 CSSD to transfer to the actual ICU

CSSD to transfer to the actual ICU or alternatively first floor Sheik Khalifa building next to OT.

5.3.28 IT Centre

Existing position could make way for additional Clinical Services(Transfusion Centre), with the relocation of IT Services to the Red Roof Building with other hospital administration and teaching facilities.

SECONDARY CARE HOSPITALS

5.4 North East Point

5.4.1 Services to cover:

- Geriatric care
- Chronic medical and post-traumatic care
- Rehabilitative Care
- Chronic Psychiatric care
- Terminal care

The hospital needs to develop

- 24 hour service for in and out patients for acute care for the North of Mahé.
- Emergency casualty service.
- Evacuation unit with ambulance
- Lab Ultrasound and X-Ray

5.4.2 **Minor procedures room**

5.4.3 **Pharmacy, Dentistry, Dietician and Physiotherapist**

5.4.4 **Waste management**

5.5 **ANSE ROYALE**

This fully fledged hospital is ideal for acute care.

There is currently space for Helicopter access to this hospital.

Regarding isolation hospital facilities, It rather proposed that facilities appropriate for such use should be considered at different regional centres.

5.6 **LES CANNELLES**

Chronic care and the rehabilitation centre are to be maintained at this facility.

5.7 **PRASLIN HOSPITAL**

For acute and chronic secondary care in Praslin and La Digue. It is recommended that an Isolation Ward is added together with visitor accommodation on the property.

5.7.1 **Dialysis**

The existing Dialysis centre must be reorganized and the OT, ICU and CSSD relocated and reorganized.

5.7.2 **Physiotherapy, Pharmacy, Dentistry and Dietician**

These services should be in permanent service.

5.7.3 Kitchen and Laundry

Should be provided on site

5.7.4 Emergency evacuation

Ambulance and evacuation facilities to Mahe should be provided

5.8 LA DIGUE

Existing facility to be extended to a primary health centre with flexibility for extension.

5.8.1 New building

Consultation rooms for visiting specialists including eye and ENT, gynaecology and surgery, physicians, emergency room with ambulance access, evacuation facilities, pre evacuation observation bay (icu) with a minor OT t(procedure room) for life saving procedures when needed, and a labor delivery.

5.8.2 Physiotherapy, Pharmacy, Dentistry and Dietician

Should be in permanent service.

5.8.3 Dialysis

Single dialysis facility with a mobile water plant or home dialysis program to be provided.

5.8.4 Laboratory

Small Laboratory for on the spot results needed.

5.8.5 Imaging

X-Ray and Ultrasound imaging needed

5.8.6 STP and waste management

On site treatment required.

5.8.7 Kitchen, Laundry and Store Rooms

Needed onsite

5.8.8 **Accommodation facilities**

Facilities for visiting staff required.