



## THE URBAN DEVELOPMENT CORPORATION OF TRINIDAD AND TOBAGO LIMITED (UDECOTT)

# REQUEST FOR PROPOSALS FOR DESIGN BUILD EQUIP SERVICES FOR THE NEW CHAGUANAS HEALTH FACILITY

The Urban Development Corporation of Trinidad and Tobago Limited, (UDECOTT) invites suitably qualified and experienced entities to submit proposals for **Design Build Equip Services for the New Chaguanas Health Facility**.

In accordance with the Public Procurement and Disposal of Public Property Act, 2015 (as amended), suppliers of goods, works and services, interested in conducting business with UDeCOTT must be registered on the OPR Procurement Depository. The relevant guidelines for registration can be found on the OPR website via <https://oprtd.org/procurement-depository/>. Therefore, UDeCOTT is inviting suitably qualified suppliers to register and apply for pre-qualification in the OPR's Procurement Depository for the following:

Line of Business Code: 72121101 - Commercial and office building new construction service.

A request for the RFP packages can be submitted via email to [tenders@udecott.com](mailto:tenders@udecott.com) from **Monday, November 18, 2024 (excluding weekends and public holidays)**, between the hours of **9:00 a.m. to 4:00 p.m. (AST)**.

The successful contractor shall be chosen using competitive selection process as set out in the Request for Proposal (RFP).

### **INFORMATION SESSION AND SITE VISIT**

An **Online Information Session** will be held **via Microsoft Teams on November 22, 2024 at 10:00 a.m.** A **Site Visit** will be held on **November 22, 2024 at 2:00 p.m.** at The Site, Soogrim Trace Chaguanas.

Interested parties are kindly asked to confirm their availability, together with the **names and preferred email addresses** of their representatives who will be in attendance, via email to [tenders@udecott.com](mailto:tenders@udecott.com) by Tuesday November 22, 2024 at 8:00 a.m.

### **SUBMISSION**

Proponents are advised that submissions must include ALL the documents as set forth in the RFP and must be in accordance with the terms therein. **Failure to do so may result in disqualification.**

The deadline date for submission of proposals is **December 13, 2024 (AST)**.

Additional information may be requested through email forwarded to the attention of **The Office of the Chief Procurement Officer** at [tenders@udecott.com](mailto:tenders@udecott.com).

UDECOTT reserves the right to reject any or all proposals for failure to comply with any mandatory requirements stated in the RFP.

Please visit our website at [udecott.com](http://udecott.com) for further details and updates.

**THE OFFICE OF THE CHIEF PROCUREMENT OFFICER**

## **FREQUENTLY ASKED QUESTIONS (FAQs)**

### **FOR DESIGN BUILD EQUIP SERVICES FOR THE NEW CHAGUANAS HEALTH FACILITY**

#### **What is the purpose of this Request for Proposal?**

The purpose of this Request for Proposal is to identify and contract a suitably qualified and experienced contractor with the specialised expertise necessary to undertake the Project.

#### **Are Proponents required to purchase the RFP package?**

There will be no cost for the RFP package.

#### **Are interested parties required to register with the Office of the Procurement Regulator?**

Proponents are advised that in light of the proclamation of the Public Procurement and Disposal of Public Property Act, 2015, all proponent interested in conducting business with UDeCOTT must be registered on the OPR Procurement Depository. The relevant guidelines for registration can be found on the OPR website via <https://oprtd.org/procurement-depository/>. Proponents are required to apply for pre-qualification in the OPR's Procurement Depository for the following:

Line of Business Code: 72121101 - Commercial and office building new construction service.

#### **What is the Location of the site?**

The site is located along Soogrim Trace, Endeavour Chaguanas. The parcel of land is bounded on the north, east and the west by state lands and on the south by Soogrim Trace.

#### **Is it mandatory to attend the site visit and online information session?**

Attendance to the site visit and online information session is **not** mandatory. It does however provide a greater understanding of the requirements of the RFP.

#### **Are there any eligibility requirements for this Procurement Process?**

In order to be eligible for evaluation and/or consideration to provide the Services, Proponents must be able to demonstrate the following:

- Incorporation or otherwise registered to do business in Trinidad and Tobago **prior** to the award of any contract for the provision of the Works, as evidenced by the Certificate of Incorporation or Registration (as applicable),
- Submission of valid statutory clearance/compliance certificates, namely;
  - VAT Clearance Certificate; valid at the close of the tender
  - BIR Clearance Certificate; valid at the close of the tender
  - NIS Certificate of Compliance; valid at the close of the tender
- Submission of an Original Bid Bond

**Are Proponents required to submit a Bid Bond with their Proposals?**

This activity requires a Bid Bond in the value of Five Hundred Thousand Trinidad and Tobago Dollars (TT\$500,000.00).

**What is the recommended team composition?**

At a minimum, the proposed Key Personnel should comprise the following:

1. Project Manager (1 No.)
2. Mechanical Engineer (1 No.)
3. Electrical Engineer (1 No.)
4. Structural Engineer (1 No.)
5. Architect (1 No.)

**Proponents are to note that the responses provided as guidance to these Frequently Asked Questions does not relieve the Proponent of its obligation and responsibility to fulfil and comply with all requirements of the Request for Proposal.**



## **USER BRIEF**

# **DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF THE NEW CHAGUANAS HEALTH FACILITY**

# Table of Contents

UB-1. Introduction .....	3
UB-1.1 Description .....	3
General considerations .....	3
Community Profile .....	4
UB-1.2 Justification .....	5
Basic Health Centre Services: .....	5
Walk-in Services .....	5
Specialty Clinic - Community Eye Screening Services .....	6
Overview of the Proposed Clinical Operations of the New Chaguanas Health Facility .....	6
UB-1.3 The Site.....	7
UB-2.0 Facility Design .....	8
UB-2.1 Facility Design Codes and Standards .....	8
UB-2.2 FACILITY DESIGN OVERVIEW .....	12
UB-2.2.1. General Building Organization .....	12
UB-2.2.2. Clinic and Non-Clinic Support Space .....	12
UB-2.2.3. Infection Prevention and Control Requirements .....	14
UB - 2.2.3.2 Finishes.....	15
UB-2.2.4. Security.....	17
UB-2.2.5. Landscaping.....	17
UB-2.2.6. Air Conditioning and Air Exchange Systems.....	18
UB-2.2.7. Emergency Power.....	18
UB-2.2.8. Waste Treatment.....	18
UB-2.2.8.2 Medical/ Biomedical Waste.....	18
UB-2.2.9. Fire Detection, Alarm and Suppression System.....	19
UB-2.2.10. Elevator System.....	19
UB-2.2.11. Other Services and Performance Requirements Associated with the Project .....	19
UB-2.2.12. Non-Medical Furniture and Equipment and Medical Equipment .....	20
UB-2.2.13. Maintenance and Warranty .....	20
UB-3. Requirements.....	22
UB-3.1. Building Overview .....	22
UB-3.2. External Works.....	23
Ub- 4 : Summary Of Nominal Areas Per Activity Space.....	24
UB-5 User Space Requirements.....	28
Appendix 1 – Cadastral.....	162
Topographical Survey Report.....	162
Geotechnical Survey Reports .....	162
Appendix 2 – Non - Medical and MedicalEquipment Specifications.....	163
Non - Medical Equipment Specifications .....	164
Medical Equipment Specifications.....	169
Appendix 3 – ICT Requirements .....	225
A. Summary of ICT Requirements.....	226
B. Description of ICT Requirements .....	227
C. Table.....	244

# UB-1. Introduction

## UB-1.1 Description

The Government of the Republic of Trinidad and Tobago (GORTT) through the Ministry of Health (MoH) continues to improve the delivery of health care services in Trinidad and Tobago. In this regard, the MoH has obtained Cabinet approval for the construction of a New Chaguanas Health Facility.

It is proposed to construct a two-storey building with space for Administration, Treatment Rooms, Dental Clinic, Pharmacy, Imaging Services, Diagnostic Laboratory Services, Stress Relief Psychiatric Clinic, Five (5) Bedded Treatment Area, Health Information, Storage Area and Wellness Area; inclusive of all services, furniture, fixtures and medical and non-medical equipment, and all necessary external works, hereinafter referred to as the Project.

A key input to the design process is the definition of the philosophy of the Project, the user arrangement and the spatial requirements for this Project. The Employer's Requirements outline the functional and physical spatial needs for the organization and takes into account such elements as offices, washrooms, waiting areas, various treatment rooms, storage rooms, common areas, and other functional areas described below.

The purpose of this document is to provide a detailed description of the user and space requirements for the Project to guide Proponents in the preparation of their responses to the Request for Proposal (RFP) for the design and construction of the Project.

## **General considerations**

The Community Register derived from the 2011 Population and Housing Census conducted by the Central Statistical Office (CSO) identifies 85, 720 burgesses within the Borough of Chaguanas. A comparison with the CSO Census conducted in 2000 found an increase of 24.9% in the population of the Chaguanas Borough within this time period. This thus translates to a steadily incremental increase in the population of 2% per annum, making Chaguanas one of the fastest expanding municipalities within Trinidad and Tobago. This is as a direct consequence of a paradigm shift away from a traditional agro-based economy and towards an industry-based economy with progressively increasing commercial activity within its borders, establishment of trading ventures, development of small and medium scale industrial estates and the inevitable subsequent increase in the volume and density of residential settlements which follows these urbanization activities.

## Community Profile

The environs of the Chaguanas borough also services emerging communities abutting its boundaries, but which are under the geographic remit of other municipalities. Among these include those under the Couva/ Tabaquite/ Talparo Borough (inclusive of Cunupia, Las Lomas, Longdenville, Talparo and San Raphael among others) and the Tunapuna/ Piarco Borough (inclusive of Bamboo Grove, Caroni Village, Frederick Settlement and St Helena Village among others). With these additional burgesses cumulatively adding to the Chaguanas Borough, this approximates a serviceable catchment of approximately 102, 000 persons. The community thus requires access to a larger, secure health facility which will be poised to adequately acquiesce to the population requirement for the delivery of high quality, efficient and effective best practice health care services.

The location of the proposed new Chaguanas Health Facility off the Solomon Highway is perfectly sited to be able to provide this service in a centralized location. Its proximity along the major highway allows not only ease of access but also multiple points of entry and egress from the facility. Its location parallel to this major highway which connects north and south Trinidad also provides an early point of access for road traffic accidents which are a frequent occurrence along this significant vehicular route. Further, it is also ideally sited to be able to provide services for the small and medium industrial estates within its immediate environs, particularly since it encompasses a burns stabilization unit which can provide initial and appropriate intermediary medical care if required in the event of any industrial incidents. Additionally, its location allows a point for centralization of care for at-risk burgesses who are at risk of flooding related injury or illnesses during incidents of major flooding related disaster situations.

The inherent ability to provide these services will be further augmented by the assignment of a treatment area integrated into the facility which will facilitate the delivery of urgent care services ranging from stabilization to resuscitation capability, for unwell patients who present seeking care. This five-bedded area will have the capability for surge capacity up to fifteen beds in the event of a multiple casualty or mass casualty situations, or incidents and accidents as a consequence of vehicular, industrial or domestic activities.

## **UB-1.2 Justification**

### **Basic Health Centre Services:**

Basic health office services provided at all health centres include Chronic Disease Clinics, Child Welfare Clinics, Ante-natal and Post-natal Clinics along with General Walk-in services. The current projected population based on Redatam+SP-UNECLAC /CELDADE 2016 programme and using the ‘Trinidad and Tobago 2000 Population and Housing Census’ as the Data Base is estimated at 86,805 persons. The total patient contacts at the current Chaguanas Health Facility for the period October 2022 to September 2023 was 35,305. The Child Welfare Clinic (5,065 visits), Ante-natal Clinic (2,558 visits) and the Chronic Disease Clinic (8,951 visits) were the most utilized of all regional health centres, averaging 30% more than next highest utilized health centre.

Children account for 39.94% of the estimated population. The projected population growth in the Chaguanas area as a consequence of births and net migration is estimated to be a minimum 2% per annum.

The current space allocation at the retrofitted house where the health services are provided is significantly inadequate for the current utilization and would be overwhelmed by the projected growth over the next ten to fifteen years.

The proposed design and space allocation for basic health services is anticipated to provide clients and staff with a comfortable, safe and aesthetic environment for the delivery of health care to the current population and the estimated needs of a growing population over the next several years.

### **Walk-in Services**

The Ministry of Health’s Universal Access policy for clients presenting to our health facilities requires that these patients be screened and provided with services based on their needs and clinic resources. Traditionally, health centres are staffed based on the scheduled basic service they are expected to deliver on any particular day. When a “walk-in” patient presents on a day that is designated for a specified service (Chronic Disease, Child Welfare or Ante-natal Clinic) they may be required to wait based on their assessed priority of need, until scheduled clinics are completed. This situation often arises due to the tight allocation of stay for scheduled services. Patients however feel disenfranchised when they are asked to wait for service.

The Chaguanas Health Facility is expected to provide dedicated staff and space for the provision of urgent services to clients from the Chaguanas Borough and surrounding districts. The service is proposed to operate 24hrs. Additionally, the Walk-in and GP services accounted for 35,305 patient contacts at the Chaguanas Health Facility during the period October 2022 - September 2023. This service which is intended to run alongside the scheduled clinics is designed to improve access to health care services. The hidden benefits of the “walk-in” clinics are increased patient contacts which improves the chances of detecting chronic diseases and other health issues in the population. The service is proposed to operate from 8:00am to 8:00pm seven days a week.



## **Specialty Clinic - Community Eye Screening Services**

The diabetic association of Trinidad and Tobago estimates that there are approximately 178,000 persons in Trinidad and Tobago affected with Diabetes Mellitus. One of the main target organs for damage as a consequence of the diabetes are the eyes, resulting in Diabetic Retinopathy which can lead to blindness. Other eye conditions closely associated with diabetes mellitus are cataracts and glaucoma. Glaucoma and cataracts can also occur in the general population most often associated with aging but are also linked to other chronic health conditions such as hypertension and Asthma.

The total patient contacts at the chronic disease clinics at Chaguanas Health Facility was 8,951. It is believed that these figures represent only ten percent of all chronic disease patients in the Chaguanas area.

Eye disease as a consequence of Diabetes Mellitus, Hypertension, Age and other causes can have positive outcomes if they are detected early and treatment or interventions are started.

The proposed Ophthalmology Clinic at the new Chaguanas Health Facility is expected to provide eye screening services 8.00 am - 4.00 pm one day weekly, utilizing the services of an experienced ophthalmologist. This clinic would play a crucial role in providing support to the Eric Williams Medical Sciences Complex (EWMSC) and decrease the waiting times for that specialty service. By offering comprehensive eye examinations, including retinal disease screenings, to every diabetic patient on a yearly basis, the clinic aims to detect and manage potential eye-related complications associated with diabetes.

The establishment of this clinic not only benefits the Chaguanas Health Facility but also serves the surrounding healthcare institutions in the Borough of Chaguanas, which has an estimated population of 101,297 persons. By providing accessible eye screening services, the clinic contributes to the overall health and well-being of the community, ensuring early detection and intervention for any potential retinal diseases among diabetic patients.

## **Overview of the Proposed Clinical Operations of the New Chaguanas Health Facility**

This facility is expected to provide:

1. Basic Health Centre services
2. General Walk-in services
3. Specialty Clinical services inclusive of Diabetic Eye Screening Services, Cardiology, Urology, Ophthalmology, Dermatology, Obstetrics & Gynecology
4. Dental Services
5. Imaging Services: X-ray and Ultrasound
6. Pharmacy Services
7. Diagnostic Laboratory Services
8. Five Bedded Treatment Area
9. Stress Relief Psychiatric Clinic
10. Burns Stabilization Room
11. Allied Health Support Services: Phlebotomy, HIV Testing, Dietary Counselling and Social Welfare services.

## **UB-1.3 The Site**

This Site is situated in Chaguanas, in the County of Caroni, comprising 1.95 ha. The parcel of land is bounded in the vicinity of Heartland Plaza Endeavour, Chaguanas, Trinidad and Tobago.

It is anticipated that this area will be utilized for the design and construction of the new Chaguanas Health Facility with Driveways and Parking Lots, taking into consideration the necessary setbacks as prescribed in the Town and Country Planning regulations.

**Appendix 1** contains the cadastral, topographical and geotechnical survey reports.

The design, construction, equipping and all related works must be completed within twenty four (24) months.

This Employer's Requirements requires that the criteria governing the design and construction of the structure should be based on the;

Section UB-2: Facility Design

Section UB-3: Requirements

Section UB-4: User Space Requirements

Section UB-5: Summary of Nominal Areas per activity space

Section UB-6 Existing Designs and Specifications.

The Design/Build Contractor shall provide designs and specifications based on the Employer's Requirements for the New Chaguanas Health Facility. The designs shall ensure clarity of layout; spatial allocations and adjacencies, functionality; aesthetics; services; furniture, fixtures and equipment; external works; the number and types of persons to be accommodated; the desired level of security and any special needs pertinent to facilities of this nature, are all accommodated.

# UB-2.0 Facility Design

## UB-2.1 Facility Design Codes and Standards

Facility design and construction shall comply with all relevant codes and standards (or latest editions) in order to carry out a satisfactory design. The design shall include, at the minimum and are not limited to, the latest versions of the following standards:

### ARCHITECTURAL DESIGNS

- Facility Guidelines Institute (FGI) – 2022 or latest edition upon tender award
- Building Notes of the National Health Services (NHS) of UK (Latest Edition)
- International Code Council ICC codes and Standards
- Joint Commission International (JCI)
- Uniform Building Code (UBC) 1997
- National Fire Protection Association (NFPA)
- Standard 72, National Fire Alarm and Signalling Code
- Standard 80, Standard for Fire Doors and Other Opening Protectives
- Standard 99, Health Care Facilities Code
- Standard 101, Life Safety Code
- Uniform Fire Code (UFC) 2000 Uniform DO 58 Structural Fire Code
- Underwriter’s Laboratories Inc. (UL)
- National Electrical Manufacturer Association (NEMA)
- Americans with Disabilities Act Accessibility Guidelines (ADAAG) – Barrier Free Plumbing Fixtures
- American National Standards Institute (ANSI)
- 2006 International Building Code (IBC)
- User Groups: IBC 302.1
- Height & Area Limitations: IBC Table 503
- Construction Type: IBC 602.1
- Fire Resistance Rating: IBC 702/ 704
- Smoke Control System: IBC 909
- Maximum Length of Travel: IBC 1015
- Exit Stairways: IBC 1007
- Occupant Load: IBC 1004
- Minimum Exit width: IBC 1005
- Minimum Number of Exits: IBC 1014
- Dead Ends: IBC 1016
- Common Path of Travel: IBC 1013
- Minimum width for Corridors: IBC 1016
- Stairway Width: IBC 1009
- Stairway Headroom: IBC 1009
- Vertical Rise: IBC 1009
- Treads & Risers: IBC 1009

## MECHANICAL AND PLUMBING ENGINEERING DESIGNS

- Trinidad and Tobago Bureau of Standards
- ASME (American Society of Mechanical Engineers)
- ASME B31 Standards of Pressure Piping
- ASME B16 Standards of Pipes and Fittings
- ANSI/ASME A17.1 – 2010, Safety Code for Elevators
- ANSI/ASME A17.3 – 2005, Safety Code for Existing Elevators and Escalators
- ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)
- ASHRAE 2017 Handbook of Fundamentals – HVAC Applications
- ASHRAE HVAC Design Manual for Hospitals and Clinics, 2nd Edition
- Humidity Control Design Guide for Commercial and Institutional Buildings
- ASHRAE 55 Thermal Environmental Conditions for Human Occupancy
- ASHRAE 90.1 Energy Standard for Buildings except Low-Rise Residential Buildings
- ASHRAE 62.1 Ventilation for Acceptable Indoor Air Quality
- Standard 51.1 – 1992, Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation Air-Cleaning Devices
- Standard 52.2 – 1999, Method for Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size
- Standard 55 - 2010, Thermal Environmental Conditions for Human Occupancy
- Standard 62 - 2010, Ventilation for Acceptable Indoor Air Quality
- Standard 90.1 - 2013, Energy Standard for Buildings Except Low-Rise Residential Buildings
- Standard 170 -2013, Ventilation of Health Care Facilities
- AWWA (American Water Works Association)
- M14 Recommended Practice for Backflow Prevention and Cross-Connection Control, 2015
- ICC IC 2007 2007 Supplement to the International Codes
- ICC IFC 2006 2006 International Fire Code
- ICC IPC 2006 2006 International Plumbing Code
- ICC IMC 2006 2006 International Mechanical Code
- ICC IFGC 2006 2006 International Fuel Gas Code
- ICC IECC 2006 2006 International Energy Conservation Code
- ICC IWUIC 2006 2006 International Wildland-Urban Interface Code
- ICC IEBC 2006 2006 International Existing Building Code
- ICC IPSDC 2006 2006 International Private Sewerage Disposal Code
- NFPA National Fire Protection Association (NFPA)
- NFPA 10 Standards on Portable Fire Extinguishers
- NFPA 13 Standard for the Installation of Sprinkler System
- NFPA 15 Standard water spray fixed systems for fire protection
- NFPA 14 Standard for the Installation of Standpipes and Hose Systems
- NFPA 22 Water Storage Tank Systems
- NFPA 20 Standard 20, Standard for the Installation of Stationary Pumps for Fire Protection
- NFPA 82 Standard 82, Standard on Incinerators and Waste and Linen Handling Systems and Equipment
- NFPA 96 Standard 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations
- SMACNA Sheet Metal and Air Conditioning Contractors' National Association
- HVAC Duct Construction Standards- latest edition

## ELECTRICAL ENGINEERING DESIGNS

- IBC International Building Code
- TTBS Trinidad and Tobago Bureau of Standards
- TTS-171 Trinidad and Tobago Electrical Wiring Code
- ANSI C34.2 Substation Transformers and Rectifier Units
- ANSI C37.13 Low Voltage AC Breakers
- ANSI C37.14 Low Voltage DC Breakers
- ANSI C37.16 Low Voltage Breakers and AC Protectors
- ANSI C57.12.01 Transformer - General Requirements for Dry Type Distribution
- ANSI C63.12 Electromagnetic Compatibility
- ANSI C7.14 Stranding of Conductors
- ANSI C80.3 Electrical Metallic Tubing, Zinc-Coated
- ICEA Class H Flexible Cables
- IEEE Institute of Electrical and Electronics Engineers
- IEEE 730 Software QA Plans
- IEEE 830 Recommended Practice for Software Requirements Specifications
- IEEE Standard 1100 Powering and Grounding Electronic Equipment
- Standard 427 – 2007, Recommended Practice for Grounding of Industrial and Commercial Powers Systems
- Standard 602 – 2007, Recommended Practice for Electric Systems in Health Care Facilities
- NEC 2008 National Electrical Code
- NFPA National Fire Protection Agency
- NFPA 110 Standard for Emergency and Standby Power Systems
- NFPA 70 National Electric Code
- NFPA 72 National Fire Alarm Code
- NFPA 780 Standard for the Installation of Lightning Protection Systems
- UL 96A Lightning Protection
- IESNA Illumination Engineering Society of North America
- ANSI / IES RP-29-16, Lighting for Hospitals and Healthcare Facilities
- IEC International Electrotechnical Commission
- BS EN/IEC 62305-1:2011, Standard for Lightning Protection
- EID Electrical Inspectorate Division
- Requirements of the Electrical Inspectorate Division, Ministry of Public Utilities of Trinidad and Tobago
- TTBS Trinidad and Tobago Bureau of Standards
- TTS 171: PART 1: 2015, Trinidad and Tobago Electrical Wiring Code - Part 1: Low voltage installations (1st Revision)
- TTS 171: PART 2: 2002, Trinidad and Tobago Electrical Wiring Code - Part 2: High Voltage Installation
- TTEC Trinidad and Tobago Electricity Commission
- Requirements of the Electrical Inspectorate Division, Ministry of Public Utilities of Trinidad and Tobago

## **ENVIRONMENTAL & PUBLIC HEALTH ENGINEERING DESIGNS**

- EMA - Environmental Management Authority
- Water Pollution Rules 2001 (Amended in 2006)
- Requirements of the EMA of Trinidad and Tobago
- MOH - Ministry of Health of Government of Trinidad and Tobago
- Requirements of the Public Health Department in accordance with the Public Health Ordinance Act
- WASA - Water & Sewerage Authority of Trinidad and Tobago
- National Plumbing Code of Trinidad and Tobago
- Guidelines for Distribution of Water and Wastewater
- Requirements of the Water and Sewerage Authority of Trinidad and Tobago

## **OCCUPATIONAL HEALTH & SAFETY**

- OSHA Occupational Safety & Health Authority of Trinidad and Tobago
- Requirements of the OSH Authority in accordance with the OSH Act 2004 with amendments of 2006

## **PHARMACY**

- Ministry of Health Drug Inspectorate

## **OTHERS**

- American Concrete Institute ACI Codes
- Trinidad and Tobago Bureau of Standards (TTBS)
- American Society for Testing and Materials (ASTM)
- American Society for Heat Refrigeration Air Conditioning Engineers (ASHRAE) – latest edition
- Caribbean Uniform Building Code (CUBIC)
- Underwriters Laboratories (UL)
- International Building Code (IBC)
- US Food and Drug Administration (FDA) for Medical Equipment
- All local statutory agencies.

## **UB-2.2 FACILITY DESIGN OVERVIEW**

The Design shall conform to the following general requirements:

### **UB-2.2.1. General Building Organization**

Since the operational nature of the New Chaguanas Health Facility is to accommodate both visitor/patient access and secured support, spaces the organization of the building needs to zone the layout of the spaces to clearly establish a public-to-private sequence of interior spaces and make provisions in all areas that are convenient to differently-abled persons. This zoning will allow both visitor/patient and secure operations to occur simultaneously and independently of one another.

The public-to-private sequence spaces should start with the reception and the waiting area, followed by secure support clinical and non-clinical spaces. The common and shared building spaces would be distributed among the rooms and secure spaces as required. To avoid cross-circulation between visitors and secure facility zones, dedicated office and secure circulation corridors will need to be established. Separation of the visitor/patient entrance from the secure entrances will also work to establish and maintain a public-to-private zoning of the building layout. Ideally, this separation should be characterized by sufficient distance to provide an effective visual and auditory barrier between the public and secure facility entrances. Operations at the administrative and technical levels are to be accommodated in the design of the designated building and must be sufficiently separate as described herein.

### **UB-2.2.2. Clinic and Non-Clinic Support Space**

The spaces that will support the offices, clinics, and related support functions for the Project must have similar characteristics with regard to utilities, finishes and furnishings. The closed offices and clinics must be characterized by acoustically hard walls and doors that define the perimeter of the room. Use of high impact gypsum wall board is suggested in high activity areas where damage to walls is expected, in order to minimize the need for repair due to impact damage in these high activity areas.

Generally, finishes include high grade Non-slip porcelain tiles and/or hospital grade seamless vinyl for floor finish, painted gypsum stud wall, cement board or concrete block partition walls (where appropriate) are to be expected on walls, and suspended acoustic tile or gypsum ceiling with lighting (where appropriate), ventilation, and fire detection, alarm and suppression fixtures (as appropriate) recessed into the ceiling system. However, due to infection control, some areas have specific finishes which will be detailed in the succeeding sections.

Furnishings for the clinical rooms will include some mix of a desk and desk chair, a variety of under desk storage cabinets and drawers (files, supplies, and related items.), stainless steel deep sinks, wall mounted shelves and floor mounted file cabinets and other specific clinical equipping which will be detailed in the foregoing section. Executive offices must receive additional furnishings including a mix of visitor seating, supplies credenza, and conference table with chairs. The utilities that are provided to the office and clinical spaces must include standard power and communications/ data services.

Lighting must be supplied by high efficiency recessed fluorescent or Light Emitting Diode (LED) fixtures providing indirect and diffused illumination to prevent glare and sharp shadow casting; photo and motion/ thermal sensor could be used in conjunction with the fluorescent/LED lights to minimize the use of artificial lighting if sufficient natural daylight is available. Emergency power must be supplied by an emergency generator while uninterrupted power will be provided by local or centralized UPS units, where required.

### 2.2.2.1 Interior Design and Artwork

- The design of waiting areas, main circulation areas etc. should seek to promote the relaxation of the patient whilst still fulfilling the exacting requirements of the occupier's Infection Prevention and Control Team and all FGI/HTM's and HBN's
- The design should allow space for the client to display fixed artwork integrated into the fabric of the building with particular attention paid to the main entrance and common areas. Artwork will relate to the local community groups and users of the building where required.
- The Contractors attention is drawn to the following guidance documents in relation to artwork: -
  - Art for Health, DoH (2000)
  - Improving the Patient Experience DoH (2002)
  - Arts Council England (2007) 'A prospectus for arts and health'
  - NHS Estates (2002) 'The art of good health – a practical handbook'
  - NHS Estates (2002) 'The art of good health – using visual arts in healthcare'



## **UB-2.2.3. Infection Prevention and Control Requirements**

### **UB - 2.2.3.1 Hand Hygiene**

Hand hygiene is the single most important measure in reducing the spread of infection. It is an infection control practice with a clearly demonstrated efficacy, and remains the cornerstone of efforts to reduce infection. Good design with sufficient hand wash basins approximately placed can increase compliance.

- **Hand Washing Facilities**

All clinical rooms must have adequate hand hygiene facilities; preferably a designated hand wash basin with wall-mounted liquid soap dispenser and paper towel dispenser. In addition, it is required to have alcohol hand rub available in the room, where applicable.

- **Hand Wash Basins**

- a) Taps to all clinical areas should be elbow taps controlled with a mixer tap. Sinks should be stainless steel and have NO plug or overflow and the water should not be directly over the outflow as this can lead to the splashing of micro-organisms from the drain (HBN 10).
- b) Hand wash basins must not be obstructed and must be free of clutter and inappropriate items.
- c) Hand disinfectants, soaps and alcohol hand rub (including drip trays to prevent splashes) should be wall mounted near the sink and should not be refillable, but be of a disposable single- cartridge design.
- d) Paper towels should be wall mounted and located conveniently above or near the hand wash basin.
- e) Cotton, absorbent towels **MUST NOT** be used.
- f) Foot operated bins should be provided and situated near each hand washbasin.
- g) Waterproof splash backs e.g. Integrated Plumbed System (IPS) (with a good seal) should be fitted behind all sinks.
- h) The location of the hand wash basin should not be within the curtained patient examination area and should be away from surfaces e.g. worktops, where splashing may occur.

- **Alcohol Hand Rub**

- a) The use of alcohol hand rub is recommended as the gold standard for hand hygiene (World Health Organization (W.H.O) 2009) and therefore is advocated alongside hand wash facilities.
- b) Alcohol hand rub is available in a wall mounted dispenser (located in the clinical zone), pump dispenser or hand carriage.
- c) Alcohol hand rub pump dispensers/hand carried containers must not be refilled.

## UB - 2.2.3.2 Finishes

### a) Recommendation for Finishes

The finishes should be designed to provide a comforting environment for patients and practitioners. During planning, materials and finishes should be selected to minimize maintenance; they should be compatible with the rooms intended function. All finishes in patient and clinical areas should be chosen with cleaning in mind, especially where contamination with blood or body fluids is a possibility. All walls, soft furnishings, e.g. patient chairs and couches and floor finishes in any clinical areas MUST be accessible and capable of easy cleaning, be able to withstand cleaning with chlorine releasing product up to 10,000 parts per million (p.p.m) and should also dry quickly (See appendix).

### b) Floor Coverings

- All floor coverings should be smooth but non-slip, easily cleansing, and appropriately wear resistant.
- There should be coving between the floor and the wall to prevent accumulation of dust and dirt in corners and crevices.
- Must be able to withstand cleaning with a chlorine releasing products up to 10,000 p.p.m (in the event of a blood and/or body fluid spillage)
- Carpets and woods are NOT a suitable floorcovering in any clinical and non-clinical areas.
- Unsealed joints and tiles should be avoided as they may produce a reservoir for infectious agents.
- **In all clinical areas and adjoining corridors:** coved hospital grade vinyl flooring should be laid up to the wall edge or up to the fixtures/ fittings with a good seal.
- **In non-clinical areas e.g. waiting rooms:** a suitable flooring which can withstand cleaning with a chlorine product up to 10,000 p.p.m e.g. non-slip hard tile surface, vinyl or rubber is recommended.
- Areas such as conference rooms shall contain suitable flooring to improve acoustics and absorb sound in the room.

### c) Walls

Smooth paint surfaces are easier to clean, i.e. acrylic emulsion or eggshell finish.

### d) Ceilings

Ceilings should be easily accessible for cleaning with no hidden lighting or box work, and preferably with a wipeable smooth surface.

### e) Windows

The room should have a window to the outside for views and to offer natural ventilation. It may be necessary to shield views into the room from outside by appropriate means, e.g. obscure glass. Venetian blinds should be considered, provided that they are installed between the 2 glass panes

### f) Curtains

All curtains must be fire retardant and antibacterial.

**g) Blinds**

Venetian blinds should not be used, as they are extremely difficult to clean. If venetian blinds are to be considered, they MUST be installed between the 2 glass panes.

Vertical blinds are NOT recommended in clinical areas, and should only be used in office/ administration areas. All rooms shall have vertical venetian blinds. However, Clinical Areas MUST have venetian blinds between two glass panes.

**h) Lighting**

Artificial lighting which is easily controllable, with the capacity to provide low levels of lighting is recommended.

**i) Soft Furnishings**

These are easily contaminated, and may become malodorous, so they should be covered in a material that is impermeable to fluids, or of the vinyl variety that is wipeable and not affected by chlorine releasing cleaning products.

**j) Work Surfaces**

These should be designed for ease of cleaning. Surfaces near plumbing fixtures should be smooth, non-porous and water resistant. They should be free of cracks, fissures, open joints and crevices that will retain or permit the passage of dirt and particles.

**k) Joints**

All joints must be sealed and well maintained.

#### **UB-2.2.4. Security**

As noted previously, the Project will need to be designed to accommodate both visitor access and secure facility operations. Visitor access is important to support the function and operations of the facility. Providing access in a user friendly manner will help reinforce the character of the Project as a welcoming and open facility that has a central and critical role in the provision of quality services to the citizens of Trinidad and Tobago.

A secure facility is important to ensure that [1] consistency in the quality of service is maintained, [2] continuous facility operations are maintained, [3] critical assets (people, information and materials) are protected, [4] opportunities for disruption of the new Chaguanas Health Facility & Five Bedded Urgent Treatment Centre functions and operations are minimized, and [5] the safety and security of staff and visitors are ensured and maintained. Because of the location of this preferred Site for the new Chaguanas Health Facility & Five Bedded Urgent Treatment Centre, attention to passive and active security measures must work together to maximize the safety and security of the Project. Passive security design will work to minimize the opportunities to breach the Project security through passive surveillance, access control, and territorial reinforcement. Active security design should be based on the application of familiar and well tested technologies such as keypad, key card access, proximity, motion and thermal sensors, CCTV monitoring, and biometric controls, as appropriate for a modern health center of the type and size described herein. As an additional layer of security panic buttons should be installed in clinical rooms.

The integrated application of passive and active security measures starting from the perimeter of the Project Site and proceeding in layers of security, as people move through the Site and building should work to establish and maintain a vigilant and effective security system.

#### **UB-2.2.5. Landscaping**

Xeriscaping- Indigenous planting materials that are insect resistant and drought tolerant - should ideally be used. A lawn should be planted only to the extent necessary to minimize the harshness of the surrounding Site. The rest of Site should be landscaped to minimize maintenance work. Entrances to the buildings must be kept clear of landscaping materials that can be inadvertently blown or carried into either of the buildings. Low maintenance perennials must be provided, so as to minimize life cycle facility costs, labour and other resource needs, as well as to reduce the chances of allergens and other plant and soil materials that are brought into the new building. The general approach should seek to increase occupant health and decrease maintenance and operating costs while lending to an aesthetically pleasing ambience.

### **UB-2.2.6. Air Conditioning and Air Exchange Systems**

The requirement is for the supply and installation of a complete Direct Expansion System. Some Clusters may carry the same type units accurately sized and zoned for optimum efficiency. All washrooms should carry suitably sized extractor fans. Some rooms may require 100% non-Recirculated air with extractor fans. The Proponent should allow for the selection of units which use environmentally friendly refrigerant R410A (or equal) – which is not scheduled for phase out. Duct work design and installation shall be in accordance with ASHRAE standards. An Independent HVAC for cluster 4 should be zoned from the rest of the facility.

### **UB-2.2.7. Emergency Power**

A 24 hour diesel-fuel emergency generator system with a base mounted double-walled tank should be provided to serve critical building ventilation systems, emergency lighting, computer sets, communication systems, the fire detection and alarm systems, security systems and the treatment/examination rooms. It shall be an outdoor type generator located in a secured area with exhaust system providing releases downwind of the proposed building and suitably located so as to provide little or no interference or contamination of the environmental observations required to be measured by the Chaguanas Health Facility after handover.

### **UB-2.2.8. Waste Treatment**

#### **UB-2.2.8.1 Wastewater Treatment**

A complete sanitary waste and vent system must be provided. Sanitary waste should ideally flow by gravity to a wastewater treatment system outside the buildings. Oil separators should be provided in areas where required to meet the relevant codes. The effluent wastewater shall meet or exceeds the more stringent of the pollution standards specified by the Water and Sewerage Authority (WASA) and the Environmental Management Authority (EMA). A suitable system for treatment of medical waste from the building shall be provided as appropriate.

#### **UB-2.2.8.2 Medical/ Biomedical Waste**

Medical Waste, (MW) otherwise known as clinical waste, normally refers to waste products from the Health Facility that cannot be considered general waste.

Biomedical Waste, (BMW), consists of solids, liquids, sharps, and laboratory waste that are potentially infectious or dangerous and are considered bio-waste. This waste must be properly managed to protect staff as well as the general public.

A suitable system for collection, temporary storage and transportation from the Health Facility to an off- site treatment facility has to be included.

It is assumed that other government agency will provide the off –site treatment while the transportation can be contracted services.

While Trinidad and Tobago has no specific standards for this activity, it is expected that the system(s) proposed will meet international standards e.g. OSHA and The USEPA.

### **UB-2.2.9. Fire Detection, Alarm and Suppression System**

Designs shall include an appropriate Fire Detection, Alarm and Suppression System to meet the necessary codes and standards for the type activities being undertaken and equipment/consumables being stored. This shall include NFPA codes – 101,99,96,72,70,53,30,14,10.

The Building shall be equipped with adequate fire prevention facilities – hose reels, extinguishers, emergency exit signage, sprinkle/ suppression system (if applicable), smoke/heat detectors and alarms, as well as hydrants externally as required.

### **UB-2.2.10. Elevator System**

The Proponent shall include in its Proposal at least 2 no. two-stop elevator system with a minimum capacity of twenty four (24) passengers at one time. It must be capable of holding a patient transport trolley and a minimum of three (3) accompanying staff. The elevator system to be carried out shall include the whole of the design, labour and all materials necessary to form a complete installation including any necessary builders works, tests, adjustments, commissioning and maintenance as prescribed and all other incidental sundry components necessary, together with necessary labour for installing such components, for the complete execution of the works and for the proper operation of the installation. It shall also include all necessary co-operation with other contractors involved on the Site in respect of co-ordination, programming, scheduling and sequence of installation of the works. In addition, the elevator system shall be in compliance with all Government and Local ordinances, orders, rules and regulations, and shall be in accordance with the current Code of Practice for the installation of an elevator system.

The Proponent shall submit prior to hand over all necessary operating and maintenance manuals, warranties, as-built drawings, and shall obtain a certification of approval from the Lift Inspectorate of Trinidad and Tobago.

### **UB-2.2.11. Other Services and Performance Requirements Associated with the Project**

- The Project must be designed to cater for differently-abled persons in the provision of parking, bathrooms, ramps, and any other relevant function or area.
- Building services must include integrated intra and extra network computer set installations.
- Windows should be capable of being opened should the Air Conditioning be disrupted.
- Disruption of Air Conditioning over the entire building should be avoided. Air Conditioning should be zoned.
- Wastewater and Effluent Treatment Systems must be designed to meet or exceed applicable Statutory Codes.
- Reserve water supply shall be catered for.

- The proponent shall submit specific information on the equipment they intend to supply. Such information shall include but not be limited to:
  - Name of Product and Model;
  - Detailed Product Specifications and Descriptions;
  - Details on equipment warranties to be provided;
  - Manufacturer's Name, Address and Contact details;
  - List of accredited local distributors, Dealers and Service Centre together with their particulars;
  - Accreditation and/ or certification standards for the product e.g. CE Marking, US Food & Drug Administration (FDA);
  - All accessories to be provided with the equipment;
  - Spare Parts and Consumable Listing with associated costs;
  - Training for operators and maintenance personnel to be provided with the equipment and;
  - Soft licenses required for the use, operation and maintenance of the equipment.
  - Statement of Non-obsolescence, guaranteeing support and availability of parts for not less than five (5) years from installation.
  - Identification of local distributor/local supplier

#### **UB-2.2.12. Non-Medical Furniture and Equipment and Medical Equipment**

The Proponent shall provide the infrastructure and shall supply, install, test and commission all medical equipment listed in the User Space Requirement to be supplied by the Contractor.

See **Appendix 2** for Non - Medical FFE and Medical Equipment Specifications.

In addition, the Proponent shall provide infrastructure for all Client- Supplied medical and non-medical equipment as specified.

#### **UB-2.2.13. Maintenance and Warranty**

The Proponent shall provide the standard manufacturer's warranty and a one (1) year maintenance for the Building, MEP infrastructure/services, Medical and Non-Medical Furniture, Fixtures and Equipment inclusive of parts and labour. Maintenance of the equipment shall be in accordance with the manufacturer's requirements for warranties, and a maintenance schedule shall be submitted to the Client for approval. In addition, Proponents shall provide extended warranties and maintenance (4 years) for parts and labour for Ultrasound, X-ray Systems (General, Dental and Mobile) and Laboratory Systems.

The Supplier has the obligation to warrant against equipment failure for a period of one (1) year from the date of the acceptance certificate. Such warranty shall be inclusive of parts, labour and preventative maintenance.

Extended Maintenance Service shall be for an additional period of four (4) years. This Extended Maintenance Service Agreement together with the Warranty period shall offer guaranteed utilization uptime starting from the date of acceptance of the equipment.

The Guaranteed Uptime of the Equipment shall be of not less than 98% and any bid offering less Guaranteed Uptime than the above set percentage will be considered as non-responsive and consequently rejected.

The guaranteed uptime shall be calculated on the basis of each calendar days with 24 hours per day.

Example for Guaranteed Uptime of 98% on 24/hours/day. The penalty for equipment performing below the 98% guaranteed up-time will be calculated as follows:

Allowable downtime of each Monitor:  $365 \text{ days} \times 24 \text{ Hours/day} \times 2\% = 175.2$  hours per year

Calculation: Annually Depreciated Value of Equipment CIF Site x Hours of downtime above the set value of 175.2 hours divided by the Number of days in year x 16 hours/day

Example:

Depreciated value of \$ 100,000.00 x (350 hrs. / Downtime less 175.2 hrs. ) =  
Penalty of \$1,989.98

$366 \text{ days/year} \times 24\text{Hrs} = (8784 \text{ hrs.})$

The Maintenance Service Agreement shall offer a full coverage that includes in addition to labour all Spares parts and software upgrades

All equipment, unless otherwise agreed to by the Employer, shall have a local supplier or distributor. Where this is not possible, the Supplier must include a provision, for the capacity of the overseas company to reliably provide on the ground technical support and/or effective shipping and handling of parts and accessories as part of after sales services. A spare parts list and consumable listing per specifications for the equipment(s) is required upon provision of vendor specifications. Where applicable the Contractor/supplier shall provide evidence of availability of consumables and capability to supply in a timely manner to ensure continuity of hospital operations.



# UB-3. Requirements

The requirements for the New Chaguanas Health Facility broadly consist of the following types of accommodations:

- Two Storey Building;
- External Works;
- Driveways, Parking Facilities and a 3 no. flag pole;
- Supply of Furniture, Fixtures and Equipment (Medical and Non-Medical);
- Signage inclusive of facility signage (logo to be included), dual language location maps, Room Signage, Area/Department/ Cluster/ Unit Signage, Internal Directional Signage, External signage (i.e. location of car parks, facilities, structures etc.), External Directional Signage.
- Road Works (inclusive of Road Signage)
- Drainage
- Telephone Infrastructure
- Power Infrastructure
- Water Supply and Storage
- Sewer Treatment Plant.

The Proponent must design these functional areas in conformity with these details and obtain the approval of the Employer before construction.

## **UB-3.1. Building Overview**

The new Chaguanas Health Facility should have a total nominal floor area of 2,653m<sup>2</sup> inclusive of circulation area. The following description provides the requirements on the basis of a Two (2) storey structure to highlight, inter alia, necessary adjacencies. The Proponent, at its discretion, may provide an equivalent single or multi-story structure provided that the requisite adjacencies are maintained, and shall be cost effective when compared to a two (2) story structure.

Main entrance of this building shall be appropriately designed using Soogrim Trace West as the main access. In addition, the Proponent shall include on its proposal a location maps and signage e.g. directional signage, room signage, parking signage, etc. which is to be strategically located as it deemed appropriate.

The building shall compose of public, clinical, areas and staff areas. All of the mentioned functional areas are subdivided into clusters to guide the Proponents in providing the correct adjacencies of rooms according to its functions so as not to disrupt the flow of operation of the building.

## **UB-3.2. External Works**

- The Proponent shall include for the design and construction of all external services including roads, footpaths, water supply distribution system, storage tank, STP, solid waste disposal, storm water drains with rain water harvesting, street lighting, horticulture and other public amenities. In addition, the Proponent shall include provisional unique feature e.g. Statue or water feature, to be placed at the front of the building.
- The entire Site shall be a mixture of greenery and paved surface as deemed appropriate. All paved areas shall be well graded, properly drained and shall be capable of bearing the load of vehicular traffic as defined in Table 1. Provision must be made for parking spaces in accordance with Town and Country requirements but as a minimum as shown in Table 1:

<b>Type of Parking</b>	<b>Type of Vehicle</b>	<b>No. of Vehicles</b>	<b>Remarks</b>
Work Vehicle Parking	Medium vehicles/ Ambulance	5	Parking for delivery vehicles
Reserved Staff Parking	Light vehicles	50	Separate staff parking. Covered walkway
Visitor / Patient Parking	Light vehicles	75	

*Table 1: Section – Parking*

# Ub- 4 : Summary Of Nominal Areas Per Activity Space

## Schedule of Accommodation:

Room #	Room	Nominal Area (sq. m)	Comments
<b>GROUND FLOOR</b>			
<b><u>Cluster 1</u></b>			
<b><u>GENERAL SERVICES</u></b>			
CDHF-01	Main Entrance	0	As required
CDHF-02	Security and Information	5	
CDHF-03	Main Waiting Area	55	
<b>Sub-total for Cluster 1</b>		<b>60</b>	
<b><u>Cluster 2</u></b>			
<b><u>WOUND CARE</u></b>			
CDHF-04	Waiting Area	30	Minimum Requirements
CDHF-05	Treatment Room	12	
CDHF-06	Unisex Washroom	5	
<b><u>STRESS RELIEF PSYCHIATRIC CLINIC</u></b>			
CDHF-07	Stress Relief Psychiatric Waiting Area	20	
CDHF-08	Stress Relief Doctors Room 1	12	
CDHF-09	Seclusion Room	9.3	
<b>Sub-total for Cluster 2</b>		<b>88.3</b>	
<b><u>Cluster 3</u></b>			
<b><u>PHARMACY DEPARTMENT</u></b>			
CDHF-10	Pharmacy Waiting	40	Minimum Requirements
CDHF-11	Pharmacy Dispensing	20	
CDHF-12	Patient-Pharmacist Counselling Room	12	
CDHF-13	Pharmacy Storage	40	
CDHF-14	Alcohol/Flammable Liquids Storage	9	
CDHF-PHA	Staff Lounge	9.3	
<b><u>IMAGING DEPARTMENT</u></b>			
CDHF-15	X-Ray Unit & Radiographer Room	31	
CDHF-16	Ultrasound Room with washroom	15	
<b><u>DIAGNOSTIC LABORATORY SERVICES</u></b>			
CDHF-17	Phlebotomy Collection	12	
CDHF-18	Specimen Collection & Reports Collection Kiosk	15	
CDHF-19	Main Laboratory	50	
CDHF-20	Laboratory Storage	16	
<b>Sub-total for Cluster 3</b>		<b>269.3</b>	
<b><u>Cluster 4</u></b>			
<b><u>WALK-IN CLINIC ground floor</u></b>			
CDHF-EME	Ambulance Entrance		1.83 meters in clear width
CDHF-21	Walk-In Clinic Entrance		As required
CDHF-22	Triage	11.1	

Room #	Room	Nominal Area (sq. m)	Comments
CDHF-23	Holding Bay and Observation Post-Stabilization	28	
CDHF-24	Security and Information Area	4	
CDHF-25	Pre-screening Patient Waiting Area	30	
CDHF-26	Registration Area	15	
CDHF-27	Senior Nurse's Room	12	
CDHF-28	Screened Patient Waiting Area	15	
CDHF-29	Patient Assessment Room (Walk-In)	12	
CDHF-30	Doctors Consultation Room (Walk-In)	12	
CDHF-31	Doctors Consultation Room (Walk-In)	12	
CDHF-32	Isolation Room with Ante Room	20	
CDHF-33	Dirty utility/Sluice	16	
CDHF-34	Linen Storage Closet	1	
	<b><u>OBSTETRICS &amp; GYNECOLOGY SERVICES</u></b>		
CDHF-35	Obs &Gynae Doctor's Room 1	12	
CDHF-36	Obs &Gynae Doctor's Room 2	12	
CDHF-37	Obs &Gynae Doctor's Room 3	12	
	<b><u>FIVE BEDDED URGENT TREATMENT AREA WITH SURGE CAPACITY TO 15 BED</u></b>		
CDHF-38	Five Bed Treatment Room with Surge Capacity to 15 Beds	150	
CDHF-39	Urgent Care Consultant & Treatment Room	10	
CDHF-40	Medication Preparation Room	20	
CDHF-41	Minor Procedure Room	23	
CDHF-42	ECG Room	12	
CDHF-43	Asthma Treatment Room	40	
	<b><u>BURNS STABILIZATION ROOM</u></b>		
CDHF-44	Burns Stabilization Room	25	
CDHF-45	Decontamination Room	10	
	<b>Sub-total for Cluster 4</b>	<b>514.1</b>	
<b><u>Cluster 5</u></b>			
	<b><u>WASHROOMS for Cluster 1,2,3 &amp; 4 (Staff and Public)</u></b>		
CDHF-46	Staff Male Washroom	12	
CDHF-47	Staff Female Washroom	14	
CDHF-48	Public Male Washroom	12	
CDHF-49	Public Female Washroom	14	
	<b>Sub-total for Cluster 5</b>	<b>52</b>	
<b><u>Cluster 6</u></b>			
	<b><u>STORES DEPARTMENT</u></b>		
CDHF-50	Delivery Entrance		As required
CDHF-51	Non-Pharm Storage Room	30	
CDHF-52	Grounds man's Storage Shed	8	
CDHF-53	External Biohazard Storage Area	20	
CDHF-54	Storage Room for Oxygen tanks (External Entry/ Exit)	5	
	<b>Sub-total for Cluster 6</b>	<b>63</b>	

Room #	Room	Nominal Area (sq. m)	Comments
<b>Cluster 7</b>			
	<b>GROUND FLOOR GENERAL REQUIREMENTS: Location non-specific</b>		
CDHF-55	Security Office - CCTV Hub etc..	10	
CDHF-56	House Keeping Room	5	
	<b>Sub-total for Cluster 7</b>	<b>15</b>	
	<b>GROUND FLOOR SUB-TOTAL</b>	<b>1009.7</b>	
	<b>3% PLANT - GROUND FLOOR</b>	<b>30.3</b>	
	<b>35% CIRCULATION SPACE - GROUND FLOOR</b>	<b>353.4</b>	
	<b>TOTAL - GROUND FLOOR</b>	<b>1393.4</b>	
<b>1ST FLOOR</b>			
<b>Cluster 8</b>			
	<b><u>GENERAL SERVICES 01<sup>st</sup> Floor</u></b>		
CDHF-57	Registration Area	8	
CDHF-58	Consultation Room	12	
CDHF-59	Consultation Room	12	
CDHF-60	Child Development Clinic Consultation Room	16	
CDHF-61	Consultant Office	12	
CDHF-62	Dirty Utility / Sluice	10	
CDHF-63	Waiting Area	40	Minimum Requirements
	<b><u>HEALTH CENTRE CLINIC:</u></b>		
CDHF- 64	Triage	12	
CDHF -65	Registration	20	
CDHF-66	District Health Visitors Office	12	
CDHF-67	Screened Patient Waiting Area	30	
CDHF-68	Patient Assessment Room	12	
CDHF-69	Patient Assessment Room	12	
CDHF-70	Vaccine Room	12	
CDHF-71	Doctors Consultation Room	12	
CDHF-72	Doctors Consultation Room	12	
CDHF-73	Doctors Consultation Room	12	
CDHF-74	Consultant Room	12	
CDHF-75	Treatment Room	20	
CDHF-76	Minor Procedure Room	14	
CDHF-77	Clean Dressing Room	12	
CDHF-78	Breast Feeding Room	15	
CDHF-79	Store Room	6	
CDHF-80	Linen Storage Closet	2	
CDHF-81	Clean utility	10	
CDHF-82	Dirty utility/Sluice	10	
	<b><u>SPECIALTY CLINIC:</u></b>		
CDHF-83	Doctors Consultation Room	12	
CDHF-84	Doctors Consultation Room	12	
CDHF-85	Eye Screening Assessment and Consultation Room	15	

Room #	Room	Nominal Area (sq. m)	Comments
CDHF-86	Ophthalmology, Visual Field Analyser & Funduscopy Camera room	15	
CDHF-87	Dietician and Psychologist's Office	14	
CDHF-88	Dietetic Technician's Room	12	
CDHF-89	Medical Social Worker's Office	10	
CDHF-90	Voluntary Counselling and Testing room	12	
CDHF-91	Family planning room	12	
CDHF-92	Family Planning clerical room	10	
	<b><u>DENTAL DEPARTMENT</u></b>		
CDHF-93	Dental Suite	40	
CDHF-94	Sterilization Room	10	
	<b><u>HEALTH INFORMATION DEPARTMENT-</u></b>		
CDHF-95	Health Information Filing Room	40	
CDHF-96	Health Information Preparation Room	10	
CDHF-97	Health Information Officer Room	10	
CDHF-98	Health Information Archival Storage	20	
	<b><u>WASHROOMS</u></b>		
CDHF-99	Public Male Washroom	18	
CDHF-100	Public Female Washroom	18	
	<b>Sub-total for Cluster 8</b>	<b>647</b>	
<b><u>Cluster 9</u></b>			
	<b><u>SEMINAR ROOM</u></b>		
CDHF-101	Seminar Room	50	
	<b><u>ADMINISTRATIVE DEPARTMENT</u></b>		
CDHF-102	Facility Manager Office	10	
CDHF-103	Quality Coordinator Office	10	
CDHF-104	Staff Lounge	35	
	<b><u>WASHROOMS</u></b>		
CDHF-105	Male Staff Toilet	18	
CDHF-106	Female Staff Toilet	18	
	<b><u>WELLNESS AREA</u></b>		
CDHF-107	Exercise Area	50	
CDHF-108	Male Washroom & Change Room	25	
CDHF-109	Female Washroom & Change Room	25	
	<b>Sub-total for Cluster 9</b>	<b>241</b>	
<b><u>Cluster 10</u></b>			
	<b>1st FLOOR GENERAL REQUIREMENTS: Location non-specific</b>		
CDHF-110	Security Surveillance Room.	8	
CDHF-111	House Keeping Room	5	
CDHF-112	ICT Room	12	
	<b>Sub-total for Cluster 10</b>	<b>25</b>	
	<b>FIRST FLOOR SUB-TOTAL</b>	<b>913</b>	
	<b>3% PLANT - FIRST FLOOR</b>	<b>1922.7</b>	
	<b>35% CIRCULATION SPACE - FIRST FLOOR</b>	<b>57.7</b>	
	<b>TOTAL - FIRST FLOOR</b>	<b>672.9</b>	
	<b>TOTAL AREA = GROUND + FIRST FLOOR</b>	<b>2,653 sqm</b>	

# UB-5 User Space Requirements

## GROUND FLOOR

### Cluster 1

- GENERAL SERVICES
- MAIN ENTRANCE
- SECURITY INFORMATION
- MAIN WAITING AREA

### Cluster 2

- WOUND CARE
- STRESS RELIEF PSYCHIATRIC CLINIC

### Cluster 3

- PHARMACY DEPARTMENT
- IMAGING DEPARTMENT
- DIAGNOSTIC LABORATORY SERVICES

### Cluster 4

- WALK-IN CLINIC
- OBSTETERICS & GYNAECOLOGY
- FIVE BEDDED TREATMENT CENTRE WITH SURGE CAPACITY TO 15 BEDS
- BURNS STABILIZATION ROOM

### Cluster 5

- WASHROOMS for Cluster 1,2,3 & 4 (Staff and Public)

### Cluster 6

- STORES DEPARTMENT

### Cluster 7

- GROUND FLOOR OTHER REQUIREMENTS

## **CLUSTER 1**

### **SERVICES:**

- GENERAL SERVICES
- MAIN ENTRANCE
- SECURITY INFORMATION
- MAIN WAITING AREA

### **OPENING HOURS:**

**24hrs 7 days a week.**

### **SERVICE: GENERAL SERVICES (GROUND FLOOR) NOTES:**

- These services will be shared by the Health Facility.



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Main Entrance		<b>Room/Space Number:</b>	<b>CDHF</b> -01	<b>Cluster Number</b> : 1
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> : 3 m
		<b>Nominal Area:</b>	0m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Serves as the main entrance to the facility and main drop off area.			
<b>Space Description</b>	Unobstructed, clearly defined and accessible by PWD. A covered area should be provided for persons arriving private or public transport.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	Registration and Main waiting area			
<b>Furniture</b>	External: Digital signage to indicate what Clinics are being held and any other information pertaining to the operations of the facility. Internal: Dual language Directory for the facility Two (2) Wireless Access Points. <u>Water Cooler (1), Bin (2), HERE map (1), Clock (1).</u>			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See Remarks			
<b>Floors</b>	External: Proponent to propose design			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Concealed Grid- Gypsum Board			
<b>Doors</b>	Automatic Double Door Entrance			
<b>Hardware</b>	As specified by manufacturer			
<b>Specialties</b>	Automatic sliding door system (for hospital purpose)			
<b>HVAC</b>	Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	None			
<b>Life Safety</b>	Safety features e.g. automatic/ manual open in case of emergency			
<b>Power</b>	See remarks or as specified by manufacturer			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	See remarks
<b>Communications</b>	Two (2)RJ45 outlets for Voice/Data			
<b>Security</b>	CCTV Cameras, proponents to design; as specified by manufacturer			
<b>Remarks</b>	Proponent to propose design. To make provision for PWD.			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Security and Information</b>		<b>Room/Space Number:</b>	<b>CDHF</b> -02	<b>Cluster Number:</b>	<b>1</b>	
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	4m <sup>2</sup>	
<b>Function</b>		Security and Porter station at main point of entry						
<b>Space Description</b>		General open space.						
<b>Hours of Use</b>		Normal business hours of operation						
<b>Adjacencies</b>		Located in the main waiting area						
<b>Furniture</b>		Counter with under counter storage; Three (3) Task Chairs, One (1) Computer						
<b>Medical Equipment</b>		None						
<b>Structural</b>		See remarks						
<b>Floors</b>		Seamless vinyl						
<b>Walls</b>		Paint Finish						
<b>Ceilings</b>		Concealed Grid- Gypsum Board						
<b>Doors</b>		None						
<b>Hardware</b>		None						
<b>Specialties</b>		P.A. System specific for this area						
<b>HVAC</b>		Air condition and air exchange as required						
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>		None						
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system						
<b>Power</b>		Normal dedicated power 120V/280, Two (2) duplex receptacle outlets.						
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux		See remarks
<b>Communications</b>		One (1) phone/ data/ communication outlet, Two(2) RJ45 outlets for Voice/Data						
<b>Security</b>		CCTV Cameras, proponents to design						
<b>Remarks</b>		Proponent to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Main Waiting Area</b>		<b>Room/Space Number:</b>	<b>CDHF -03</b>	<b>Cluster Number:</b>	<b>1</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	70m <sup>2</sup> <b>Quantity: 1</b>
<b>Function</b>	Public's main waiting area						
<b>Space Description</b>	General open space. Seating capacity up fifty (50) persons. Should also cater for area to accommodate 4 wheelchairs. Area should also include a designated children's play area.						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Reception Area and Main Entrance						
<b>Furniture</b>	<p><b>General waiting Area:</b> One (1) 55" TV; One (1) blue-ray player; ganging chairs to accommodate 50 persons; One (1) Clock; One (1) Brochure holder; One (1) Suggestion Box; One (1) waste bin; Two (2) cork boards; One (1) HSD; One (1) water fountain; wheel chair storage; Two (2) Wireless Access Points</p> <p><b>Children's Play Area:</b> Two (2) sets of Children's Table with Chairs; Padded floor mat</p>						
<b>Medical Equipment</b>	None						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Concealed Grid- Gypsum Board						
<b>Doors</b>	None						
<b>Hardware</b>	None						
<b>Specialties</b>	P.A. System specific for this area						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Humidity</b>							
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, Three (3) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	See remarks
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data and Two (2) RJ45 outlets for Access Points on Ceiling or Wall Mounted close to the Ceiling						
<b>Security</b>	CCTV Cameras, proponents to design						
<b>Remarks</b>	Area should be pleasant and restful; Proponents to propose design						

## **CLUSTER 2**

### **SERVICES:**

- WOUND CARE AREA
- STRESS RELIEF PSYCHIATRIC CLINIC

### **OPENING HOURS:**

**8 a.m. to 4 p.m. Monday to Friday.**

### **NOTES:**

- This area shall share the Health Facility Dirty Utility Room.

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Waiting Area</b>		<b>Room/Space Number:</b>	<b>CDHF-04</b>	<b>Cluster Number:</b>	<b>2</b>	
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	30m <sup>2</sup>	
<b>Function</b>		Immediate waiting area for Dirty dressing room						
<b>Space Description</b>		General open space. Seating capacity up to Twenty (20) persons. Separate Entrance.						
<b>Hours of Use</b>		Normal business hours of operation						
<b>Adjacencies</b>		Clean Dressing room						
<b>Furniture</b>		One (1) 42" TV; One (1) blue-ray player; ganging chairs to accommodate 20 persons; One (1) Clock; One (1) Brochure holder; One (1) Suggestion Box; Two (2) Wireless Access Points. One (1) waste bin; One (1) cork board; One (1) HSD; One (1) water fountain, One (1) Here Map						
<b>Medical Equipment</b>		None						
<b>Structural</b>		See remarks						
<b>Floors</b>		Seamless Vinyl						
<b>Walls</b>		Paint Finish						
<b>Ceilings</b>		Concealed Grid- Gypsum Board						
<b>Doors</b>		See Remarks						
<b>Hardware</b>		See Remarks						
<b>Specialties</b>		See Remarks						
<b>HVAC</b>		None. 100% Natural Ventilation.						
<b>Temp. Control Humidity</b>		Design: N/A		Minimum: N/A		Maximum: N/A		
<b>Plumbing</b>		Yes						
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system						
<b>Power</b>		Normal dedicated power 120V/280, Four (4) duplex receptacle outlets						
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux		See remarks
<b>Communications</b>		Four (4) RJ outlets for Voice Data						
<b>Security</b>		CCTV Cameras, proponents to design						
<b>Remarks</b>		Area should be pleasant and restful; Proponents to propose design with plants						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Treatment Room</b>		<b>Room/Space Number:</b>	<b>CDH F- 05</b>	<b>Cluster Number:</b>	<b>2</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	12m <sup>2</sup>
<b>Function</b>		Shall be designed to administer activities containing or resulting from disease-causing organism.					
<b>Space Description</b>		Closed space with private area					
<b>Hours of Use</b>		Normal business hours of operation					
<b>Adjacencies</b>		Located within close proximity to external exit					
<b>Equipment/Furniture</b>		One (1) Desk A; One (1) task chair, Two (2) visitor chairs; One(1) waste bin;One(1) Clothes Hook; One (1) Stainless steel storage cabinet; Two (2) Treatment room sinks with tap with Stainless steel Overhead and under counter storage (to be separated); One (1) TD, One (1) SD.					
<b>Medical Equipment</b>		One (1) Chair for dressing; One (1)Procedure Cart					
<b>Structural</b>		See remarks					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Seamless Vinyl					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		See remarks					
<b>HVAC</b>		100% Fresh Air exchange, exhaust fan (negative air pressure must be maintained)					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120V/280, two (2) duplex receptacle outlets					
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux 500	
<b>Communications</b>		Two (2) RJ outlets for Voice/Data					
<b>Security</b>		Keyed lockset					
<b>Remarks</b>		Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Unisex Washroom</b>		<b>Room/Space Number:</b>	<b>CDH F-06</b>	<b>Cluster Number:</b>	<b>2</b>	
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	5m <sup>2</sup>	
<b>Function</b>		General washroom for Patients						
<b>Space Description</b>		Washrooms fitted with WC and sinks.						
<b>Hours of Use</b>		Normal business hours of operation						
<b>Adjacencies</b>		None						
<b>Equipment/Furniture</b>		One (1) water closet (PWD); One (1) Type 1 sink and tap; mirror, One (1) TPD, One (1) TD, One (1) SD; One (1) waste bin; One (1) clothes hook						
<b>Medical Equipment</b>		None						
<b>Structural</b>		See Remarks						
<b>Floors</b>		Porcelain Tiles						
<b>Walls</b>		Paint Finish						
<b>Ceilings</b>		Suspended ceiling tile						
<b>Doors</b>		Standard solid wood core						
<b>Hardware</b>		Keyed lockset ; See remarks						
<b>Specialties</b>		One (1) Full Length Mirror, One (1) Grab Bar.						
<b>HVAC</b>		Exhaust fan, Air conditioning and air exchange as required						
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>		Yes						
<b>Life Safety</b>		Sprinkler, Fire detection and alarm system						
<b>Power</b>		None						
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux		500
<b>Communications</b>		None						
<b>Security</b>		Keyed lockset						
<b>Remarks</b>		Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Stress Relief Psychiatric Waiting Area</b>	<b>Room/Space Number:</b>	<b>CDHF -07</b>	<b>Cluster Number:</b>	<b>2</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m
		<b>Nominal Area:</b>	20m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Immediate waiting area for stress relief psychiatric patient.				
<b>Space Description</b>	General open space. MUST be an external and separate area Seating capacity up to Twelve (12) persons. Separate Entrance.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Mental Health assessment room and the Mental Health Drs Rooms				
<b>Furniture</b>	One (1) 42" TV, ganging chairs to accommodate 12 persons; One (1) Clock; One (1) Brochure holder; One (1) Suggestion Box; One (1) waste bin; One (1) cork board; One (1) HSD; One (1) water fountain; Two (2) Wireless Access Points				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Concealed Grid- Gypsum Board				
<b>Doors</b>	See Remarks				
<b>Hardware</b>	See Remarks				
<b>Specialties</b>	See Remarks				
<b>HVAC</b>	None. 100% Natural Ventilation.				
<b>Temp. Control Humidity</b>	Design: N/A	Minimum: N/A	Maximum: N/A		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed	Lux	See remarks		
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data and Two (2) RJ45 outlets for Access Points on Ceiling or Wall Mounted close to the Ceiling				
<b>Security</b>	CCTV Cameras, proponents to design				
<b>Remarks</b>	Area should be pleasant and restful; Space must have natural greenery and or water feature. Proponents to propose design				



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Stress Relief Psychiatric Doctor's Consultation Room 1</b>		<b>Room/Space Number:</b>	<b>CDH F 08</b>	<b>Cluster Number:</b>	<b>2</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To conduct examinations and consultations between doctor and patient					
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Sub-waiting for 3 persons. Separate entry for patient and Staff exit to staff-only corridor					
<b>Hours of Use</b>	Normal business hours of operation					
<b>Adjacencies</b>	Near to psychiatric screened patient waiting area					
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sinkwith tap; One (1) cork board; Countertops with under counter and overhead storage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate 3 persons (external).					
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels.					
<b>Structural</b>	See remarks					
<b>Floors</b>	Seamless Vinyl					
<b>Walls</b>	Paint Finish					
<b>Ceilings</b>	Suspended ceiling tile					
<b>Doors</b>	Standard solid wood core					
<b>Hardware</b>	Keyed lockset					
<b>Specialties</b>	See remarks					
<b>HVAC</b>	Air condition and air exchange as required					
<b>Temp. Control</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Humidity</b>						
<b>Plumbing</b>	Yes					
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system					
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets					
<b>Lighting</b>	Fluorescent/ LED, recessed				<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ outlets for Voice/Data					
<b>Security</b>	Keyed lockset; panic button					
<b>Remarks</b>	Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Seclusion Room		<b>Room/Space Number:</b> 09	<b>CDHF</b>	<b>Cluster Number:</b> 2
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 11m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Serves as the an area for patients to stabilize after acute clinical issues			
<b>Space Description</b>	Single door with soft touch/padded surfaces throughout (floors and walls) Solid ceiling with adjustable lighting 2 way intercom			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	Near to Stress Relief Psychiatric patient waiting area and Stress Relief Psychiatric Doctor Room.			
<b>Equipment/Furniture</b>	Secured LED clock (only opened on the outside)			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless vinyl			
<b>Walls</b>	Soft vinyl			
<b>Ceilings</b>	Solid			
<b>Doors</b>	Steel			
<b>Hardware</b>	Keyed lockset no handle inside			
<b>Specialties</b>	See remarks			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	None			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	500
<b>Communications</b>	Two-way intercom concealed CCTV			
<b>Security</b>	Keyed lockset; panic button			
<b>Remarks</b>	Proponents to propose design			

### **CLUSTER 3**

#### **SERVICES:**

- PHARMACY DEPARTMENT
- IMAGING DEPARTMENT
- DIAGNOSTIC LABORATORY SERVICES

#### **OPENING HOURS:**

24HRS 7 days a week.

#### **NOTES:**

- This cluster shall provide Pharmacy, Imaging & Laboratory services for all clinics and the Five Bedded Urgent Treatment Centre operating within the facility and should therefore be readily accessible to the public

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Pharmacy Waiting</b>		<b>Room/Space Number:</b>	<b>CDH F-10</b>	<b>Cluster Number:</b>	<b>3</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	30m <sup>2</sup>
<b>Function</b>		Immediate waiting area for Pharmacy Area					
<b>Space Description</b>		General open space. Seating capacity up to Thirty (30) persons.					
<b>Hours of Use</b>		Normal business hours of operation					
<b>Adjacencies</b>		Pharmacy Dispensing					
<b>Furniture</b>		One (1) 42" TV; One (1) blue-ray player; ganging chairs to accommodate 20persons; One (1) Clock; One (1) Brochure holder; One (1) Suggestion Box; One (1) waste bin; One (1) HSD; One (1) water fountain, Two (2) Wireless Access Points, (One) Number Dispenser.					
<b>Medical Equipment</b>		N.A.					
<b>Structural</b>		See remarks					
<b>Floors</b>		Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Concealed Grid- Gypsum Board					
<b>Doors</b>		None					
<b>Hardware</b>		None					
<b>Specialties</b>		P.A. System specific for this area					
<b>HVAC</b>		Air condition and air exchange as required					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120V/280, two (2) duplex receptacle outlet					
<b>Lighting</b>		Fluorescent/ LED, recessed				<b>Lux</b>	See remarks
<b>Communications</b>		Four (4) RJ outlets for Voice/Data					
<b>Security</b>		CCTV Cameras, proponent to design					
<b>Remarks</b>		Area should be pleasant and restful. Proponent to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Pharmacy Dispensing</b>			<b>Room/Space Number:</b>	<b>CDHF</b> - 11	<b>Cluster Number:</b>	<b>3</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height:</b> 3 m	<b>Nominal Area:</b>	20m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>	
<b>Function</b>	Serve as the focal point for dispensing medicine to the public and storage.						
<b>Space Description</b>	Dispensing area should have four (4) serving windows. This space shall contain storage primarily for the holding of stock and archives.						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Pharmacy Waiting						
<b>Equipment/Furniture</b>	Dispensing areas to be fully Enclosed with roller shutter door. Counter tops with 4 dispensing windows: 3 at standing height and one for PWD; Partitions between each dispensing window for privacy; Individual dispensing open & close windows. Four (4) Pharmacy Chairs; One (1) Desks A; Four (4) Task chairs, Four (4) visitor chairs; Three (3) vertical filing cabinets; One (1) white board; One (1) cork board; Four (4) Computer; Four (4) Label Printers, One (1) multifunction network printer/scanner; One (1) Clock; Three (3) waste Bins; 6 linear feet of Countertops with under counter and overhead storage lockable, with a counter extension of 1 foot into patient area; Treatment room sink with tap; One (1) TD, One (1) SD; Ticketing system with display.						
<b>Medical Equipment</b>	Three (3) Controlled drug and antibiotic cupboards (6 feet tall); Ten (10) Drug cupboards (6 feet tall); One (1) Pharmacy instrument set; One (1) automatic tablet counter; Six (6) manual Tablet counters; One (1) bench top electronic scale; Two (2) mortar and Pestles- One (1) Glass, One (1) Ceramic, Compounding Utensils-Four (4) Beakers, Four (4) Stirring Rods, Three (3) Measuring Cylinders, Three (3) Funnels. One (1) Distilled Water System; One (1) pharmacy/medical refrigerator, One (1) Commercial Refrigerator.						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	P.A. System specific for this area						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control</b>	Design: 21°C	Minimum: 19° C	Maximum	24°C			
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, four (4) duplex receptacle outlet						
<b>Lighting</b>	Fluorescent/ LED, recessed					Lux	500
<b>Communications</b>	Six (6) RJ outlets for Voice/Data						
<b>Security</b>	Keyed lockset and card access.						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Patient-Pharmacist Counselling Room</b>		<b>Room/Space Number:</b>	<b>CDH F-12</b>	<b>Cluster Number:</b>	<b>3</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b>	10m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To conduct consultations between pharmacist and patient					
<b>Space Description</b>	Shall be designed to allow for consultation					
<b>Hours of Use</b>	Normal business hours of operation					
<b>Adjacencies</b>	Adjoining the Pharmacy dispensing. Two Doors: Door Leading to Pharmacy dispensing and Door Leading to corridor/ common area.					
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task Chair; Two (2) Visitor Chairs; One (1) HSD; One (1) waste bin; One (1) Clock; One (1) computer; One (1) vertical filing cabinet; One (1) bookcase.					
<b>Medical Equipment</b>	None					
<b>Structural</b>	See remarks					
<b>Floors</b>	Seamless Vinyl					
<b>Walls</b>	Paint Finish					
<b>Ceilings</b>	Suspended ceiling tile					
<b>Doors</b>	Standard solid wood core					
<b>Hardware</b>	keyed lockset					
<b>Specialties</b>	None					
<b>HVAC</b>	Air conditioning and air exchange as required					
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>	None					
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system					
<b>Power</b>	Normal dedicated power 120/280V, two (2) duplex receptacle outlets					
<b>Lighting</b>	Fluorescent/ LED, recessed				<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ outlets for Voice/Data					
<b>Security</b>	Keyed lockset					
<b>Remarks</b>	Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Pharmacy Storage</b>		<b>Room/Space Number:</b>	<b>CDH F-13</b>	<b>Cluster Number:</b>	<b>3</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b>	38m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>	
<b>Function</b>	Space to store dry medical/ pharmacy materials						
<b>Space Description</b>	Closed space with standard finish						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Attached to Flammable Liquids Storage						
<b>Furniture</b>	60 linear ft of stainless steel shelving; One (1) Desk A; One (1) Task Chair; Two (2) Visitor Chairs; One (1) HSD; One (1) waste bin; One (1) Clock ; One (1) computer; One (1) vertical filing cabinet, Two (2) Controlled drug and antibiotic cupboards; One (1) Card Cabinet; One (1) Barcode Scanner; One(1) Printer for Pharmacy Labels.						
<b>Medical Equipment</b>	None						
<b>Structural</b>	See Remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended Gypsum Tiles						
<b>Doors</b>	Double Door; Standard solid wood core						
<b>Hardware</b>	keyed lockset						
<b>Specialties</b>	None						
<b>HVAC</b>	Air conditioning and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	None						
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system						
<b>Power</b>	Normal dedicated power 120/280V, Two (2) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed				<b>Lux</b>	See remarks	
<b>Communications</b>	Two (2) RJ outlets for Voice/Data						
<b>Security</b>	Keyed lock set and card access						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Alcohol/Flammable Liquids Storage</b>		<b>Room/Space Number:</b>	<b>CDH F-14</b>	<b>Cluster Number:</b>	<b>3</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b>	9m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Space to store Alcohol/Flammable liquids					
<b>Space Description</b>	Closed space with attached to main storage room. Two Doors: One from Pharmacy Storage and One External. Room should be located along an exterior wall or portion of an exterior wall of the building. Fully external.					
<b>Hours of Use</b>	Normal business hours of operation					
<b>Adjacencies</b>	Attached to Pharmacy Storage.					
<b>Furniture</b>	Rack for 55 gallon drum; 3 linear feet of shelving					
<b>Medical Equipment</b>	Alcohol pump for 55 Gallon Drum					
<b>Structural</b>	See Remarks. Also- Must be built with a ramp/incline to the front to facilitate the passage of trolleys and pallet jacks. This incline must have railings on both sides for safety purposes.					
<b>Floors</b>	Porcelain Tiles					
<b>Walls</b>	Paint Finish					
<b>Ceilings</b>	Suspended Gypsum Tiles					
<b>Doors</b>	Fire resistant door; External door to be double door.					
<b>Hardware</b>	keyed lockset					
<b>Specialties</b>	None; Caution signs- One (1) No Smoking, One (1) No cellphone, One (1) No Open Flame or Ignition, One (1) No Parking.					
<b>HVAC</b>	Exhaust Fan; Continuous mechanical or natural ventilation to the outdoors by upper and lower exterior wall gravity louvers.					
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C			
<b>Plumbing</b>	None					
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system, Fire Extinguisher					
<b>Power</b>	None					
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	See remarks	
<b>Communications</b>	None					
<b>Security</b>	Keyed lock set					
<b>Remarks</b>	Proponents to propose design					



<b>USER SPACE REQUIREMENTS DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF A NEW CHAGUANAS HEALTH FACILITY</b>						
<b>Activity Space: X-Ray Unit &amp; Radiographer Room</b>				<b>Room/Space Number:</b>	<b>CDHF 15</b>	<b>Cluster Number: 3</b>
<b>Length:</b> See Remarks	<b>Width:</b> See Remarks	<b>Height:</b> 3m	<b>Nominal Area:</b>	31m <sup>2</sup>	<b>Quantity: 1</b>	
<b>Function</b>	Perform x-ray procedures and to conduct reviews of Radiographs.					
<b>Space Description</b>	Closed space with standard finish.					
<b>Hours of Use</b>	Normal business hours of operation					
<b>Adjacencies</b>	Waiting area					
<b>Equipment/Furniture</b>	<p><b>X-Ray Area:</b> Two (2) clothes hooks</p> <p><b>Small Change Room:</b> Enclosed Area for patients to change. One (1) Visitor Chair; Type 2 sink and tap; One (1) TD; One (1) SD; One (1) waste bin; Two (2) clothes hook; shelf to rest patients' handbags; hand towel dispenser; full length mirror;</p> <p><b>Screened Work Station:</b> One (1) Desk A; One (1) Task Chair; One (1) waste bin; overhead and under counter storage shelves.</p>					
<b>Medical Equipment</b>	<p><b>X-Ray Area:</b> One (1) x-ray unit; One (1) x-ray examination table and chest bucky; Two (2) Lead jackets; Two (2) thyroid shields; Four (4) Lead Goggles; Two (2) Lead Skirts and Vest; Two (2) Kick Step Stool; X-ray Radiolucent positioning Devices including sponges and foam pads of various angles, shapes and sizes, leg wedges, immobilizers, &amp; platforms: Pre-Filled sandbags; one mobile Digital Detector Holder; one portable Digital Detector Holder; velcro straps and restrains; two (2) patient transfer boards; two threader positioning step; one Pigg-O-Stat; two Boomerang Filter; two (2) procedure carts; Two (2) Intravenous Rod Stands; large O2 Tank; Two (2) free standing exam light;</p> <p><b>Screened Work station:</b> Radiologist Computer with Dry Laser Printer</p> <p><b>Lead Screen Operators' Console Room:</b> One (1) Computer One (1) Dry daylight laser printer multiformat size</p> <p><b>Radiographer/Radiologist Image Processing/Reporting Room:</b> One (1) Computer with dual 27" UHD Screens, One (1) Phone and One (1) Multifunction Printer; Two (2) Desk A; Two (2) Task Chair; One (1) Waste bin; overhead and under counter storage shelves; Two (2) Filing trolley.</p>					
<b>Structural</b>	See Remarks					
<b>Floors</b>	Seamless Vinyl					
<b>Walls</b>	Concrete block reinforced and grouted solid , Lead Lined					
<b>Ceilings</b>	Suspended ceiling tile					
<b>Doors</b>	solid lead lined door with lead lined view window					
<b>Hardware</b>	Keyed lockset					
<b>Specialties</b>	Lead lined walls and solid lead lined door with lead lined view window. Exposure Light – to light automatically once a patient is exposed to radiation					
<b>HVAC</b>	Air condition and air exchange as required					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space: X-Ray Unit &amp; Radiographer Room</b>				<b>Room/Space Number:</b>	<b>CDHF 15</b>	<b>Cluster Number:</b>	<b>3</b>
<b>Length:</b> See Remarks	<b>Width:</b> See Remarks	<b>Height:</b> 3m	<b>Nominal Area:</b>	31m <sup>2</sup>		<b>Quantity:</b>	<b>1</b>
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120/280V, Four(4) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed; dimmer switches					Lux	500
<b>Communications</b>	Six (6) RJ outlets for Voice/Data						
<b>Security</b>	Keyed Lockset						
<b>Remarks</b>	Proponent to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Ultrasound Room with washroom</b>	<b>Room/Space Number:</b>	<b>CDHF-16</b>	<b>Cluster Number:</b>	<b>3</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 15m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To conduct ultrasound examinations of patient				
<b>Space Description</b>	Shall be designed to allow for ultrasound examinations with a washroom				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Waiting area				
<b>Equipment/Furniture</b>	Two (2) Desk A; two (2) Task Chair; three (3) Visitor Chairs; two (2) waste bin; One (1) Clock ; two (2) computer; Treatment room sink with tap; Countertops with under counter and overhead storage, lockable; One (1) TD; One (1) SD				
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick Step Stool; Antibacterial Curtain(s); One (1) Procedure Cart ;Two (2) Ultrasound machines; One portable Ultrasound Unit on a wheeled Cart and transducer holders; One (1) X-ray view box with 4 panels;				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	None				
<b>HVAC</b>	Air conditioning and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120/280V, Four (4) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed With Dimmable Light switched			<b>Lux</b>	<b>500</b>
<b>Communications</b>	Six (6) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Phlebotomy Room</b>		<b>Room/Space Number:</b>	<b>CDHF</b> -17	<b>Cluster Number:</b>	<b>3</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	15m <sup>2</sup>
<b>Function</b>		To collect clinical specimens from patients					
<b>Space Description</b>		Shall be designed to allow for safe and comfortable specimen collection					
<b>Hours of Use</b>		Normal business hours of operation					
<b>Adjacencies</b>		Specimen Collection					
<b>Equipment/Furniture</b>		Three (3) Phlebotomy chair; Three (3) Padded stool on mobile base; Two (2), Patient Cubicle Ceiling Curtain (to fit curtain track); One (1) Laboratory bench with Sink; Three (3) Waste Bin; Ticketing system with display. Six (6) PVC Collection Rack,					
<b>Medical Equipment</b>		Not applicable					
<b>Structural</b>		See remarks & Also Ceiling hanging curtain for patient privacy.					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended Ceiling Tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		None					
<b>HVAC</b>		Air conditioning and air exchange as required					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120/280V, two (2) duplex receptacle outlets					
<b>Lighting</b>		Fluorescent/ LED, recessed Lighting Level (Lux): 500					
<b>Communications</b>		Two(2) RJ45 outlets for Voice/Data					
<b>Security</b>		Keyed lockset; panic button					
<b>Remarks</b>		Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Specimen Collection &amp; Reports Collection Kiosk</b>		<b>Room/Space Number:</b>	<b>CDHF -18</b>	<b>Cluster Number:</b>	<b>3</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	12m <sup>2</sup> <b>Quantity:</b> 1
<b>Function</b>		To receive clinical specimens from Phlebotomy and Issue reports from kiosk					
<b>Space Description</b>		Shall be designed to allow for a segregation of Specimen Collection/Receiving Area & Reports Collection Kiosk					
<b>Hours of Use</b>		Normal business hours of operation					
<b>Adjacencies</b>		Main Laboratory					
<b>Equipment/Furniture</b>		<p><b>Specimen Collection/Receiving Area:</b> One (1) Laboratory bench with Sink, Two (2) Bins Waste Swing top 35L; One (1) Board Notice 120 x 90 cm; Two (2) High Stool w/backrest Upholstered Foot Ring; One (1) Reception Counter; One (1) Computer; One (1) Printer/Copier; Two (2) Task Chairs posture 5 Pod Base on Casters and wheels; Three (3) Cart Utility S/S, 3 shelves;</p> <p><b>Reports Collection Kiosk:</b> One (1) Chair, straight, no armrest, general use on casters and wheels One (1) Workstation for computer; One (1) Computer, Two (2) Task Chairs posture 5 Pod Base on Casters and wheels;. One (1) Waste Bin; One (1) Reception Counter; One (1) Multifunction printer</p>					
<b>Medical Equipment</b>		One (1) Centrifuge, bench top, Two (2) Pipette set (1ul - 5ml), Forty (40) Test tube Rack; One (1) Stop Type Timer, One (1) Refrigerator, biological, S/S, 24 c.f.; Two (2) Thermometers -70 to 100 Degree Celsius.					
<b>Structural</b>		See remarks					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended Ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		Proponent to design					
<b>HVAC</b>		Air condition					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120V/280, Four (4) receptacles.					
<b>Lighting</b>		Fluorescent/ LED, recessed					
<b>Communications</b>		Two (2) RJ outlets for Voice Data					
<b>Security</b>		Keyed lockset; panic button					
<b>Remarks</b>		Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Main Laboratory</b>		<b>Room/Space Number:</b>	<b>CDHF -19</b>	<b>Cluster Number:</b>	<b>3</b>
<b>Length</b> : See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b>	65m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Clinical testing area						
<b>Space Description</b>	Shall be designed to allow for a segregation of Biochemistry, Immunology, Hematology and Refrigerator/Freezer areas						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Specimen Collection						
<b>Equipment/Furniture</b>	Four (4) Laboratory Bench; Two (2) Workstation for Computer; One (1) Board dry wipe 120 x 90 cm, Eight (8) High stool w/backrest upholstered foot ring; One (1) Cabinet, flammable storage; Five (5) Waste Bins, Two (2)Cart utility S/S 3 shelves. Two (2) Computers , One (1) Multifunction Printer						
<b>Medical Equipment</b>	One (1) Fume hood; One (1)Emergency shower w/eye wash; One (1)Blood Cell counter automated batch type unit & single feed; Two (2) Bench Top Centrifuge refrigerated, swing-out covered buckets; One (1)Analyzer blood/gas ; One (1)Analyzer biochemistry automated large output; One (1) Incubator dry bath; One (1) Microscope binocular laboratory type; One (1)Analyzer ESR automated; Five (5)Pipette set (1ul - 5ml); One (1)Analyzer immunochemistry with High Sensitivity Troponin Testing; Two (2)Shaker laboratory orbital; One (1)Slide labelling system, Two (2) Vortex mixer; Four (4) Laboratory Timer; Two (2) Freezers biological 24 c.f.; Three (3) Refrigerator, biological S/S 24 c.f.; One (1) water system to support analyzers.						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling type						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	Proponent to design						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280 Ten (10) duplex receptacle outlet and Four (4) 220V for Biochemistry, Immunology, Hematology analyzers.						
<b>Lighting</b>	Fluorescent/ LED, recessed						
<b>Communications</b>	Six (6) RJ outlets for Voice/Data						
<b>Security</b>	Keyed lockset; panic button						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Laboratory Storage</b>		<b>Room/Space Number:</b>	<b>CDHF</b> <b>20</b>	<b>Cluster Number:</b>	<b>3</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	10m <sup>2</sup> <b>Quantity:</b> 1
<b>Function</b>		To store laboratory reagents and consumables					
<b>Space Description</b>		Shall be designed to allow for adequate storage of all laboratory reagents and consumables					
<b>Hours of Use</b>		Normal business hours of operation					
<b>Adjacencies</b>		Main Laboratory					
<b>Equipment/Furniture</b>		One (1) Cabinet, flammable storage Five (5) five tier S/S wire shelves, 120 x 45 cm D					
<b>Medical Equipment</b>		Not applicable					
<b>Structural</b>		See remarks					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		Proponent to design					
<b>HVAC</b>		Air condition and air exchanges as required					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120V/280 Two (2) duplex receptacles outlets					
<b>Lighting</b>		Fluorescent/ LED, recessed					
<b>Communications</b>		None					
<b>Security</b>		Keyed lockset; panic button					
<b>Remarks</b>		Proponents to propose design					

## **CLUSTER 4**

### **SERVICES:**

- WALK-IN CLINIC
- OBSTETRICS AND GYNECOLOGY
- BEDDED URGENT TREATMENT CENTRE WITH SURGE CAPACITY TO 15 BEDS
- BURNS STABILIZATION ROOM
- DECONTAMINATION ROOM

### **OPENING HOURS:**

Extended Hour Clinic:

- Walk-In Clinics and Obs & Gynae, opening hours are to be from 8 a.m. to 8 p.m. Monday to Friday
- 5 Bedded urgent care and Burns stabilization will operate 24hrs 7 days a week.

### **NOTES:**

- This cluster must have its own entry point for the general public and also be connected to the rest of the facility. This area (Walk-In clinics and Obs & Gynae) should not be accessible after hours.
- These areas shall contain an unobstructed covered Ambulance Bay, clearly defined and accessible for disabled users.



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Walk-in Clinic Entrance</b>		<b>Room/Space Number:</b>	<b>CDHF-21</b>	<b>Cluster Number:</b>	<b>4</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	0 <b>Quantity: 1</b>
<b>Function</b>	Serves as a drop off and pick up area for the Walk in Clinic						
<b>Space Description</b>	Unobstructed, clearly defined and accessible by Persons With Disabilities (PWD). A covered area should be provided for persons arriving by ambulance and private or public transport. Independent HVAC for cluster 4 should be zoned from the rest of the facility.						
<b>Hours of Use</b>	24HRS						
<b>Adjacencies</b>	Next to Pre-screening Waiting Area						
<b>Furniture</b>	None						
<b>Medical Equipment</b>	None						
<b>Structural</b>	See Remarks						
<b>Floors</b>	External: Proponent to propose design						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Concealed Grid- Gypsum Board						
<b>Doors</b>	Automatic Double Door Entrance						
<b>Hardware</b>	As specified by manufacturer						
<b>Specialties</b>	Automatic sliding door system (for hospital purpose)						
<b>HVAC</b>	With HVAC which can be zoned from the rest of the facility. Air conditioning and air exchange as required.						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	None						
<b>Life Safety</b>	Safety features e.g. automatic/ manual open in case of emergency						
<b>Power</b>	See remarks or as specified by manufacturer						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	See remarks
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data						
<b>Security</b>	CCTV Cameras, proponents to design; as specified by manufacturer						
<b>Remarks</b>	Proponent to propose design. To make provision for PWD.						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space: Triage</b>		<b>Room/Space Number:</b>	<b>CDHF</b> - 22	<b>Cluster Number:</b> 4
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Serves as the space for the initial triage of patients entering the centre			
<b>Space Description</b>	Shall be designed to allow for basic examination of patients			
<b>Hours of Use</b>	24 HOURS			
<b>Adjacencies</b>	Pre-screening waiting area			
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task Chair; Two (2) Visitor Chairs; One (1) waste bin; One (1) computer; One (1) Treatment room sink with tap; Countertops with under counter and overhead storage, lockable; One (1) TD; One (1) SD			
<b>Medical Equipment</b>	One (1) Vital signs monitor; One (1) Sphygmomanometer; One (1) wheel chair scale, One (1) Standing Patient scale			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	See remarks			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120/280V, Three (3) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed Lockset, panic button			
<b>Remarks</b>	Proponent to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Holding Bay and Observation Post-Stabilization</b>		<b>Room/Space Number:</b>	<b>CDH F -23</b>	<b>Cluster Number:</b>	<b>4</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	25m <sup>2</sup> <b>Quantity: 1</b>
<b>Function</b>		Designed for patient resuscitation.					
<b>Space Description</b>		Closed space with standard finishes.					
<b>Hours of Use</b>		24 hours					
<b>Adjacencies</b>		Close to Walk-In Clinic Entrance for easy access to the Ambulance Bay.					
<b>Equipment/Furniture</b>		One (1) Desk A; One (1) task chair, Two (2) visitor chairs; Two (2) Computers; One (1) waste Bin; One (1) Treatment room sink with tap; Countertopswith under counter and over head storage, lockable; Type 1 sink and tap; One (1) TD, One (1) SD; One (1) Cork Board.					
<b>Medical Equipment</b>		Two (2) patient trolley; Head wall with medical gases; Two (2) intravenous line (IV) stands; Two (2) Resuscitation Unit (adult & paediatric); Two (2) Ambu bag (adult); One(1) Pulse Oximeter; One (1) Adult scale (with stadiometer); One (1) wheel chair scale; Two (2) Vital signs monitor with stand (auto), One(1) ECG Recorder with cart; Two (2) Defibrillator with Crash Cart Kit; One (1) Flowmeter; One(1) X-ray view box, single panel; Two (2) Portable Nebulizers; One (1)Procedure Carts ; One(1) Sphygmomanometer; One (1) portable suction machine; Two(2) large oxygen tank; one (1) small portable oxygen tanks; One (1) Transport Ventilator					
<b>Structural</b>		See remarks Piped Oxygen & Air Outlets					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		See remarks					
<b>HVAC</b>		Air condition and air exchange as required					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120V/280, five (5) duplex receptacle outlets					
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux 500	
<b>Communications</b>		Six (6) RJ outlets for Voice/Data					
<b>Security</b>		Keyed lockset; panic button					
<b>Remarks</b>		Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Security and Information</b>		<b>Room/Space Number:</b>	<b>CDHF</b> -24	<b>Cluster Number:</b>	<b>4</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	4m <sup>2</sup> <b>Quantity:</b> 1
<b>Function</b>	Security and Porter station at main point of entry						
<b>Space Description</b>	General open space						
<b>Hours of Use</b>	24 Hours						
<b>Adjacencies</b>	Located in pre-screening waiting area.						
<b>Furniture</b>	Counter with under counter storage; Three (3) Task Chairs;						
<b>Medical Equipment</b>	None						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Concealed Grid- Gypsum Board						
<b>Doors</b>	None						
<b>Hardware</b>	None						
<b>Specialties</b>	P.A. System specific for this area						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Humidity</b>							
<b>Plumbing</b>	None						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, Two (2) duplex receptacle outlets.						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	See remarks
<b>Communications</b>	Two(2) RJ45 outlets for Voice/Data						
<b>Security</b>	CCTV Cameras, proponents to design						
<b>Remarks</b>	Proponent to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Pre-screening Waiting Area</b>		<b>Room/Space Number:</b>	<b>CDHF</b> -25	<b>Cluster Number:</b>	<b>4</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	30m <sup>2</sup> <b>Quantity:</b> 1
<b>Function</b>	Walk-in Clinic main waiting area						
<b>Space Description</b>	General open space. Seating capacity up to Twenty (20) persons.						
<b>Hours of Use</b>	8am - 8pm						
<b>Adjacencies</b>	Registration Area and Walk-in Clinic Entrance						
<b>Furniture</b>	One (1) 55" TV; Two (2) Wireless Access Points; One (1) blue-ray player; ganging chairs to accommodate 20 persons; One (1) Clock; One (1) Brochure holder; One (1) Suggestion Box; One (1) waste bin; One (1) cork board; One (1) HSD; One (1) water fountain; One (1) HERE Map						
<b>Medical Equipment</b>	None						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Concealed Grid- Gypsum Board						
<b>Doors</b>	None						
<b>Hardware</b>	None						
<b>Specialties</b>	P.A. System specific for this area						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Humidity</b>							
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, Three (3) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	See remarks
<b>Communications</b>	Two(2) RJ45 outlets for Voice/Data / Two (2) RJ45 outlets on Ceiling for Access points.						
<b>Security</b>	CCTV Cameras, proponents to design						
<b>Remarks</b>	Area should be pleasant and restful; Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> <b>Reception</b>	<b>Registration Area</b>	<b>Room/Space Number:</b>	<b>CDHF</b> <b>-26</b>	<b>Cluster Number</b> <b>:</b> <b>4</b>
<b>Length</b> <b>:</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> <b>:</b>
			3 m	<b>Nominal Area:</b> <b>15m<sup>2</sup></b>
<b>Quantity:</b>				<b>1</b>
<b>Function</b>	Registration area for the Walk-in Clinic			
<b>Space Description</b>	Fully enclosed area. A counter with adequate space behind for two (2) clerks to function and so designed to permit confidential discussions between visitors/ patients and counter staff. Should be accessible to PWDs.			
<b>Hours of Use</b>	8am to 8pm			
<b>Adjacencies</b>	Pre-screening waiting area			
<b>Furniture</b>	Counter tops with 2 windows at seated height; Partitions between each station for privacy; dispensing open & close windows; speak holes; under counter storage; One (1) Desk A; Three (3) task chairs; One (1) visitor chair; One (1) vertical filing cabinets; Two (2) Computers; One (1) multifunction network printer; One (1) Clock; One (1) white board; One (1) cork board; three (3) waste Bins; 3 linear feet of counter tops with under counter and overhead storage; Ticketing system with display.			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	P.A. System specific for this area			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control</b>	Design: 21°C	Minimum: 19°C	Maximum:	24°C
<b>Humidity</b>			:	
<b>Plumbing</b>	None			
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system			
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux 500
<b>Communications</b>	Four (4) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset and card access.			
<b>Remarks</b>	Proponent to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Senior Nurse's Room</b>		<b>Room/Space Number:</b>	<b>CDHF</b> -27	<b>Cluster Number:</b>	<b>4</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	12m <sup>2</sup>
<b>Function</b>		Oversees the Walk-in Clinic welfare portfolio.					
<b>Space Description</b>		Closed office space with standard finish					
<b>Hours of Use</b>		8am-8pm					
<b>Adjacencies</b>		Close to Registration					
<b>Furniture</b>		One (1) Desks A; One (1) Task chair, Two (2) visitor chairs; Two (2) vertical filing cabinets; One (1) Computer; One (1) Printer; One (1) waste Bin; One (1) Treatment room sink with tap; Countertops with under counter and over head storage, lockable; One (1) TD; One (1) SD; One (1) white board; One (1) cork board; One (1) refrigerator 11-12 cu.ft.					
<b>Medical Equipment</b>		One (1) Portable Diagnostic Set.					
<b>Structural</b>		See remarks					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		See remarks					
<b>HVAC</b>		Air condition and air exchange as required					
<b>Temp. Control</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Humidity</b>							
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120V/280, Three (3) duplex receptacle outlets					
<b>Lighting</b>		Fluorescent/ LED, recessed				<b>Lux</b>	<b>500</b>
<b>Communications</b>		Two(2) RJ45 outlets for Voice/Data.					
<b>Security</b>		Keyed lockset, panic button and card access.					
<b>Remarks</b>		Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Screened Patient Waiting Area</b>		<b>Room/Space Number:</b>	<b>CDHF -28</b>	<b>Cluster Number:</b>	<b>4</b>	
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	15m <sup>2</sup> <b>Quantity:</b> 1	
<b>Function</b>		Area for patients that have been screened and are waiting to see the doctor						
<b>Space Description</b>		General open space. Seating capacity up to 10 persons.						
<b>Hours of Use</b>		8AM-8PM						
<b>Adjacencies</b>		Near to Doctor's Consultation Rooms and Patient Assessment Room.						
<b>Furniture</b>		One (1) 55" TV; One (1) blue-ray player; ganging chairs to accommodate 10 persons; One (1) Clock; One (1) Brochure holder; Two (2) Wireless Access points One (1) Suggestion Box; One (1) waste bin; One (1) cork board; One (1) HSD; One (1) water fountain						
<b>Medical Equipment</b>		None						
<b>Structural</b>		See remarks						
<b>Floors</b>		Seamless Vinyl						
<b>Walls</b>		Paint Finish						
<b>Ceilings</b>		Concealed Grid- Gypsum Board						
<b>Doors</b>		None						
<b>Hardware</b>		None						
<b>Specialties</b>		P.A. System specific for this area						
<b>HVAC</b>		Air condition and air exchange as required						
<b>Temp. Control</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Humidity</b>								
<b>Plumbing</b>		Yes						
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system						
<b>Power</b>		Normal dedicated power 120V/280, Two (2) duplex receptacle outlets						
<b>Lighting</b>		Fluorescent/ LED, recessed				<b>Lux</b>	See remarks	
<b>Communications</b>		Two (2) RJ45 outlets for Voice/Data / Two (2) RJ45 outlets on Ceiling for Access Points.						
<b>Security</b>		CCTV Cameras, proponents to design						
<b>Remarks</b>		Area should be pleasant and restful; Proponents to propose design						



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Patient Assessment Room (Walk-In)</b>	<b>Room/Space Number:</b>	<b>CDHF -29</b>	<b>Cluster Number:</b>	<b>4</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m
		<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Serves as the Nurses' functional work space				
<b>Space Description</b>	Centralized space with private area, standard finishes				
<b>Hours of Use</b>	8am - 8pm				
<b>Adjacencies</b>	Near to Screened patient waiting area and Doctor's Consultation Rooms				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sinkwith tap; One (1) cork board; One (1) mobile cot/ bassinette; Countertops with under counter and over head storage, lockable; One (1) TD, One (1) SD.				
<b>Medical Equipment</b>	One (1) Adult Scale (with stadiometer); One (1) baby scale, One (1) Portal Vital signs monitor with stand; One (1) Sphygmomanometer; One (1) Procedure Cart; One(1) Pulse Oximeter;				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control</b>	Design: 21°C		Minimum: 19°C	Maximum: 24°C	
<b>Humidity</b>					
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Three (3) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data.				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Doctors Consultation Room (Walk-In)</b>	<b>Room/Space Number:</b>	<b>CDHF -30</b>	<b>Cluster Number:</b>	<b>4</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m
		<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To conduct examinations and consultations between doctor and patient				
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Sub-waiting for 3 persons.				
<b>Hours of Use</b>	8AM – 8PM				
<b>Adjacencies</b>	Close to screen patient waiting area and patient assessment room.				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sinkwith tap; One (1) cork board; Countertops with under counter and over head storage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate3 persons (external).				
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels.				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed	Lux	500		
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Doctors Consultation Room (Walk-In)</b>	<b>Room/Space Number:</b>	<b>CDHF 31</b>	<b>Cluster Number:</b>	<b>4</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To conduct examinations and consultations between doctor and patient				
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Sub-waiting for 3 persons.				
<b>Hours of Use</b>	8AM – 8PM				
<b>Adjacencies</b>	Close to screen patient waiting area and patient assessment room.				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sinkwith tap; One (1) cork board; Countertops with under counter and over headstorage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate 3 persons (external).				
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels.				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed	Lux	500		
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Isolation Room with AnteRoom</b>	<b>Room/Space Number:</b>	<b>CDHF -32</b>	<b>Cluster Number:</b>	<b>4</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m
		<b>Nominal Area:</b>	20m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To conduct examinations of possibly contagious patients				
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. It shall be sound insulated to ensure privacy and for isolation of potentially infectious cases. The ante room must serve as a hand washing and changing station for staff donning protective wear prior to entering the room. Shall contain a washroom.				
<b>Hours of Use</b>	8AM – 8PM				
<b>Adjacencies</b>	Next to Holding Bay and Observation Post-Stabilization				
<b>Equipment/Furniture</b>	<p><b>Ante Room:</b> One (1) Treatment room sink with tap; Countertops with under counter and overhead storage, lockable; One (1) TD, One (1) SD</p> <p><b>Attached washroom:</b> One (1) water closet (PWD); One (1) Type 1 sink and tap with vanity countertops, mirror, One (1) TPD, One (1) TD, One (1) SD; One (1) waste bin; One (1) clothes hook</p> <p><b>Isolation Room:</b> One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sinkwith tap; Countertops with under counter and overhead storage, lockable; One (1) TD, One (1) SD.</p>				
<b>Medical Equipment</b>	<p><b>Isolation Room:</b> One (1) Examination couch; Head wall with medical gasses; One (1) Kickstep stool; Antibacterial Curtain(s); One (1)Procedure Cart; One (1) Wallmounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light.</p>				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	100% Fresh Air exchange, exhaust fan (negative air pressure must be maintained)				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Dirty Utility/ Sluice</b>		<b>Room/Space Number:</b>	<b>CDHF</b> -33	<b>Cluster Number:</b>	<b>4</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	10m <sup>2</sup> <b>Quantity:</b> 1
<b>Function</b>		Shall be designed for sterile service returns or waste facilities for disposal of single use disposable instruments.					
<b>Space Description</b>		Closed space for storage and cleaning of medical equipment with an external access for collection and disposal of solid waste. Internal and external doors required with external cleaning bay. Two Doors: Door Leading to external of the building and Door Leading to internal corridor/ common area.					
<b>Hours of Use</b>		24HRS					
<b>Adjacencies</b>		None specific					
<b>Equipment/Furniture</b>		9 linear feet of Stainless Steel counters with under counter storage; stainlesssteel conical sluice bowl with a regular sink bowl and a drain board; One (1) TD, One (1) SD; One (1) Wall mounted stainless steel storage cupboard; One (1) large waste bin					
<b>Medical Equipment</b>		None					
<b>Structural</b>		See remarks					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Seamless Vinyl					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		One (1) standard solid wood core (internal) and one (1) weatherproof metal door (external); proponent to design					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		See remarks					
<b>HVAC</b>		100% Fresh Air exchange, exhaust fan (negative air pressure must be maintained)					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and alarm system					
<b>Power</b>		Normal dedicated 120/280V, two(2) duplex GFCI receptacle outlets					
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux 500	
<b>Communications</b>		None					
<b>Security</b>		Keyed lockset					
<b>Remarks</b>		Proponent to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Linens Storage Closet</b>		<b>Room/Space Number:</b>	<b>CDHF</b> -34	<b>Cluster Number:</b>	<b>4</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	1m <sup>2</sup>
<b>Function</b>		Space to store Linen					
<b>Space Description</b>		Closed space with standard finish					
<b>Hours of Use</b>		Normal business hours of operation					
<b>Adjacencies</b>		None Specific					
<b>Furniture</b>		Floor to ceiling shelving on 3 walls.					
<b>Medical Equipment</b>		Linen Warmer					
<b>Structural</b>		See remarks					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		See remarks					
<b>HVAC</b>		Air condition and air exchange as required					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		None					
<b>Life Safety</b>		Sprinkler, Fire detection and alarm system					
<b>Power</b>		None					
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux 500	
<b>Communications</b>		None					
<b>Security</b>		Keyed lockset					
<b>Remarks</b>		Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Obstetrics and Gynecology Doctor's Consultation Room 1</b>		<b>Room/Space Number:</b>	<b>CDH F-35</b>	<b>Cluster Number:</b>	<b>4</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To conduct examinations and consultations between doctor and patient					
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Sub-waiting for 3 persons.					
<b>Hours of Use</b>	Normal business hours of operation					
<b>Adjacencies</b>	Near to screened patient waiting area for Walk in Clinic					
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sinkwith tap; One (1) cork board; Countertops with under counter and overheadstorage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate 3 persons (external).					
<b>Medical Equipment</b>	One (1) Examination couch with stirrups; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels. One Foetal handheld doppler. One Portable Ultrasound Unit with Transvaginal Ultrasound Probe					
<b>Structural</b>	See remarks					
<b>Floors</b>	Seamless Vinyl					
<b>Walls</b>	Paint Finish					
<b>Ceilings</b>	Suspended ceiling tile					
<b>Doors</b>	Standard solid wood core					
<b>Hardware</b>	Keyed lockset					
<b>Specialties</b>	See remarks					
<b>HVAC</b>	Air condition and air exchange as required					
<b>Temp. Control</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C			
<b>Humidity</b>						
<b>Plumbing</b>	Yes					
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system					
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets					
<b>Lighting</b>	Fluorescent/ LED, recessed				Lux	5 0 0
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data					
<b>Security</b>	Keyed lockset; panic button					
<b>Remarks</b>	Proponents to propose design					

**USER SPACE REQUIREMENTS**  
**DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF**  
**A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Obstetrics and Gynecology Doctor's Consultation Room 2</b>	<b>Room/Space Number:110</b>	<b>CDH F - 36</b>	<b>Cluster Number:</b>	<b>4</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To conduct examinations and consultations between doctor and patient				
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Sub-waiting for 3 persons.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Near to screened patient waiting area for Walk in Clinic				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sinkwith tap; One (1) cork board; Countertops with under counter and overhead storage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate 3 persons (external).				
<b>Medical Equipment</b>	One (1) Examination couch with stirrups; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels. One Foetal handheld doppler.				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Humidity</b>					
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			<b>Lux</b>	5 0 0
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Obstetrics and Gynecology Doctor's Consultation Room 3</b>		<b>Room/Space Number:111</b>	<b>CDH F - 37</b>	<b>Cluster Number: 4</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> 3 m	<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity: 1</b>
<b>Function</b>	To conduct examinations and consultations between doctor and patient				
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Sub-waiting for 3 persons.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Near to screened patient waiting area for Walk in Clinic				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sinkwith tap; One (1) cork board; Countertops with under counter and over headstorage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate 3 persons (external).				
<b>Medical Equipment</b>	One (1) Examination couch with stirrups; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels. One foetal handheld doppler.				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Humidity</b>					
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Five Bed (expandable to 15) Treatment Area</b>		<b>Room/Space Number:</b>	CDHF- 38	<b>Cluster Number:</b>	4			
<b>Length:</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height:</b>	3m	<b>Nominal Area:</b>	150m <sup>2</sup>	<b>Quantity:</b>	1
<b>Function</b>	Designed for patient care treatment capable for resuscitation.								
<b>Space Description</b>	Closed space with standard finishes.								
<b>Hours of Use</b>	24 hours								
<b>Adjacencies</b>	Urgent Care Consult and Treatment Room								
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) task chair, Two (2) visitor chairs; One (1) Computer; Five (5) overbed tables; Five (5) bedside chairs; Five (5) curtain tracks/ cubicles; Clock; Five (5) waste Bin; Five (5) Sharps bins; One (1) Treatment room sink with tap; Countertops with under counter and overhead storage, lockable; Type 1 sink and tap; One (1) TD, One (1) SD; One (1) Cork Board.								
<b>Medical Equipment</b>	Five (5) patient trolleys; Head wall with medical gases; Five (5) intravenous line (IV) stands; Five (5) Resuscitation Unit (4 adult & 1 paediatric); Four (4) Ambu bag (adult); One Ambu bag (pediatric); Five(5) Pulse Oximeters; One (1) Adult scale (with stadiometer); One (1) wheel chair scale; Five (5) Vital signs monitors wall mounted (auto), One (1) Portable Vital Sign Monitor with stand (auto), One(1) ECG Recorder with cart; Two (2) Defibrillators, Two (2) Crash Cart Kits; Five (5) Flowmeter; One(1) X-ray view box, single panel; Five (5) Portable Nebulizers; Five (5) Procedure Carts; Five (5) Oxygen saturation monitors; Piped oxygen capable to supply 15 beds (surge capacity), Wall suction to supply 15 beds, Five (5) cardiac monitors, Five (5) wall mounted diagnostic sets; Five (5) infusion pumps; Five (5) medical/surgical carts; Five (5) Sphygmomanometers; Five (5) thermometers; Five (5) portable suction machine; Five (5) patient foot stools; Five (5) large oxygen tanks; five (5) small portable oxygen tanks, Two (2) Transport Ventilator with CPAP capability (adult and pediatric capable); PACS/RIS/HIS computer work-station and network drops. One (1) mobile cot/ bassinette, five (5) examination beds								
<b>Structural</b>	See remarks Piped Oxygen & Air outlets								
<b>Floors</b>	Seamless Vinyl								
<b>Walls</b>	Paint Finish								
<b>Ceilings</b>	Suspended ceiling tile								
<b>Doors</b>	Standard solid wood core								
<b>Hardware</b>	Keyed lockset								
<b>Specialties</b>	See remarks								
<b>HVAC</b>	Air condition and air exchange as required								
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C				
<b>Plumbing</b>	Yes								
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system								
<b>Power</b>	Normal dedicated power 120V/280, five (5) duplex receptacle outlets								
<b>Lighting</b>	Fluorescent/ LED, recessed				Lux		500		
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data								
<b>Remarks</b>	Proponents to propose design								

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Consultant Room</b>		<b>Room/Space Number:</b>	CDHF - 39	<b>Cluster Number:</b>	4
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	10m <sup>2</sup>
				<b>Quantity:</b>	1		
<b>Function</b>	Office to conduct activities associated with management of the facility						
<b>Space Description</b>	Office space.						
<b>Hours of Use</b>	24 hours						
<b>Adjacencies</b>	Close to Medical Preparation Room						
<b>Equipment/Furniture</b>	One (1) Desk; One (1) Office Chair; Two (2) Visitor Chairs; One (1) waste bin; One (1) computer; One (1) Printer; Three (3) vertical filing cabinet, One (1) Wall Clock, One (1) 3.3cu ft Refrigerator, One (1) Artificial potted plant, One (1) Whiteboard 2x3ft						
<b>Medical Equipment</b>	None PACS/RIS/HIS computer work-station and network drops.						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	None						
<b>HVAC</b>	Air conditioning and air exchange as required						
<b>Temp. Control / Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	None						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120/280V, two (2) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data						
<b>Security</b>	Keyed lockset, card access						
<b>Remarks</b>	Proponent to design.						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Medication Preparation Room</b>	<b>Room/Space Number:</b>	CDHF - 40	<b>Cluster Number:</b>	4
<b>Length:</b> See Remarks	<b>Width:</b> See Remarks	<b>Height:</b> 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b>	1
<b>Function</b>	Designed for storing/ preparing medications to be administered				
<b>Space Description</b>	Closed space with standard finish				
<b>Hours of Use</b>	24 hours				
<b>Adjacencies</b>	Next to Urgent Care Consultant & Treatment Room				
<b>Equipment/Furniture</b>	One (1) Desk; One (1) task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sink with tap; Countertops with under counter and over head storage, lockable; Type 1 sink and tap; One (1) TD, One (1) SD; One (1) 4 cu. ft. refrigerator; One(1) Cork Board; One (1) clock, Wall-mounted shelving;				
<b>Medical Equipment</b>	Two (2) locked medication cabinets; Two (2) wall-mounted DDA/ narcotic cupboards; Two (2) Medication trolleys/ carts;				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, five (5) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Minor Procedure Room</b>		<b>Room/Space Number:</b>	CDHF - 41	<b>Cluster Number:</b>	4
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	12m <sup>2</sup>
<b>Function</b>		Designed for minor surgical procedures and applying or removing of sutures, etc.					
<b>Space Description</b>		Closed space with standard finish					
<b>Hours of Use</b>		24 hours					
<b>Adjacencies</b>		Next to Treatment Room. Close to Doctor's consultation rooms.					
<b>Equipment/Furniture</b>		One (1) Desk A; One (1) task chair, Two (2) visitor chairs; One (1) waste Bin; One (1) Clothes Hook; One (1) Treatment room sink with tap; Countertops with under counter and over head storage, lockable; Type 1 sink and tap; One (1) TD, One (1) SD					
<b>Medical Equipment</b>		One (1) Patient Trolley; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Procedure Cart; One (1) Free Standing Examination Light; One (1) X-ray view box, single panel; One(1) Snellen's Chart; One(1) Overhead <u>Procedure/Minor Surgery Lights</u> ; One (1) Examination Stool					
<b>Structural</b>		See remarks					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		See remarks					
<b>HVAC</b>		Air condition and air exchange as required					
<b>Temp. Control Humidity</b>		Design:	21°C	Minimum:	19°C	Maximum:	24°C
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120V/280, three (3) duplex receptacle outlets					
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux	500
<b>Communications</b>		Two (2) RJ45 outlets for Voice/Data					
<b>Security</b>		Keyed lockset; panic button					
<b>Remarks</b>		Proponent to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> ECG Room		<b>Room/Space Number:</b>	<b>CDHF</b> -42	<b>Cluster Number:</b> 4
<b>Length</b> See Remarks	<b>Width:</b> See Remarks	<b>Height</b> 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Serves as the Nurses' functional work space			
<b>Space Description</b>	Centralized space with private area, standard finishes			
<b>Hours of Use</b>	24 hours			
<b>Adjacencies</b>	Close to Doctor's Consultation Rooms			
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sink with tap; One (1) cork board; overhead storage, lockable; One (1) TD, One (1) SD.			
<b>Medical Equipment</b>	One (1) Portable Vital with stand signs monitor; One (1) Sphygmomanometer; One (1) Procedure Cart; One(1) Pulse Oximeter; One (1) ECG machine; PACS/RIS/HIS computer work-station and network drops.			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	See remarks			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Humidity</b>				
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120V/280, Three (3) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset; panic button			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS**  
**DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF**  
**A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Asthma Treatment Room		<b>Room/Space Number:</b>	<b>CDHF</b> -43	<b>Cluster Number:</b> 4
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> 3 m	<b>Nominal Area:</b> 15m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	For wheezing patients to be nebulized			
<b>Space Description</b>	General open space. Seating capacity up to 10 persons.			
<b>Hours of Use</b>	24 hours			
<b>Adjacencies</b>	Near to five (5) bedded treatment area			
<b>Furniture</b>	One (1) 55" TV; recliner chairs to accommodate 10 persons; One (1) Clock; One (1) Brochure holder; One (1) waste bin; One (1) cork board; One (1) HSD; One (1) water fountain, One (1) Access Point			
<b>Medical Equipment</b>	Five (5) nebulizers; Piped oxygen; Wall suction			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Concealed Grid- Gypsum Board			
<b>Doors</b>	None			
<b>Hardware</b>	None			
<b>Specialties</b>	P.A. System specific for this area			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120V/280, Two (2) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	See remarks
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	CCTV Cameras, proponents to design			
<b>Remarks</b>	Area should be pleasant and restful; Proponents to propose design			

<b>USER SPACE REQUIREMENTS</b>				
<b>DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF</b>				
<b>A NEW CHAGUANAS HEALTH FACILITY</b>				
<b>Activity Space:</b>	<b>Burns Stabilization Room</b>	<b>Room/Space Number:</b>	<b>CDHF-44</b>	<b>Cluster Number: 4</b>
<b>Length:</b> See Remarks	<b>Width:</b> See Remarks	<b>Height:</b> 3 m	<b>Nominal Area:</b> 25m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Designed for patient stabilization for transfer			
<b>Space Description</b>	Closed space with standard finishes. Internal Bathroom suitable to Bathe Patient			
<b>Hours of Use</b>	24Hrs			
<b>Adjacencies</b>	Close to Walk-In Clinic Entrance for easy access to the Ambulance Bay. Direct Access to Ambulance Bay. Separate staff entrance and exit that includes a small change area with a don and doff corridors to enter burn unit.			
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sink with tap; Countertopswith under counter and over head storage, lockable; Type 1 sink and tap; One (1) TD, One (1) SD; One (1) Cork Board.			
<b>Medical Equipment</b>	Two (2) patient trolley; Head wall with medical gases; Two (2) intravenous line (IV)stands; Two (2) Resuscitation Unit (adult & paediatric); One(1) Ambu bag (adult); One(1) Pulse Oximeter; One (1) Adult scale (with stadiometer); One (1) wheel chair scale; One(1) Vital signs monitor with stand (auto), One(1) ECG Recorder with cart; One (1) Defibrillator with Crash Cart Kit; One (1) Flowmeter; One(1) X-ray view box, single panel; Two (2) Portable Nebulizers; One (1)Procedure Carts ; One(1) Sphygmomanometer; One (1) portable suction machine; One(1) large oxygen tank; one (1) small portable oxygen tanks. One (1) Patient lift system			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl with floor drain			
<b>Walls</b>	Paint Finish with antimicrobial treatment OR fully tiled ceiling to floor Especially Patient Shower Area			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	See remarks			
<b>HVAC</b>	Air condition and air exchange as required. Hepa Filter of recirculated air or Filtered Fresh Air System			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120V/280, five (5) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed UV lighting in all appropriate areas		Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset			
<b>Remarks</b>	Proponents to propose design			



**USER SPACE REQUIREMENTS**  
**DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF**  
**A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Decontamination Room</b>		<b>Room/Space Number:</b>	<b>CDH F 45</b>	<b>Cluster Number:</b>	<b>4</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	14m <sup>2</sup>
<b>Function</b>		To allow safe decontamination of patients post burn					
<b>Space Description</b>		Shall be designed to allow for either a wheelchair or patient trolley					
<b>Hours of Use</b>		24 hours					
<b>Adjacencies</b>		Next to burns stabilization room					
<b>Equipment/Furniture</b>		Sluice sink Eyewash station Wall mounted shower Floor Drain Stainless steel fire proof bins to take clothing soaked in flammable material					
<b>Medical Equipment</b>							
<b>Structural</b>							
<b>Floors</b>		Seamless vinyl					
<b>Walls</b>		Seamless vinyl					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		See remarks					
<b>HVAC</b>		Air condition and air exchange as required					
<b>Temp. Control</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Humidity</b>							
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system Wall mounted fire extinguishers					
<b>Power</b>		NONE					
<b>Lighting</b>		Fluorescent/ LED, recessed UV LIGHTING				<b>Lux</b>	<b>500</b>
<b>Communications</b>		Two (2) phone/ data/ communication outlet.					
<b>Security</b>		Keyed lockset; panic button					
<b>Remarks</b>		Proponents to propose design					

## **CLUSTER 5**

### **SERVICES:**

- WASHROOMS FOR CLUSTERS 1, 2, 3 & 4 - Staff and Public

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Staff Male Washroom</b>	<b>Room/Space Number:</b>	<b>CD HF-46</b>	<b>Cluster Number:</b>	<b>5</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m
		<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	General washroom for Staff.				
<b>Space Description</b>	Washrooms fitted with WC and sinks.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	None				
<b>Equipment/Furniture</b>	Two (2) water closet (one for PWD); Two (2) Urinal; Two (2) Type 1 sink and tap with vanity counter tops, mirror(s), Two (1) TPD, One (1) TD, One (1) SD; One (1) waste bin; Two (2) clothes hook, One (1) full length mirror				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See Remarks				
<b>Floors</b>	Porcelain Tiles				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset ; See remarks				
<b>Specialties</b>	Grab Bars				
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system				
<b>Power</b>	Normal dedicated power 120/280V, One (1) GFCI duplex receptacle outlet				
<b>Lighting</b>	Fluorescent/ LED, recessed			<b>Lux</b>	<b>350</b>
<b>Communications</b>	None				
<b>Security</b>	Keyed lockset				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Staff Female Washroom		<b>Room/Space Number:</b>	<b>CD HF-47</b>	<b>Cluster Number:</b> 5
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 14m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	General washroom for Staff.			
<b>Space Description</b>	Washrooms fitted with WC and sinks.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	None			
<b>Equipment/Furniture</b>	Three (3) water closets (One for PWD); Three (3) Type 2 sinks and tap with vanity counter tops, mirror(s), Three (3) TPD, Two (2) TD, Two (2) SD; One (1) waste bin; Three (3) clothes hook, One (1) Full length mirror;			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See Remarks			
<b>Floors</b>	Porcelain Tiles			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset ; See remarks			
<b>Specialties</b>	None			
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system			
<b>Power</b>	Normal dedicated power 120/280V, One (1) GFCI duplex receptacle outlet			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	350
<b>Communications</b>	None			
<b>Security</b>	Keyed lockset			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Public Male Washroom		<b>Room/Space Number:</b>	<b>CD HF-48</b>	<b>Cluster Number:</b> 5
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	General washroom for the Public.			
<b>Space Description</b>	Washrooms fitted with WC and sinks.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	None			
<b>Equipment/Furniture</b>	Two (2) water closet (one for PWD); Two (2) Urinal; Two (2) Type 1 sink and tap with vanity counter tops, mirror(s), Two (1) TPD, One (1) TD, One (1) SD; One (1) waste bin; Two (2) clothes hook; One (1) Full length mirror			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See Remarks			
<b>Floors</b>	Porcelain Tiles			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset ; See remarks			
<b>Specialties</b>	None			
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system			
<b>Power</b>	None			
<b>Lighting</b>	Fluorescent/ LED, recessed		<b>Lux</b>	350
<b>Communications</b>	None			
<b>Security</b>	Keyed lockset			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Public Female Washroom		<b>Room/Space Number:</b>	<b>CD HF-49</b>	<b>Cluster Number:</b> 5
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 14m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	General washroom for the Public.			
<b>Space Description</b>	Washrooms fitted with WC and sinks.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	None			
<b>Equipment/Furniture</b>	Three (3) water closets (One for PWD); Three (3) Type 2 sinks and tap with vanity counter tops, mirror(s), Three (3) TPD, Two (2) TD, Two (2) SD; One (1) waste bin; Three (3) clothes hook; One (1) Full length mirror;			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See Remarks			
<b>Floors</b>	Porcelain Tiles			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset ; See remarks			
<b>Specialties</b>	None			
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system			
<b>Power</b>	None			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	350
<b>Communications</b>	None			
<b>Security</b>	Keyed lockset			
<b>Remarks</b>	Proponents to propose design			

## **CLUSTER 6**

### **SERVICES:**

- STORES DEPARTMENT

### **OPENING HOURS:**

8 a.m. to 4 p.m. Monday to Friday.

### **SERVICE: STORES DEPARTMENTNOTES:**

- Accessible by persons located in this department only.
- Separate entrance for vehicular access for service vehicles.
- Access or Egress separate from the rest of the facility.
- Internal entrance leading into the main building from the stores area.

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Delivery Entrance		<b>Room/Space Number:</b>	<b>CDH F -50</b>	<b>Cluster Number:</b> 6
<b>Length:</b> See Remarks	<b>Width:</b> See Remarks	<b>Height:</b> 3 m	<b>Nominal Area:</b> 0m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Serves as the main drop off/Pick up area for deliveries. Entrance to Storage Area.			
<b>Space Description</b>	A covered external area with ramp for delivery of consumables by light to medium vehicles.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	None			
<b>Furniture</b>	Roller shutter doors and pedestrian entrance door			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See Remarks			
<b>Floors</b>	Epoxy Flooring or Flooring suitable for a storage area			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Roller shutter door & pedestrian door; Proponent to design.			
<b>Hardware</b>	Keyed lockset ; See remarks			
<b>Specialties</b>	See Remarks			
<b>HVAC</b>	Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	None			
<b>Life Safety</b>	Safety features e.g. automatic/ manual open in case of fire, etc.			
<b>Power</b>	See remarks or as specified by manufacturer			
<b>Lighting</b>	Fluorescent/ LED, recessed	Lux	See remarks	
<b>Communications</b>	None			
<b>Security</b>	As specified by manufacturer. Keyed lockset and Card Access			
<b>Remarks</b>	Proponent to propose design			



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Non-Pharm Storage		<b>Room/Space Number:</b>	<b>CDH F -51</b>	<b>Cluster Number:</b> 6
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 30m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Space to store dry medical materials			
<b>Space Description</b>	Closed space with standard finish			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	None			
<b>Furniture</b>	80 linear feet of shelving. Four (4) Storage cabinets; Two (2) Stainless Steel Work Tables 98x124x61cm, One (1) 4ftx6ft Whiteboard. Receiving Area: One (1) Stainless Steel Work Table 98x124x61cm, Three(3) Computers, One (1) Printer, One (1) Vertical Filing Cabinets, Three (3) Desk A, Three (3) Executive Chair, Three (3) Visitor Chair, One (1) 22cu Fridge to store reagents, One (1) Heavy Duty Duplicator.			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See Remarks			
<b>Floors</b>	Epoxy Flooring or Flooring suitable for a storage area			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended Gypsum Tiles			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	See remarks			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	None			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120V/280, One (1) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux 500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset; card access			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Groundsman's Storage Shed		<b>Room/Space Number:</b>	<b>CDH</b> F -52	<b>Cluster Number:</b> 6
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 8m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Space to House Landscaping materials			
<b>Space Description</b>	Closed space with standard finish			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	None			
<b>Furniture</b>	8 linear feet of shelving, One (1) Stainless Steel Work Table 98x124x61cm, 2 Storage Cabinets			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See Remarks			
<b>Floors</b>	Epoxy Flooring or Flooring suitable for a storage area			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended Gypsum Tiles			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	See remarks			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Humidity</b>				
<b>Plumbing</b>	None			
<b>Life Safety</b>	Fire detection and alarm system			
<b>Power</b>	Normal dedicated power 120/280V, One (1) duplex outlet			
<b>Lighting</b>	Fluorescent/ LED, recessed		<b>Lux</b>	500
<b>Communications</b>	None			
<b>Security</b>	Keyed lockset			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>External Biohazard Storage Area</b>	<b>Room/Space Number:</b>	<b>CDH F -53</b>	<b>Cluster Number:</b>	<b>6</b>	
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	
		<b>Nominal Area:</b>	10m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>	
<b>Function</b>	External Biohazard Storage					
<b>Space Description</b>	External to building					
<b>Hours of Use</b>	To be accessible by staff at any time.					
<b>Adjacencies</b>	None					
<b>Furniture</b>	Large Freezer					
<b>Medical Equipment</b>	None					
<b>Structural</b>	See Remarks					
<b>Floors</b>	See remarks					
<b>Walls</b>	Paint Finish					
<b>Ceilings</b>	See Remarks					
<b>Doors</b>	Metal Double door					
<b>Hardware</b>	Keyed lockset					
<b>Specialties</b>	See Remarks					
<b>HVAC</b>	Natural ventilation					
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C			
<b>Plumbing</b>	None					
<b>Life Safety</b>	See Remarks					
<b>Power</b>	None					
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	See remarks	
<b>Communications</b>	None					
<b>Security</b>	Keyed lockset					
<b>Remarks</b>	Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Storage Room for Oxygen tanks</b>	<b>Room/Space Number:</b>	<b>CDH F -54</b>	<b>Cluster Number:</b>	<b>6</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m
		<b>Nominal Area:</b>	5m <sup>2</sup>	<b>Quantity:</b>	1
<b>Function</b>	Space to Store Oxygen tanks that have to be piped to rest of facility.				
<b>Space Description</b>	Closed space with external entry				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	None				
<b>Furniture</b>	Wall hooks to anchor Ten(10) Large oxygen cylinders safely to the wall				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See Remarks				
<b>Floors</b>	See Remarks				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	See Remarks				
<b>Doors</b>	See Remarks				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See Remarks				
<b>HVAC</b>	Extractor fan & Natural Ventilation; See Remarks				
<b>Temp. Control Humidity</b>	Design: 28°C	Minimum: 19°C	Maximum: 30°C		
<b>Plumbing</b>	None				
<b>Life Safety</b>	See Remarks				
<b>Power</b>	Normal dedicated power 120/280V, One (1) duplex outlet				
<b>Lighting</b>	See Remarks			Lux	See remarks
<b>Communications</b>	None				
<b>Security</b>	Keyed lock set				
<b>Remarks</b>	Proponents to propose design				

**CLUSTER 7**

**SERVICES:**

- GROUND FLOOR GENERAL REQUIREMENTS

**OPENING HOURS:**

24 hours

**NOTES:**

- Location of Security Officers booth – near to main gate; external location.
- Location of housekeeping room – non specific

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Security Officers Booth		<b>Room/Space Number:</b>	<b>CD HF-55</b>	<b>Cluster Number:</b> 7
<b>Length:</b> See Remarks	<b>Width:</b> See Remarks	<b>Height:</b> 3 m	<b>Nominal Area:</b> 10m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	To Monitor all vehicles entering and leaving the compound. To house security officers and to allow for monitoring of security cameras during those periods.			
<b>Space Description</b>	Closed space with external entry. Shall have clear view of Gate And Parking lot.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	Located by the Main Gate.			
<b>Furniture</b>	<p><b>General:</b> Active Windows to allow for communicated between guards and persons in vehicles entering and leaving the compound. Counters with Two (2) task chairs; Security Monitors; One (1) WasteBin; One (1) Wall clock.</p> <p><b>Washroom:</b> One (1) water closet; One(1) Type 1 sink and tap with vanity counter tops, mirror(s), One (1) TPD, One (1) TD, One (1) SD; One (1) waste bins;</p> <p><b>Locker Area:</b> Two (2) Two tiered lockers; Two (2) Clothes Hooks; One (1) full length mirror_</p>			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See Remarks			
<b>Floors</b>	Porcelain Tiles			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset ; See remarks			
<b>Specialties</b>	None			
<b>HVAC</b>	Exhaust fan and Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system			
<b>Power</b>	Normal dedicated power 120/280V, two (2) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Housekeeping Room</b>		<b>Room/Space Number:</b>	<b>CH F-56</b>	<b>Cluster Number:</b>	<b>7</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	5m <sup>2</sup> <b>Quantity:</b> 1
<b>Function</b>		Shall be designed for use by Housekeeping staff.					
<b>Space Description</b>		Closed space for storage of janitorial supplies and equipment					
<b>Hours of Use</b>		Normal business hours of operation					
<b>Adjacencies</b>		None					
<b>Equipment/Furniture</b>		3 linear feet of shelving One (1) Janitorial sink with tap; One (1) TD, One (1) SD; One (1) large waste bin; One (1)mop & broom rack; One (1) Cleaner's Trolley					
<b>Medical Equipment</b>		None					
<b>Structural</b>		See Remarks					
<b>Floors</b>		Porcelain Tiles					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset ; See remarks					
<b>Specialties</b>		None					
<b>HVAC</b>		Exhaust fan, Air conditioning and air exchange as required					
<b>Temp. Control Humidity</b>		Design 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and alarm system					
<b>Power</b>		Normal dedicated power 120/280V, One (1) GFCI duplex receptacle outlets					
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux 500	
<b>Communications</b>		None					
<b>Security</b>		Keyed lockset					
<b>Remarks</b>		Proponents to propose design					

## **FIRST FLOOR**

### **Cluster 8**

- GENERAL SERVICES
- HEALTH CENTRE CLINIC
- SPECIALTY CLINIC
- DENTAL DEPARTMENT
- HEALTH INFORMATION DEPARTMENT
- WASHROOMS

### **Cluster 9**

- SEMINAR ROOM
- ADMINISTRATIVE DEPARTMENT
- WASHROOMS
- WELLNESS AREA

### **Cluster 10**

- 1ST FLOOR GENERAL REQUIREMENTS



### **Cluster 8**

- GENERAL SERVICES
- HEALTH CENTRE CLINIC
- SPECIALTY CLINIC
- DENTAL DEPARTMENT
- HEALTH INFORMATION DEPARTMENT
- WASHROOMS

### **OPENING HOURS:**

8 a.m. to 4pm. Monday to Friday.

### **SERVICE: GENERAL SERVICES**

#### **NOTES:**

- These services will be shared by the Dental and Health Centre Services

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> <b>Reception</b>		<b>Registration Area</b>		<b>Room/Space Number:</b>	<b>CHF -57</b>	<b>Cluster Number :</b>	<b>8</b>	
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	8m <sup>2</sup>	
<b>Function</b>		Registration of Patients						
<b>Space Description</b>		Cubicle for One (1) clerks to function and so designed to permit confidential discussions between visitors/ patients and counter staff. Should be accessible to PWDs.						
<b>Hours of Use</b>		Normal business hours of operation						
<b>Adjacencies</b>		Within the waiting area. Next to Dental Suite.						
<b>Furniture</b>		Cubicle: One (1) Desk A; one (1) Task Chair; Two (2) Visitor Chairs; One (1) waste bin; One (1) computer; One (1) vertical filing cabinet; One (1) multifunction network printer.						
<b>Medical Equipment</b>		None						
<b>Structural</b>		See remarks						
<b>Floors</b>		Seamless Vinyl						
<b>Walls</b>		Paint Finish						
<b>Ceilings</b>		Concealed Grid- Gypsum Board						
<b>Doors</b>		None						
<b>Hardware</b>		None						
<b>Specialties</b>		None						
<b>HVAC</b>		Air condition and air exchange as required						
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum : 24°C		
<b>Plumbing</b>		None						
<b>Life Safety</b>		Sprinkler, Fire detection and alarm system						
<b>Power</b>		Normal dedicated power 120V/280, Five (5) duplex receptacle outlets						
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux		See remarks
<b>Communications</b>		Three (3) RJ45 outlets for Voice/Data						
<b>Security</b>		None						
<b>Remarks</b>		Proponent to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Consultation Room		<b>Room/Space Number:</b>	<b>CHF</b> -58	<b>Cluster Number:</b> 8
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :
				3 m
		<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	To conduct examinations and consultations between doctor and patient			
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	Triage and Waiting area			
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS; One (1) waste Bin; One (1) Treatment room sink with tap; Countertops with under counter and overhead storage, lockable; One (1) cork board; One (1) TD, One (1) SD			
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Wall mounted Examination Light; One (1) X-ray view box with single panel; Two (2) Tendon Hammers;			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	Proponent to design.			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control</b>	Design: 21°C		Minimum: 19°C	Maximum: 24°C
<b>Humidity</b>				
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux 500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset; panic button			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Consultation Room		<b>Room/Space Number:</b>	<b>CHF</b> -59	<b>Cluster Number:</b> 8
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	To conduct examinations and consultations between doctor and patient			
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	Triage and Waiting area			
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS; One (1) waste Bin; One (1) Treatment room sink with tap; Countertops with under counter and overhead storage, lockable; One (1) cork board; One (1) TD, One (1) SD			
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Wall mounted Examination Light; One (1) X-ray view box with single panel; Two (2) Tendon Hammers			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	Proponent to design.			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux 500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data.			
<b>Security</b>	Keyed lockset; panic button			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Child Development Clinic Consultation Room</b>	<b>Room/Space Number:</b>	<b>CHF -60</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m
		<b>Nominal Area:</b>	16m <sup>2</sup>	<b>Quantity:</b>	1
<b>Function</b>	To conduct specialist examinations and consultations between doctor and patients for the Child Development Clinic				
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination of paediatric clients.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Triage and Consultation rooms				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS; One (1) waste Bin; One (1) Treatment room sink with tap; Countertops with under counter and over head storage, lockable; One (1) TD, One (1) SD; One (1) Storage Cabinet; One (1) set of Children's Table with Chairs; Padded floor mat; Small Bookcase				
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Wall mounted Examination Light; One (1) X-ray view box with 2 panels; One (1) Developmental Kit				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	Decorated/ Painted with cartoon characters, figures, scenery, etc. (Children inspired interior design); Proponent to design.				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Consultant Office		<b>Room/Space Number:</b>	<b>CHF</b> -61	<b>Cluster Number:</b> 8
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Office for the Consultant			
<b>Space Description</b>	For Administrative services.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	None			
<b>Equipment/Furniture</b>	One (1) Desk B; One (1) Office chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS; One (1) waste Bin; One (1) Treatment room sink with tap; One (1) desktop printer; One (1) Storage Cabinet; One (1) vertical filing cabinet; One (1) small refrigerator 4 cu. Ft.			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	See remarks			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed	Lux	500	
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset; panic button			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Dirty Utility/ Sluice</b>	<b>Room/Space Number:</b>	<b>CHF- 62</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m
		<b>Nominal Area:</b>	10m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Shall be designed for sterile service returns or waste facilities for disposal of single use disposable instruments.				
<b>Space Description</b>	Closed space for storage and cleaning of medical equipment.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	To be shared with Specialty Clinic.				
<b>Equipment/Furniture</b>	9 linear feet of Stainless Steel counters with under counter storage; stainless steel conical sluice bowl with a regular sink bowl and a drain board; One (1) TD, One (1) SD; One (1) Wall mounted stainless steel storage cupboard; (1) large waste bin				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Seamless Vinyl				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	100% Fresh Air exchange, exhaust fan (negative air pressure must be maintained)				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system				
<b>Power</b>	Normal dedicated 120/280V, two(2) duplex GFCI receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	None				
<b>Security</b>	Keyed lockset				
<b>Remarks</b>	Proponent to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> <b>Waiting Area</b>		<b>Room/Space Number:</b>	<b>CHF -63</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m
		<b>Nominal Area:</b>	25m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Waiting Area for Dental and Imaging Patients				
<b>Space Description</b>	General open space with seating capacity up to thirty (30) persons.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Dental Suite				
<b>Furniture</b>	One (1) 42" TV; One (1) blue-ray player; ganging chairs to accommodate 20 persons; One (1) Clock; One (1) Brochure holder; One (1) Suggestion Box; One (1) waste bin; One (1) HSD; One (1) water fountain, One (1) Access Point				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See remarks				
<b>Floors</b>	Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Concealed Grid- Gypsum Board				
<b>Doors</b>	None				
<b>Hardware</b>	None				
<b>Specialties</b>	None				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Two (2) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	See remarks
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	CCTV Cameras, proponents to design				
<b>Remarks</b>	Area should be pleasant and restful. Proponents to propose design				



**SERVICE: HEALTH CENTRE CLINIC**

**NOTES: located on 01<sup>st</sup> floor**

- This area should not to be accessible after hours.

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space: Triage</b>			<b>Room/Space Number:</b>	<b>CHF -64</b>	<b>Cluster Number: 8</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity: 1</b>
<b>Function</b>	Serves as the space for the initial triage of patients entering the centre				
<b>Space Description</b>	Shall be designed to allow for basic examination of patients				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Main Waiting Area				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task Chair; Two (2) Visitor Chairs; One (1) waste bin; One (1) computer; One (1) Treatment room sink with tap; Countertops with under counter and over head storage, lockable; One (1) TD; One (1) SD				
<b>Medical Equipment</b>	Two Portable (2) Vital signs monitor with stand; One (1) Sphygmomanometer; One (1) wheel chair scale, One (1) Patient standing scale				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120/280V, Three (3) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed Lockset, panic button				
<b>Remarks</b>	Proponent to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> <b>Reception</b>		<b>Registration</b>		<b>Room/Space Number:</b>	<b>CHF -65</b>	<b>Cluster Number : 8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 20m <sup>2</sup>	<b>Quantity: 1</b>
<b>Function</b>	Registration area for health centre clinics and Dental.					
<b>Space Description</b>	Fully enclosed area. A counter with adequate space behind for three (3) clerks to function and so designed to permit confidential discussions between visitors/ patients and counter staff. Should be accessible to PWDs.					
<b>Hours of Use</b>	Normal business hours of operation					
<b>Adjacencies</b>	Main waiting area and Internally Connected to Medical Records Health Information Filing Room and Health Information Preparation Room.					
<b>Furniture</b>	Counter tops with 3 windows at seated height; Partitions between each station for privacy; dispensing open & close windows; speak holes; Intercom, under counter storage; Two (2) Desk A; Five (5) task chairs; Two (2) visitor chairs; Three (3) vertical filing cabinets; Three (3) Computers; One (1) multifunction network printer; One (1) Clock; One (1) white board; One (1) cork board; Four (4) waste Bins; 3 linear feet of counter topswith under counter and overhead storage; Ticketing system with display, PA System.					
<b>Medical Equipment</b>	None					
<b>Structural</b>	See remarks					
<b>Floors</b>	Seamless Vinyl					
<b>Walls</b>	Paint Finish					
<b>Ceilings</b>	Suspended ceiling tile					
<b>Doors</b>	Standard solid wood core					
<b>Hardware</b>	Keyed lockset					
<b>Specialties</b>	P.A. System specific for this area					
<b>HVAC</b>	Air condition and air exchange as required					
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum : 24°C	
<b>Plumbing</b>	None					
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system					
<b>Power</b>	Normal dedicated power 120V/280, Five (5) duplex receptacle outlets					
<b>Lighting</b>	Fluorescent/ LED, recessed				Lux 500	
<b>Communications</b>	Six (6) RJ45 outlets for Voice/Data					
<b>Security</b>	Keyed lockset					
<b>Remarks</b>	Proponent to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> District Health Visitor Office		<b>Room/Space Number:</b>	<b>CHF -66</b>	<b>Cluster Number:</b> 8
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Oversees the Health Centre's welfare portfolio.			
<b>Space Description</b>	Closed office space with standard finish			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	Close to registration			
<b>Furniture</b>	One (1) Desks A; One (1) Task chair, Two (2) visitor chairs; Two (2) vertical filing cabinets; One (1) Computer; One (1) Printer; One (1) waste Bin; One (1) Treatment room sink with tap; Countertops with under counter and over head storage, lockable; One (1) TD; One (1) SD; One (1) refrigerator 11-12 cu.ft.; One (1) Vaccine Refrigerator; One(1) White Board; One(1) Cork Board.			
<b>Medical Equipment</b>	Four (4) Handheld foetal Heart Rate Doppler; Two (2) Portable Diagnostic Sets.			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	See remarks			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120V/280, Three (3) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed		<b>Lux</b>	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset, panic button and card access.			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Screened Patient Waiting Area</b>		<b>Room/Space Number:</b>	<b>CHF -67</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b>	30m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Area for patients that have been screened and are waiting to see the doctor					
<b>Space Description</b>	General open space. Seating capacity up to twenty (20) persons.					
<b>Hours of Use</b>	Normal business hours of operation					
<b>Adjacencies</b>	Patient Assessment rooms					
<b>Furniture</b>	One (1) 55" TV; One (1) blue-ray player; ganging chairs to accommodate 20 persons; One (1) Clock; One (1) Brochure holder; Two (2) Wireless Access Points; One (1) Suggestion Box; One (1) waste bin; One (1) cork board; One (1) HSD; One (1) water fountain,					
<b>Medical Equipment</b>	None					
<b>Structural</b>	See remarks					
<b>Floors</b>	Seamless Vinyl					
<b>Walls</b>	Paint Finish					
<b>Ceilings</b>	Concealed Grid- Gypsum Board					
<b>Doors</b>	None					
<b>Hardware</b>	None					
<b>Specialties</b>	P.A. System specific for this area					
<b>HVAC</b>	Air condition and air exchange as required					
<b>Temp. Control</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Humidity</b>						
<b>Plumbing</b>	Yes					
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system					
<b>Power</b>	Normal dedicated power 120V/280, Three (3) duplex receptacle outlets					
<b>Lighting</b>	Fluorescent/ LED, recessed				<b>Lux</b>	See remarks
<b>Communications</b>	Four(4) RJ45 outlets for Voice/Data					
<b>Security</b>	CCTV Cameras, proponents to design					
<b>Remarks</b>	Area should be pleasant and restful; Proponents to propose design					

<b>USER SPACE REQUIREMENTS DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF A NEW CHAGUANAS FACILITY</b>				
<b>Activity Space: Patient Assessment Room</b>			<b>Room/Space Number: -68</b>	<b>Cluster Number: 8</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity: 1</b>
<b>Function</b>	Serves as the Nurses' functional work space			
<b>Space Description</b>	Centralized space with private area, standard finishes			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	Near to Screened patient waiting area			
<b>Equipment/Furniture</b>	One (1) Desk; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sink with tap; One (1) cork board; One (1) mobile cot/ bassinette; Countertops with under counter and overhead storage, lockable; One (1) TD, One (1) SD.			
<b>Medical Equipment</b>	One (1) Adult Scale (with stadiometer); One (1) baby scale, One (1) Portable Vitalsigns monitor with Stand; One (1) ECG Recorder with cart; One (1) Sphygmomanometer; One (1) Procedure Cart; One(1) Pulse Oximeter;			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	See remarks			
<b>HVAC</b>	Air condition and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120V/280, Three (3) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux 500
<b>Communications</b>	Two (2) phone/ data/ communication outlet. Two(2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset; panic button			
<b>Remarks</b>	Proponents to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Patient Assessment Room</b>		<b>Room/Space Number:</b>	<b>CHF -69</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	12m <sup>2</sup>
<b>Function</b>		Serves as the Nurses' functional work space					
<b>Space Description</b>		Centralized space with private area, standard finishes					
<b>Hours of Use</b>		Normal business hours of operation					
<b>Adjacencies</b>		Near to Screened patient waiting area					
<b>Equipment/Furniture</b>		One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sink with tap; One (1) cork board; One (1) mobile cot/ bassinette; Countertops with under counter and over head storage, lockable; One (1) TD, One (1) SD.					
<b>Medical Equipment</b>		One (1) Adult Scale (with stadiometer); One (1) baby scale, One (1) Portal Vital signs monitor with Stand; One (1) ECG Recorder with cart; One (1) Sphygmomanometer; One (1) Procedure Cart; One (1) Pulse Oximeter					
<b>Structural</b>		See remarks					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		See remarks					
<b>HVAC</b>		Air condition and air exchange as required					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120V/280, Three (3) duplex receptacle outlets					
<b>Lighting</b>		Fluorescent/ LED, recessed					
<b>Communications</b>		Two(2) RJ45 outlets for Voice/Data					
<b>Security</b>		Keyed lockset; panic button					
<b>Remarks</b>		Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space: Vaccine Room</b>			<b>Room/Space Number:</b>	<b>CHF -70</b>	<b>Cluster Number: 8</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity: 1</b>
<b>Function</b>	Serves as the Nurses' functional work space				
<b>Space Description</b>	Centralized space with private area, standard finishes				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Near to Screened patient waiting area				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sink with tap; One (1) cork board; One (1) mobile cot/ bassinette; Countertops with under counter and overhead storage, lockable; One (1) TD, One (1) SD; One (1) small refrigerator 4 cu. Ft.				
<b>Medical Equipment</b>	One (1) Portable Vital signs monitor with stand ; One (1) Sphygmomanometer; One (1) Procedure Cart				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, three(3) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed	Lux	500		
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Doctor's Consultation Room</b>			<b>Room/Space Number:</b>	<b>CH F-71</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>	
<b>Function</b>	To conduct examinations and consultations between doctor and patient						
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Sub-waiting for 3 persons.						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Near to screened patient waiting area						
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS; One (1) waste Bin; One (1) Treatment room sinkwith tap; One (1) cork board; Countertops with under counter and over headstorage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate 3 persons (external).						
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels.						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	See remarks						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Humidity</b>							
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed				<b>Lux</b>	500	
<b>Communications</b>	Two (2) RJ outlets for Voice /Data						
<b>Security</b>	Keyed lockset; panic button						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Doctor's Consultation Room</b>			<b>Room/Space Number:</b>	<b>CH F-72</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	12m <sup>2</sup>
<b>Quantity:</b>	<b>1</b>						
<b>Function</b>	To conduct examinations and consultations between doctor and patient						
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Sub-waiting for 3 persons.						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Near to screened patient waiting area						
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS;; One (1) waste Bin; One (1) Treatment room sink with tap; One (1) cork board; Countertops with under counter and over head storage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate 3 persons (external).						
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels.						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	See remarks						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ outlets for Voice/Data						
<b>Security</b>	Keyed lockset; panic button						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Doctor's Consultation Room</b>			<b>Room/Space Number:</b>	<b>CHF-73</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>	
<b>Function</b>	To conduct examinations and consultations between doctor and patient						
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Sub-waiting for 3 persons.						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Near to screened patient waiting area						
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS;; One (1) waste Bin; One (1) Treatment room sinkwith tap; One (1) cork board; Countertops with under counter and over headstorage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate 3 persons (external).						
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels.						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	See remarks						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ outlets for Voice/Data						
<b>Security</b>	Keyed lockset; panic button						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Consultant Room</b>		<b>Room/Space Number:</b>	<b>CH F-74</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	12m <sup>2</sup>
<b>Quantity:</b>	<b>1</b>						
<b>Function</b>	To conduct examinations and consultations between doctor and patient						
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Sub-waiting for 3 persons.						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Next to Doctor's Consultation Rooms						
<b>Equipment/Furniture</b>	One (1) Desk B; One (1) Office chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS; One (1) waste Bin; One (1) Treatment room sink with tap; Countertops with under counter and overhead storage, lockable; One (1) TD, One (1) SD; One (1) Filing cabinet; gang chairs to accommodate 3 persons (external).						
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels.						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	See remarks						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Humidity</b>							
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ outlets for Voice/Data						
<b>Security</b>	Keyed lockset; panic button						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS**  
**DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF**  
**A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Treatment Room</b>		<b>Room/Space Number:</b>	<b>CH F-75</b>	<b>Cluster Number:</b>	<b>8</b>	
<b>Length:</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height:</b>	3 m	<b>Nominal Area:</b> 20m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Designed for patient resuscitation						
<b>Space Description</b>	Closed space with standard finish						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Next to Minor Procedure room. Close to Doctor's Consultation Room						
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) task chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS; One (1) waste Bin; One (1) Treatment room sink with tap; Countertops with under counter and over head storage, lockable; Type 1 sink and tap; One (1) TD, One (1) SD; One (1) 4 cu. Ft. refrigerator; One(1) Cork Board; One (1) mobile cot/ bassinette.						
<b>Medical Equipment</b>	One (1) patient trolley; Head wall with medical gases; Two (2) intravenous line (IV) stands; Two (2) Resuscitation Unit (adult & paediatric); One(1) Ambu bag (adult); One (1) Adult scale (with stadiometer); One(1) baby scale, One (1) wheel chair scale; Two (2) Vital signs monitor with stand (auto), One(1) ECG Recorder with cart; Two (2) Defibrillator with Crash Cart Kit; One (1) Flowmeter; One(1) X-ray view box, single panel; Two (2) Portable Nebulizers; Two (2) Procedure Carts ; One(1) Sphygmomanometer; One (1) portable suction machine; One(1) large oxygen tank; one (1) small portable oxygen tanks.						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	See remarks						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, five (5) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed				<b>Lux</b>	500	
<b>Communications</b>	Two (2) RJ outlets for Voice/Data						
<b>Security</b>	Keyed lockset; panic button						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Minor Procedure Room</b>			<b>Room/Space Number:</b>	<b>CHF-76</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b>	14m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>	
<b>Function</b>	Designed for minor surgical procedures and applying or removing of sutures, etc.						
<b>Space Description</b>	Closed space with standard finish						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Next to Treatment Room. Close to Doctor's consultation rooms.						
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) task chair, Two (2) visitor chairs; One (1) waste Bin; One (1) Clothes Hook; One (1) Treatment room sink with tap; Countertops with under counter and over head storage, lockable; Type 1 sink and tap; One (1) TD, One (1) SD						
<b>Medical Equipment</b>	One (1) Patient Trolley; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Procedure Cart; One (1) Free Standing Examination Light; One (1) X-ray view box, single panel; One (1) Snellen's Chart; One (1) Overhead Procedure/Minor Surgery Lights; One (1) Examination Stool						
Structural	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	See remarks						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, three (3) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ outlets for Voice/Data						
<b>Security</b>	Keyed lockset; panic button						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF A NEW  
CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Clean Dressing Room		<b>Room/Space Number:</b> CHF -77	<b>Cluster Number:</b> 8
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 12m <sup>2</sup> <b>Quantity:</b> 1
<b>Function</b>	Designed to administer activities such as Changing of dressings, cleaning wounds, applying or removing of sutures, etc.		
<b>Space Description</b>	Closed space with standard finish and with change area. Sub-waiting for 4 people.		
<b>Hours of Use</b>	Normal business hours of operation		
<b>Adjacencies</b>	None		
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) task chair, Two (2) visitor chairs; One (1)waste Bin; One (1) Treatment room sink with tap; Countertops with under counterand over head storage, lockable; Type 1 sink and tap; One (1) TD, One (1) SD; One (1) Clothes Hook; One(1) Storage Cabinet; One (1) Examination Stool		
<b>Medical Equipment</b>	One (1) Patient Trolley; One (1) Kick step stool; Antibacterial Curtain(s); One (1)Procedure Cart; One (1) Free Standing Examination Light;		
<b>Structural</b>	See remarks		
<b>Floors</b>	Seamless Vinyl		
<b>Walls</b>	Seamless Vinyl		
<b>Ceilings</b>	Suspended ceiling tile		
<b>Doors</b>	Standard solid wood core		
<b>Hardware</b>	Keyed lockset		
<b>Specialties</b>	See remarks		
<b>HVAC</b>	Air condition and air exchange as required		
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C
<b>Plumbing</b>	Yes		
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system		
<b>Power</b>	Normal dedicated power 120V/280, three (3) duplex receptacle outlets		
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux 500
<b>Communications</b>	Two(2) RJ45 outlets for Voice/Data		
<b>Security</b>	Keyed lockset; panic button		
<b>Remarks</b>	Proponents to propose design		

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF A NEW  
CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Breast Feeding Room</b>		<b>Room/Space Number:</b>	<b>CH F-78</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	15m <sup>2</sup>
<b>Function</b>		Serve as the mother/patient breast milk expressing station					
<b>Space Description</b>		Closed space with standard finish and with washroom.					
<b>Hours of Use</b>		Normal business hours of operation					
<b>Adjacencies</b>		None					
<b>Equipment/Furniture</b>		One (1) Desk A; One (1) task chair, One (1) visitor chair; One (1) waste Bin; One (1) TD, One (1) HSD; One (1) Arm chair, One (1) crib, One (1) Bookcase, One (1) Baby change table <b>Attached washroom:</b> One (1) water closet (PWD); One (1) Type 1 sink and tap with vanity counter tops, mirror, One (1) TPD, One (1) TD, One (1) SD; One (1) waste bin; One (1) clothes hook					
<b>Medical Equipment</b>		One (1) Electronic Breast pump					
<b>Structural</b>		See remarks					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		See remarks					
<b>HVAC</b>		Air condition and air exchange as required					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120V/280, two (2) duplex receptacle outlets					
<b>Lighting</b>		Dimmable Fluorescent/ LED, recessed				<b>Lux</b>	<b>500</b>
<b>Communications</b>		Two(2) RJ45 outlets for Voice/Data					
<b>Security</b>		Keyed lockset; panic button					
<b>Remarks</b>		Proponents to propose design					



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space: Store Room</b>			<b>Room/Space Number:</b>	<b>CHF -79</b>	<b>Cluster Number: 8</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b>	6m <sup>2</sup>	<b>Quantity: 1</b>
<b>Function</b>	Space to store dry medical materials				
<b>Space Description</b>	Closed space with standard finish				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	None				
<b>Furniture</b>	12 liner ft of shelving, One (1) Stainless Steel work table 98x124x61cm				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	None				
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system				
<b>Power</b>	Normal dedicated power 120/280V, One (1) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			<b>Lux</b>	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Linens Storage Closet</b>		<b>Room/Space Number:</b>	<b>CHF -80</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	1m <sup>2</sup>
<b>Quantity:</b>	<b>1</b>						
<b>Function</b>	Space to store Linen						
<b>Space Description</b>	Closed space with standard finish						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	None Specific						
<b>Furniture</b>	Floor to ceiling shelving on 3 walls.						
<b>Medical Equipment</b>	Linen Warmer						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	See remarks						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	None						
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system						
<b>Power</b>	None						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data						
<b>Security</b>	Keyed lockset						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space: Clean Utility</b>			<b>Room/Space Number:</b>	<b>CHF -81</b>	<b>Cluster Number: 8</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b>	10m <sup>2</sup>	<b>Quantity: 1</b>
<b>Function</b>	Serve as area for Sterilization of instruments, etc.				
<b>Space Description</b>	Closed space with standard finish				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Near to the Treatment Room				
<b>Equipment/Furniture</b>	9 linear feet of Countertops with over head and under counter storage (for storage of equipment and sterile supplies); One (1) Treatment room sink with tap; One (1) TD, One (1) SD;				
<b>Medical Equipment</b>	Two (2) Large Table Top Autoclaves, 19 liter capacity.				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Seamless Vinyl				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, fire detection and alarm system				
<b>Power</b>	Normal dedicated 120/280V, two (2) duplex GFCI receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	See remarks
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset				
<b>Remarks</b>	Proponent to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Dirty Utility/ Sluice</b>	<b>Room/Space Number:</b>	<b>CHF-82</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 10m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Shall be designed for sterile service returns or waste facilities for disposal of single use disposable instruments.				
<b>Space Description</b>	Closed space for storage and cleaning of medical equipment with an external access for collection and disposal of solid waste. Internal and external doors required with external cleaning bay. Two Doors: Door Leading to external of the building and Door Leading to internal corridor/ common area.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	To be shared with Wound Care Area				
<b>Equipment/Furniture</b>	9 linear feet of Stainless Steel counters with under counter storage; stainless steel conical sluice bowl with a regular sink bowl and a drain board; One (1) TD, One (1) SD; One (1) Wall mounted stainless steel storage cupboard; One (1) large waste bin				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Seamless Vinyl				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	One (1) standard solid wood core (internal) and one (1) weatherproof metal door (external); proponent to design				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	100% Fresh Air exchange, exhaust fan (negative air pressure must be maintained)				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system				
<b>Power</b>	Normal dedicated 120/280V, two(2) duplex GFCI receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset				
<b>Remarks</b>	Proponent to propose design				

**SERVICE: SPECIALITY CLINIC**  
**(NOTES: 01st floor)**

- This area should not to be accessible after hours.
- This area shall use the Health Facility Dirty Utility Room

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Doctor's Consultation Room</b>		<b>Room/Space Number:</b>	<b>CHF -83</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	12m <sup>2</sup> <b>Quantity:</b> 1
<b>Function</b>		To conduct consultations with visiting specialists					
<b>Space Description</b>		Shall be designed to allow for a combination of consultation and examination, and shall be sound insulated to ensure privacy. With 3 sets of ganging chairs.					
<b>Hours of Use</b>		Normal business hours of operation					
<b>Adjacencies</b>		Other treatment Rooms					
<b>Equipment/Furniture</b>		One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS; One (1) waste Bin; One (1) Treatment room sink with tap; One (1) cork board; Countertops with under counter and over head storage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate 3 persons (external).					
<b>Medical Equipment</b>		One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels.					
<b>Structural</b>		See remarks					
<b>Floors</b>		Seamless Vinyl					
<b>Walls</b>		Paint Finish					
<b>Ceilings</b>		Suspended ceiling tile					
<b>Doors</b>		Standard solid wood core					
<b>Hardware</b>		Keyed lockset					
<b>Specialties</b>		See remarks					
<b>HVAC</b>		Air condition and air exchange as required					
<b>Temp. Control Humidity</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C	
<b>Plumbing</b>		Yes					
<b>Life Safety</b>		Sprinkler, Fire detection and Alarm system					
<b>Power</b>		Normal dedicated power 120V/280, Four (4) duplex receptacle outlets					
<b>Lighting</b>		Fluorescent/ LED, recessed				Lux 500	
<b>Communications</b>		Two(2) RJ45 outlets for Voice/Data					
<b>Security</b>		Keyed lockset; panic button					
<b>Remarks</b>		Proponents to propose design					

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Doctor's Consultation Room</b>		<b>Room/Space Number:</b>	<b>CHF -84</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	12m <sup>2</sup>
<b>Quantity:</b>	<b>1</b>						
<b>Function</b>	To conduct consultations with visiting specialists						
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination, and shall be sound insulated to ensure privacy. With 3 sets of ganging chairs.						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Other treatment Rooms						
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer with 27" UHD Monitor for PACS;; One (1) waste Bin; One (1) Treatment room sinkwith tap; One (1) cork board; Countertops with under counter and over head storage, lockable; One (1) TD, One (1) SD; ganging chairs to accommodate 3 persons (external).						
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1)Procedure Cart; One (1) Wall mounted diagnostic set; One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) X-ray view box with two panels.						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	See remarks						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ outlet for Voice/Data						
<b>Security</b>	Keyed lockset; panic button						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Eye Screening Assessment and Consultation Room</b>	<b>Room/Space Number:</b>	<b>CHF -85</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m
		<b>Nominal Area:</b>	12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Serves as a functional work space and to conduct examinations and consultations between doctor and patient				
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	None				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sink with tap; One (1) cork board; Countertops with under counter and overhead storage, lockable; One (1) TD, One (1) SD.				
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Procedure Cart; One(1) Portable Vital signs monitor with stand (auto); One (1) Adult Scale (with stadiometer)				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Ophthalmology, Visual Field Analyzer &amp; Fundoscopic Camera room</b>		<b>Room/Space Number:</b>	<b>CHF -86</b>	<b>Cluster Number:</b>	<b>8</b>			
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	14m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To conduct ophthalmological examinations of patients								
<b>Space Description</b>	Shall be designed to allow for a combination of consultation and examination. Room must be laid out accordingly								
<b>Hours of Use</b>	Normal business hours of operation								
<b>Adjacencies</b>	None								
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; One (1) Treatment room sinkwith tap; Countertops with under counter and over head storage, lockable; One (1) TD, One (1) SD.								
<b>Medical Equipment</b>	One (1) Auto refractor Keratometer; One (1) Auto chart projector; Two (2) Non Contact Tonometers; One (1) Digital Ophthalmoscope; One (1) Slit Lamp with camera; One (1) Applanation Tonometer; One (1) Fundoscopic Camera								
<b>Structural</b>	See remarks								
<b>Floors</b>	Seamless Vinyl								
<b>Walls</b>	Paint Finish								
<b>Ceilings</b>	Suspended ceiling tile								
<b>Doors</b>	Standard solid wood core								
<b>Hardware</b>	Keyed lockset								
<b>Specialties</b>	Sufficient Countertop space for the equipment								
<b>HVAC</b>	Air condition and air exchange as required								
<b>Temp. Control Humidity</b>	Design: 21°C			Minimum: 19°C			Maximum: 24°C		
<b>Plumbing</b>	Yes								
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system								
<b>Power</b>	Normal dedicated power 120V/280, Five (5) duplex receptacle outlets								
<b>Lighting</b>	Fluorescent/LED dimmable, recessed						<b>Lux</b>	<b>500</b>	
<b>Communications</b>	Two (2) RJ outlets for Voice/Data.								
<b>Security</b>	Keyed lockset; panic button								
<b>Remarks</b>	Proponents to propose design								

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Dietitian and Psychologist's Office</b>	<b>Room/Space Number:</b>	<b>CHF -87</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 10m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Shared office space for the Dietitian and Psychologist				
<b>Space Description</b>	Shall be designed to allow for consultation				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Dietetic Technician's Room				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) Multifunction Printer, One (1) waste Bin; Two (2) Filing cabinet				
<b>Medical Equipment</b>	One (1) Adult scale (with stadiometer); One (1) wheel chair scale				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	None				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Two (2) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ outlets for Voice/Data				
<b>Security</b>	Keyed lockset, panic button				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Dietetic Technician's Room		<b>Room/Space Number:</b>	<b>CHF -88</b>	<b>Cluster Number:</b> 8
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Comfortable space for preparing of meals especially for Dietician Room and Seminar room.			
<b>Space Description</b>	Closed space with standard finish			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	Next to Dietician and Psychologist's Office			
<b>Furniture</b>	Kitchen sink with faucet and overhead and under counter storage; dinette set to accommodate 6 persons; One (1) microwave; One (1) kitchen refrigerator (22 cu. ft.); water fountain; One (1) TD; One (1) SD; One (1) garbage bin, One (1) Computer.			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	None			
<b>HVAC</b>	Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system			
<b>Power</b>	Normal dedicated power 120/280V, Three (3) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux 500
<b>Communications</b>	Two (2) RJ outlets for Voice/Data			
<b>Security</b>	Keyed lockset			
<b>Remarks</b>	Proponent to propose design			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Medical Social Worker's Office</b>	<b>Room/Space Number:</b>	<b>CHF -89</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m
		<b>Nominal Area:</b>	10m <sup>2</sup>	<b>Quantity:</b>	1
<b>Function</b>	To conduct consultations between Medical Social Worker and patient				
<b>Space Description</b>	Shall be designed to allow for consultation				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	None				
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer; One (1) Multifunction Printer, One (1) waste Bin; One (1) Filing cabinet				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	None				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Two (2) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ outlets for Voice/Data				
<b>Security</b>	Keyed lockset, panic button				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Voluntary Counseling &amp; Testing Room</b>	<b>Room/Space Number:</b>	<b>CHF -90</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	For conducting confidential HIV Testing and Counselling				
<b>Space Description</b>	Closed space with standard finish				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	None specific within Cluster				
<b>Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) Computer, One (1) waste Bin; One (1) Treatment room sink with tap; Countertops with under counter and overhead storage, lockable; One (1) TD, One (1) SD; One (1) small refrigerator 4 cu. Ft.; One (1) Storage Cabinet; One (1) Cork board; One (1) White board; Two (2) Filing cabinet.				
<b>Medical Equipment</b>	One (1) Procedure Cart				
<b>Client Supplied Equipment</b>	Computer				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Three (3) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			<b>Lux</b>	See
<b>Communications</b>	Two(2) RJ45 outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Family Planning Room</b>		<b>Room/Space Number:</b>	<b>CHF -91</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	12m <sup>2</sup>
<b>Quantity:</b>	<b>1</b>						
<b>Function</b>	Where interviews and Pap Smears examinations can be conducted privately by the family planning officer						
<b>Space Description</b>	Closed space with standard finish.						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	None						
<b>Equipment/Furniture</b>	One (1) Desk B; One (1) Office chair, Two (2) visitor chairs; One (1) Computer; One (1) Printer, One (1) waste Bin; One (1) Treatment room sink with tap; Countertops with under counter and overhead storage, lockable; One (1) TD, One (1) SD; One(1) Filing cabinet; One (1) Storage Cabinet						
<b>Medical Equipment</b>	One (1) Examination couch; One (1) Kick step stool; Antibacterial Curtain(s); One (1) Sphygmomanometer ; One (1) Wall mounted Examination Light; One (1) Examination Stool						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	See remarks						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, Four (4) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ outlet for Voice/Data.						
<b>Security</b>	Keyed lockset; panic button						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Family Planning Clerical Room</b>	<b>Room/Space Number:</b>	<b>CHF -92</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m
		<b>Nominal Area:</b>	10m <sup>2</sup>	<b>Quantity:</b>	1
<b>Function</b>	To conduct consultations between Family planning clerk and patient				
<b>Space Description</b>	Shall be designed to allow for consultation				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	None				
<b>Equipment/Furniture</b>	One (1) Desk B; One (1) Office chair, Two (2) visitor chairs; One (1) Computer; One (1) waste Bin; Two (2) Filing cabinet; One (1) Storage Cabinet				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	None				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Two (2) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ outlets for Voice/Data				
<b>Security</b>	Keyed lockset; panic button				
<b>Remarks</b>	Proponents to propose design				

**SERVICE: DENTAL DEPARTMENT**

**NOTES:**

- This department shall provide Dental services to the public.



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Dental Suite</b>	<b>Room/Space Number:</b>	<b>CHF-93</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length:</b> See Remarks	<b>Width:</b> See Remarks	<b>Height:</b> 3 m	<b>Nominal Area:</b> 40m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Room to perform dental procedures by the Nurse and Dentists.				
<b>Space Description</b>	Shall be designed to comprise of two dental work stations, x-ray cubicle and common area. Two Doors: One leading to the waiting area and One leading to sterilization room. Dental work stations to have full height partitions between each station to allow for privacy. Dental X-ray Cubicle to be fully enclosed & lead lining required as per Radiation safety guidelines.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Next to waiting area room. Connected to Sterilization room.				
<b>Equipment/Furniture</b>	<p><b>Common Area:</b> One (1) Desk; One (1) Task Chair; Two (2) Visitor Chairs; One (1) waste bin; One (1) Clock; One (1) computer with 27" UHD Monitor For Pacs; One (1) Multifunction Printer; Two (2) vertical filing cabinet; One (1) Storage Cabinet; One (1) white board; countertops with overhead and under counter storage.</p> <p><b>Dental Station 1:</b> Stainless steel overhead and under counter dental cabinetry with treatment room sink with tap; One (1) HSD; One (1) TD; One (1) SD, One (1) waste bin.</p> <p><b>Dental Station 2:</b> Stainless steel overhead and under counter dental cabinetry with treatment room sink with tap; One (1) HSD; One (1) TD; One (1) SD; One (1) Waste bin.</p> <p><b>Dental X-ray Cubicle:</b> Shelving/cupboard to hold equipment and accessories, as well as patient handbags; <u>Two (2) bins; one (1) office chair</u></p>				
<b>Medical Equipment</b>	<p><b>Common Area:</b> Ultraviolet light; Medical refrigerator</p> <p><b>Dental Station 1:</b> One (1) Dental Chair; Dental hand Pieces (Three (3) High Speed &amp; Five (5) Slow Speed); One (1) Dental Cart; One (1) Dentist Stool; One (1) Dental Assistant Stool; One (1) Amalgamator; Four (4) Ultrasonic Scalers Piezoelectric Type Units with 8 Tips each; One (1) X-ray view box with 2 panels; One (1) Monitor to read digital x-rays, One (1) cordless Curing Light LED with light shield; PACS/RIS/HIS computer work-station and network drops; Four (4) complete dental handpiece kits with high/low speeds latch type and friction grip, straight nose and prophylactic heads, Complete sets of hand instruments and instrument kits. ; <u>PACS/RIS/HIS computer work-station and network drops.</u></p> <p><b>Dental Station 2:</b> One (1) Dental Chair; Dental hand Pieces (Three (3) High Speed &amp; five (5) Slow Speed); One (1) Dental Cart; One (1) Dentist Stool; One (1) Dental Assistant Stool; One (1) Amalgamator; Four (4) Ultrasonic Scalers Piezoelectric Type Units with 8 Tips each, One (1) X-ray view box with 2 panels; One (1) Monitor to read digital x-rays, One (1) Cordless Curing Light LED with light shields; Four (4) complete dental handpiece kits with high/low speeds latch type and friction grip, straight nose and prophylactic heads, Complete sets of hand instruments and instrument kits. PACS/RIS/HIS computer work-station and network drops</p> <p><b>Dental X-Ray Cubicle:</b> Digital Dental X-ray System: One (1) computer workstation; image processing workstation Dental X-Ray Chair; Lead Lined Apron; Wall mounted Hanger for lead lined aprons and Bib; Lead, Portable digital intra oral dental x-ray unit, Panoramic digital dental x-ray unit, Viewing stations and printing.</p>				

<b>USER SPACE REQUIREMENTS</b>									
<b>DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF A NEW CHAGUANAS HEALTH FACILITY</b>									
<b>Activity Space: Dental Suite</b>			<b>Room/Space Number:</b>	<b>CH F-93</b>	<b>Cluster Number:</b>	<b>8</b>			
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	<b>Nominal Area:</b>	40m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
		Bib: ; Lead Apron; Four (4) Lead Goggles; Two (2) Thyroid Lead Shields; two (2) procedure carts; Two (2) Intravenous Rod Stands; large O2 Tank; Two (2) free standing exam light; One (1) computer with 27"UHD Monitor For PACS  <b>General:</b> Air Compressor & Suction System (External)							
<b>Structural</b>		See Remarks							
<b>Floors</b>		Seamless Vinyl							
<b>Walls</b>		Paint Finish Dental X-ray Cubicle: Filled block walls							
<b>Ceilings</b>		Suspended ceiling tile							
<b>Doors</b>		Standard solid wood core							
<b>Hardware</b>		Keyed lockset							
<b>Specialties</b>		Dental X-ray Cubicle: Location of the cubicle in the room should not allow for patient or staff to regularly pass in front of the door unless it is to access the room for x-rays. Should be lead-lined and separate from the Dental Stations.							
<b>HVAC</b>		Air conditioning and air exchange as required							
<b>Temp. Control</b>		Design: 21°C		Minimum: 19°C		Maximum: 24°C			
<b>Humidity</b>									
<b>Plumbing</b>		Yes							
<b>Life Safety</b>		Sprinkler, Fire detection and alarm system							
<b>Power</b>		Normal dedicated power 120/280V, Five (5) duplex receptacle outlets							
<b>Lighting</b>		Fluorescent/ LED, recessed; dimmer switches				Lux		500	
<b>Communications</b>		Three (3) RJ45 outlets for Voice/Data							
<b>Security</b>		Keyed lockset, Panic Button							
<b>Remarks</b>		Proponents to propose design							

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Sterilization Room		<b>Room/Space Number:</b> CHF -94	<b>Cluster Number:</b> 8
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 8m <sup>2</sup> <b>Quantity:</b> 1
<b>Function</b>	Serve as area for Sterilization and storage of dental instruments, etc.		
<b>Space Description</b>	Closed space with standard finish. Two Doors: One leading to the common areas and One leading to dental suite		
<b>Hours of Use</b>	Normal business hours of operation		
<b>Adjacencies</b>	Connected to Dental Suite.		
<b>Equipment/Furniture</b>	Stainless steel counter tops with head and under counter storage ( minimum of 6 linear feet); treatment room sink with tap; One(1) HSD; One (1) TD; One (1) SD		
<b>Medical Equipment</b>	One (1) Table Top Autoclave 8 liter capacity; Ultrasonic cleaner; Distilled Water Machine.		
<b>Structural</b>	See remarks		
<b>Floors</b>	Seamless Vinyl		
<b>Walls</b>	Paint finish		
<b>Ceilings</b>	Suspended ceiling tile		
<b>Doors</b>	Standard solid wood core		
<b>Hardware</b>	Keyed lockset		
<b>Specialties</b>	None		
<b>HVAC</b>	Air conditioning and air exchange as required		
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C
<b>Plumbing</b>	Yes		
<b>Life Safety</b>	Sprinkler, fire detection and alarm system		
<b>Power</b>	Normal dedicated 120/280V, Two (2) duplex receptacle outlets		
<b>Lighting</b>	Fluorescent/ LED, recessed	Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data		
<b>Security</b>	Keyed lockset		
<b>Remarks</b>	Proponent to propose design		

**SERVICE: HEALTH INFORMATION DEPARTMENT**

**NOTES:**

- This service shall store patients' medical history and records and allow for the distribution of information.
- It shall be located next to the registration area as some rooms are connected to the registration area

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Health Information Filing Room</b>	<b>Room/Space Number:</b>	<b>CH F-95</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 40m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	An area for secure storage of medical records (approx. 70,000 files)				
<b>Space Description</b>	Closed room with standard finish for active files. Shall be accessible from with the Registration Area Only and available only to Health Information Staff.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Connected to Registration. No access to corridor/ common public areas.				
<b>Furniture</b>	Dexion Shelving Unit with five (5) shelves including backing & bracing (3'width, 12" depth, 78"height)_to hold 100,000_files(each approximately 8 ½" x 11" x ½"); Two (2)_ Filing Trolley; Four (4) Step Ladders; Index Card Filing Cabinet(s) to hold 100,000 cards, Two (2) Bins, Two (2) Desk, Two (2) Semi-Executive Chairs, Three (3) Stools				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control</b>	Design: 21°C		Minimum: 19°C	Maximum: 24°C	
<b>Humidity</b>					
<b>Plumbing</b>	None				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, One (1) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ outlets for Voice/Data				
<b>Security</b>	Keyed lockset, and card access.				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Health Information Preparation Room</b>	<b>Room/Space Number:</b>	<b>CH F-96</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 10m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To conduct the affairs of the Medical records department				
<b>Space Description</b>	Shall be designed to allow for consultation				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Connected to registration room. Two door:, one to common area/ corridor and one to registration room.				
<b>Equipment/Furniture</b>	Two (2) Desk B; Two (2) task chairs, Two (2) Computers; One (1) waste Bin; 6 liner ft of shelving, One (1) Heavy Duty Copier, One (1) Heavy Duty Shredder, One (1) Four Shelf Metal Storage Cabinet				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	None				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, Two (2) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ outlets for Voice/Data				
<b>Security</b>	Keyed lockset				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Health Information Officer Room</b>			<b>Room/Space Number:</b>	<b>CH F-97</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	10m <sup>2</sup>
<b>Quantity:</b>	<b>1</b>						
<b>Function</b>	To conduct administrative duties associated with medical records						
<b>Space Description</b>	Office space						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Health Information Preparation Room						
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task chair, Two (2) visitor chairs; One (1) computer; One (1) waste Bin; Three (3) Filing cabinet, One Glass Door Storage Cabinet, One (1) Multifunction Printer, One (1) Heavy Duty Shredder						
<b>Medical Equipment</b>	None						
<b>Structural</b>	See remarks						
<b>Floors</b>	Seamless Vinyl						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	See remarks						
<b>HVAC</b>	Air condition and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	None						
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system						
<b>Power</b>	Normal dedicated power 120V/280, Two (2) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ outlet for Voice/Data						
<b>Security</b>	Keyed lockset						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENT  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Health Information Archival Storage</b>	<b>Room/Space Number:</b>	<b>CH F-98</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 20m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	An area for secure storage of archival medical records (approx. 100,000 files)				
<b>Spce Description</b>	Closed room with standard finish for archival files.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Health Information Filing room				
<b>Furniture</b>	Dexion Shelving Unit with Five (5) shelves including backing & bracing (3' width, 12" depth, 78" height) to hold 100,000 files (each approximately 8 1/2" x 11" x 1/2"); One (1) Filing Trolley; Two (2) Desk B; Two (2) task Chairs, Two (2) Step Ladders, One (1) Computer, Two (2) Stools.				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See remarks				
<b>Floors</b>	Seamless Vinyl				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset				
<b>Specialties</b>	See remarks				
<b>HVAC</b>	Air condition and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	None				
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system				
<b>Power</b>	Normal dedicated power 120V/280, One (1) duplex receptacle outlets				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	Two (2) RJ outlets for Voice/Data				
<b>Security</b>	Keyed lockset				
<b>Remarks</b>	Proponents to propose design				



**SERVICE: WASHROOM**

**NOTES:**

- These services will be shared by the Dental, Specialty Clinic along with Health Centers Clinics and Health Information Department – staff and public

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Public Male Washroom</b>	<b>Room/Space Number:</b>	<b>CHF-99</b>	<b>Cluster Number:</b>	<b>8</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 12m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	General washroom for Public.				
<b>Space Description</b>	Washrooms fitted with WC and sinks.				
<b>Hours of Use</b>	Normal business hours of operation				
<b>Adjacencies</b>	Waiting Area				
<b>Furniture</b>	Three (3) water closet (One for PWD); One (1) Urinal; Three (3) Type 2 sink and tap with vanity counter tops, mirror(s), Three (3) TPD, Two (2) TD, Two (2) SD; One (1) waste bins; Three (3) clothes hook; One (1) full length mirror				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See Remarks				
<b>Floors</b>	Porcelain Tiles				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset ; See remarks				
<b>Specialties</b>	None				
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system				
<b>Power</b>	Normal dedicated power 120/280V, One (1) GFCI duplex receptacle outlet				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lu <sub>x</sub>	500
<b>Communications</b>	None				
<b>Security</b>	Keyed lockset				
<b>Remarks</b>	Proponents to propose design				

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Public Female Washroom		<b>Room/Space Number:</b>	<b>CH F-100</b>	<b>Cluster Number:</b> 8
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 14m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	General washroom for Public.			
<b>Space Description</b>	Washrooms fitted with WC and sinks.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	Waiting Area			
<b>Furniture</b>	Four (4) water closets (One for PWD); Four (4) Type 2 sinks and tap with vanity counter tops, mirror(s), Four (4)TPD, Three (3) TD, Three (3) SD; One (1) waste bin; Four (4) clothes hook; One (1) full length mirror			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See Remarks			
<b>Floors</b>	Porcelain Tiles			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset ; See remarks			
<b>Specialties</b>	None			
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system			
<b>Power</b>	Normal dedicated power 120/280V, One (1) GFCI duplex receptacle outlet			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	500
<b>Communications</b>	None			
<b>Security</b>	Keyed lockset			
<b>Remarks</b>	Proponents to propose design			

**CLUSTER 09**

**SERVICES:**

- SEMINAR ROOM
- ADMINISTRATIVE DEPARTMENT
- STAFF LOUNGE
- WASHROOMS
- EXERCISE AREA

**OPENING HOURS:**

8:00am – 4:00pm Monday to Friday

**SERVICE: SEMINAR ROOM**

**NOTES:**

- The area shall share the exercise area washrooms.

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space: Seminar Room</b>				<b>Room/Space Number:</b>	<b>CHF -101</b>	<b>Cluster Number:</b>	<b>9</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	50m <sup>2</sup> <b>Quantity: 1</b>
<b>Function</b>	This room shall function as facilities for group activities such as lectures, films, videos, discussions etc.						
<b>Space Description</b>	Shall accommodate forty (40) persons and be capable of being partitioned to create two (2) smaller rooms. A space for storage of equipment is required.						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	Administrative Department and Staff Lounge						
<b>Furniture/Equipment</b>	Conference table to accommodate 40 persons (convertible); Forty (40) Office Chairs; Two (2) 65” Smart Screens; (2) Laptops; Two (2) small tables (for laptops); Two (2) White boards; Two (2) refreshment tables; One (1) Bookcase; One (1) 42” LED Television; One (1) blue ray Player; Distributed Sound System.						
<b>Medical Equipment</b>	None						
<b>Structural</b>	See Remarks						
<b>Floors</b>	Rubber Flooring / Proponent to design. No carpet.						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Concealed Grid- Gypsum Board						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	Room should be sound proof.						
<b>HVAC</b>	Air conditioning and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	None						
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system						
<b>Power</b>	Normal dedicated power 120/280V, eight (8) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					Lux: See remarks	
<b>Communications</b>	Six (6) RJ45 outlets for Voice/Data						
<b>Security</b>	Keyed lockset						
<b>Remarks</b>	Room should be sound proof. Proponents to propose design						

**SERVICE: ADMINISTRATIVE DEPARTMENT**

**NOTES:**

- Accessible by persons located in this department only.

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Facility Manager Office		<b>Room/Space Number:</b>	<b>CH F-102</b>	<b>Cluster Number:</b> 9
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 10m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Office to conduct activities associated with management of the facility			
<b>Space Description</b>	Office space. Two doors: 1 to common area and 1 to the Administrative assistant office.			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	Connected to the Administrative assistant office.			
<b>Equipment/Furniture</b>	One (1) Desk B; One (1) Office Chair; Two (2) Visitor Chairs; One (1) waste bin; One (1) computer; One (1) Multifunction Printer; Three (3) vertical filing cabinet			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	None			
<b>HVAC</b>	Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	None			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120/280V, two (2) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed		<b>Lux</b>	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset, card access			
<b>Remarks</b>	Proponent to design.			

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> <b>Quality Coordinator Office</b>		<b>Room/Space Number:</b>	<b>CH F-103</b>	<b>Cluster Number:</b> <b>9</b>
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b> 10m <sup>2</sup>	<b>Quantity:</b> <b>1</b>
<b>Function</b>	To conduct the administration of the quality department			
<b>Space Description</b>	Office space			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	None			
<b>Equipment/Furniture</b>	One (1) Desk A; One (1) Task Chair; Two (2) Visitor Chairs; One (1) waste bin; One (1) computer; Three (3) vertical filing cabinet			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	None			
<b>HVAC</b>	Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	None			
<b>Life Safety</b>	Sprinkler, Fire detection and Alarm system			
<b>Power</b>	Normal dedicated power 120/280V, two (2) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset, card access			
<b>Remarks</b>	Proponent to design			



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> Staff Lounge		<b>Room/Space Number:</b>	<b>CH F-104</b>	<b>Cluster Number:</b> 9
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 35m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	Shall be designed to accommodate a maximum of twenty (25) members of Staff			
<b>Space Description</b>	Closed space standard finish			
<b>Hours of Use</b>	Normal business hours of operation			
<b>Adjacencies</b>	None – Close to Seminar Room			
<b>Furniture</b>	<b>Lounge Area:</b> Couch Set(s) & Arm chairs for 12 persons <b>Kitchen:</b> Kitchen sink with faucet and overhead and under counter storage; dinette set to accommodate 12 persons; One (1) microwave; One (1) kitchen refrigerator (22 cu. ft.); water fountain; One (1) kettle; One (1) TD; One (1) SD; One (1) HSD; One (1) garbage bin; One (1) Clock;			
<b>Medical Equipment</b>	None			
<b>Structural</b>	See remarks			
<b>Floors</b>	Seamless Vinyl			
<b>Walls</b>	Paint Finish			
<b>Ceilings</b>	Suspended ceiling tile			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	None			
<b>HVAC</b>	Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system			
<b>Power</b>	Normal dedicated power 120/280V, Six (6) duplex receptacle outlets			
<b>Lighting</b>	Fluorescent/ LED, recessed		Lux	500
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data			
<b>Security</b>	Keyed lockset			
<b>Remarks</b>	Proponent to propose design			

**SERVICE: WASHROOMS**

**NOTES:**

- Shared washrooms for Administrative Department

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Male Staff Washroom</b>		<b>Room/Space Number:</b>	<b>CHF-105</b>	<b>Cluster Number:</b>	<b>9</b>			
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	15m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To facilitate changing from civilian clothes to work clothes with washroom facilities and lockers for storage of personal effects.								
<b>Space Description</b>	Room fitted with shower, change room, lockers, toilet, sink and vanities.								
<b>Hours of Use</b>	Normal business hours of operation								
<b>Adjacencies</b>	None								
<b>Furniture</b>	<p><b>Shower/ Change Room Area:</b> Enclosed area with Shower and area to change; fitted with door and/or shower curtain; One (1) clothes hook</p> <p><b>General:</b> One (1) water closet (PWD); One (1) Urinal; Two (2) Type 1 sinks and tap with vanity counter tops, mirror(s), One (1) TPD, Two (2) TD, Two (2) SD; Two (2) waste bins; One (1) clothes hook; One (1) Full length mirror.</p> <p><b>Locker Area:</b> Five (5) Two tiered lockers; One (1) Bench.</p>								
<b>Medical Equipment</b>	None								
<b>Structural</b>	See Remarks								
<b>Floors</b>	Porcelain Tiles								
<b>Walls</b>	Paint Finish								
<b>Ceilings</b>	Suspended ceiling tile								
<b>Doors</b>	Standard solid wood core								
<b>Hardware</b>	Keyed lockset ; See remarks								
<b>Specialties</b>	None								
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required								
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C				
<b>Plumbing</b>	Yes								
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system								
<b>Power</b>	Normal dedicated power 120/280V, One (1) GFCI duplex receptacle outlet								
<b>Lighting</b>	Fluorescent/ LED, recessed				<b>Lux</b>	500			
<b>Communications</b>	None								
<b>Security</b>	Keyed lockset								
<b>Remarks</b>	Proponents to propose design								

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Female Staff Washroom</b>			<b>Room/Space Number:</b>	<b>CHF-106</b>	<b>Cluster Number:</b>	<b>9</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b>	16m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>	
<b>Function</b>	To facilitate changing from civilian clothes to work clothes with washroom facilities and lockers for storage of personal effects.						
<b>Space Description</b>	Room fitted with shower, change room, lockers, toilet, sink and vanities.						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	None						
<b>Furniture</b>	<p><b>Shower/ Change Room Area:</b> Enclosed area with Shower and area to change; fitted with door and/or shower curtain; One (1) clothes hook</p> <p><b>General:</b> Two (2) water closets (One for PWD); Two (2) Type 2 sinks and tap with vanity counter tops, mirror(s), Two (2) TPD, Two (2) TD, Two (2) SD; Two (2) waste bins; Two (2) clothes hook</p> <p><b>Locker Area:</b> Twenty (20) Two tiered lockers; One (1) Bench.</p>						
<b>Medical Equipment</b>	None						
<b>Structural</b>	See Remarks						
<b>Floors</b>	Porcelain Tiles						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset ; See remarks						
<b>Specialties</b>	None						
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system						
<b>Power</b>	Normal dedicated power 120/280V, One (1) GFCI duplex receptacle outlet						
<b>Lighting</b>	Fluorescent/ LED, recessed				<b>Lu</b>	500	
<b>Communications</b>	None						
<b>Security</b>	Keyed lockset						
<b>Remarks</b>	Proponents to propose design						

**SERVICE: EXERCISE AREA**

**NOTES:**

- The area shall share it's washroom with the occupants of the seminar room

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b> <b>Exercise Area</b>		<b>Room/Space Number:</b>	<b>CH F-107</b>	<b>Cluster Number:</b> <b>9</b>
<b>Length</b> See :                Remarks	<b>Width:</b> See Remarks	<b>Height</b> 3 m :	<b>Nominal Area:</b> 50m <sup>2</sup>	<b>Quantity:</b> <b>1</b>
<b>Function</b>	Shall be designed to suit accommodate various equipment and a cubicle for Wellness Facilitator			
<b>Space Description</b>	Closed space with standard finish. Area should be designed for separate access and egress after normal business hours. To be shared with staff and public.			
<b>Hours of Use</b>	Extended hours of operation			
<b>Adjacencies</b>	Adjacent to Male and Female washrooms within this Cluster			
<b>Furniture</b>	<p><b>Cubicle:</b> One (1) Desk A; One (1) Task Chair; Two (2) Visitor Chairs; One (1) vertical filing cabinet; One (1) waste bin; One (1) Access Point.</p> <p><b>Exercise Area:</b> One (1) 55" TV; One (1) blue-ray player; Distributed Sound System; One (1) Clock; One (1) Brochure holder; One (1) Suggestion Box; One (1) waste bin; One (1) HSD; One (1) water fountain; One wall fully mirrored.</p> <p><b>Storage Closet (4m<sup>2</sup>):</b> 3 Linear feet of shelving</p>			
<b>Equipment</b>	<p><b>Exercise Area:</b> Two (2) Treadmills, Two (2) elliptical machines, One (1) multi gym machine; Two (2) sets of weights; Ten (10) Yoga mats; Ten (10) medicine balls: Two (2) incline benches (adjustable); Twenty (20) Kettle bells</p>			
<b>Structural</b>	See remarks			
<b>Floors</b>	Rubber or Seamless Vinyl; Proponent to propose most suitable design.			
<b>Walls</b>	Paint Finish.			
<b>Ceilings</b>	Concealed Grid- Gypsum Board			
<b>Doors</b>	Standard solid wood core			
<b>Hardware</b>	Keyed lockset			
<b>Specialties</b>	Room to be sound Proof			
<b>HVAC</b>	Air conditioning and air exchange as required			
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes			

<b>USER SPACE REQUIREMENTS DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF A NEW CHAGUANAS HEALTH FACILITY</b>						
<b>Activity Space:</b> <b>Exercise Area</b>			<b>Room/Space Number:</b>	<b>CH F- 107</b>	<b>Cluster Number:</b> <b>9</b>	
<b>Length</b> :	See Remarks	<b>Width:</b>	See Remarks	<b>Height</b> :	3 m	
		<b>Nominal Area:</b>	50m <sup>2</sup>	<b>Quantity:</b> <b>1</b>		
<b>Life Safety</b>		Sprinkler, Fire detection and alarm system				
<b>Power</b>		Normal dedicated power 120/280V, Seven (7) duplex receptacle outlets				
<b>Lighting</b>		Fluorescent/ LED, recessed			<b>Lux</b>	See remarks
<b>Communications</b>		Two (2) RJ45 outlets for Voice/Data				
<b>Security</b>		Keyed lockset				
<b>Remarks</b>		Room to be sound proof. Proponent to propose design				

<b>USER SPACE REQUIREMENTS</b>					
<b>DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF A NEW CHAGUANAS HEALTH FACILITY</b>					
<b>Activity Space:</b>	<b>Male Washroom &amp; Change Room</b>		<b>Room/Space Number:</b>	<b>CH F-108</b>	<b>Cluster Number:</b> 9
<b>Length :</b> See Remarks	<b>Width:</b> See Remarks	<b>Height :</b> 3 m	<b>Nominal Area:</b>	22m <sup>2</sup>	<b>Quantity:</b> 1
<b>Function</b>	To facilitate changing from civilian clothes to exercise clothes with washroom and show facilities and lockers for storage of personal effects.				
<b>Space Description</b>	Room fitted with shower, change room, lockers, toilet, sink and vanities. Area should be designed for separate access and egress after normal business hours.				
<b>Hours of Use</b>	Extended hours of operation				
<b>Adjacencies</b>	Exercise Area				
<b>Furniture</b>	<p><b>Shower/ Change Room Area:</b> Enclosed area with Shower and area to change; fitted with door and/or shower curtain; One (1) clothes hook; One (1) full length mirror.</p> <p><b>General:</b> One (1) water closet (PWD); One (1) Urinal; Two (2) Type 2 sinks and tap with vanity counter tops, mirror(s), One (1) TPD, Two (2) TD, Two (2) SD; Two (2) waste bins; One (1) clothes hook; One (1) full length mirror.</p> <p><b>Locker Area:</b> Ten (10) Two tiered lockers; One (1) Bench.</p>				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See Remarks				
<b>Floors</b>	Porcelain Tiles				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset ; See remarks				
<b>Specialties</b>	None				
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C	Maximum: 24°C	
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system				
<b>Power</b>	Normal dedicated power 120/280V, One (1) GFCI duplex receptacle outlet				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	None				
<b>Security</b>	Keyed lockset				
<b>Remarks</b>	Proponents to propose design				



**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Female Washroom &amp; Change Room</b>	<b>Room/Space Number:</b>	<b>CHF-109</b>	<b>Cluster Number:</b>	<b>9</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m	<b>Nominal Area:</b> 24m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	To facilitate changing from civilian clothes to exercise clothes with washroom and show facilities and lockers for storage of personal effects.				
<b>Space Description</b>	Room fitted with shower, change room, lockers, toilet, sink and vanities. Area should be designed for separate access and egress after normal business hours.				
<b>Hours of Use</b>	Extended hours of operation				
<b>Adjacencies</b>	Exercise Area				
<b>Furniture</b>	<p><b>Shower/ Change Room Area:</b> Enclosed area with Shower and area to change; fitted with door and/or shower curtain; One (1) clothes hook; One (1) full length mirror.</p> <p><b>General:</b> Two (2) water closets (One for PWD); Two (2) Type 2 sinks and tap with vanity counter tops, mirror(s), Two (2) TPD, Two (2) TD, Two (2) SD; Two (2) waste bins; Two (2) clothes hook; One (1) full length mirror</p> <p><b>Locker Area:</b> Ten (10) Two tiered lockers; One (1) Bench.</p>				
<b>Medical Equipment</b>	None				
<b>Structural</b>	See Remarks				
<b>Floors</b>	Porcelain Tiles				
<b>Walls</b>	Paint Finish				
<b>Ceilings</b>	Suspended ceiling tile				
<b>Doors</b>	Standard solid wood core				
<b>Hardware</b>	Keyed lockset ; See remarks				
<b>Specialties</b>	None				
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required				
<b>Temp. Control Humidity</b>	Design: 21°C	Minimum: 19°C	Maximum: 24°C		
<b>Plumbing</b>	Yes				
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system				
<b>Power</b>	Normal dedicated power 120/280V, One (1) GFCI duplex receptacle outlet				
<b>Lighting</b>	Fluorescent/ LED, recessed			Lux	500
<b>Communications</b>	None				
<b>Security</b>	Keyed lockset				
<b>Remarks</b>	Proponents to propose design				

## **CLUSTER 10**

### **SERVICES:**

- 1<sup>ST</sup> FLOOR GENERAL REQUIREMENTS

### **OPENING HOURS:**

8 a.m. to 4 p.m. Monday to Friday.

### **NOTES:**

- Location of rooms – non specific

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>		<b>Security Surveillance Room</b>		<b>Room/Space Number:</b>	<b>CHF -110</b>	<b>Cluster Number:</b>	<b>10</b>
<b>Length :</b>	See Remarks	<b>Width:</b>	See Remarks	<b>Height :</b>	3 m	<b>Nominal Area:</b>	8m <sup>2</sup>
<b>Quantity:</b>	<b>1</b>						
<b>Function</b>	For monitoring of cameras						
<b>Space Description</b>	Closed space with standard finish						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	None specific						
<b>Furniture</b>	Countertops, Two (2) task chairs , CCTV Monitors, One (1) Wall clock.						
<b>Medical Equipment</b>	None						
<b>Structural</b>	See Remarks						
<b>Floors</b>	Porcelain Tiles						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset						
<b>Specialties</b>	None						
<b>HVAC</b>	Air conditioning and air exchange as required						
<b>Temp. Control Humidity</b>	Design: 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Plumbing</b>	None						
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system						
<b>Power</b>	Normal dedicated power 120/280V, four (4) duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	<b>500</b>
<b>Communications</b>	Two (2) RJ45 outlets for Voice/Data						
<b>Security</b>	Keyed lock set						
<b>Remarks</b>	Proponents to propose design						

**USER SPACE REQUIREMENTS  
DESIGN-BUILD-EQUIP SERVICES FOR THE CONSTRUCTION OF  
A NEW CHAGUANAS HEALTH FACILITY**

<b>Activity Space:</b>	<b>Housekeeping Room</b>			<b>Room/Space Number:</b>	<b>CHF-111</b>	<b>Cluster Number:</b>	<b>10</b>
<b>Length</b> : See Remarks	<b>Width:</b> See Remarks	<b>Height</b> : 3 m		<b>Nominal Area:</b>	5m <sup>2</sup>	<b>Quantity:</b>	<b>1</b>
<b>Function</b>	Shall be designed for use by Housekeeping staff.						
<b>Space Description</b>	Closed space for storage of janitorial supplies and equipment						
<b>Hours of Use</b>	Normal business hours of operation						
<b>Adjacencies</b>	None						
<b>Equipment/Furniture</b>	3 linear feet of shelving One (1) Janitorial sink with tap; One (1) TD, One (1) SD; One (1) large waste bin; One (1)mop & broom rack; One (1) Cleaner's Trolley						
<b>Medical Equipment</b>	None						
<b>Structural</b>	See Remarks						
<b>Floors</b>	Porcelain Tiles						
<b>Walls</b>	Paint Finish						
<b>Ceilings</b>	Suspended ceiling tile						
<b>Doors</b>	Standard solid wood core						
<b>Hardware</b>	Keyed lockset ; See remarks						
<b>Specialties</b>	None						
<b>HVAC</b>	Exhaust fan, Air conditioning and air exchange as required						
<b>Temp. Control</b>	Design 21°C		Minimum: 19°C		Maximum: 24°C		
<b>Humidity</b>							
<b>Plumbing</b>	Yes						
<b>Life Safety</b>	Sprinkler, Fire detection and alarm system						
<b>Power</b>	Normal dedicated power 120/280V, One (1) GFCI duplex receptacle outlets						
<b>Lighting</b>	Fluorescent/ LED, recessed					<b>Lux</b>	500
<b>Communications</b>	None						
<b>Security</b>	Keyed lockset						
<b>Remarks</b>	Proponents to propose design						

# **Appendix 1 – Cadastral**

**Topographical Survey Report**

**Geotechnical Survey Reports**

# **Appendix 2 – Non - Medical and Medical Equipment Specifications**

## Non - Medical Equipment Specifications

Item		Specification
1	Desk A	Single pedestal contains 3 drawers; 1 of which is lockable veneered surface
2	Desk B	Double pedestal contains 3 drawers; 1 of which is lockable veneered surface
3	Conference table	To accommodate 40 persons Convertible into 2 separate tables to accommodate 20 persons each veneered surface
4	Small table	To hold laptops Nominal Dimensions: H 32" x W 34" x D 23" veneered surface
5	Refreshment table	Nominal Dimensions:72" L X 30" W X 32" H
6	Task Chair	Low-Back Ergonomic Chair Tilt, Swivel, Pneumatic Height Adjustment Padded Back and Seat Arm rests Non fabric Minimum weight capacity of 250lbs
7	Office Chair	High-Back Ergonomic Chair Tilt, Swivel, Pneumatic Height Adjustment Padded Back and Seat Arm rests Non fabric Minimum weight capacity of 250lbs
8	Visitor Chair	Wide comfortable seat and ergonomically profiled backrest Padded Back and Seat metal frame Arm Rests non fabric Minimum weight capacity of 250lbs
9	Ganging Chair	metal frame Minimum weight capacity of 300lbs for each seat Non-slip Polypropylene seat and backrest surface
10	Dinette Set	To accommodate 12 persons Each Chair: Minimum weight capacity of 250lbs

Item		Specification
11	Couch Set(s) & Arm chairs	To accommodate 12 persons Cushioned Each Seat: Minimum weight capacity of 250lbs
12	Arm Chair	Cushioned Each Seat: Minimum weight capacity of 250lbs
13	Vertical Filing Cabinet	Commercial Vertical File Cabinets 4 drawer Lockable Legal size file folders
14	Horizontal Filing Cabinet	Commercial Vertical File Cabinets 4 drawer Lockable Legal size file folders
15	Storage Cabinet	Full Height Metal Double door with lock Adjustable Shelves
16	HSD	Hand Sanitizer Dispenser
17	TD	Tissue Dispenser Leaflets
18	SD	Soap Dispenser
19	TPD	Toilet Paper Dispenser
20	Clock	All facility clocks to be synchronized
21	Mirror	To Span the length of the vanity firmly attached to wall
22	Waste Bin	Push pedal open, small Minimum 3 Litres
23	large waste bin	Push pedal open, large Minimum 30 litres
24	Garbage Bin	Kitchen use Push pedal open, large Minimum 30 litres
25	White Board	Dry wipe surface one dry eraser Minimum Size 1200mm*900mm
26	Cork Board	cork pin board Minimum Size 1200mm*900mm
27	Water fountain	piped potable cold and hot water with cup holder attachment



Item		Specification
28	Bookcase	Freestanding Minimum dimensions 900 W x 330 D x 1470 H mm.
29	Small Bookcase	Freestanding with ability to be anchored to wall Minimum size requirements: 30" H x 44" W x 13.6" D
30	treatment room sink with tap	Deep Stainless steel basin with 8" elbow taps controlled with a mixer tap. Sinks should be stainless steel and have NO plug or overflow and the water should not be directly over the outflow as this can lead to the splashing of micro-organisms from the drain. solid surface counter top Minimum size requirements: 22" W x 25" L x 8" D
31	large treatment room sink with tap	Deep Stainless steel basin with 8" elbow taps controlled with a mixer tap. Sinks should be stainless steel and have NO plug or overflow and the water should not be directly over the outflow as this can lead to the splashing of micro-organisms from the drain. solid surface counter top Minimum size requirements: 22" W x 40" L x 8" D
32	Type 1 sink and tap	Porcelain Sink with Lever Tap
33	Type 2 sink and tap	Porcelain Sink with Push Tap
34	Kitchen Sink with faucet	stainless steel basin with drain board and high arc faucet with lever tap
35	Janitorial Sink with Tap	stainless steel wash basin and bucket sink combine to form the janitorial sink A mixer tap with swivel spout and lever handles
36	Phone	See ICT requirements
37	Computer	See ICT requirements
38	Laptop	See ICT requirements
39	multifunction network printer	See ICT requirements Networked to all computers in the unit/area/ cluster copying, faxing, scanning capabilities
40	desk top printer	See ICT requirements standalone
41	42" TV	LED Cable ready capabilities
42	55" TV	LED Cable ready capabilities
43	Blue-ray Player	Mirror to Smartphone or tablet on your TV

<b>Item</b>		<b>Specification</b>
44	Distributed Sound System	See Client Requirements
45	Brochure holder	3 tiers Minimum Dimensions 241 x 203 x 621 mm.
46	Suggestion Box	Minimum Dimensions 265 x 230 x 190 mm.
47	Ticketing system with display	digital display 3 spare rolls for each ticketing system
48	card access	100 Programmable Cards
49	shelving	metal adjustable 6 shelves each unit length based on liner feet as specified in the data sheets
50	stainless steel shelving	stainless steel adjustable 6 shelves each unit length based on liner feet as specified in the data sheets
51	small refrigerator	4 cu. Ft.
52	Kitchen refrigerator	22 cu. ft.
53	Refrigerator	11-12 cu. Ft
54	Children's Table with chairs	One small table with 4 chairs suitable for commercial use Easy to clean
55	Padded floor mat	Padded floor mat for children to play Colourful Soft Foam
56	Digital signage	55"
57	Dual language Directory	See Client Requirements
58	clothes hook	to hang clothes/ bags
59	Lockers	Two tiered Metal Vented
60	Bench	for change room Seat Minimum Dimensions 24"*12"
61	Projector	See Client Requirements
62	Projector Screen	See Client Requirements
63	microwave	2.0 cu. ft. Countertop Microwave Stainless Steel
64	Kettle	1.7 L Stainless steel

Item		Specification
65	baby change table	Adjustable Height 35.13" H x 35.69" W x 19.63" D Shelves Supports 200 lbs
66	diaper changing station	Horizontal wall mounted Constructed of polypropylene supports 200 lbs with minimal deflection Minimum Dimensions 35 3/16" W x 22 1/4" H (893 mm x 565 mm) Depth (closed): 4" (102 mm) Extension (open): 23 3/16" (589 mm)
67	mobile cot/ bassinette	folds for easy transport and storage Locking Wheels Storage Pockets Portable Maximum Weight Capacity: 50 lbs
68	crib	Converts to a Toddler Bed Adjustable height Mattress Maximum Weight Capacity: 100 lbs
69	mop and broom rack	4 Sections 17-1/2"
70	Roller shutter door	Stores See Client Requirements
71	Large Freezer	External biohazard 21.6 cb. Ft.
72	Cleaner's Trolley	Three levels of storage removable wash bag and space for a mop bucket and wringer clips for hanging mops, brushes and wet floor signs Minimum Dimensions Height - 95cm (37.5") Width - 50cm (19.5") Depth - 112cm (44").

## Medical Equipment Specifications

*(Electrical Rating 115v for All Equipment)*

Location	Item	Specification
Exercise Area	Treadmill	Treadmill must have the following features: Zero (0) starting speed. Actual 1 to 20 km, 4 hp motor, Ultra high torque drive, 200 kg limit user weight capacity, 15 % grade adjustable in increments, electric elevation, over speed protection, heart rate monitoring, fixed and user adjustable workout programs, ≥ 10" colour LCD display. Emergency Stop button
	elliptical machine	Adjustable, cushioned foot pedals, heart rate monitoring, ≥ 25 lb flywheel, front drivesystem, colour LCD display, fixed and user adjustable workout programs, 20" maximum stride length, adjustable resistance level.
	multi gym machine	Padded pressing arms Minimum of 2200 lb. test nylon coated aircraft quality cables.Fiberglass pulleys with sealed ball bearings on solid axles.100 kg weight stack Gym should be compact and have but not be limited to stations for chest press, peckdeck, leg extension, arm curl, low rowing and lateral pull.
	Weight Set	100 pound set with cast iron weight plates, storage rack and bar with weight retaining clips.
	Yoga/Exercise mat	With storage rack Classic yoga mats made of soft comfortable material nonskid design approx. - Size: 61 cm x 174cm x 0.5cm.
	medicine balls	Set ranging from 8 to 20 lbs. in 2 lb increments with storage Rack
	Incline benches	Adjustable back pad angle from 0 to 80°, high density foam seat and back pad, built in wheels for transportation, weight capacity including user: 1000 lbs.
	Kettle bells	Set ranging from 5 to 50 lbs in 5 lb increments with storage rack. Made from cast iron with a flat bottom for stability.
Imaging	Digital x-ray unit with Two (2) Detector Panels	Standard Composition • High Frequency X-ray Generator • X-ray Tube Assembly • X- ray Table • Automatic Exposure Control • Vertical Wall Stand (Chest Bucky) • Digital Detector System • Control Console with Lead Glass Shielding • Acquisition and review workstation • Accessories Technical Specifications • High Frequency generator and integrated table • Patient support table with a floating table top with locks • Dual focal spot X- Ray tube • Wall Stand (Chest Bucky) and digital detector • Beam limiting device • Free-standing system • Large travel range and flexibility of tube rotation • Acquisition review workstation for image post-processing, short-term storage and quick

Location	Item	Specification
		<p>in-room viewing of images • Images may be transferred automatically or manually Features to include: • Digital Radiographic detector system • Integrated floor mounted x-ray tube system • Mechanical linkage between the tube stand and the table detector • Fast preview image with the fully processed image in less than 15 seconds • Post- acquisition processing for multiple views from single exposure • Automated and customizable image transfer and printing • DICOM 3.0 and IHE compliant • Multi- resolution image processing for enhancement of detail • Tissue Equalization algorithm, Quality Control Phantoms and integrated Dose Area Meter.</p> <p>Accessories • To be supplied with an acquisition and review workstation for imagepost-processing, short-term storage, and quick in-room viewing of images. • Radiologist Computer. Two (2) Lead jackets; Two (2) thyroid shields; One (1) Kick Step Stool; X-ray Radiolucent positioning Devices including sponges and foam pads of various angles, shapes and sizes, leg wedges, immobilizers, &amp; platforms: Pre-Filled sandbags; one mobile Digital Detector Holder; one portable Digital Detector Holder; velcro straps and restrains; two (2) patient transfer boards; two threader positioning step; one Pigg-O-Statt; two Boomerang Filter;</p> <p>Dry Laser Printer Laser Imager for Dry laser printing. - Touch panel operation - 3 sizes 35x45 cms, 26x36 cms and 18x24cms online. Film size is selectable for added flexibility. - Automatic calibration - DICOM compatible print - Service Class (standard), to obtain density scales that are equivalent to those on the console display • All other accessories required for startup and commissioning of the unit.</p> <p>Warranty • 1 year warranty with 4 years extended warranty parts and labour. • Sample Service contract to be provided for a 98% equipment uptime Training • Applications Training to be done by a representative from the manufacturer on the use of the equipment • Factory service withall expenses (airfare, board, tuition) for one (1) Biomedical Engineer at the manufacturer’s service centre.</p> <p>Digital X-ray System System, High frequency Inverter KV range: 40 to 125KV or greater with 1KV step mAs range should be 0.5 to 320 mAs or greater. Digital Display X-ray parameters of KV &amp; mAs. SID value Rotation from the 0 position Real-time KV &amp; mAs increase and decrease adjustment Prep./Exposure X-ray hand-switch Unit should have an integrated dose area product (DAP) meter and the Operator’s Control area Console should have the appropriate Lead Glass Shielding.</p>

**Detector Panel**  
 Two independent detectors with two separate batteries are required. Docking ports and Charging ports must also be provided.

X-Ray Tube, Rotating Anode Unit should possess Anode Heat storage capacity Multi-left Collimation system Tube should have collimation light source with an automatic off function Tube should have a collimator light with laser line light for patient and cassette tray positioning Tube should have dual focus: Large focus Small Focus  
 Tube assembly support, Ceiling-mounted tube assembly support with X-ray tube assembly Ceiling-mounted tube assembly support can be adjusted in 3 axes: Longitudinal Transverse Height adjustment: The unit must have an effective electromagnetic braking system.

Table, Height adjustable table with six way floating table top Foot switch for controlling the table height and floating movements It should be possible to synchronize detector movement with movement of X-Ray tube (Auto tracking) The unit must have an effective electromagnetic braking system. Safe Working Load no less than 250kg.

Vertical Bucky Stand, Height adjustable Bucky. It should be possible to synchronize detector movement with movement of X-Ray tube (Auto tracking) It should be possible to angulate / tilt the detector on the wall stand within a range of -20 to +90 degrees.  
 Detector, Two (2) wireless detector capable of capturing 14x17 field of view Weight: < 8 lbs Docking station (if required for charging) One set of rechargeable batteries and one set of back-up rechargeable batteries Components and cables to enabled wired connections

Alarms, Audible and visible alarms should be present. Unit shall provide with audible or visible indication of the x-ray exposure

Work station, High-resolution medical grade 8MP Monitor; 27' minimum display screen; 1 TB hard drive or greater; Must be able to save images to external sources such as DVD, CD, USB and printer. Image processing software: Must be able to post process images with a full range of image correction tools including but not limited to: Annotations Measurements Magnification, invert, rotate, flip Windowing Contrast and Density PAN and Zoom Anatomical Markers Automatic Exposure Control (AEC) and Anatomical Programmed Radiography (ARP) Integration of dose area product meters (DAP). Ability to save post-processed and original images. Input rating: 110VUPS for workstation (if recommended) UPS provided for X-Ray Unit if required.

		<p><u>DICOM Compliant</u>, Full Advanced Dicom capability, PACS and DICOM connectivity The system shall allow the user to: Perform quantitative analyses, create reports and store images in DICOM or raw data DICOM formats to meet medical digital communication standards Import and export information with DICOM Query/Retrieve function for workflow efficiency Send and retrieve completed exams electronically for the internal hospital archiving system and able to print. Create a DICOM Worklist, which allows for the importing patient data form the RIS/HIS. Compatible, and able to be integrated seamlessly with the existing NCRHA’s PACS/RIS providers.</p> <p><u>X-ray Printer</u>, DICOM sending and receiving of images. 110V input. Must be capable of printing X-ray, DR, CT, MRI and mammo images UPS to support printer Consumables – one pack of film for commissioning</p> <p>Obsolescence Protection, these items shall not be rendered obsolete (Parts including batteries and consumables) and shall be available for at least 10 years from the date of supply. General Specifications, The unit must also meet the General Specifications detailed below.</p> <p>Live on-site Applications Training should be provided to End-users for at least 5 continuous working days with follow-up training six (6) months post commissioning. Technical Training for Biomedical staff for at least 5 continuous working days with follow-up training six (6) months post commissioning is also required. Factory service and site visit with all expenses (airfare, board, tuition) for one (1) Biomedical Engineer and one (1) Radiology Manager, at the manufacturer’s service centre/ clinical site respectively, should be provided.</p>
	Digital Panoramic Dental X-ray Unit	<p>Features, Floor Mounted Unit Unit should have components that allow for Patient positioning such as Bite block, Chin rest, Chin support and temple support. Unit should have and X-ray remote control which allow for image acquisition via the exposure button from outside the X-ray room. Should have laser positioning beams; Collimation for segmented panoramic views; Controls should be straightforward, and easy to navigate; Programs , Unit should have the following programs: Standard Panoramic Program (Full and Segmented); Paediatric program (low dose, reduce exposure area for small patients); Lateral TMJ Program; PA TMJ Program; PA sinus Program; Specialized 2D/3D Reconstruction and Diagnosis Software; Bite-Wing and Intraoral Imaging Programs; Reconstruction Time(s) &lt; 60 secs; 3D Cone Beam CT Cephalometric Imaging</p> <p>Exposure Mode , Allows for various exposure modes Required Digital Panels to facilitate the range of dental imaging Tube Voltage , Approx 60kV – 90kV <u>Tube Current, Approximately 3-16 mA</u> Focal spot size, 0.4mm or greater</p>

Image Storage Format, DICOM; PNG; JPG; TIFF; BMP(other)  
Image field, Approx. 6.4 x 140 mm (Adult)Approx 6.4 x 120 mm (Pediatric)  
Exposure Time , Unit should have exposure parameter control  
Movement , Motorized up and down Should have motorized patient positioning system

Acquisition Computer system, User friendly 1 TB or more on Hard disk should include 21” LCD/TFT (minimum) monitor, with high resolution to ensure image quality. Unit should be able to generate a worklist and connect and integrate into the existing workflow of the hospital’s PACS/RIS network. Unit should allow for print images from workstation; On-line Uninterrupted Power Supply (UPS) (if recommended)

Viewing Computer system , Display monitor – 27” minimum

Emergency Stop Button , Yes

DICOM Compliant, Yes The system shall allow the user to: Perform quantitative analyses, create reports and store images in DICOM or raw data DICOM formats to meet medical digital communication standards. Import and export information with DICOM Query/Retrieve function for workflow efficiency, send and retrieve completed exams electronically to referring physicians in report formats via DVD as well as internal hospital archiving system. Perform image review and reporting side-by-side with a dual monitor solution

Printer: Capable of directly printing from this imaging modality; as well as from the hospital’s PACS/RIS network.

Obsolescence Protection, the item supplier shall not be rendered obsolete shall be available for at least 8 years from the date of supply.

General Specifications, The unit must also meet the General Specifications detailed below:  
Warranty: Unit and transducers shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full\_maintenance services as per the manufacturer’s recommendations and must provide all the necessary consumables and service kits required for the maintenance.  
Extended Warranty: In addition to the one (1) year warranty the supplier is to provide a separate operational cost for Full Maintenance / Warranty Service for an additional four (4) years inclusive of parts and labor. This Extended Maintenance/Warranty Service Agreement together with the one (1) year warranty is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years based on a 24x7 operation.  
During this five (5) years the supplier is required to maintain the unit as per the manufacturer’s recommendations and is responsible for providing any required test equipment, parts, kits etc. to effect preventative maintenance. The supplier will be required to provide preventative maintenance schedule, service reports and other related documents.



	<p><u>Pre-Installation/ Installation/ Commissioning:</u> The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests. The supplier shall have locally available certified engineers/technicians trained and capable of installation, commissioning and maintaining their proposed equipment. This system should also be connected to the available PACS system at the hospital during installation, any licenses required should also be installed in the system prior to hand over. Supplier should also provide appropriate uninterruptable power supply for the system with one hour back-up time.</p> <p><u>Training:</u> - The supplier is required to provide live on-site user training for approximately fifteen (15) medical staff responsible for operating the machines, of no less than five (5) continuous calendar days. Such training shall be as deemed acceptable by the respective Heads of Departments. The supplier is requested to make provision for additional end-user training. The supplier is also required to provide service training for the biomedical staff; such training shall include the care and maintenance of the unit, service, repairs, calibration, preventive maintenance and installation etc.</p> <p><u>Follow-up training six (6) months post commissioning. Technical Training for Biomedical staff for at least 5 continuous working days with follow-up training <u>six (6) months post commissioning is also required.</u> Factory service and site visit with all expenses (airfare, board, tuition) for one (1) Biomedical Engineer and one (1) Radiology Manager, at the manufacturer's service centre/ clinical site respectively, should be provided.</u></p>
x-ray machine examination table and chest bucky	Included in X-Ray unit specification
Ultrasound machine	<p>The unit shall be a multi-specialty, digital ultrasound machine designed for an Ultrasound Suite for applications including: Vascular Imaging, Colour Doppler/ Flow Imaging, Small Parts applications, Breast, Transcranial Imaging, Endocavity, Fetal imaging, Musculoskeletal (MSK), Urology, Interventional, Obstetric, Gynecologic, Neonatal and Paediatric, General Imaging, Abdominal – Adult, Paediatric, Neonatal, Elastography/ Liver and Others.</p> <p>Minimum Imaging Modes: US Elastography, B-Mode, THI/PSH, M-Mode, CDI, PDI, Pulsed Wave Doppler, Color Doppler Imaging, Power Doppler Imaging, PW/CW, 3D, TDI, DICOM, Clinical Measurement.</p> <p>Monitor : The system shall have at least 21“ high resolution flat panel liquid crystal display (LCD) monitor, with Image Resolution: 1680 x 1050</p> <p>Transducer Ports:</p> <p>The system shall have three or more active transducer ports in a convenient to access location to</p>

support proper user positioning and reduce user reach.  
+ one AUX CW port,

#### Transducer Storage

The system shall have integrated and easy to use transducer cable holders to prevent cables from dragging on the ground , Transducers (4)-Convex Array for Abdomen, OB/GYN Vascular, peds - Linear Array for Small parts, vascular, musculoskeletal, peds cranial - Phased Array - Endocavity - Please provide listing of available Probes including biopsy,

ECG + Physio Signal Input  
The system shall have Built-in ECG and physiologic signal module.

User-Programmable System Parameters  
The system shall provide user-programmable presets available for each application / transducer ,

#### CINE Function:

The system shall perform CINE Function.

#### Post Processing:

The system shall perform post processing in freeze frame and CINE for 2D-, Color-, Doppler- and M-mode ,

#### Automated trace measurement

The system shall perform automated trace measurements with area, maximum diameter and volume results.,

#### Study Types

The system shall provide factory-supplied exam and transducer dependent imaging presets. Optimized for each application to provide consistency, reliability and increased productivity. All applications include body markers, text and annotation labels.

#### Measurements

The system shall provide general measurements and calculation which includes pictograms, customizable text and measurement labels, and editable/customizable reports.

#### Reports and Worksheets

The system shall provide specific reports and worksheet which are customizable.

Hard Drive

The system shall include at least 1 TB .DVD Drive

Exported Image formats

The system shall export images and clips in PC compatible BMP/JPG format, AVI format and DICOM format,

USB Ports

The system shall have two user-accessible USB 2.0 ports on control panel, DICOM 3.0  
The system shall storage of all digital images and dynamic clips with patient demographic data and selectable In-Progress Store during the exam or end of exam.  
The image data could be sent to multiple destination devices with a single keystroke.

DICOM Print Class User

The system shall support image printing to DICOM color and grayscale printers,

DICOM Query/Retrieve

The system shall allow retrieval of studies on compatible PACs workstations,

DICOM Modality Worklist

The system shall support query and direct download of the patient worklist schedule from the Hospital/Radiology Information System (HIS/RIS),

DICOM Modality Performed Procedure Step

The system shall support automatic exchange of Modality Performed Procedure Step information with the Hospital/ Radiology Information System (HIS/RIS).

DICOM Structured Reporting

The system shall support a standardized report architecture to transfer of measurements for applications OB/GYN, Vascular and Cardiac.

DICOM Exchange Media

The system shall support DICOM Exchange media export to DVD-R/RW and CD-R/RW,  
B/W Printers

The system shall include a B/W Printers,

DVD Recorder

The system shall include a DVD Recorder,

Service Manuals/Accessories Instruction for use in English language, ,

Service Manual , Scan Gel, Biopsy Needle Guides, Protective Covers for Needle Guides,  
ECG Leads  
Power Connection

The voltage available is 110 Volts/60Hz, North American three pin type plug.,

Standards:

The system shall comply with standards

ISO 9001ISO 13485,

The system shall comply with design standards:

- CSA C22.2 No. 601-1 • EN 60601-1 and IEC 60601-1 • EN 60601-1-1 and IEC 60601-1-1 • EN 60601-1-2 and IEC 60601-1-2 (Class B) • EN 60601-1-4 and IEC 60601-1-4 • EN60601-1-6 and IEC 60601-1-6 • EN 60601-2-37 and IEC 60601-2-37 ,

CE Declaration:

The system shall have CE marking in accordance with the regulations stated in Council Directive 93/42/EEC of June 14, 1993 concerning Medical Devices

Virus Protection

The system shall have embedded virus protection solution that protects the system against advanced persistent threats, viruses, malware and other executing software by detecting.

The system shall be capable of use for the following types of clinical applications:, Obstetric Gynaecologic Fetal Imaging Vascular Imaging Neonatal and Paediatric Colour Doppler/ Flow Imaging Breast Small Parts Applications Transcranial Imaging Musculoskeletal (MSK)Urology Interventional General Imaging Abdominal- (Adult, Paediatric, Neonatal) Elastography/ Liver

<p>Portable Ultrasound Machine</p>	<p>Display Screen:, High resolution at least 21 inches</p> <p>Electrical Power:, Mains-line operation, Input rating: 110V</p> <p>Peripherals:, USB black and white printer with control from system panel DVD/CD-RW USB flash memory card Wireless network interface 1 TB Hard Drive capacity</p> <p>Required Accessories: Interface cable for External ECG (if necessary); Safety lock; Storage hooks for transducers on ultrasound unit; Mobile Cart to facilitate Unit; Uninterruptable Power Supply; (UPS) Printer</p> <p>Consumables (required for start-up), Ultrasound Gel, Ultrasound paper, Ultrasound and transducer cleaning solution, etc.</p> <p>Required Transducers: Liner, Convex, Endo-cavity, Phased Array for cranial ultrasound</p> <p>DICOM Compliant, YES The system shall allow the user to: Perform quantitative analyses, create reports and store images in DICOM or raw data DICOM formats to meet medical digital communication standards Import and export information with DICOM Query/Retrieve function for workflow efficiency as well as DICOM store and DICOM worklist licence Send and retrieve completed exams electronically to referring physicians in report formats via DVD as well as internal existing EWMSC PACS/RIS archiving system Perform image review and reporting side-by-side with a dual monitor solution Send and retrieve, worklist and query licences are mandatory</p> <p>Obsolescence Protection, The item supplier shall not be rendered obsolete (Parts including Transducers) shall be available for at least 10 years from the date of supply.</p> <p>General Specifications, The unit must also meet the General Specifications detailed below:  Warranty: The Unit shall be covered by a one (1) year Warranty, and an additional four (4) years Extended Warranty, during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer's recommendations and must provide all the necessary consumables and service kits required for the maintenance, inclusive of parts and labour.</p> <p>This Maintenance/Warranty Service Agreement is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years based on a 24 x 7 operation.</p> <p>During this five (5) years the supplier is also required to maintain the unit as per the manufacturer's recommendations and is responsible for providing labour and any replacement parts, as well as any required test equipment, kits, software upgrade etc. to effect preventative</p>
------------------------------------	---

	<p>maintenance. The supplier will be required to provide preventative maintenance schedule, service reports and other related documents.</p> <p>Training: - The supplier is required to provide On-Site Applications training for approximately fifteen (15) medical staff responsible for operating the machines. Such training shall be as deemed acceptable by the respective Head of Department for approximately five (5) continuous calendar days. The supplier is requested to make provision for additional end-user training.</p> <p>The supplier is also required to provide service training for the Biomedical staff; such training shall include the care and maintenance of the unit, service, repairs, calibration, preventive maintenance and installation etc.</p>
portable ultrasound machine	with a range of transducers suitable for General Imaging, Obstetrics and Gynecology, Breast, Vascular and Musculoskeletal investigations with all applicable software
Lead jacket; Vest; Skirt; Thyroid Goggles; Full Body Apron	<p><b>Lead Vest:</b> Front lead equivalence (mm) = 0.35; Side or Back lead equivalence (mm) = 0.25; Lightweight; Comfortable; Durable; Secure straps and hooks easy for wearer to fasten and remove independently; Easy to clean; Easy to store.</p> <p><b>Lead Skirt:</b> Front lead equivalence (mm) = 0.35; Side or Back lead equivalence (mm) = 0.35; Lightweight; Comfortable; Durable; Secure straps and hooks easy for wearer to fasten and remove independently; Easy to clean; Easy to store.</p> <p><b>Thyroid Lead shield/Bib:</b> Front lead equivalence (mm) = 0.35; Lightweight; Comfortable; Durable; Secure straps and hooks easy for wearer to fasten and remove independently; Easy to clean; Easy to store</p> <p><b>Lead Goggles:</b> Front lead equivalence (mm) = 0.75; Side or Back lead equivalence (mm) = 0.5; Lightweight; Comfortable; Durable; Secure straps and hooks easy for wearer to fasten and remove independently; Easy to clean; Easy to store.</p> <p><b>Full Body Frontal Lead Apron:</b> Front lead equivalence (mm) = 0.35; Lightweight; Comfortable; Durable; Secure straps and hooks easy for wearer to fasten and remove independently; Easy to clean; Easy to store.</p>
thyroid shield	
Digital Mobile X-Ray Unit	<p><b>Description:</b> The Digital Mobile X-Ray Unit will be primarily used to assist in the diagnosis of patients who are warded and unable to be transferred to the Radiology Department. The Unit must be a <b>fully digital</b>, maneuverable</p>

		and flexible mobile system capable of safely moving to the various Wards/Departments of the Hospital.
	<b>Display Screen:</b>	<ul style="list-style-type: none"> <li>• High-resolution display</li> </ul>
	<b>Electrical Power:</b>	<ul style="list-style-type: none"> <li>• Back-up battery and mains-line operation</li> <li>• Input rating:110V</li> </ul>
	<b>Peripherals:</b>	<ul style="list-style-type: none"> <li>• USB flash memory card</li> <li>• Wireless network interface</li> <li>• Hard Drive</li> <li>• Must be able to save images to external sources such as DVD/ CD/ USB/Printer</li> </ul>
	<b>Features:</b>	<ul style="list-style-type: none"> <li>• Tube voltage 40kV – 120 kV</li> <li>• Safety lock</li> <li>• Motorization</li> <li>• Wireless and wired connectivity</li> </ul>
	<b>Detector:</b>	<p>Quantity – Two (2) with individual batteries  14 inches x 17 inches  Minimum of one set of batteries and one set of back-up batteries  Docking station (if required for charging)  Grid  All Detectors shall be compatible with the fixed and MOBILE X-Ray Systems.</p>
	<b>Post Processing Applications:</b>	<ul style="list-style-type: none"> <li>• Annotations</li> <li>• Measurements</li> <li>• Magnification, invert, rotate, flip</li> <li>• Windowing Contrast and Density</li> <li>• PAN and Zoom</li> <li>• Anatomical Markers</li> <li>• Integration of dose area product meters (DAP)</li> <li>• AEC (Automatic Exposure Control) and ARP (Anatomical Programmed Radiography) automatically set X-ray parameter v values for each exposure; manual adjustments can easily be made</li> <li>• Ability to save post-processed images</li> </ul>
	<b>DICOM Compliant</b>	<ul style="list-style-type: none"> <li>• YES</li> </ul> <p>The system shall allow the user to:  Perform quantitative analyses, create reports and store images in DICOM or raw data DICOM formats to meet medical digital communication standards  Connect to the existing PACS at the Institution.  Import and export information with DICOM Query/Retrieve function for workflow efficiency</p>

		Send and retrieve, Work-list, and query Licenses are mandatory. Send and retrieve completed exams electronically for the internal hospital archiving system and able to print.
	<b>UPS</b>	<ul style="list-style-type: none"> <li>• Suitable for the specified Mobile X-Ray Unit being supplied, to be used during the charging of the X-Ray Unit.</li> </ul>
	<b>Detector Holder(s)</b>	<ul style="list-style-type: none"> <li>• Suitable for patient beds without moving patient (hand-held)</li> <li>• Supports both landscape and portrait format</li> <li>• Portable Detector Holder (hand held)</li> <li>• Mobile Detector Holder on Wheels</li> </ul>
	<b>X-ray Printer (optional)</b>	<ul style="list-style-type: none"> <li>• DICOM sending and receiving of images</li> <li>• 110V input</li> <li>• Must be capable of printing X-ray, DR, CT, MRI and mammography images</li> <li>• Consumables – one pack of 14” x 17” film</li> </ul>
	<b>Obsolescence Protection</b>	The item supplied shall not be rendered obsolete and (Parts including batteries and consumables), shall be available for at least 8 to 10 years from the date of supply.
	<b>General Specifications</b>	<p>The unit must also meet the General Specifications detailed below.</p> <p><b>General Specifications</b></p> <p><b>Warranty:</b> The Digital Mobile X-Ray Unit inclusive of its Detector Panel, shall be covered by a one (1) year Warranty, and an additional four (4) years Extended Warranty, during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer’s recommendations and must provide all the necessary consumables and service kits required for the maintenance, inclusive of parts and labour.</p> <p>This Maintenance/Warranty Service Agreement is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years based on a 24 x 7 operation.</p> <p>During this five (5) years the supplier is required to maintain the unit as per the manufacturer’s recommendations and is responsible for providing labour and any replacement parts, as well as any required test equipment, kits, software upgrade etc. to effect preventative maintenance. The supplier will be required to provide preventative maintenance schedule, service reports and other related documents.</p> <p><b>Pre-Installation /Installation/Commissioning:</b> The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests. The supplier shall have locally available certified engineers/technicians trained and capable of installation,</p>



			<p>commissioning and maintaining their proposed equipment. This system should also be connected to the available PACS system at the hospital during installation, any licenses required should also be installed in the system by the supplier prior to hand over. Supplier should also provide all Operator and service manuals.</p> <p><b>Training:</b> - The supplier is required to provide on-site Application training for approximately fifteen (15) medical staff responsible for operating the machines with follow-up training six (6) months post commissioning. The supplier is also required to provide service training for the Bio-medical staff; such training shall include the care and maintenance of the unit, service, repairs, troubleshooting, calibration, preventive maintenance and installation etc. Such training shall be as deemed acceptable by the respective Heads of Departments. The supplier is requested to make provision for additional end-user-training.</p>
Health Information	Mechanical Mobile Shelving System	Filing System, Medical Records	<p>- Standard Carriage Length - Mechanical Assist carriages to be available in standard lengths - Load Carrying Capacity Each carriage to have a minimum load carrying capacity of 1,000 lb. (1500 kg) per linear foot (meter). - Flexible Rail Layout - By adjusting rail size, spacing and orientation, floor loads to be optimally distributed at practical bearing points. - Welded-Steel Unframed Carriage - All drive train components must retain their alignment, eliminating binding, racking and misalignment of carriage and shelving. - Hardened Steel Wheels and Rails Carriagewheels and rails to be made out of hardened steel and precision-machined for maximum strength and system life. - Synchronized Drive System designed to transmit power to both sides of the carriage, not just one, providing positive tracking. - Operation of the shelving system to be smooth and effortless. Very little force or exertion required to open an aisle. - Anti-Tip Protection – This is to be built-in and engineered to comply with the requirements of all seismic zones, providing an extra measure of system stability and safety – even in areas prone to earthquake. - Low Profile Rail Design engineered to mount flush with the finished floor. - Soft-Touch Ergonomic Handles for easy operation. - Safety Locks to enhance user safety, unwanted movement to be minimized by a standard safety lock control with bright visual indicator showing lock status. - Wide Choice of Housings. Must be able to accommodate any type of storage housing. - Heavy-Duty Shelving construction. - Must be designed for increased rigidity, and therefore able to support greater shelf loads. - Durable Paint finishes. The paint used must be extremely durable, exceeding the stringent scuff, scratch and chip requirements of the American Library Association.</p> <p>Depends on working space which needs to be verified</p>

Location	Item	Specification
	Filing Trolley	Trolley - Trolley to hold up to 50 A4 type files. - To have a lockable lid, this hangs to the side of the trolley when not in use. - Frame to be epoxy coated and the filing section to be manufactured from sheet steel with a “walnut” effect finish to be supplied flat packed with easy assembly instructions. - Width 43 Depth 63 Height 61
	Step Ladders	
	Index Card Filing Cabinet	
Treatment Rooms	Vital signs monitor (portable)	Specifications for Vital Signs Monitor Respiration • Manual/automatic operation. • Adult respiration rate measurement range 0-120 rpm. • Resolution 1rpm. • Alarm audible and visual. • Method trans thoracic impedance. • Apnea alarm threshold

Location	Item	Specification
		<p>10s,15s,20s,25s,30s,35s,40s • Sweep speed 6.25mm/s, 12.5mm/s,25mm/s, 50mm/s. Pulse Oximetry • Measurement and alarm range 0-100%. • Resolution 1% • Accuracy adult +/- 2%. • Pulse rate measurement and alarm range 25-300 bpm. • Resolution 1%.Accuracy 3 bpm. Temperature • Range and alarm 0-50 degrees Celsius. • YSI probe. • Accuracy 0.1 % ECG • 3 lead and or 5 selectable. • Selectable leads. • Selectable gain. • Selectable sweep speed • Heart rate adult 15-300 bpm • Filter yes • Protection against defibrillator and electrosurgical interference. • Audible and visual alarms, recallable alarm events. • Pacemaker detection. • ST segment, arrhythmia analysis and categorization. NIBP Method oscillometric. • Manual, continuous and automatic mode. • Time interval selectable. • Pressure range adult systolic 40-270 mmhg. • Pressure range adult diastolic10-215 mmhg. • Mean 20-235 mmhg. • Pressure range paediatric systolic 40-200mmhg. • Pressure range paediatric systolic 10-150 mmhg. • Mean 20-165 mmhg. •Pulse rate from NIBP measurement 40-240bpm. • Accuracy 3bpm. • Overpressure protection. • Leak test and pressure auto calibration. • Alarm systolic, diastolic and mean. Accessories • All required cables, hoses, sensors and full range of NIBP cuffs. • Portable stand. Electrical 110v 60Hz.</p> <p>Supplied with all required accessories for adult and pediatric use. One Service Manual and One Operator Manual. 1 Year Warranty inclusive of Installation and Commissioning Training to be provided for end users</p>
	Sphygmomanometer	<p>Sphygmomanometer - Incorporating a 6 inch dial fitted with a wall mounting bracket -The dial head to swivel for ease of viewing. - The unit to have a range of 0 - 300mmHg. - To be supplied complete with spring coil tubing, inflation bulb and full range of cuffs. Rubber tubes to be detachable from other parts to allow periodic cutting of decayed ends Operator's Manual to be supplied. Operator training to be done upon installation and commissioning</p>
	Vital Sign Monitor (Wall Mounted)	<p>The vital sign monitor shall have the capability to monitor and display at least the following parameters: Systolic Pressure, Diastolic Pressure, Pulse rate and Mean arterial pressure, ECG, SPO2, Respiration &amp; Temperature.</p> <p>Unit shall be designed for use for Paediatric and Adult</p> <p>For NIBP readings the unit shall be equipped with the correct cuff automatically recognized by the unit dependent on Paediatric or Adult patients.</p> <p>Unit shall have an alarm system monitoring the High and Low setting of all parameters. The</p>

	<p>alarm system shall be able to be set within the entire range of a given parameter. Alarm shall have visual and audio indicator.</p> <p>Unit shall have at least two determination modes as follows:</p> <p>Automatic: user settable intervals  Manual: determinations performed only when initiate by user</p> <p>The unit shall have the capability to determine and display Blood Oxygen Saturation level by mean of Pulse Oximetry.</p> <p>Oxygen saturation determination shall be obtained through a Pulse Oximetry Sensor.</p> <p>Unit shall have ECG parameter available, 3/5 Lead readings.  Respiration readings shall be available, whether it be by means of the ECG readings.</p> <p>Temperature Readings shall be available and readings available on display.</p> <p>Unit shall have self-diagnostic capabilities at power-up and in service/calibration mode.</p> <p>Unit shall be supplied complete with the following:</p> <p>Wall mounting Bracket for easy installation  All required accessories for adult and pediatric use.  Power cord  One Service Manual  Operator Manuals  Electrical: 120V, 60Hz  Warranty: 1 YR Minimum  1 Year Annual Maintenance included</p>
Wheel chair scale	Capacity: 1,000 lbs, removable access ramps, LCD display, mounted on wheels andeasily foldable for storage, functions: lb/kg conversion, lb/kg lockout, Body Mass Index (BMI), zero out/tare, hold/release, reweigh, auto zero, auto shut off.
Examination couch	Couch to be fabricated from square and rectangular welded steel tubing. - Top to be covered with fire retardant expanded vinyl and padded with polyfoam interior. - Frame legs to be provided with plastic feet/or lockable castors. - All steel surfaces to be treated with iron phosphate rust inhibitor with grey epoxy resin powder coating. - Couch to be supplied complete with paper roll holder to utilize 508 mm (20") - paper fitted to either end of the couch and a fold away

Location	Item	Specification
		mounting step fabricated from tubular steel with a 1/2"plywood tread covered in a non-slip material. - Base of couch shall accommodate 3 storage drawers and pull-out footstep. - Table to be complete with knee/foot crutch/Fold away Stirrups and extendable table foot section.
	Patient trolley	Patient Trolley - The patient trolley shall have a chrome plated steel welded construction and aluminum litter. - The unit shall be complete with fold-down safety side rails - The stretcher shall have a wrap-around protective bumper composed of chrome plated steel plate with a non-marking rubber cushion. - The stretcher shall be equipped with four casters of 20-cm minimum diameter. - Two of the casters shall be lockable in one direction and shall have a braking, mechanism. - The casters shall be mounted on ball bearing and the stem of the casters shall have a ball bearing flange. - Casters to be fitted with semi-pneumatic types. - The general transport stretcher shall be complete with the following accessories: o One (1) adjustable chrome plated IV rod with a "T" bar and two open eyelets o One (1) conductive 5cm thick mattress with a bacteria and moisture repellent cover o One (1) storage basket located in the base of the unit o One (1) pair of body restraint straps o One (1) chart holder o One (1) oxygen cylinder holder – Steering handles at head and foot end. The stretcher shall have clips installed underneath the patient litter to store the IV rod when not in use. Capable of hydraulically assisted height adjustment with forward and reverse trendelenburg operation at least +/- 15° with Bilateral CPR release handle. Weight Capacity no less than 250kg
	Procedure Cart	The procedure cart shall be - Stainless steel, equipped with a push handle - Each post of the cart shall be equipped with rubber bumpers - The cart shall have three drawers mounted on ball bearing slide and neoprene rollers - Drawers shall be as follows: one 8cm deep, one 15 cm deep and one 24 cm deep - Drawers shall have a pull handle made of stainless steel - Each vertical post of the cart shall be equipped with ball bearing mounted casters - The top work surface of the cart shall be approximately 45 cm deep x60 cm wide
	Antibacterial Curtain	Medical grade antimicrobial curtain material with suitable choices for the clinical areas (either medical vinyl for wet areas or medical fabric. Compliant with NFPA
	Kick Step Stool	Circular metal platform with intermediate step With rubber safety treads. To have four retracting castors. Height 40cm
	Adult Scale (with stadiometer)	Casters for easy mobility, lockable. • RS-232 computer interface. • Mechanical height rod. • Complete protection against liquids. • 115v ac input with adapter • Both ac plug-in and battery operation. • Red bright LED for easy viewing. • Auto "on" feature. • Unit - Kg & Pound. • Power - "Auto off" or continuous "On" select to key board. • Hold Function - "Hold" or with Hold select to key board. • Scale offered as equipped with height meter only. • Platform size approx: 300 x 350 / 11.8" x 13.7" • Maximum weightcap: 350 kg • Measurement accuracy: 1.0cm • Height measurement scale: 210 cm / 2100 m / 82" • Full Tare • IP 54.Measuring indicator AC-7

Location	Item	Specification
	Baby Scale	Electronic Scale with Digital Display - Capacity 24 kg/ 44 lbs - Graduation 2 g < 10 Kg > 5 Kg o 0.1 oz < 22 lbs > 0.2 oz - Power Mains Adaptor Operators and battery operated capability, LCD Display, ON/OFF, Mobile measuring and weighing, Zero out/TARE, BMIF, Auto-HOLD, kg/lbs switch-over, Automatic switch-off, Measuring Tape for Height Warranty: Minimum 6months- 1 year
	X-ray view box with 2 panels	Shall have: - A viewing screen of 140 mm X 370 mm - Instant start lighting feature - Operate on 110V, 60 HZ - Viewing screen should be vertical - Full length bottom lip to support X-ray film - A height of 165 mm and a width of 390 mm and a depth of 130 mm. A standard 380mm diameter x380mm long, white fluorescent lamp/LED with dimmable feature.
	X-ray view box, single panel	Shall have: - A viewing screen of 140 mm X 370 mm - Instant start lighting feature - Operate on 110V, 60 HZ - Viewing screen should be vertical - Full length bottom lip to support X-ray film - A height of 165 mm and a width of 390 mm and a depth of 130 mm. - A standard 380mm diameter x380mm long, white fluorescent lamp/LED with dimmable feature.
	Handheld foetal Heart Rate Doppler	Battery operated, LCD display, volume control, detachable 2 and 3 Mhz probes, audioand data output ports, auto shut-off, supplied with carrying case and ultrasonic gel. Unit must be compact, lightwiegth and portable Fetal Heart Rate accuracy to be within range of $\pm 1$ Bpm, Fetal Heart Rate Measuring range to be within 30-240 Bpm Operator' manual
	Portable Diagnostic Set	LED illumination, two (2) rechargeable lithium ion batteries, battery charger, capable of operating with standard C-Cell batteries, power handle, ophthalmoscope, otoscope with throat illuminator and bulbs carrying case. AC Adapter Designed for 3.5V heads, automatic on/off function, automatic voltage regulator, support for instruments, Ophthalmoscope (MEG-0011) with wide range of apertures with pinhole, large spot, fixation red-free and 400K filter, viewing lenses from -25 to +40 diopters and polarizing filter Otoscope (MEG-0010) head shall be fully rotating 8mm-diameter lens and speculum holder; complete with 5 polypropylene specula

<p>Wall mounted diagnostic set</p>	<p>Set to - Comprise an ophthalmoscope and Otoscope handle and cables and a wall- mounted transformer supplied with anchoring devices - Transformers shall be designed for 3.5 V heads, automatic on/off function, automatic voltage regulator, support for instruments, 2.5 meters extension cords. - Ophthalmoscope with a wide range of apertures with pinhole, large spot, fixation red-free and 400K filter, viewing lenses from -25 to + 40 diopters and polarizing filter. - Otoscope shall be fully rotatable 8mm- diameter lens and speculum holder; complete with ten (10) polypropylene specula. - 120V/60Hz Warranty 1 Year</p>
------------------------------------	---

Location	Item	Specification
	ECG Recorder with cart	3 channel, twelve lead, portable with backup battery, full page reporting format, Interpretive diagnostic software to be included, built in defibrillator protection, fixed and user programmable operating configurations, onboard memory to store 150 patient data records, data transfer capability, spill resistant control panel with full alpha- numeric keypad, ECG recording modes to include but not limited to: auto switched 12- lead ECG, auto switched 12-lead ECG with rhythm strip, 3-lead manual ECG, lead rhythm strip recording. Patient data fields to include but not limited to: name, patientID, race, age, sex, weight, height, blood pressure, department name, physician's name, operator's initials, and user defined parameters. Unit to be supplied with all required leads and cables, Start-up set of electrodes and a set of reusable cups or adapter chips, complete with cart, thermal printer, paper one (1) user and one (1) service manual. Electrical requirements – 100-120 VAC/60 Hz Warranty: At least 1 year
	Wall mounted Examination Light	Should be ideal for medical examinations and surgical procedures with the following features - 73,000 lux (6800 fc) at 16” and 60,000 lux (5600 fc) at 18” – White LED light - Optional colour correction filter to achieve greater than 4000k is available - Articulated arms provide a 38” arm reach on most models. Gooseneck arms offer a 36” reach - Double wall construction in light head assures cool housing surface temperature - Includes wrap-around handle for easy positioning - wall mount
	Free Standing Examination Light	Should be ideal for medical examinations and surgical procedures with the following features - Minimum 50,000 lux at 0.5m 19.6” - White LED light - Colour temperature 4000K – 4500K - Minimum LED life 35,000 hours - Articulated arms provide a 38” arm reach on most models. Gooseneck arms offer a 36” reach - Double wall construction in light head assures cool housing surface temperature - Includes wrap-around handle for easy positioning - Unit must be portable - Electrical 110/120V, 60 Hz
	Head wall with medical gases	
	intravenous line (IV) stands	Made of stainless steel inclusive of the base, non-tilting design with six leg base, 3”



Location	Item	Specification
	Resuscitation Unit (adult & paediatric) Ambu bag	<p>rubber casters with ball bearings, 4 hook top height adjustment range: 65" to 99".</p> <p>Unit Resuscitation: - Unit shall be designed to ventilate <b>adults</b> - Unit shall have an inflation bag autoclavable - Unit shall have a patient valve permitting to provide up -To 100% oxygen - Unit should have a PEEP valve - Unit shall have a carrying case - Unit shall be able to ventilate through a face mask or an endotracheal tube - Unit shall be supplied complete with a transparent face mask for adults and the oxygen reservoir - Unit to meet all requirements set by international standards. Unit Resuscitation - Unit shall be designed to ventilate <b>children</b> - Unit shall have an inflation bag autoclavable - Unit shall have a patient valve permitting to provide up to 100% oxygen - Unit should have a PEEP valve - Unit shall have a carrying case - Unit shall be supplied complete with a transparent face mask for child with oxygen reservoir - Unit shall be able to ventilate through a face mask or an endotracheal tube - Unit to meet all requirements set by international standards</p>
	Pulse Oximeter	<p>The unit shall have the following: - Three (3) digit display for SPO2 and pulse rate - Pulse rate shall have a logarithmic scale 8 segment bar - Graph display - SPO2 range 0 to 100% - Accuracy 100% - Alarms must be audible and visual - Alarm should indicate low battery, pulse rate and checks on probe - Unit shall have a battery system providing up to four (4) hours of continuous use when fully charged Unit shall be supplied with the following: - All required cables - All required probes and sensors for adult and pediatric monitoring - One Operators manual - One service manual - Electrical 120V 60Hz</p>
	Defibrillator with Crash CartKit	<p>Defibrillator: - The biphasic waveform defibrillator shall be a lightweight and portable AC/DC operated defibrillator with monitor and recorder. - The monitor shall allow ECG input from paddles or direct from patient cable and shall have a lead ECG selector "in-op" indicator, audible alarms and automatic/manual ECG size and position control. - Ability to simulate ECG signals for no less than 10 leads.</p> <p>Can detect waveforms and simulate clinical conditions, identify and test different ECG leads selected &amp; Amplitude of waveforms The scope shall be non-fade, fixed trace unit, 25mm/sec. speed with a frequency response of .5 to 40Hz. - The delivered output shall be up to 360 joules with a full charge time of 4 seconds. - Unit shall be based on biphasic waveform where during the first phase; the electrical current passes through the heart muscle, reverse direction, and then passes through the heart a second time. - The defibrillator shall have a synchronized cardioversion capability. - The unit shall permit external pacing. - The paddles shall have a poor paddle contact indicator and be equipped with a built-in adult and paediatric paddles. - The recorder shall use 50 mm paper and shall annotating capabilities with event printing and shall be</p>

	<p>programmable to permit either real time or delayed printing.          Capable of automatic external defibrillator (AED) operation ie:          ED compatible technology and ability to select from various PACER brands, including Demand and Asynchronous Mode tests          Capable to measure accuracy in Joules or % for the selected energy output          Test Automation Software and test load to perform standardized test operating procedures, test waveforms, and test results          Battery operated- Battery can perform for minimum of 6 hours (fully charged)          Easy to use, readable display</p> <p>The unit shall be complete with the following: o External paediatric paddles o ECG lead cable with starter supply of external disposable patient pads and electrodes.o Printer paper roll (6) o Dust cover          General Features - Electrical: 120V, 60Hz</p> <p>Ability to test &amp; read accuracy of different test loads (0-360 Joules), inclusive of Biphasic test functions</p> <p>Supplier to provide Calibration/Maintenance services of Test equipment (NB: Unit to be supplied with valid certification)          All accessories must be provided          AC Adapter/Power cord must be provided          Warranty: At least 1Year</p>
--	--

Location	Item	Specification
	Flowmeter	Oxygen Flowmeter: - In polycarbonate with graduations. - Adjustable bobbin to measure the flow rate. - Graduated from 1-15 L/min. - To have a probe to allow direct fitting to the client's - Existing pipeline outlet. - Oxequip - Power take-off - With Humidifier Bottles and all required nipple/ adaptors /lines
	Portable Nebulizer	Unit shall be: - Portable Hospital grade self-contained comprising compressor and Nebulizer. - System shall meet the following specifications 1/10 HP compressor - Quietoperation. - Built-in carry-on handle - 15 litres maximum flow rate. - Pressure: 89psi/max - No air required. - Nebulizer particle range: 0.5 to 5 micron - Water tank: 250 ml. - Unit shall have and electric cord 150 cm long - Power 120volts/ 60hz Warranty: 1 Year
	portable suction machine	The suction machine will be used to suction patients. The unit must meet the following specifications: • Electrical aspirator mounted on a cart with castors. • Suction regulator for varying the amount of suction to the patient • Suction pump to be complete with overflow trap, one gallon shatter-proof autoclavable collection bottle. •Capable of continuous operation Pumping capacity: 35 litre/minute at 684mm Hg of maximum suction. • Cart to be of mild steel with baked enamel finish. Electrical Supply 115V, 60Hz Unit MUST also be battery operated and shall have all accessories needed for operation.
	Large oxygen tank	<b><i>Medical Oxygen Demand shall be calculated by the contractor and final optimal solution to be provided to meet the end user requirements.</i></b>

Location	Item	Specification
	Small portable oxygen tank	E size cylinder, colour coded and labelled for oxygen service, made of aluminium, mobile cart with adjustable handle to secure and transport tank, post type CGA870 valve, hydrostatic tested and DOT 3AL/CTC 3AL approved, oxygen capacity: 680 cu litres at 2000 PSI
	Medical Oxygen	<b><i>Medical Oxygen Demand shall be calculated by the contractor and final optimal solution to be provided to meet the end user requirements.</i></b> Oxygen Installation: • Two (2) filled 220 cubic foot cylinders with a 2 x 2 automatic change-over manifold and pressure regulating system for the distribution system (expandable to four (4) cylinders). • Recessed wall mounted distribution outlet and service consoles. • Two (2) Head Walls with Medical Oxygen Outlets (Medstar, quick connect 50-60 psi) • Piping to head walls in Holding Bay and Observation Post-Stabilization and Five Bedded Treatment Area. .
	Snellen's Chart	Chart should be Wall mounted at a distance of six (6) meters from patient perspective Accompanied by red adhesive floor tape demarking 6 meter distance
	Procedure/Minor Surgery Lights	Multiple LED type illumination, variable light intensity with a maximum of 125,000 lux at 1 metre from tabletop, variable colour temperature in the range of 3,500 to 5,500 K, average LED life ≥ 50,000 hrs, light field diameter: 4" to 10", removable, autoclavable handle, backup battery.  Mounting preference (ceiling, wall or mobile) to be decided by users.
	Examination Stool	Medical Grade Doctor's Stool. Weight Limit: 200kg
	Electronic Breast pump	Pump: -Single and dual feeding capability -For hospital use -BPA free -Safe collection and storage -Cooling elements -For daily continuous use -Infinitely Variable speed and vacuum - Battery pack -Electronic adapter -Transparent tubing -On/off light indicator - Easy cleaning - Compatible with other bottles -Gentle reusable stimulation cup - Designed for use in natural relaxed positions -Tubing track with reusable tubing - Micro-filter Storage bag -Provide four (4) dual pump starter kits -Box of diaphragms: 4 -Reusable collection bottles : 10 -Disposable collection bottles with nipple and cover: 60 -CE, UL Listed equipment

Location	Item	Specification
	Large Autoclave, 19 litre capacity	<p>- Autoclave shall be designed for the sterilization of small packs and unwrapped instruments and utensils. - Unit shall have a stainless steel door and stainless steel chamber of 19 –litre capacity approximately. Chamber Size: 9” x 18”; Reservoir Volume: 3 liters</p> <p>- Unit shall have a fully digital control panel indicating temperature, pressure, the cycle status and the conditions of the unit. LCD Display - Unit shall have a drying cycle controlled by the digital timer of the control panel. - Control panel; shall include a printer giving a record of all the sterilization cycles. - Unit to have a pressure safety valve, a door safety mechanism, error warning indicator, overheat protection, door interlock switch. - Unit shall permit sterilization at different cycle 121/124oc and 134/138 oc. - Chamber shall be equipped with a rack for packs and two stainless steel instrument trays. Slow exhaust for liquids</p> <p>Timer range: 1-60 mins</p> <p>Cycle time: 15-45mins</p> <p>Preheat time: 10mins from cold start, 4 mins from warm start</p> <p>- Electrical : 220 v/60Hz 1 Phase Warranty : 1 Year</p>
	Wall mounted stainless steel storage cupboard	DEPENDS ON SPACE
	stainless steel storage cabinet	DEPENDS ON SPACE
	stainless steel conical sluice bowl with a regular sink bowl and a drain board	
	Chair for dressing	<p>Requirements: - Chair to be available in optional colour versions. - Chair to come complete with padded armrests and a footrest with an anti-slip strip for added safety. - Weight Bearing Capacity: 350 Pounds. - Average height: 42” - Average Width: 25 ¾ - Average Depth: 26” - Width between Arms: 18” - Arm Height from floor: 31” - Arm Height from Seat: 6” - Seat Height: 26” - Seat Width: 30” - Seat Depth: 18” - Shipping Weight: 52 lbs - Weight Capacity: 250 lbs</p>
	Tendon Hammer	

Location	Item	Specification
	Developmental Kit	
	Auto refractor Keratometer	<ul style="list-style-type: none"> <li>• Measurement modes: Auto Refraction, Auto Keratometry, Corneal-peripheral, curvature, Photo (anterior image of the eye), Intraocular Lens Measurement, Switch the vertex distance for eyeglasses or contact, lens measurement, Both eye measurement capability • Ophthalmic motorized table with regulated power plugs • Table design for wheel chair patients • Power joy stick • Motorized Powered chin rest with soft touch buttons; Chin rest travel distance: 65 mm (<math>\pm 3</math> mm).</li> <li>• Corneal thickness measurement range 300 – 800 micrometers, with 1 micrometer increment, <math>\pm 10</math> micrometer accuracy.</li> <li>• Cornea and pupil : 0.5mm – 1.8mm • PD measurements: 45mm – 100mm in 1mm steps • Refractive measuring range: Sphere: approx. -30.00D through +25.00D (0.12D, 0.25D steps), Cylinder : approx. -10.00D through +10.00D (0.12D, 0.25D steps), Axis : 0 – 180 degrees in 1 degree steps • Keratometric Measuring Range: Radius of Curvature: 5.00 mm to 10.00 mm (0.01 mm steps), Corneal Power: 29.50D to 67.80D (0.12D, 0.25D steps), Cylinder: 0 through <math>\pm 11</math>D (0.12D, 0.25D steps), Axis: 0° through 180° (1° steps), Peripheral: approx. <math>\Phi</math> 7.5 mm (radius of curvature) • Vertex distance : 0, 10, 12, 13.5, 15 mm • Pupil diameter : under 2.3 mm • Display : @ least 5.8’’ color LCD tilted touch screen • Auto-calibration of screen • Thermal printer with auto-cutter • I/O ports : USB and VGA output • Picture receive software with open licenses • HL-7 protocol compliant • Image and video object push to PC • Print to external drive support • Power saving modes • Instrument movement range : back/ forward, left/right up down : provide details • Bacteria resistant base • 120V@60Hz , fused power supply</li> <li>• One(1) UPS • Accessories: Two (2) dust covers, Base locking screw kit, Verification eye, Fuses : four(4), Power cord, Four boxes of chin rest liners and pins, Printer paper : four(4) rolls</li> </ul>
	Auto chart projector	Should have refracting distance 3 to 6 m Should have projection magnification 30x (in 5 m refraction) Should have number of charts 30 Should have chart change-over 1 frame / 0.03 sec Should have number of masks 8 Should have mask change-over 1 frame / 0.02 sec Should have projection Lamp 50w (halogen lamp) Should have automatic Shut-off after 10 min Electricity AC 120V 60 Hz

Location	Item	Specification
	Non Contact Desktop Tonometers	<p>Auto Function 3D Auto Alignment, Auto Shooting ,Auto Tracking and Auto Measurement Added Pachymeter option preferred. Alignment Mode Full</p> <p>Auto/Auto/Manual Selectable Measurement Times 3/2/1 Working Distance At least 11 mm From the Front of Nozzle Interface Input: USB(at least one (1)) Output ID: LAN, USB, RS-232C INPUT method Auto serial number assignment Patient ID via screen Keyboard Barcode reader (optional) Large Display Tilt-able color TFT LCD Joystick Single-Axis powered and manual operation capability Built-In Printer Thermal Line Printer With Auto Cutter (auto cutter optional) DIACOM Conformance with all software and/or licenses/ information necessary for plug in play , send/quiere, DICOM EXPORT/CD/print to existing PACS network. HL-7 compliant protocol Operation Range Front/Back, Left/Right, Up/Down Chin Rest Up/Down: 70 mm (Electrical motorized) Space Space saving design even on working table, Should be lockable/detachable on working table. Device table Electrically operated up/down motorized movement with manual release At least two (2) receptacles with UPS option quoted. Pachymeter measurement Measurement range 100 – 1500 microns approx. Light source LED, Measurement operation slit imaging or any other non-contact method. Non-Contact Tonometer IOP Measurement Range Approx. 0 to 80 mmHg Includes automatic shifting between 30/60 mmHg, Measuring Increment 1 mmHg, Eye Fixation Target, Internal Fixation Light /External Fixation Light Accuracy within tolerance of +/- 5mmHg</p> <p>Adjustable Chin Rest and Headrest for easy positioning of patient Unit should have locking features for safe transport etc Power Supply AC 100-240V 50/60 Hz 0.8-0.4A One (1) UPS, Additional 4 fuses provided 1 Operators manual 1 Year Warranty.</p>
	Digital Indirect Ophthalmoscope	<p>LED type illumination, fully adjustable, padded headband, cable free power source, Should have at least: High resolution 2.4" TFT-LCD display, antireflective coating 2 GB SD memory card Bayonet connector for attachable optics modules Integrated lens for general imaging Average usage time 1 h 30 min continuous use with full battery, integrated camera with 5 MPixel CMOS image sensor Image format: JPEG Video format: MPEG-4/MPEG-1 Resolution in general mode: 2560 x 1920 Pixels Autofocus Connectivity PC with USB port – no driver installation needed Supported operating</p>

Location	Item	Specification
		systems: Windows 7 and Windows 8. Patient data management, video recording and imaging software provided with sales package

Location	Item	Specification
		NB. The Indirect Ophthalmoscope has the ability to capture fundus images.
	Slit Lamp with camera	<p>Should be Galilean-type converging binocular microscope type • Should have x6, x10, x16, x25 and x40 step magnifications. • Should have real fields of view of 23mm to 5.6mm diameter. • Should have inter-pupillary adjustment of at least 45 to 75 mm • Ocular magnification: x12.5 • Should have slit width from at least 0 to 14mm continuously variable. • Should have slit length 0 to 14 mm continuously variable and fixed apertures • Slit lamp rotation: <math>\pm 180</math> with reference scale • Slit angle : <math>\pm 90</math> • Range of adjusting eye-pieces approx.: <math>\pm 6</math> diopters • Should have slit inclination from 0 to 20° • Should have heat absorbing, red-free, cobalt blue filters, grey (10%) and optical yellow.</p> <ul style="list-style-type: none"> <li>• Should have UV and IR filters permanently installed • Should operate from 115V, 60 Hz input supply. • Should be supplied with motorized table. • • Should have a longitudinal movement of at least 90mm • Should have a lateral movement of at least 95mm. • Should have a vertical movement of at least 30mm. • Should have a chin rest vertical movement of at least 55mm. • Pupil distance: 52 – 78mm • Should have LED illumination • Should have varying illumination intensities • All accessories needed to install and operate machine</li> <li>• Complies with Ophthalmic instruments - Fundamental requirements and test methods ISO 15004-1:2006 • Ophthalmic instruments - Optical radiation hazard ISO 15004- 2:2007</li> <li>• camera Interface (splitter / adapter). Digital single lens SLR camera as a collection media for real-time, clear and vivid images , dast image acquisition.</li> <li>• The supplier is responsible for installation, commissioning, mainte—nance and training of end users.</li> <li>• Standard one (1) year warranty, Operator and Service Manuals to be provided</li> </ul>
	Applanation Tonometer	<ul style="list-style-type: none"> <li>• Ability to reproduce tests accurately and consistently • Should have an accuracy of <math>\pm 0.5</math>mmHg</li> <li>• Controls should be clearly visible and defined • Based on GolCDHFan Tonometry principle • Able to be combined with all models of slit lamps • Provided with illuminated unit arm • Measuring range : 0 – 80mmHg in 2mmHg steps max • Reverse span: max 0.5 mN. • Measurement Divergence: 0 – 60mN • Reusable measuring prism: three(3) • Disposable measuring prism: four (4) boxes • Calibration rod kit and control weight • Mounting base for microscope, optics, slit lamps • Easy numbering scale • Cleaning kits : 5 bottles • Storage container: one (1) • Installation by supplier free of cost • CE and UL Listed • Labels and markings must be in English and clearly written. • Tool for use in maintenance must be listed • Parts list with order numbers separated.</li> </ul>
	Fundosopic Camera	See Digital Ophthalmoscope spec.



Location	Item	Specification
Laboratory Department	Phlebotomy chair x 3	<ul style="list-style-type: none"> <li>• Sturdy coated steel frame</li> <li>• Seamless upholstery</li> <li>• Height adjustable with foot pedal</li> <li>• Wide armrests adjustable to any patient need</li> <li>• Arm bar assembly easy to adjust with swinging out as well as moving up and down facility.</li> <li>• Arm rest wide, Sturdy, musthold donor's arm in a comfortable horizontal position throughout blood donation.</li> <li>• Interlinked backrest and leg section for reclining patient if necessary</li> <li>• Easy clean</li> <li>• Complete accessibility</li> <li>• At approx 400lb patient weight capacity</li> <li>• Bacterial resistant base</li> </ul>

Location	Item	Specification
	Biochemistry Analyzer (Inclusive of Water Deionization system)	<p><b>BIOCHEMISTRY ANALYSER</b></p> <p>Type - Discrete, random access, fully automated, bench-top</p> <p>Throughput- At least constant 400 tests per hour, up to 600 tests per hour with ISE</p> <p>Samples- At least 100 positions</p> <p>Stat Samples- Non-Fixed Position</p> <p>Reagents- at least 80 positions, cooled</p> <p>Wash- Auto washing system with pre-warmed detergent and water</p> <p>Probe Washing- Internal and External</p> <p>Probe Detection -Liquid Level, Collision, Automatic depth Adjustment</p> <p>Reading- Spot Photometry with high speed digital transmission, Grating optical system</p> <p>Reaction volume- 150µl minimum reaction volume</p> <p>Mixing- Independent mixers</p> <p>Cuvettes- Reusable reaction cuvettes, At least 80 cuvettes</p> <p>Communication- Bi-directional connection to LIS host</p> <p>Should not be obsolete for at least 8 years after purchase. Training should be provided for at least five working days for end users.</p> <p>Test panels for unit capability inclusive of serum and urine</p> <p>Renal Function profile</p> <p>Liver function profile</p> <p>Cardia function profile</p> <p>Lipid function profile</p> <p>HBA1C</p> <p>Calcium</p> <p>Phosphorus</p> <p>Magnesium</p> <p>LDH</p> <p>CRP</p> <p>Amylase</p> <p>Lipase</p> <p>Electrolytes</p> <p>C3C4</p>

Location	Item	Specification
		<p>RF  Total Protein in Urine &amp; CSF  Micro albumin  Glucose(RBS,FBS, 1hrpp, 2hrpp  TCO2  Iron  ASOT</p> <p><b>General Specifications</b></p> <p><b>Warranty:</b> Unit shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer’s recommendations and must provide all the necessary consumables and service kits required for the maintenance.</p> <p><b>Extended Warranty:</b> In addition to the one (1) year warranty the supplier is to provide a separate cost for Full Maintenance Service for an additional four (4) years inclusive of parts and labor. This Extended Maintenance Service Agreement together with the one (1) year warranty is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years based on a 24x7 operation. In addition to the one (1) year warranty the supplier is to provide a separate cost for Full Maintenance Service for an additional four (4) years inclusive of parts and labor. This Extended Maintenance Service Agreement together with the one (1) year warranty is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years and the supplier shall be required to stock critical Parts locally to ensure an uptime of not less than 95%. During this five (5) years the supplier is required to maintain the unit as per the manufacturer’s recommendations and is responsible for providing any required test equipment, parts, kits etc. to effect preventative maintenance. The supplier will be required to provide preventative maintenance schedule, service reports and other related documents.</p> <p><b>Pre-Installation /Installation/Commissioning:</b> The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests. The supplier shall have locally available certified engineers/technicians trained and capable of installation, commissioning and maintaining their proposed equipment. The equipment shall be commissioned with all reagents, sensors and other consumables required to verify full functionality of the machine.</p> <p><b>Training:</b> - The supplier is required to provide user training for approximately fifteen (15) medical staff responsible for operating the machines. Such training shall be as deemed acceptable by the respective Head of Department but no more than five (5) continuous calendar days. The supplier is requested to make provision for additional end-user training.</p> <p><b>Maintenance Training:-</b> The supplier is required to provide a separate cost for certified service training for engineers/technicians from the in-house biomedical department to include</p>

Location	Item	Specification
		all aspects related to the installation, maintenance, calibration and repair of the machine.
	Immunology Analyzer	<p>Immunoassay Analyzer</p> <p><i>Main Features</i></p> <ul style="list-style-type: none"> <li>•Throughput: at least 180 tests/hour</li> <li>•24 hour operation</li> </ul> <p><i>Modes of Operation</i></p> <ul style="list-style-type: none"> <li>•Random, Batch and STAT function</li> </ul> <p>Sample Loading</p> <ul style="list-style-type: none"> <li>• At least 70 Sample Positions</li> <li>• Continuous loading, STAT available</li> <li>• Analyzer auto numbered</li> <li>• LIS connection</li> </ul> <p>Reagent Loading</p> <ul style="list-style-type: none"> <li>•20 reagent positions</li> <li>•Continuous loading</li> <li>•RFID reading of all reagent information</li> <li>•Refrigerated reagent area</li> </ul> <p>Reagent Features</p> <ul style="list-style-type: none"> <li>•Integrated kit includes calibrator and controls</li> <li>•RFID tag storing all info of reagent</li> <li>•RFID tag with built-in master curve</li> <li>•2-point calibration to adjust master curve</li> <li>•Calibration stability</li> </ul> <p>Other Features</p> <ul style="list-style-type: none"> <li>•Clot detection</li> <li>•Liquid level detection for reagent</li> <li>•Optional ratio for sample dilution</li> <li>•Auto dilution for high concentration sample</li> <li>•Constant 37°C incubation</li> </ul> <p><i>Interconnection</i></p> <ul style="list-style-type: none"> <li>•Connection to LIS via COM or network</li> </ul>

Location	Item	Specification
		<ul style="list-style-type: none"> <li>•Direct operation on LIS system to test</li> </ul> <p>Test Panel shall include:</p> <ul style="list-style-type: none"> <li>• Tumor Markers</li> <li>• Thyroid</li> <li>• Fertility</li> <li>• TORCH</li> <li>• Cardiac</li> <li>• Hepatic Fibrosis</li> <li>• Infections</li> <li>• EBV</li> <li>• Glyco Metabolism</li> <li>• Bone Metabolism</li> <li>• Immunoglobulin</li> <li>• Kidney Function</li> <li>• Inflammation</li> </ul> <p>HST – High Sensitivity Troponin</p> <ul style="list-style-type: none"> <li>• Anemia</li> <li>• Prenatal Screening</li> <li>• Drug Monitoring</li> <li>• Others (please indicate)</li> </ul> <p>Should not be obsolete for at least 8 years after purchase. Training should be provided for at least five working days for end users.</p> <p><b>General Specifications</b></p> <p><b>Warranty:</b> Unit shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer’s recommendations and must provide all the necessary consumables and service kits required for the maintenance.</p> <p><b>Extended Warranty:</b> In addition to the one (1) year warranty the supplier is to provide a separate cost for Full Maintenance Service for an additional four (4) years inclusive of parts and labor. This Extended Maintenance Service Agreement together with the one (1) year warranty is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years based on a 24x7 operation. In addition to the one (1) year warranty the supplier is to provide a separate cost for Full Maintenance Service for an additional four (4) years inclusive of parts and labor. This Extended Maintenance Service Agreement together with the one (1) year warranty is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years and the supplier shall be required to stock critical Parts locally to ensure an uptime of not less than 95%. During this five (5) years the supplier is required to maintain the unit as per the manufacturer’s recommendations and is responsible for providing any required test equipment, parts, kits etc. to effect preventative maintenance. The supplier will be required to provide preventative maintenance schedule, service reports and other related documents.</p>

Location	Item	Specification
		<p><b>Pre-Installation /Installation/Commissioning:</b> The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests. The supplier shall have locally available certified engineers/technicians trained and capable of installation, commissioning and maintaining their proposed equipment. The equipment shall be commissioned with all reagents, sensors and other consumables required to verify full functionality of the machine.</p> <p><b>Training:</b> - The supplier is required to provide user training for approximately fifteen (15) medical staff responsible for operating the machines. Such training shall be as deemed acceptable by the respective Head of Department but no more than five (5) continuous calendar days. The supplier is requested to make provision for additional end-user training.</p> <p><b>Maintenance Training:-</b> The supplier is required to provide a separate cost for certified service training for engineers/technicians from the in-house biomedical department to include all aspects related to the installation, maintenance, calibration and repair of the machine.</p>
	Shaker	<p>Movement type circular, vibrating  Speed range approximately 100 to 2500 rpm  Shaking amplitude (stroke) 3,6 mm  Timer 1 to 99 h 59 min in 1 min increments  Mains connection 100-240 V, 50/60 Hz</p>
	Portable Clinical Analyzer	<p>The device should be a high-performance, comprehensive testing platform for use in the laboratory or at the point of care, allowing the Clinician to safely make rapid treatment decisions. The test menu should include the following:  Cardiovascular: hs TnI, Myoglobin, CK-MB, BNP, NT-proBNP, D-Dimer  Renal: NGAL  Toxicology: APAP, AMP, mAMP, BAR, BZO, COC, MTD, PCP THC, TCA  Women's health: PLGF</p> <p>Features:  Should provide Diagnostic results quickly and easily  Testing should involve simple, three step operation  Results in 20 minutes or less  Result Printouts  Minimum Sample Volume</p>

Location	Item	Specification
		Individual cut-offs may be used for each patient demographic On board, reactive controls Optional Data Management Software LIS transfer capability One year warranty
	Centrifuge (Tabletop)	Benchtop, non-refrigerated 115 V, 60 Hz Microprocessor controlled, programmable Brushless induction drive motor Auto-Lock rotor exchange system for fast, easy installation of rotors Stainless steel centrifugation chamber 24-place rotor (Swing bucket type with round buckets, click-seal biocontainment lids, and adapters for blood collection tubes 5/7 ml and 10 ml). One year warranty
	Microscope	Transmitted light bright-field microscopy Revolving nosepiece with slider slot LED light source Mechanical stage Objectives: Must include 10X and 40X Dust cover 110V power cord 1 year warranty plus 4 years extended Supplier responsible for installation / commissioning / warranty
	Slide Warmer	Power requirement: 100W . Capacity: atleast 20 slides; Temperature range: room temperature to 70 degrees celcius; surface size: atleast 10"x7"
	Haematology Analyzer	HAEMATOLOGY ANALYSER Throughput - 125 Samples/hr-CBC & Diff Up to 90 Samples/hr-CBC & Diff & RET Loading - Autoloader, Up to 100 samples Sample volumes - Open vial, pre dilute mode, capillary blood-40ul Open vial, manual mode, whole blood-150ul Closed vial, autoloader mode, whole blood-200ul Measuring Principles - SF Cube Analysis of WBC, % part differential, NRBC, Ret and PLT-o Focusing Flow DC method for RBC and PLT Cyanide Free Hb measurement

Location	Item	Specification
		<p>Parameters: 33 reportable: WBC, Lym%, Mon%, Neu%, Bas %, Eos %, Lym#, Mon#, Neu#, Eos#, Bas#, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, RET%, RET%, RET%, IRF, LFR, MFR, HFR, NRBC#, NRBC%, PLT, MPV, PDW, PCT, P-LCR, P-LCC</p> <p>Other Parameters: HFC#, HFC%, IMG#, IMG%, WBC-R, WBC-D, WBC-B, WBC-N, RBC-O, PLT-O, PLT-I, PDW-SD, InR#, InR%</p> <p>Histograms: For RBC &amp; PLT</p> <p>Scattergrams: 3D for Diff, NRBC &amp; RET</p> <p>Measurement Modes: CBC, CBC &amp; Diff, CBC &amp; RET, CBC &amp; NRBC, CBC &amp; Diff &amp; RET, CBC &amp; Diff &amp; NRBC, CBC &amp; Diff &amp; RET &amp; NRBC, RET</p> <p>Performance: WBC 0-500 x 10<sup>9</sup>/L  RBC 0-8 x 10<sup>12</sup>/L  HGB 0-250g/L  HCT 0-75%  PLT 0-5000 x 10<sup>9</sup>/L  RET# 0-0.8 x 10<sup>12</sup>/L</p> <p>Precision: WBC ≤ 2.5%  RBC ≤ 1.5%  HGB ≤ 1.0%  HCT ≤ 1.5%  PLT ≤ 4%  RET# ≤ 15%</p> <p>Data Storage: 100,000 patient results with numeric and graphical data</p> <p>Printout: User defined formats</p> <p>UPS: YES</p> <p>Power: 115V, 60Hz</p> <p>Communication- Connection to LIS host</p> <p>Should not be obsolete for at least 8 years after purchase. Training should be provided for at least five working days for end users.</p> <p><b>General Specifications</b></p> <p><b>Warranty:</b> Unit shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer's recommendations and must provide all the necessary consumables and service kits required for the maintenance.</p> <p><b>Extended Warranty:</b> In addition to the one (1) year warranty the supplier is to provide a separate cost for Full Maintenance Service for an additional four (4) years inclusive of parts and labor. This Extended Maintenance Service Agreement together with the one (1) year warranty</p>

Location	Item	Specification
		<p>is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years based on a 24x7 operation. In addition to the one (1) year warranty the supplier is to provide a separate cost for Full Maintenance Service for an additional four (4) years inclusive of parts and labor. This Extended Maintenance Service Agreement together with the one (1) year warranty is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years and the supplier shall be required to stock critical Parts locally to ensure an uptime of not less than 95%. During this five (5) years the supplier is required to maintain the unit as per the manufacturer's recommendations and is responsible for providing any required test equipment, parts, kits etc. to effect preventative maintenance. The supplier will be required to provide preventative maintenance schedule, service reports and other related documents.</p> <p><b>Pre-Installation /Installation/Commissioning:</b> The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests. The supplier shall have locally available certified engineers/technicians trained and capable of installation, commissioning and maintaining their proposed equipment. The equipment shall be commissioned with all reagents, sensors and other consumables required to verify full functionality of the machine.</p> <p><b>Training:</b> - The supplier is required to provide user training for approximately fifteen (15) medical staff responsible for operating the machines. Such training shall be as deemed acceptable by the respective Head of Department but no more than five (5) continuous calendar days. The supplier is requested to make provision for additional end-user training.</p> <p><b>Maintenance Training:-</b> The supplier is required to provide a separate cost for certified service training for engineers/technicians from the in-house biomedical department to include all aspects related to the installation, maintenance, calibration and repair of the machine.</p>
	<b>Blood Gas Analyzer</b>	<p><b>Blood Gas Analyzer</b></p> <ul style="list-style-type: none"> <li>- Easy to learn, simple to operate</li> <li>- On-board CO-Oximetry</li> <li>- Self-contained, multi-use cartridge</li> <li>- Accepts syringe, capillary tube or ampoule</li> <li>- Micro-sample option</li> <li>- Cartridge storage – room temperature</li> <li>- Sample volume – 60µl -150µl</li> <li>- Sample Type – heparinized whole blood</li> <li>- On-board Data Management System for storage and retrieval of patient results, demographics, QC</li> <li>- Minimum maintenance</li> <li>- Ability to connect to LIS</li> <li>- Automated quality control system</li> </ul>



Location	Item	Specification
		<ul style="list-style-type: none"> <li>- High colour display</li> <li>- Built in thermal printer</li> <li>- One (1) operator's manual and one (1) service/maintenance manual</li> <li>- 115V/60Hz</li> <li>- <b>Three (3) months' supply of consumables/controls/calibrators included</b></li> </ul> <p><b>Measured Parameters</b></p> <ul style="list-style-type: none"> <li>- pH, pCO<sub>2</sub>, pO<sub>2</sub>, SO<sub>2</sub>, Hct, Hb, Na<sup>+</sup>, K<sup>+</sup>, Ca<sup>++</sup>, Cl<sup>-</sup>, Mg<sup>++</sup>, Glu, Lac, BUN</li> <li>- tHb, O<sub>2</sub>Hb, COHb, MetHb, HHb, tBil</li> </ul> <p><b>Derived (calculated) Parameters</b> Includes HCO<sub>3</sub>, TCO<sub>2</sub>, BE, SBC, GFR, A, a/A, Anion Gap, P50, CaO<sub>2</sub>, RI</p> <p>*An optional cost of a UPS suitable for this equipment should also be provided</p> <p><b>General Specifications</b></p> <p><b>Warranty:</b> Unit shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer's recommendations and must provide all the necessary consumables and service kits required for the maintenance.</p> <p><b>Extended Warranty:</b> In addition to the one (1) year warranty the supplier is to provide a separate cost for Full Maintenance Service for an additional four (4) years inclusive of parts and labor. This Extended Maintenance Service Agreement together with the one (1) year warranty is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years based on a 24x7 operation. In addition to the one (1) year warranty the supplier is to provide a separate cost for Full Maintenance Service for an additional four (4) years inclusive of parts and labor. This Extended Maintenance Service Agreement together with the one (1) year warranty is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years and the supplier shall be required to stock critical Parts locally to ensure an uptime of not less than 95%. During this five (5) years the supplier is required to maintain the unit as per the manufacturer's recommendations and is responsible for providing any required test equipment, parts, kits etc. to effect preventative maintenance. The supplier will be required to provide preventative maintenance schedule, service reports and other related documents.</p> <p><b>Pre-Installation /Installation/Commissioning:</b> The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests. The supplier shall have locally available certified engineers/technicians trained and capable of installation, commissioning and maintaining their proposed equipment. The equipment shall be commissioned with all reagents, sensors and other consumables required to verify full functionality of the machine.</p>

Location	Item	Specification
		<p><b>Training:</b> - The supplier is required to provide user training for approximately fifteen (15) medical staff responsible for operating the machines. Such training shall be as deemed acceptable by the respective Head of Department but no more than five (5) continuous calendar days. The supplier is requested to make provision for additional end-user training.</p> <p><b>Maintenance Training:-</b> The supplier is required to provide a separate cost for certified service training for engineers/technicians from the in-house biomedical department to include all aspects related to the installation, maintenance, calibration and repair of the machine.</p>
	<b>Vortex Mixer</b>	<p><b>Vortex Mixer</b></p> <p>Electrical requirements: 120V  Type: Benchtop  Capacity: 48 x 1.5/2mL  Speed: Adjustable, 300 to 3000rpm  Accessories: Microtube holder  Microwell plate holder  An insert retainer</p> <p><b><u>General Specifications</u></b></p> <p>Warranty: Unit shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer's recommendations and must provide all the necessary consumables and service kits required for the maintenance.</p> <p>Extended Warranty: In addition to the one (1) year warranty the supplier is to provide a separate cost for Full Maintenance / Warranty Service for an additional four (4) years inclusive of parts and labour. This Extended Maintenance/Warranty Service Agreement together with the one (1) year warranty is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years based on a 24x7 operation.</p> <p>During this five (5) years the supplier is required to maintain the unit as per the manufacturer's recommendations and is responsible for providing any required test equipment, parts, kits etc. to effect preventative maintenance. The supplier will be required to provide preventative maintenance schedule, service reports and other related documents.</p> <p>Pre-Installation /Installation/Commissioning: The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests. The supplier shall have locally available certified engineers/technicians trained and capable of installation, commissioning and maintaining their proposed equipment. Supplier should also provide all Operator and service manuals. Supplier must also provide an appropriate uninterruptable power supply for the system where applicable.</p> <p>Training: - The supplier is required to provide application training for approximately fifteen</p>

Location	Item	Specification
		(15) medical staff responsible for operating the machines. Such training shall be as deemed acceptable by the respective Head of Department but no more than five (5) continuous calendar days. The supplier is requested to make provision for additional end-user training.
	<b>ESR Analyzer Machine (Erythrocyte Sedimentation Rate)</b>	<p><b>ESR Analyzer Machine</b></p> <p><b>TECHNICAL SPECIFICATIONS</b></p> <ul style="list-style-type: none"> <li>• Unit has a capacity of approximately 120 Samples</li> <li>• Throughput: Between 120-150 samples/hour</li> <li>• Unit is capable of continuous loading feature</li> <li>• Auto washing system available</li> <li>• Communication: Bidirectional LIS communication</li> <li>• Little to no user maintenance required</li> <li>• Availability of an independent stat channel for low volume, urgent sample with external withdraw probe</li> <li>• Availability of High Quality controls</li> <li>• Sample Loading: Automatic and Manual options</li> <li>• First time result: Within five (5) minutes</li> <li>• Printer (Onboard or otherwise)</li> <li>• LCD Touchscreen Display</li> <li>• Power supply: 110V, 50/60Hz</li> </ul> <p>The supplier must provide all consumables for the unit. The supplier must provide one (1) Operator’s manual and one (1) Service Manual. Unit must have at least one (1) year Warranty.</p> <p><b>General Specifications – <i>Installation, Commissioning, Warranty, Extended Warranty, Maintenance and Training</i></b></p> <ul style="list-style-type: none"> <li>• Unit shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer’s recommendations and must provide all the necessary consumables and service kits required for the maintenance.</li> <li>• The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests.</li> </ul>

Location	Item	Specification
		<ul style="list-style-type: none"> <li>The supplier is required to provide user training for the medical staff responsible for operating the unit. Such training shall be deemed acceptable by the respective Head of Department. The supplier is requested to make provision for additional end-user training.</li> </ul>
	<p><b>Fume Hood</b></p>	<p><b>Fume Hood</b></p> <p><b>SPECIFICATIONS – LABORATORY FUME HOOD</b></p> <p>The Fume hood shall be used to dilute the effect of flammable gases and vapors. Fume hood must provide protection when working with flammables, corrosives, water reactive chemicals, and pyrophoric materials.</p> <p>Key features:</p> <ul style="list-style-type: none"> <li>Durable, chemical resistant construction</li> <li>Rigid steel frame structure</li> <li>Double wall construction</li> <li>Easy to clean surfaces and worktop</li> <li>Glass window: two layer toughen glass, 5mm thickness, height adjustable</li> <li>Castor wheels</li> <li>Air velocity: <math>\geq 0.5\text{m/s}</math></li> <li>Adjustable air speed</li> <li>Exhaust system with exhaust duct</li> <li>High performance centrifugal blower</li> <li>Energy efficient lighting</li> <li>Water sink and water inlet</li> <li>Water and gas tap</li> <li>Drain hose</li> <li>CE, ISO certified</li> <li>Quiet operation: <math>\leq 68\text{dB}</math></li> <li>HEPA filter</li> <li>UV sterilization</li> <li>Horizontal sash</li> <li>Temperature indicator</li> <li>Power: 110V 50/60Hz</li> </ul> <p>The supplier must provide certification that the fume hoods meets international performance requirements and safety standards.</p> <p>The supplier must provide all necessary consumables for the unit</p>

Location	Item	Specification
		<p><b>General Specifications</b>  <b><i>Installation, Commissioning, Warranty, Extended Warranty, Maintenance and Training</i></b></p> <ul style="list-style-type: none"> <li>- Unit shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer’s recommendations and must provide all the necessary consumables and service kits required for the maintenance.</li> <li>- The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests.</li> <li>- The supplier is required to provide user training for the medical staff responsible for operating the unit. Such training shall be deemed acceptable by the respective Head of Department. The supplier is requested to make provision for additional end-user training.</li> </ul>
	<p><b>Dry Bath Incubator</b></p>	<p><b>Dry Bath Incubator</b></p> <p><b>TECHNICAL SPECIFICATIONS</b></p> <ul style="list-style-type: none"> <li>• Temperature range: RT 5°C – 160°C</li> <li>• Temperature accuracy: ± 0.5°C at 40°C, ± 1°C at 120°C</li> <li>• Temperature uniformity: ± 0.5°C</li> <li>• Block quantity: 1 or 2 with long timer range of 1 minute to 99hours, 59minutes and infinite mode</li> <li>• Block material: Aluminum made resistant of chemical spillage and temperature shocks</li> <li>• Programmable features to allow user protocols to be saved</li> <li>• Wide range of blocks to accommodate almost any size tube and easy cleaning</li> <li>• Heating time: ≤ 15 min</li> <li>• Display: Large</li> <li>• Power rating: 110V, 50/60Hz</li> <li>• Over temperature and current protection features</li> <li>• Little to no user maintenance required</li> <li>• Unit to be supplied with 1 Operator’s Manual and 1 Service manual</li> <li>• Warranty: At least 1 Year</li> </ul>

Location	Item	Specification
		<p><b>General Specifications</b>  Installation, Commissioning, Warranty, Extended Warranty, Maintenance and Training</p> <ul style="list-style-type: none"> <li>- Unit shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer's recommendations and must provide all the necessary consumables and service kits required for the maintenance.</li> <li>- The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests.</li> <li>- The supplier is required to provide user training for the medical staff responsible for operating the unit. Such training shall be deemed acceptable by the respective Head of Department. The supplier is requested to make provision for additional end-user training.</li> </ul>
	<p><b>Slide Labelling Machine</b></p>	<p><b>Slide Labelling Machine</b></p> <p>TECHNICAL SPECIFICATIONS</p> <p>Slide Printer speed: Up to 9 slides/minute (black), Up to 5 Slides/minute (Colours)</p> <ul style="list-style-type: none"> <li>• Printing technology: Thermal transfer</li> <li>• Throughput: Batch job capability</li> <li>• Automated unload station</li> <li>• Slide holder capacity: 100 slides</li> <li>• Slide output bin capacity: 15 slides</li> <li>• Communication: LIS integration capability</li> <li>• Printable colours: 8 solid colours with many patterns</li> <li>• Unit supplied with Black print cartridges for 5000 slides and Colour Print cartridges for 1000 slides</li> <li>• Power requirement: 110V, 50/60 Hz</li> <li>• Unit supplied with 1 Operator's Manual and 1 Service Manual</li> <li>• At least 1 Year Warranty</li> </ul> <p>General Specifications –  <i>Installation, Commissioning, Warranty, Extended Warranty, Maintenance and Training</i></p> <ul style="list-style-type: none"> <li>- Unit shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the</li> </ul>

Location	Item	Specification
		<p>manufacturer's recommendations and must provide all the necessary consumables and service kits required for the maintenance.</p> <ul style="list-style-type: none"> <li>- The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests.</li> <li>- The supplier is required to provide user training for the medical staff responsible for operating the unit. Such training shall be deemed acceptable by the respective Head of Department. The supplier is requested to make provision for additional end-user training.</li> </ul>
	Dental Chair	<p>Dental chair shall be designed for left or right hand practitioners and shall have: 60 degrees rotation All metal frame Synchronized seated tilt Contoured backrest with build-in arm support Automatic return Removable swing out armrests with ergonomic and functional positions Replaceable upholstery easy to maintain Extendable and adjustable headrest Switches on back panel on both sides of the chair Dental assistant unit Cuspidor Scaler Adaptor Assistant Instrumentation: Adjustable arm (horizontal) 3 position holder inclusive of saliva ejector and HVE</p> <p>Mounting configurations for delivery unit inclusive of Dental light and mounting arm and tray for ultrasonic scalar Chair should be floor mounted Electromechanical tilt ability and hydraulic base 1 Operator's Manual 1 Service Manual At least 1 Year Warranty</p>
	Dental Light	<p>Operating dental light shall be mounted on a post attached to the Dental Chair and shall include the following features Head with continuous rotation Removable faceplate Tee shaped handles Bulb replacement without the use of tools Twin beam, colour corrected light system Automatic On when lowered Counterbalanced support arm allowing no drift LED Source Radius Mounted Varying intensity settings Head includes 3 axis rotation (vertical, horizontal and diagonal) At least 1 Year Warranty</p>

Location	Item	Specification
	Dental hand Pieces	12 turbine heads with push in chuck and spray nozzles and fiber optic light 12 Quick action couplings for the turbines to the unit 12 Contra angled hand pieces with a bur attachment with 2.35mm shaft diameter, push button chuck, on, two three nozzle spray (changeable) transmission 1:1 with working speed of 40,000 rpm with light. 12 Contra angled hand pieces step down 2,4:1 with maximum speed of 5,800 rpm



Location	Item	Specification
	Dental Cart	<p>Dental cart shall be designed for three hand pieces and shall have the following features: Selector with three automatic pinch –valve hand piece controls Patient water system Air/Water syringe with quick-change sterilizable tip Disc foot control Stainless steel instrument tray with washable skin pads, Adjustable height cart frame mounted on casters Fiber optic connection compatible  Designed to accommodate both left and right handed dentists  Standard Tray holder  Wet/Dry foot control  Standard touchpad  Silicone handpiece tubing  3-4 Position control block {High Speed, Slow speed, Air/Water, On board Curing light (Please provide optional cost)}  Cuspidor  Programmable fill cup and bowl rinse timers  Additional water bottle cup fill water bottle  Ultrasonic Scalar quick disconnect waterline connection</p> <p>Electrical : 110/115 V. 60 Hz</p> <p>At least 1 Year Warranty  1 Operator’s Manual  1 Service Manual</p>
	X-ray view box with 4 panels	<p>Shall have: - A minimum viewing screen of 140 mm X 370 mm - Instant start lighting feature - Operate on 110V, 60 HZ - Viewing screen should be vertical - Full length bottom lip to support X-ray film - A height of 165 mm and a minimum width of 390 mm and a depth of 130 mm. A standard 380mm diameter x380mm long, white fluorescent lamp</p>
	Dental X-ray Chair	<p>Dental chair shall be designed for left or right hand practitioners and shall have:All metal frame  Synchronized seated tilt  Contoured backrest with built-in arm support  Automatic return  Removable swing out armrests Replaceable upholstery easy to maintain Extendable headrest  Dental assistant unit  <u>Height Adjustable</u>  <u>Backrest adjustable</u></p>

	<u>Facilitate both paediatric and bariatric patients</u>
Dental Autoclave	Autoclave shall be designed for the sterilization of small packs and unwrapped instruments and utensils. - Unit shall have a stainless steel door and stainless steel chamber of 15 –litre capacity approximately. - Unit shall have a fully digital control panel indicating temperature, pressure, the cycle status and the conditions of the unit. - Unit shall have a drying cycle controlled by the digital timer of the control panel. - Control panel; shall include a printer giving a record of all the sterilization cycles. - Unit to have a pressure safety valve, a door safety mechanism, error warning indicator, overheat protection, door interlock switch. - Unit shall permit sterilization at different cycle 121/124oc and 134/138 oc. Chamber shall be equipped with a rack for packs and

Location	Item	Specification
		two stainless steel instrument trays. - Electrical : 115 v/60Hz 1 Phase Required Services: Training of Users. Extended Warranty for four (4) years Required to carry out Preventative Maintenance as per manufacturer's recommendations. Responsible for Preventative Maintenance kit and other consumables required for PM.
	Dentist Stool	Dentist stool frame shall be chromium plated (or equivalent finish) with upholstered round seat and backrest - Unit shall have a five pod base with ball bearing casters designed for hard floor surface - Chair to have a base foot ring - Height adjustment from 45 to 70cm by gas spring - operated by a level Backrest and seat angle to be adjustable
	Dental Assistant Stool	Dental assistant stool frame shall - Be chromium plated (or equivalent finish) with upholstered round seat and backrest. Unit shall have a five-pod base with ball-bearing casters designed for hard floor surface Chair to have a base foot ring Height adjustment from 45 to 70cm by gas spring operated by a lever Backrest and seat angle to be adjustable
	Amalgamator	The unit shall Operate from 120/60 Hz Capsule holder shall accept and maintain all makes of capsules (including all other Dental materials) and move in a figure 8 configuration Shall have timing device fitted with membrane keyboard from 0-99 sec. The amalgamation shall have two separate keys for direct programming of 10 & 15 sec. Mixing frequency shall be variable to accommodate all filling materials according to ADA or ISO specifications. Push button start Protective capsules cover with micro switch to cut off automatically shall cover the opening during mixing Shall be supplied with Standard American Style Plug.
	Air Compressor	The air compressor for dental practice shall deliver clean, ultra-dry, 100% oil-less dental air Unit shall have thermally protected motor(s), vented crankcase and deeply finned cylinders, air intake filters, stainless steel drying chamber, storage tank with siphon meeting ASME code and a control box. Unit shall have the capacity to service 3 dental units simultaneously The compressor shall be installed within adjacent to the dental suites and shall be supplied with a sound reducing cover Electrical: 110/115V, 1Ph, 60Hz. All lines shall be constructed of suitable material (Eg. Copper) shall be compliant with HBN or NFPA standards for dental compressor applications.

Location	Item	Specification
	Suction System	<p>The suction system shall be designed for dental application Unit shall be designed to provide uniform vacuum power Unit shall have a see through solids collector easy to clean, electrical system pre-wired for remote control, motor with a solid-state switch Unit shall have the capacity to service three dental units simultaneously Unit shall be supplied complete with a remote panel and air/water separator</p> <p>At least 1 Year Warranty 1 Operator's Manual 1 Service Manual</p>
	<p>Portable Digital Intra Oral Dental X-ray Unit</p> <p>Panoramic Digital Dental X-ray unit both with digital capabilities. Recommended phosphor plate types. Viewing stations and printing capability.</p>	<p>The dental X-Ray - Shall be an Intra-oral digital wall mounted unit with remote control and computer workstation 70 KVp, 7 mA, 0.6mm focal Spot Exposure time selections of 3 of 99 impulses, duty cycle of 1 exposure second per minute Focal length with 8- inch clear cone Head mounted on a counter balanced arm allowing no-drift Remote control shall be digital type and shall permit hand-held control with extension cord.</p> <p>Electrical 120v, 60Hz Warranty 1 year warranty with 4 years extended warranty parts and labour.</p> <p><b>Features</b></p> <ul style="list-style-type: none"> <li>- Floor Mounted Unit</li> <li>- Unit should have components that allow for Patient positioning such as Bite block, Chin rest, Chin support and temple support.</li> <li>- Unit should have and X-ray remote control which allow for image acquisition via the exposure button from outside the X-ray room</li> <li>- Should have laser positioning beams</li> <li>- Collimation for segmented panoramic</li> <li>- Controls should be straightforward, and easy to navigate.</li> <li>- Footprint must fit into the existing space.</li> <li>-</li> </ul> <p><b>Programs</b> Unit should have the following programs:</p> <ul style="list-style-type: none"> <li>- Standard Panoramic Program (Full and Segmented)</li> <li>- Paediatric program (low dose, reduce exposure area for small patients)</li> <li>- Lateral TMJ Program</li> <li>- PA TMJ Program</li> <li>- PA sinus Program</li> <li>- Specialized 2D/3D Reconstruction and Diagnosis Software</li> <li>- Reconstruction Time(s) &lt; 60 secs</li> </ul>

Location	Item	Specification
		<ul style="list-style-type: none"> <li>- 3D Cone Beam CT Cephalometric Imaging</li> </ul> <p><b>Exposure Mode</b> Allows for various exposure modes</p> <p><b>Tube Voltage</b> Approx 60kV – 90kV</p> <p>Tube Current Approximately 3-16 mA</p> <p><b>Focal spot size</b> 0.4mm or greater</p> <p><b>Image Storage Format</b> DICOM PNG JPG TIFF BMP (other)</p> <p><b>Image field</b> Approx. 6.4 x 140 mm (Adult) Approx 6.4 x 120 mm (Pediatric)</p> <p><b>Exposure Time</b> Unit should have exposure parameter control</p> <p><b>Movement</b>  <ul style="list-style-type: none"> <li>- Motorized up and down</li> </ul>           Should have motorized patient positioning system</p> <p><b>Acquisition Computer system</b>  <ul style="list-style-type: none"> <li>- User friendly</li> <li>- 1 TB or more on Hard disk</li> <li>- Should include 21” LCD/TFT (minimum) monitor, with high resolution to ensure image quality.</li> </ul> </p>

Location	Item	Specification
		<ul style="list-style-type: none"> <li>- Unit should be able to generate a worklist and connect and integrate into the existing workflow of the hospital's PACS/RIS network.</li> <li>- Unit should allow for print images from workstation</li> <li>- On-line Uninterrupted Power Supply (UPS) (if recommended)</li> </ul> <p><b>Viewing Computer system</b> Yes. Display monitor – 27” minimum</p> <p><b>Emergency Stop Button</b> Yes</p> <p><b>Alarms</b> Unit should have audible and visual alarms</p> <p><b>DICOM Compliant</b> Yes The system shall allow the user to: Perform quantitative analyses, create reports and store images in DICOM or raw data DICOM formats to meet medical digital communication standards</p> <p>Import and export information with DICOM Query/Retrieve function for workflow efficiency Send and retrieve completed exams electronically to referring physicians in report formats via DVD as well as internal hospital archiving system.</p> <p>Perform image review and reporting side-by-side with a dual monitor solution</p> <p><b>X-ray Printer (optional)</b></p> <ul style="list-style-type: none"> <li>- Unit should Minimum two trays that supports various film sizes.</li> <li>- DICOM sending and receiving of images</li> <li>- 110V input</li> <li>- Must be capable of printing Panoramic and Intra- Oral images</li> <li>- UPS to support printer</li> </ul> <p>Consumables – one pack of film for commissioning</p> <p><b>Obsolescence Protection</b> The item supplier shall not be rendered obsolete shall be available for at least 8 years from the date of supply.</p>

Location	Item	Specification
		<p><b>General Specifications</b> The unit must also meet the General Specifications detailed below.</p> <p><b>Warranty:</b> Unit and transducers shall be covered by a one (1) year Warranty during which time the supplier will be required to perform, in addition to warranty services, full maintenance services as per the manufacturer's recommendations and must provide all the necessary consumables and service kits required for the maintenance.</p> <p><b>Extended Warranty:</b> In addition to the one (1) year warranty the supplier is to provide a separate operational cost for Full Maintenance / Warranty Service for an additional four (4) years inclusive of parts and labor. This Extended Maintenance/Warranty Service Agreement together with the one (1) year warranty is to ensure guaranteed uptime of not less than 95% of the full duration of five (5) years based on a 24x7 operation.</p> <p>During this five (5) years the supplier is required to maintain the unit as per the manufacturer's recommendations and is responsible for providing any required test equipment, parts, kits etc. to effect preventative maintenance. The supplier will be required to provide preventative maintenance schedule, service reports and other related documents.</p> <p><b>Pre-Installation/ Installation/ Commissioning:</b> The supplier shall be responsible for installation and commissioning and is required to perform and document all required commissioning checks including electrical safety tests. The supplier shall have <b>locally</b> available certified engineers/technicians trained and capable of installation, commissioning and maintaining their proposed equipment. This system should also be connected to the available PACS system at the hospital during installation, any licenses required should also be installed in the system prior to hand over. Supplier should also provide appropriate uninterruptable power supply for the system with one hour back-up time.</p> <p><b>Training:</b> - The supplier is required to provide live on-site user training for approximately fifteen (10) medical staff responsible for operating the machines, of no less than five (5) continuous calendar days. Such training shall be as deemed acceptable by the respective Heads of Departments. The supplier is requested to make provision for additional end-user training. The supplier is also required to provide service training for the biomedical staff; such training shall include the care and maintenance of the unit, service, repairs, calibration, preventive maintenance and installation etc.</p>
	Medical refrigerator	DEPENDS ON SPACE
	Ultrasonic cleaner	Shall be a counter top unit. All stainless steel construction. On/Off switch, Timer 0-30minutes. Complete with cover and basket. Capacity 1.2 quarts.
	Ultraviolet Light	Shall be designed for dental purpose and to be used for curing Amalgam. Light shall have a tabletop power source and a hand held probe with push switch.

Location	Item	Specification
	Lead Lined Apron	<p>Shall be designed as to provide the user adequate protection from X-Ray exposure The apron shall offer secure over-shoulder support either with Velcro or tie straps to secure the garment to the operator The apron shall be constructed of a tear-resistant material that combines durability with ease of cleaning. It shall offer a minimum of 0.5 mm lead equivalent for safety. All stitching of seams and attachments shall be double-stitched</p>



Location	Item	Specification
		and riveted to the apron for extra strength Apron size shall be 50 cm width and 75 cm length
	Lead Bib	Shall be so designed as to provide the user adequate protection from X-Ray exposure The bib shall be secured either with Velcro or tie straps The Bib shall be constructed of a tear-resistant material that combines durability with ease of cleaning. It shall offer a minimum of 0.5 mm lead equivalent for safety. All stitching of seams and attachments shall be double-stitched and riveted to the apron for extra strength.
Pharmacy	Controlled drug and antibiotic cupboard	Lockable drug cupboard to be: <ul style="list-style-type: none"> <li>- Constructed of heavy gauge stainless steel.</li> <li>- Double doors to be fitted with heavy duty security lock.</li> <li>- This item must meet current requirements for the storage of controlled drugs in the country to which it is destined.</li> <li>- Width 50 cm x Depth 30 cm x Height 80 cm</li> </ul>
	Drug Cupboard	Lockable drug cupboard to : <ul style="list-style-type: none"> <li>- Manufactured from mild sheet steel to be finished in white epoxy coating.</li> <li>- Have 3 inner shelves in cupboard and 5 door shelves available</li> <li>- Be fitted with heavy duty dead lock and supplied with 2 keys.</li> <li>- Meet current requirements for the storage of controlled drugs in the country to which it is destined.</li> <li>- Width 90 cm x Depth 20 cm x Height 90</li> </ul>
	Pharmacy Chair	Regular Office Chair
	Pharmacy instrument set	<ul style="list-style-type: none"> <li>- 5 Measure 10 ml</li> <li>- 5 Measure 100 ml</li> <li>- 5 Measure 200 ml</li> <li>- Bottle Glass</li> <li>- 3 Roll of Labels</li> <li>- 3 Record Books</li> <li>- 1 Metal spatula</li> </ul>

Location	Item	Specification
		<ul style="list-style-type: none"> <li>- 1 Stirring rod (non-glass)</li> <li>- 1 Funnel enamel</li> <li>- 1 Water dispenser</li> </ul>
	Manual tablet counter	<ul style="list-style-type: none"> <li>- To count any shape and size of tablet, to be simple to operate, pour the tablets onto the rotating top of the counter and set the counter to the number required</li> <li>- These to be counted into a receiving tray or directly into the dispensing unit.</li> <li>- To be supplied with various trays for degrees and compressed tablets.</li> </ul>
	Automatic Tablet counter	<ul style="list-style-type: none"> <li>- To be electronic and to be able to handle all types of shapes and sizes of tablets, degrees lozenges, and soft and hard gelatine capsules.</li> <li>- To be able to count from 1 - 10,000 with a visual read-out of quantity selected, count progress and number of containers filled.</li> <li>- To be able to fill up to 35 containers per minute manually or up to 60 containers per minute automatically.</li> <li>- The unit to have a wide beam differential light source for high speed accurate counting, the light sensitive amplifier head to remain effective even with dust tablets.</li> </ul>
	bench top electronic scale	<ul style="list-style-type: none"> <li>- readability in 1g increments to 6100g,</li> <li>Reproducibility 0.05g with linearity +/- 0.1 g</li> <li>Stabilization time 1.5 seconds with an update speed of 0.16 secs.</li> <li>Weighting platform 182mm x 228mm.</li> <li>To be supplied with power cable, adjustable legs to allow leveling</li> </ul>
	mortar and pestle	Assorted Sizes
	Distilled Water System	<p>Optional wall mount or table top installation, all glass (pyrex) construction with integrated cleaning function without having to dismantle the unit, fully automatic operation with an output of not less than 8 litres of pyrogen free distillate per hour, must operate from a tap water supply, distillate quality: conductivity 1.0 – 2.0 <math>\mu</math>S, resistivity 0.5 – 1.0 M<math>\Omega</math>/cm, pH 5.0 – 6.5, Reservoir level control, over-temperature thermostat, Operating voltage: 220VAC/60Hz/1Ph.</p>

Location	Item	Specification
	Pharmacy Refrigerator	<ul style="list-style-type: none"> <li>- To be externally clad in aluminum with stainless steel door</li> <li>- The interior to be aluminum with a stainless steel base.</li> <li>- To be insulated with fire retardant polyurethane foam (50% CFC reduced)</li> <li>- Injected under high pressure for uniform thermal efficiency and structural strength.</li> <li>- To have a temperature range of 0-12 deg C</li> <li>- To have manual defrost with LED defrost indication, illuminated on/off switch.</li> <li>- To have hermetically sealed refrigeration unit rated for high ambient temperatures, 1/2Hp, 4.4. amps, 750 watts.</li> <li>- Capacity 21 cu.ft./600L, to be supplied with 8 shelves, trays to be offered as an option.</li> </ul>
	Card Cabinet	
	Barcode Scanner	
	Printer for Pharmacy Labels	<ul style="list-style-type: none"> <li>- Shall be of ink jet or dot matrix type</li> <li>Speed- four (04) labels per minute</li> <li>Label size: adjustable up to 2"x 4"</li> <li>Unit to have unit roll holder</li> <li>Parallel cable, 1.5 metres minimum included</li> </ul>
	Rack for 55 gallon drum	
	Alcohol pump for 55 Gallon Drum	

# Appendix 3 – ICT Requirements

## **A. Summary of ICT Requirements**

### **1. Spaces (Rooms)**

- a. Equipment / Telecommunications Room (ER/TR) (dual role)– also called the Server Room – Located on First Floor
- b. Telecommunication Room (TR) – Ground Floor
- c. Entrance Facility Room (EF) – Ground Floor
- d. Entrance Facility Room or Cabinet (EF) – Rooftop – for Wireless Equipment

### **2. Pathways for Telecommunications cabling**

- a. Outside Plant – cabling from outdoor to indoor : used by the Telecommunication Service Provider
- b. Ceiling Distribution System for Horizontal Cabling / with Utility Columns for distribution of Telecommunication Outlets.
- c. Vertical Pathway between the two TRs and between the two ERs for Backbone or Vertical Cabling

### **3. Telecommunication cabling**

- a. Backbone Fiber cabling – from the TR on the ground floor to the TR on the first floor.
- b. Horizontal Copper cabling from both TRs to the outlets at the various work/desk areas
- c. Dedicated Telecommunication Racks (Open Rack type) with RJ-45 Patch Panels & Fiber Patch Panels for Horizontal Cross Connects located in each TR.
- d. Telecommunication Outlets at the various work areas (desk areas) – High Density and Modular RJ-45
- e. Dedicated Equipment Rack (Cabinet type) Switching (Data/Voice) for Video/Voice Equipment.

### **4. ICT Equipment**

- a. Gigabit Power over Ethernet Switches: located in each Telecommunication Rack & Server Room, providing Ethernet connectivity to all work areas and connecting the wireless, and voice and data infrastructure.
- b. IEEE 802.11ax Wireless Infrastructure
- c. Fiber Managers for ISP termination and Floor to Floor Communication.
- d. Video conferencing equipment - 65” Smart Board/ Screens for Seminar Rooms.
- e. Hosted PBX and IP Voice Handsets
- f. Multifunction Printers
- g. Desktop Computers
- h. Server Room Equipment

### **5. Power, Grounding, Bonding**

### **6. Environmental – HVAC, Electronic Security**

## **B. Description of ICT Requirements**

### **1. Spaces (Room)**

- Entrance Facility (EF) x 2 - Ground Floor room dedicated for Service Provider equipment, connects to the Outside Plant pathway, and acts as the termination / demarcation point between the Service Provider and the Customer. To cater for the possibility of Wireless WAN Service to the building, an Entrance Facility on the Rooftop of the building, together with a platform for hosting Wireless Infrastructure should also be provided. Both Entrance Facilities should be vertically aligned and connected via a vertical riser system that facilitates easy routing of cables between from one room to the other.
- Main Equipment/Telecommunications Room (ER/TR) x 1 – Ground Floor Room close to the EF for Customer Equipment – Switches and Patch Panels etc. Would also serve as a Telecommunication Room housing a Horizontal Cross Connection Panel and Switches, Serving the Work Area outlets (network drops) on the ground floor, and Connecting Horizontal Cabling to Backbone Vertical Cabling. This room should be vertically aligned with the Telecommunication Room and should be centrally located.
- Telecommunications Room (TR)x 1 – First Floor Room Horizontal Cross Connection Point serving all Work Area Outlets on the first floor, and connecting Horizontal Cabling to Backbone Vertical Cabling.

### **2. Pathways for Telecommunications Cabling**

- Outside Plant (OSP) – pathway outside of the building to be used by the Telecommunication Providers to route fiber or copper cabling from the outside service pole (aerial service), cabinet or underground connection point into the Entrance Facility of each building. A service pole should also be included and pathway between both buildings for the subsurface routing of telecommunication cables.)

#### ***Further specifications***

A service pole of x height, of x material for each building that can be used by Telecommunication providers for connecting cabling aerially, and then routing downwards into the underground pathway. An underground pathway (tunnel or conduit type) that begins at the identified entry points outside of the FS and ODCS buildings and leads to each Entrance Facility within the FS and ODCS buildings. Path diversity via multiple path would be considered a plus. The designer should consider installing dual (e.g., duplicate) service entrances (e.g., two 100 percent diverse routes) as emergency backup for buildings that provide continuous services.

If a conduit type pathway is proposed, this should comprise

- an underground subsurface conduit for outdoor telecommunication cables
- manholes or handholes along the pathway, but located away from traffic areas, that can support easy placement and pulling of cables through the conduit.
- Conduit should be of x size
- Conduit system should not be shared with power cables for safety reasons
- Conduit should be away from gas systems and waterways other
- Conduit should be properly sealed

If a tunnel pathway is proposed, the tunnel should provide a raceway for telecommunication cable. This tunnel can be shared with other cables and therefore must provide for a minimum distance between power cabling and telecommunication cabling as recommended by BICSI.

### **3. Telecommunication Cabling**

#### **a. Horizontal Cabling**

- Horizontal cabling must be installed in a star topology. Each telecommunications outlet connector must be cabled directly to a Patch Panel in the Telecommunications Room and Main Server Room.
- Horizontal cabling should be terminated in a Telecommunications Room/ Server Room that is on the same floor as the area being served. Each telecommunications outlet must be properly labeled for future reference.
- Patch cords and cross-connect cords should not exceed 5 m (16 ft).
- NOTE: In establishing limits on horizontal cable lengths, a 10 m (33 ft) allowance was made for the combined length of patch cords and cables used to connect equipment in the work area and TR. All equipment cords must meet the same performance requirements as the patch cords. Equipment cords differ from patch cords and cross-connect jumpers in that they attach directly to active equipment; patch cords and cross-connect jumpers do not attach directly to active equipment.
- The designer should use systematic methods and procedures for labeling and managing horizontal pathways and spaces.
- Building horizontal pathways must be installed in locations that protect cables from the moisture levels beyond the intended operating range of internal premises cable. For example, slab-on-grade construction where pathways are installed underground or in concrete slabs in direct contact with soil (e.g., sand and gravel) is considered a wet location. The designer should consult applicable codes, standards, and regulations for local definitions of damp location, dry location, and wet location.
- A ceiling distribution systems that uses the space between the structural ceiling (e.g., physically part of the roof or floor above) and an accessible ceiling grid suspended below the structural ceiling, should be used.
- The raceways, conduits, or cable trays should extend from the TR to the midpoint of the zone.

From that point, the pathway should extend to the top of the utility columns or wall conduit.

- Allow for a minimum of: – 76 mm (3 in) of clear vertical space above conduits and cables. – 305 mm (12 in) of clear vertical space above the tray or raceway for overhead ceiling cable tray or raceway systems.
- It should be ensured that other building components (e.g., lighting fixtures, structural supports, air ducts) do not restrict access to cabletrays or raceways.
- **Pathway and Cable Support:** Every ceiling distribution system must provide proper support for cables from the TR to the work areas it serves. Ceiling panels, support channels (T-bars), and vertical supports would not be considered as proper supports. Ceiling conduits, raceways, cable trays, and cabling must be suspended from or attached to the structural ceiling or walls with hardware or other installation aids specifically designed to support their weight. The pathways must:
  - Have adequate support to withstand pulling the cables.
  - Be installed with at least 76 mm (3 in) of clear vertical space above the ceiling tiles and support channels (T-bars) to ensure accessibility.
  - Horizontal pathways or cables should not rest directly on or be supported by:
    - Ceiling panels.
    - Support channels (T-bars).
    - Vertical supports.
    - Other components of the suspended ceiling.
  - It is important to provide sufficient space between the suspended ceiling structure and the telecommunications pathways/cables to install, maneuver, and store ceiling tiles during service.
  - When sufficient space is available above the pathway, up to 152 mm (6 in) should be provided between the suspended ceiling and the cabling pathways.
  - When a tray is used in the ceiling area, conduit should be provided from the tray to the telecommunications outlet/connectors or zones, except in cases where loose cables are permitted by and meet the applicable codes.
  - The inside of a cable tray must be free of burrs, sharp edges, or projections that can damage cable insulation.
  - For distribution to work areas utility columns or poles should be used: a utility column is a post used by a ceiling distribution system. They extend from the suspended ceiling support channel to the floor, and conceal and protect telecommunications cabling from the ceiling to the desks. They can also be used to provide electrical outlets for work area equipment. Utility columns that are used for both telecommunications and power distribution must be equipped with a barrier and must comply with applicable electrical codes. When a metallic barrier is used, it must be bonded to ground.



**b. Backbone Cabling**

- Top Riser Pathway from Entrance Facility to Telecommunication Entrance on the Roof/Riser pathway from Equipment Room / TR on Ground Floor to TR on first floor.
- Fiber Backbone cabling to support 40 Gigabit speeds should be installed between the Telecommunications Room on the first floor and the Main Server Room on the ground floor.
- Local Area Network (LAN): Data Communications Services and Infrastructure
- Structured cabling.
- All LAN structured cabling should adhere at a minimum to the following specifications:

<b><i>Cabling equipment</i></b>	<b><i>Technical Specifications and Standards</i></b>
Structured Cabling Standards	<i>Structured Cabling Solutions must be in conformance with applicable TIA/EIA standards. Example: EIA/TIA 568A &amp; 568B Standard</i>
CAT-6E Unshielded Twisted Pair (UTP)Cable	CAT-6E UTP Cable , CAT-6 Patch Cords, CAT-6 Patch Panels and CAT-6 Modules must operate at a nominal frequency bandwidth of 250MHz
Fibre Optic Cabling	Multimode Graded Index Fibre 50/125 µm (micrometers) or better Indoor/Outdoor Rated (OM4)
Fibre Optic Source	Semiconductor Laser wavelength 1300nm
Warranty	Structured Cabling Solution must be backed by a minimum warranty period of 10 Years

***LAN Switches***

All LAN switches should adhere at a minimum to the following specifications or features.

### **Management and Configuration.**

- Auto Discovery of Multiple Switches
- Software Upgrade of Switches
- Centralized VLAN Configuration
- Switch POE Control
- Link Aggregation Configuration
- Spanning Tree
- LLDP/MED
- IGMP Snooping
- L3 Routing and Services
- Policy-Based Routing
- Virtual Domain
- Automated detection and recommendations
- Dynamic Port Profiles
- Provision firmware upon authorization
- Health Monitoring
- IPv4 and IPv6 Management
- Telnet / SSH
- HTTP / HTTPS
- SNMP v1/v2c/v3
- SNTTP
- Standard CLI and Web GUI Interface
- Software download/upload: TFTP/FTP/GUI
- Support for HTTP REST APIs for Configuration and Monitoring
- Dual Firmware Support
- RMON Group 1 Packet Capture
- SPAN, RSPAN, and ERSPAN
- Link Monitor
- POE Control Modes
- System Temperature and Alert
- Syslog UDP/TCP
- Provide warning if L2 table is getting full
- Display Average Bandwidth and Allow Sorting on Physical Port / Interface Traffic
- System alias command
- SNMP v3 traps
- Automation Stitches

### *Security and Visibility*

- 802.1X Authentication (Port-based, MAC-based, MAB)
- Syslog Collection
- DHCP Snooping
- Device Detection
- MAC Black/While Listing
- Policy Control of Users and Devices
- Block Intra-VLAN Traffic
- Network Device Detection
- Host Quarantine on Switch Port
- Integrated Network Access Control (NAC) function
- IoT identification
- Switch Controller traffic collector
- Port Statistics
- Clients Monitoring
- Port Mirroring
- Admin Authentication Via RFC 2865 RADIUS
- IEEE 802.1X Authentication Port-based
- IEEE 802.1X Authentication MAC-based
- IEEE 802.1X Guest and Fallback VLAN
- IEEE 802.1X MAC Access Bypass (MAB)
- IEEE 802.1X Dynamic VLAN Assignment
- Radius CoA (Change of Authority)
- Radius Accounting
- MAC-IP Binding
- sFlow
- ACL
- IEEE 802.1ab Link Layer Discovery Protocol (LLDP)
- IEEE 802.1ab
- LLDP-MED
- IEEE 802.1ae MAC Security (MAC Sec)
- DHCP-Snooping Dynamic ARP Inspection
- Sticky MAC and MAC Limit
- IEEE 802.1X open auth
- IEEE 802.1X EAP pass-through
- Flow Export (NetFlow and IPFIX)
- ACL Multistage
- ACL Multiple Ingress

- ACL Schedule
- IP source guard
- IPv6 RA Guard
- LLDP-MED ELIN support
- Per-port and per-VLAN MAC learning limit
- Assign VLANs via Radius attributes (RFC 4675)
- Wake on LAN

### **High Availability Support**

- Multi-Chassis Link Aggregation (MCLAG)

### **Layer 3 Supported Features**

- Static Routing (Hardware-based)
- Dynamic Routing Protocols: OSPFv2, RIPv2, VRRP, BGP, ISIS \*
- Multicast Protocols: PIM-SSM \*
- ECMP
- Bidirectional Forwarding Detection (BFD)
- DHCP Relay
- IP conflict detection and notification
- DHCP server
- Unicast Reverse Path Forwarding – uRPF
- IPv6 route filtering
- Filtering route maps based on routing protocol

### **Layer 2 supported Features**

- Jumbo Frames
- Auto-negotiation for Port Speed and Duplex
- MDI/MDIX Auto-crossover
- IEEE 802.1D MAC Bridging/STP
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- STP Root Guard
- STP BPDU Guard Edge Port / Port Fast
- IEEE 802.1Q VLAN Tagging
- Private VLAN
- IEEE 802.3ad Link Aggregation with LACP
- Unicast/Multicast traffic balance over trunking port (dst-ip, dst-mac, src-dst-ip, src-dst-mac, src-ip, src-mac)
- IEEE 802.1AX Link Aggregation
- Spanning Tree Instances (MSTP/CST)

- IEEE 802.3x Flow Control and Back-pressure
- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX
- IEEE 802.3z 1000Base-SX/LX
- IEEE 802.3ab 1000Base-T
- IEEE 802.3ae 10 Gigabit Ethernet
- IEEE 802.3az Energy Efficient Ethernet
- IEEE 802.3bz Multi Gigabit Ethernet IEEE 802.3 CSMA/CD Access Method and Physical Layer Specifications
- Storm Control
- MAC, IP, Ethertype-based VLANs
- Virtual-Wire
- Split Port (QSFP+ breakout to 4x10G SFP+ or 4x1G SFP)
- Time-Domain Reflectometry (TDR) Support
- LAG min/max bundle
- Rapid PVST interoperation
- Ingress Pause Metering
- Loop Guard
- Per-port storm control
- Priority-based Flow Control (802.1Qbb)
- IEEE 802.1ad QinQ
- VLAN Mapping
- IEEE 802.3ba, 802.3bj, and 802.3bm 40 and 100 Gigabit Ethernet
- Auto topology
- Dynamically shared packet buffers

**Quality of Service**

- IEEE 802.1p Based Priority Queuing
- IP TOS/DSCP Based Priority Queuing
- IEEE 1588 PTP (Transparent Clock)
- Explicit Congestion Notification
- Egress priority tagging
- Percentage Rate Control

## 4. ICT Equipment

### a. IEEE 802.11ax Wireless Network Requirements:

#### System:

1. An integrated, controller based wireless access system comprising of PoE LAN Switch(es), 802.11ax Autonomous Access Points and a central Wireless Management System with appropriate software licenses.
2. The Wireless system will provide building wide wireless access.
3. Access points powered via industry standard PoE (802.3af / 802.3at)
4. Access Point support for plug and play installation.
5. Access point radio configuration for 802.11ax
6. Support for the 802.11 a/c standard
7. Autonomous Access Points.

#### Interoperability:

1. All equipment must be certified by the WiFi Alliance or equivalent for WLAN interoperability.
2. The system should support the IETF standard – CAPWAP (Control and Provisioning of Wireless Access Points protocol - RFC 5415) for communication between the Firewall, switches and the access points.

#### Management / Operations

1. Support for :
  - centrally-deployed configurations and upgrades,
  - centralized security, and
  - centralized monitoring of the wireless network.
  - GUI-based management.
  - The system should provide RF Management that supports automatic channel selection and transmit power controls.

#### Performance Enhancements:

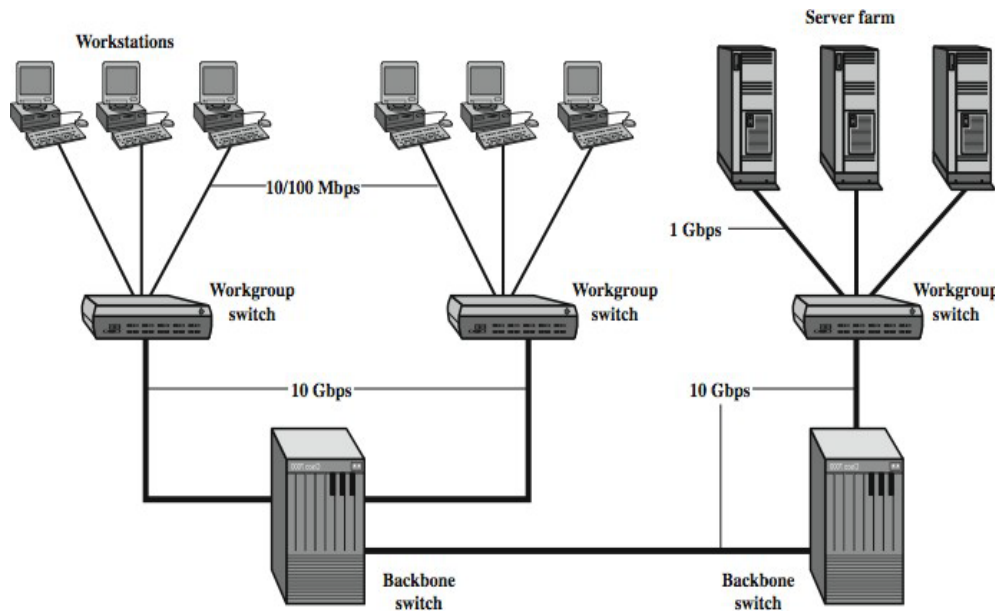
- Should provide a maximum configuration supporting MU-MIMO (Wi-Fi 6 / 802.11ax) to achieve maximum data rates of up to 2400 Mbps.
- Access Points should support simultaneously tunneled traffic and bridged traffic at the AP.
- Access Points support for Wireless Distribution System (WDS) for both backhaul and to service clients would be a plus.
- Support session availability option for the wireless controller.
- QoS throughout the entire solution.
- Support for IEEE 802.11e Quality of Service (QoS) extensions for 802.11 network, WMM.
- Support for WMM Power Save.
- Support fast, secure roaming and handover.
- Support multiple SSIDs.
- Support location-based services application support, providing an API to integrate location and presence capabilities with third-party applications.
- Support assignment of client policies without requiring segmentation.

### Redundancy

- Automatic reconfiguration of surrounding Access Points to provide coverage in the event of an AP failure.

### **b. Recommended LAN topology**

The following illustrates the wired LAN topology which can be deployed for the recommended 10 Gbps Ethernet LAN configuration:



### **c. Fiber Managers for ISP termination and Floor to Floor Communication.**

- Fibre connectivity is required between floors as well as between the switching networks.
- Each Cabinet and Equipment Rack would require a Fiber patch panel for fibre termination.
- Each Fiber Panel is required to be rack-mounted and include the required multimode patch cables.

**d. Video Conferencing Equipment.**

The Video Conferencing equipment within the two Seminar rooms of the facility would facilitate virtual meetings, training sessions, interviews and all other presentation type functions.

An interactive Display/Smartboard with the following specifications is required for each Seminar Room.

- 65” Display LED Screen with 4K resolution, +-1mm Precision and 20 Point Multi-Touch Functionality.
- Built in Camera with 1080P Resolution, 2X Zoom, Ultrawide angles, Anti Fog, Dust-proof and anti-flicker.
- Multiple built-in Speakers supporting frequency domain ranging from 40-20Khz with stereo and Dolby audio.
- Multiple Built-in Microphones with 180° forward sound pickup angle, Support a frequency of 20-20Khz Advanced features such as Echo cancellation, noise suppression, automatic gain control (AGC), and external microphones.
- Supported Languages - Simplified Chinese, Traditional Chinese, English, Spanish, French, Russian, Japanese, German, Portuguese, Italian, Arabic.
- 5 Year Hardware warranty and Technical Support.

**e. Fiber Managers for ISP termination and Floor to Floor Communication.**

- Fiber connectivity is required between floors as well as between the switching networks.
- Each Cabinet and Equipment Rack would require a Fiber patch panel for fiber termination.
- Each Fiber Panel is required to be rack mounted and include the required multimode patch cables.

**f. Printers.**

Multifunction Printers Black and Coloured as identified by departmental needs based on the following specification guidelines;

- Functions -Print, Copy, Scan, Fax, Email
- Print Speed -Up to 40 ppm (default) ; Up to 42 ppm (HP High Speed)
- Resolution Fine Lines (1200 x 1200 dpi)
- Resolution technology
- Monthly duty cycle -Up to 80,000 pages Duty cycle is defined as the maximum number of pages per month of imaged output.
- Recommended monthly page volume 750 to 4000
- Print Technology-Laser
- Display - intuitive color touchscreen
- Print languages- PCL 6, Automatic paper sensor
- Paper trays, standard- Must support Legal Paper
- Compatible operating systems
- Windows 11; Windows 10; Windows 8; Windows 8.1; Windows 7; Windows Client OS; Android; iOS; Mobile OS; macOS 10.12 Sierra; macOS 10.13 High Sierra; macOS 10.14 Mojave
- Supported network protocols - TCP/IP, IPv4, IPv6; Print: TCP-IP port 9100 Direct Mode, LPD (raw queue support only), Web Services Printing, Apple AirPrint™, Google Cloud Print 2.0, Mopria, IPP Print; Discovery: SLP, Bonjour, Web Services Discovery; IP Config: IPv4 (BootP, DHCP, AutoIP, Manual), IPv6 (Stateless Link-Local and via Router, Statefull via DHCPv6), SSL Security and Certificate management; Management: SNMPv1, SNMPv2, SNMPv3, HTTP/HTTPS, Syslog, FTP FW Download



- Paper handling input, standard 100-sheet tray 1, 250-sheet input tray 2; 50-sheet Automatic Document Feeder (ADF)
- Paper handling output, standard-150-sheet output bin
- Duplex printing
- Finished output handling
- Paper (plain, Eco EFFICIENT, light, heavy, bond, colored, letterhead, preprinted, pre-punched, recycled, rough); envelopes; labels;
- Power-110-volt input voltage: 110 to 127 VAC (+/- 10%), 50/60 Hz (+/- 2 Hz); 220-volt input voltage: 220 to 240 VAC (+/- 10%), 50/60 Hz (+/- 2 Hz) (Not dual voltage, product varies by part number with # Option code identifier)
- Energy efficiency
- CECP; ENERGY STAR® qualified;

**g. Desktop Computers.**

All Desktop Computers are to be complete systems with Tower, Monitor, Mouse, Keyboard, and UPS and should align with the following minimum requirements, with Three years Warranty/ Support.

**Tower Specifications:**

- Small Form Factor
- Processor - 13th Gen Intel® Core™ i7-13700 (30 MB cache, 16 cores, 24 threads, 2.10 GHz to 5.20 GHz Turbo, 65 W)
- Operating System -Windows 11 Pro, English, French, Spanish
- Graphics- Intel Integrated Graphics
- Memory - 16 GB: 2 x 8 GB, DDR5, 4800 MT/s
- Storage 512 GB, M.2, Gen 4 PCIe NVMe, SSD, Class 40
- Keyboard and Mouse – Wired USB with US standard
- Ports and Slots- 1. Optical disk drive , Power button, Universal audio jack, USB 2.0 Type A, USB 3.2 Gen 2 Type A (10Gbps),USB 3.2 Gen 2x2 Type-C with PowerShare (20Gbps),Line in/out re-tasking jack,(3) DisplayPort 1.4, USB 3.2 Gen 2 Type A (10Gbps),USB 3.2 Gen 1 Type A (5Gbps),Expansion card slots, Power connector, Power supply diagnostic LED, Lock slot, RJ45 ethernet port, Padlock loop

**Monitor Specifications:**

Monitor- 27" for PACS Machines –

- Display Type LED-backlit LCD monitor / TFT active matrix
- Diagonal Size 27"
- Adaptive-Sync Technology
- Panel Type -IPS
- Aspect Ratio -16:9
- Native Resolution -4K UHD (2160p) 3840 x 2160 at 60 Hz
- Vertical Refresh Rate 40 - 60 Hz
- Horizontal Refresh Rate 130 - 137 kHz
- Screen Coating Anti-glare 3H hardness
- Backlight Technology -WLED
- Features LED edgelight system, 99% sRGB color gamut, Dell Easy Arrange, HDR Ready technology, 3-sided bezelless, Comfortview Plus
- Audio Type -Speakers - stereo

### Connectivity Interfaces

- HDMI
- DisplayPort 1.2
- Audio line-out
- Display Position Adjustments -Height, Pivot (rotations), Swivel, Tilt, Tilt Angle -5°/+21°
- VESA Mounting Interface -VESA
- Power Input Voltage AC 120/230 V (50/60 Hz)
- On / Off Switch Yes

### Monitor for Standard User/ Office

- Display Type- LED-backlit LCD monitor / TFT active matrix
- Diagonal Size -21.5"
- Aspect Ratio -16:9
- Native Resolution -Full HD (1080p) 1920 x 1080 at 60 Hz
- Screen Coating-Anti-glare 3H hardness
- Backlight Technology-LED backlight
- Features -LED edgelight system, Flicker Free technology,
- Connectivity Interfaces-
- HDMI (HDCP 1.4)
- VGA
- Display Port
- Power
- Input Voltage AC 100-240 V (50/60 Hz)
- On / Off Switch - Yes

### UPS Specifications:

#### **Output**

- Max Configurable Power (Watts) -3kWatts / 3kVA
- Output Frequency (sync to mains) -50/60 Hz +/- 3 Hz Sync to mains
- Other Output Voltages -230 V
- Topology -On-Line
- Waveform type -Sine wave
- Output Voltage THD -< 2% at 100% linear load and < 5% at 100% non-linear load
- Bypass -Internal bypass (automatic and manual)

#### **Input**

- Input frequency -50/60 Hz Auto-sensing
- Input voltage range for main operations 151 - 302 Adjustable, 160 - 286V
- Number of Power Cords -1
- Other Input Voltages -220 V , 240 V

### Batteries & Runtime

- **Battery type** -Lead-acid battery
- **Typical recharge time** -3hour(s)
- **Expected Battery Life (years)** -3—5

### Communications & Management

- **Interface Port(s)** -USB
- **Control panel** -Multifunction LCD status and control console

Surge Protection and Filtering-

- Surge energy rating 459Joules
- Filtering -Full time multi-pole noise filtering : 0.3% IEEE surge let-through : zero clamping response time : meets UL 1449

**h. Server Room Equipment**

Server Room Cabinet

48u Rack Units Features:

- Perforated locking front door
- Perforated split rear door, locking
- Solid split side panels, locking
- High density cable entry roof (2500+ cat 6 cables)
- Low profile caster and leveling feet
- 2 Sets 19" EIA rails
- 2 Rack PDU / cable management brackets
- 2 Rack PDU Systems
- Four Shelves
- Hardware Kit (Qty 50, M6 Cage Nuts and Screws)
- Bolt down brackets
- Central grounding point
- Tool-less accessories available
- Standard approval

UPS –One (1)3K VA Rackmounted device adhering to the following guidelines.

**Output**

- Max Configurable Power (Watts) -3kWatts / 3kVA
- Output Frequency (sync to mains) -50/60 Hz +/- 3 Hz Sync to mains
- Other Output Voltages -230 V
- Topology -On-Line
- Waveform type -Sine wave
- Output Voltage THD -< 2% at 100% linear load and < 5% at 100% non-linear load
- Bypass -Internal bypass (automatic and manual)

**Input**

- Input frequency -50/60 Hz Auto-sensing
- Input voltage range for main operations -160 - 275 (220...240 V) Adjustable ACV
- Number of Power Cords -1
- Other Input Voltages -230 V

Batteries & Runtime

- Battery type- Li-Ion (Lithium-Ion)
- Typical recharge time -1.5hour(s)
- Nominal Battery Voltage -50 V
- Expected Battery Life (years) -8 - 10
- Battery Charge Power (Watts) -448 Watts

### Communications & Management

- Control panel -Touch screen LCD user interface
- Emergency Power Off (EPO) -Yes
- Surge Protection and Filtering- Surge energy rating -1600Joules
- Warranty-5 years

### Network Servers

**Two (2) Rack mount chassis servers to be installed in the Server Room, One active and One Cold, with similar specifications:**

- **Primary Processor** - Intel® Xeon® Gold 6326 2.9G, 16C/32T, 11.2GT/s, 24M Cache, Turbo, HT (185W) DDR4-3200
- **Secondary Processor** - Intel® Xeon® Gold 6326 2.9G, 16C/32T, 11.2GT/s, 24M Cache, Turbo, HT (185W) DDR4-3200
- **Memory** - 128GB RDIMM, 3200MT/s Dual Rank (32GB x 4)
- **Storage** -1.92TB SSD SAS, RI, up to 24Gbps 512e 2.5in Hot-Plug, AG Drive
- **RAID** - C4, RAID 5 for 3 or more HDDs or SSDs (Matching Type/Speed/Capacity)
- **RAID/Internal Storage** - Controllers Front PERC H755 Front Load
- **Hot Plug Hard Drive** - 1.2TB Hard Drive ISE SAS 12Gbps 10k 512n 2.5in Hot-Plug  
**TOTAL Drives = 1.2TB x 6**
- **Primary Power Supply** - Hot-Plug Power Supply,1100W MM(100-240Vac) Titanium
- **Secondary Power Supply** - Hot-Plug Power Supply,1100W MM(100-240Vac) Titanium
- **Power Cords** - 2X NEMA 5-15P to C13 Wall Plug, 125 Volt, 15 AMP, 10 Feet (3m), Power Cord, North America
- **Embedded Systems Management** - iDRAC9, Enterprise 15G
- **Network Adapters** - Broadcom 5720 Quad Port 1GbE BASE-T Adapter
- **Additional Network Cards** - Broadcom 57412 Dual Port 10GbE SFP+ Adapter, PCIe Low Profile
- **Rack Mounting Rails** - Ready Rails Sliding Rails with Strain Relief Bar
- **Warranty** - Basic Next Business Day 36 Months, 36 Month(s) (3 Years Basic Warranty)
- **Software:**
  - Windows Server 2022 Standard,16CORE,FI,No Med,No CAL, Multi Language
  - VMware ESXi 8.0 Embedded Image

### TFT Screen with KVM

- 8 Port KVM Switch HDMI, is integrated kvm switcher, touchpad, keyboard and 17.3" LCD monitor, ideal to manage up to 8 computer/servers. Fits 1U rack
- This Rack mount KVM console provide switch 3 options: OSD menu + keyboard + button. There are 2 OSD menu: screen OSD and KVM OSD, also supports external USB mouse.
- KVM rack mount switch with drawer is made for 1 U rackmount. But there are several flanges on the bottom of the trays, about 5/8"
- Compatible with Dos/Windows, Linux, Unix, Mac OS8.6/9/10.
- LCD - 17.3" FHD color
- Resolution- 1920\*1080p@60Hz
- Housing -Aluminum + metal for less weight
- Dimension -600x480x45mm/23.6x18.8x1.78 inch
- Cabinet installation depth 600-810mm/23.6-31.8 inch
- Color display -.7M, RGB 6-bit data+HIFRC data
- Brightness -400(CD/m2)
- Lifespan -more than 50000H
- Power consumption -Max. 24W
- Power- DC12V
- Touchpad -1,000,000 times
- USB port -Support external usb keyboard and mouse

### Firewall Device

#### **Rack mounted Firewall Device.**

The Firewall device is required to seamlessly integrate advanced networking and provide robust security ensuring industry-leading threat protection and decryption with a custom ASIC architecture for superior performance and energy efficiency at scale, ensuring consistent security across networks, streamlining operations, and convergence of networking and security across WLAN and LAN.

- Device should support 10Gbps on WAN interfaces and 1Gbps on LAN Interfaces
- Device must support Fiber termination and should integrate the Wireless Access Point Manager.
- 5 –Year Hardware Protection with vendor Support
- 5 \_Year Premium License with Support.
- Rackmount and necessary Deployment tools

## 5. Power, Grounding, Bonding

Telecommunications equipment is sensitive to electrical power fluctuations. Because of this sensitivity, the designer should consider providing:

- Dedicated branch circuits serving individual outlets.
- Dedicated electrical power feeders.
- Power conditioning.
- Backup power.
- Dedicated telecommunications grounding and bonding.
- If additional power conditioning, backup, or standby systems are required for the equipment, allocate space and allow for HVAC loading in the Server Room for these systems.
- The contractor is responsible for the telecommunications grounding and bonding and the telecommunications circuit protectors at the Telecommunications Room, Main Server Room and the ground floor Entrance Facility.
- Therefore each ICT room should be equipped with an
  - ac grounding electrode system (e.g., also known as the earthing system).
  - Equipment grounding system (e.g., also known as the equipment bonding system).
  - Because the purpose of each of these systems is unique, one cannot be used in place of the other two.
  - Power – requirements for DC systems (to be determined)

### ER/TR Electrical Requirements

- a. Electrical: Quantity (to be determined): Type IEC 309, 220V, 30 A Nema receptacle
- b. Electrical: Quantity (to be determined): 110V, 30 A dual receptacle with UPS or Voltage Regulation.
- c. Network: Quantity (to be determined) Category 6 or better network drop receptacles
- d. Network: Quantity (to be determined) Fibre Optic infrastructure as specified at 40 Gbps or better

### Electrical and Network Requirements (End User)

- a. Electrical : Quantity (to be determined) : 110V, 30 A dual receptacle
- b. Network : Quantity (to be determined) Category 6 or better network drop receptacles

The electrical and network infrastructure must be installed in close proximity (less than 1 m) to the ICT equipment of the end user.

### Environmental Requirements

**Air conditioned to main ambient temperature of Server Room between 61 deg F (16 deg C) to 64 deg F (18 deg C) and relative humidity of 55 to 45 percent**

### Security Requirements

One door with electronic keypad access control. No windows or glass partitions.

### ICT Spaces/Rooms

Outside Plant - refers to all of the physical cabling and supporting infrastructure (such as conduit, cabinets, tower or poles), located between the identified entry points of the wired service providers' (TSTT ,FLOW, etc.) located within the project site the vicinity.

The contractor is required to provide an underground pathway (tunnel or conduit type) that begins at the identified entry points outside of the FS and ODCS buildings and leads to each Entrance Room within the FS and ODCS buildings.

The conduit type pathway should comprise

- an underground subsurface conduit that can support theplacement of outdoor telecommunication cables
- manholes or handholes that can support easy placement andpulling of cables through the conduit.
- Conduit should be of x size
- Conduit system should not be shared with power cables forsafety reasons
- Conduit should be away from gas systems
- Properly sealed
- Locate maintenance holes out of road for traffic and safetyconsiderations.
- Pole to accept aerial access.
- Contractor should provide drawing plan showing location of thebuilt pathways.

## **C. Table**

### Entrance Facility

Consists of the telecommunications service entrance to the building and backbone pathways.

#### **Location:**

- Providers of all telecommunications services shall be contacted to establish requirements. Location of other utilities shall be considered in locating the entrance facility.
- Alternate entrance facility should be provided where security, continuity or other specialneeds exist.
- Equipment not related to the support of the entrance facility should not be installed in,pass through, or enter the telecommunications entrance facility.
- Dry location not subject to flooding and close as practicable to building entrance pointand electrical service room.
- Wireless transmission/reception shall be located close to wireless field.

#### **Design Considerations:**

- Accommodate the applicable seismic zone requirements.
- A service entrance pathway shall be provided via one of the following entrance types: Underground, Buried, Aerial, Tunnel.
- Minimum one wall should be covered with rigidly fixed 21mm (0.75 in.) A-C plywood.Minimum lighting same as telecommunication room.
- False ceilings shall not be provided.
- Minimum door same as telecommunications room.
- Electrical power same as telecommunications room. No convenience receptaclesmentioned.
- Grounding same as telecommunications room.

The entrance facility is the location for the Telecom Service Provider equipment and demarcation points as well as the interface with campus cabling systems.

The ENTRANCE FACILITY consists of the various types of telecommunications network cables that enter the building and continue to the ENTRANCE WIRING CLOSET. The ENTRANCE FACILITY also includes manholes, conduits, pull boxes, trenches and the appropriate termination and protection devices. Fiber optic cable and copper twisted pair cable will be included in most building entrances. These cables may be brought to the building by either of two methods, direct buried or underground.

Direct buried cable is placed below the earth's surface by digging a trench or plowing the cable into place with the use of special sub-soil type plows made specifically for that purpose. Either plowing or trenching does not require the use of conduit. Direct buried is the least expensive method when existing conduit is not available, but is not practical when multiple cables are involved.

Underground cable utilizes conduit placed below the earth's surface by trenching. Underground conduit systems require manholes placed below ground to facilitate pulling cables into the conduit and splicing of the underground cables.

**GENERAL:**

The building will require entrance conduits in the size and quantity specified by this section of the standard. These conduits will extend beyond the foundation to one of the nearest manhole. Two the location of a proposed manhole to be placed as a part of the building project or to a point beyond landscaped and/or paved areas, if the entrance will be direct buried.

**SIZE:**

Entrance conduit will be 4-inches inside diameter.

**TYPE:**

Entrance conduit will be galvanized steel through the foundation wall to a point 12-inches beyond the disturbed earth. Bends and sweeps will be galvanized steel. Other sections may be type C PVC conduit.

**QUANTITY:**

A minimum of one 4-inch conduit plus one spare conduit will always be required. If fiber cables are required, an additional conduit with a minimum of three inner ducts will be required.

Additional conduits may be required to accommodate special purpose cables or due to high copper cable pair requirements. The need for added ducts for high pair requirements can be determined from Table -1.

<b>Table 1-1</b>	
<b>Copper Cable Pairs</b>	<b>No of Conduits Required*</b>
6 to 900	One, 4-inch
901 to 2100	Two, 4-inch
2101 to 3600	Three, 4-inch
3601 to 4800	Four, 4-inch
4801 to 6000	Five, 4-inch
6001 to 7200	Six, 4-inch

*(\* ) Does not include one spare conduit or one conduit with inner duct installed*



**DEPTH:**

Entrance should be placed at a depth of 48-inches to the top of the duct, if possible. When obstructions prevent placement at that depth, a minimum depth of 24-inches should be maintained.

**SEPARATIONS:**

All conduits paralleling power and other foreign conduits and pipes carrying gas, water, oil, or sewer will have a minimum separation of 12-inches of firm earth. This separation may be reduced to 4-inches if the entrance conduit is completely encased in 4-inches of concrete. Crossing separations may be treated in the same manner with the concrete encasement extending a minimum of 3-feet either side of the crossing.

**BENDS:**

Bends in underground conduit are undesirable and are to be avoided. When required, bends and sweeps will be limited to the equivalent of no more than two 90 bends and will be encased in 4-inches of concrete.

**ENTRANCES:**

Conduits entering through a basement or foundation wall will be sloped so that water will not run into the building. All conduits will be sealed until used and seals will be restored around the cables entering the building to prevent the entrance of water, gases and vermin.

**CONCRETE CAPS:**

All runs of underground conduit not encased in concrete from other causes will be capped with a minimum of 4-inches of concrete.

**MANHOLES:**

When required manholes will be no less than 8-feet by 4-feet in size, they will be pre-cast and installed on a minimum of 12-inches of sand. Manholes will be provided complete with a permanent ladder, cable racks, grounding/bonding inserts, pulling eyes, lid, ring, collars and a sump of at least 8-inches in diameter.

**PULL LINES:**

All conduit placed will have a minimum of one 1/4-inch nylon rope in each duct and innerduct to facilitate placing pulling lines.

**METAL SECTIONS:**

All galvanized steel sections will be reamed on the interior edges to remove burrs. Bushings will be installed on all open ends.

**DIRECT BURIED:**

Cables placed by this method should be 36-inches deep and no less than 24-inches deep when necessary to clear other obstructions. Separations from other obstacles are the same as for underground conduit except the concrete should be placed as a divider when needed, not as an encapsulant. Cables may be placed in the same trench as other utilities but must be separated by a minimum of 12-inches of firm earth. See Figures 1- 1 and 1-2 for proper placement.

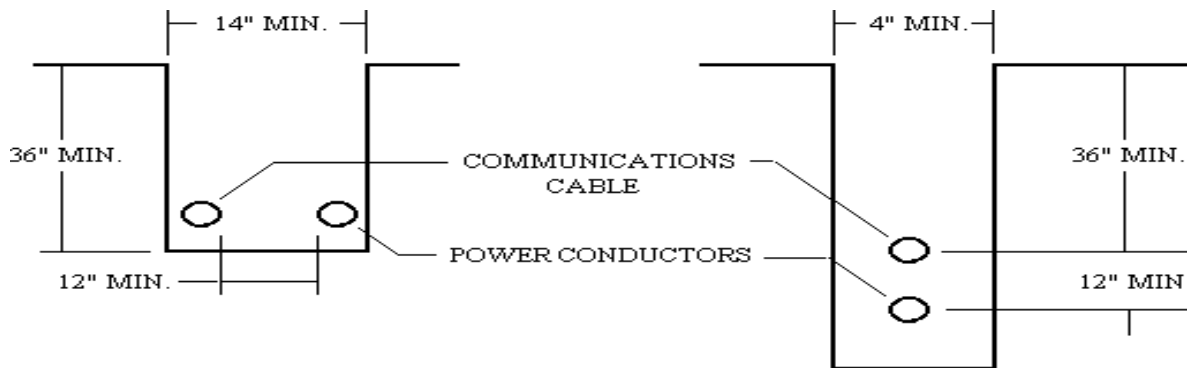


FIGURE 1-1

FIGURE 1-2