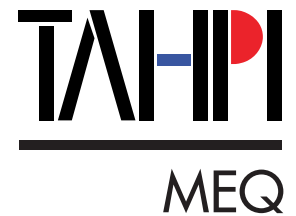




MEDICAL
PLANNING AND
PROCUREMENT
SERVICES





Delivering the Healthcare of the Future



THE COMPANY

TAHPI is one of the largest and most prolific healthcare companies in the world. TAHPI completed more than 350 healthcare projects worldwide. TAHPI has activities in 34 countries, operating from 11 regional offices covering Australia, South and East Asia, India Sub-continent, Middle East & Africa, Eastern Europe, and the UK.

TAHPI offers comprehensive specialised services for Healthcare, including:

- Health Service Planning
- Architecture Design
- **Medical Equipment Planning and Procurement**
- Mechanical, Electrical, Plumbing, and Fire Services
- Healthcare Interior Design
- Project Management Services
- Modular Design & Construction
- International Health Facility Guidelines
- Accreditation & Certification

TAHPI Medical Equipment Planning and Procurement services (MEQ) are uniquely scalable to suit the varying needs of our clients.

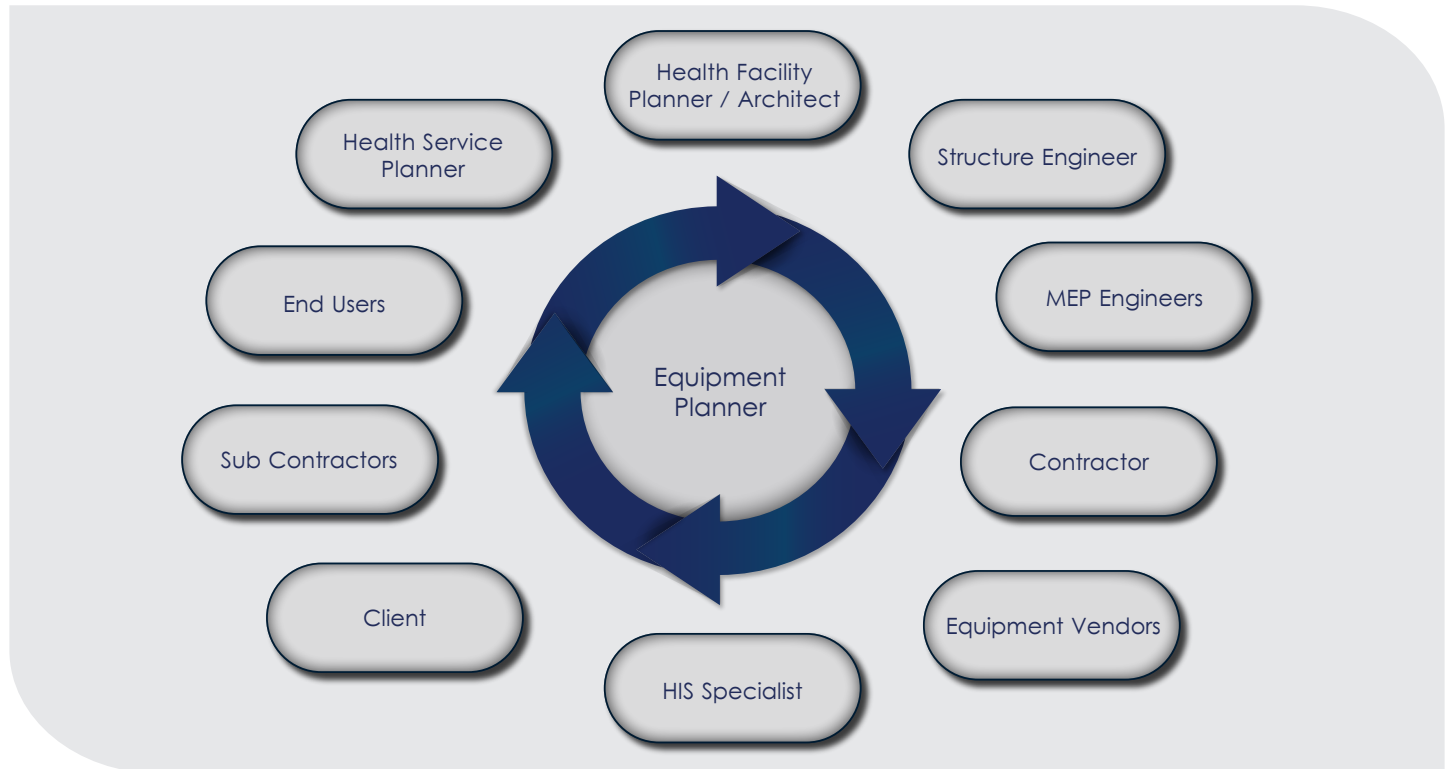
The TAHPI-MEQ team balances the requirements of clinical users and the clients against available healthcare technologies, budgetary targets, and the realities of the design and construction process.

MEDICAL EQUIPMENT PLANNING

Healthcare is becoming more complex in a challenging environment where hospitals are expected to provide more services, faster, and budgets are under pressure. Medical Technology is viewed as a solution to improving productivity and control costs while maintaining the highest quality care.

Effective project planning can only be achieved through a successful team process. This cohesive team generally consists of user groups, project managers, architects and other associated healthcare planners such as equipment planners. TAHPI Equipment planners are highly qualified equipment professionals who pride themselves in keeping-up with the latest technological advancements and breakthroughs in the healthcare sector. The ultimate objective is to ensure that all equipment selected are fit for purpose, within budget, procured, delivered and commissioned in accordance with the project's programme.

PROJECT TEAM



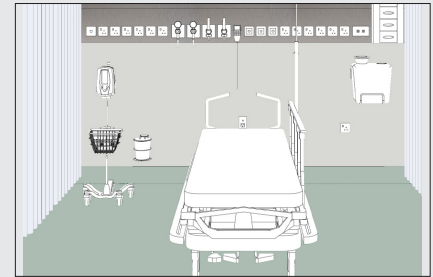
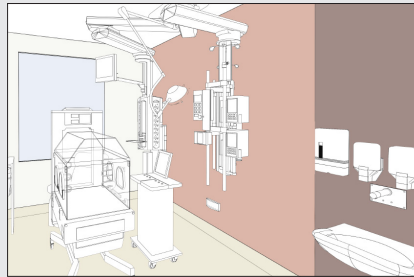
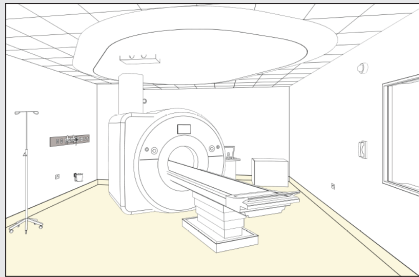
TAHPI Medical Equipment Planning and Procurement is available as part of TAHPI A to Z Health Planning services or as a stand-alone service. The TAHPI-MEQ team is available in your location and ready to assist with your project !

PROCESS OF EQUIPMENT PLANNING

MEDICAL
EQUIPMENT
PLANNING ▶

MEDICAL
EQUIPMENT
PROCUREMENT ▶

CONSTRUCTION
ADMINISTRATION
& SITE SUPERVISION



MEDICAL EQUIPMENT PLANNING

Equipment planning is considered to be the initial phase of the overall planning process. TAHPI-MEQ team provides the following deliverables as part of this phase:

- High-Level Medical Technology Report
- Room Data Sheets (RDS)
- Room by Room Schedule
- MEP Engineering Data Sheets (EDS)
- 1:100 Loaded Plans
- 1:50 Room Layout Sheets (RLS)
- Bill of Quantity Reports
- Recommended Brands
- Budget Estimates
- Detailed Technical Specifications

IHFG Standard Project for International use		Milestone: Current	Room Data Sheets		
Department	136 Intensive Care Unit-General - RDL 6, 24 Beds	Room Tag	1907		
Room Name	Patient Bay - Critical	Room Code	pbc-241		
Net Room Area (Briefed)	24.3M ²				
No of Rooms	10				
Subtotal of Briefed Area	240.00M ²				
Hours of Operation	24 hours				
Occupancy	1 patient, 12 visitors, Up to 6-8 staff				
Also covers these Rooms	1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016				
Remarks	Group of not more than 12, within observation of Staff Station				
Description	A Single Bed Bay for patient requiring critical care nursing and medical treatment. Visual access to Staff Station is required. Screen curtains are required for patient privacy.				
Special Requirements	Maximum natural light is required to patient beds.				
Acoustic	Acoustic privacy is required				
Amendment	Carlinx Protected Electrical Area IP3 - Isolated Power Supply 24-10-2019 Final Draft 08-01-2017 Fabric, FF, FE & Services updated 07-11-2017 Revised SGA				
Room Fabric and outline specifications					
ID	Fabric	Material	Finish	Specification	Selection / Remarks
010	Ceiling	Plasterboard	Paint, unpainted	Flush set, unpainted	
020	Corner	Aluminium	Polished	shallow line	square set also possible
030	Floor finish	Vinyl	Standard HGI resistant	Acoustic, wood resistant	
100	Stemwall	Alum/ Glass	Polished	Internal window double glazing	to partner work, with 1/2kg 2 Ventiles
200	Skirting	Vinyl	Phenolic	Four millimetres, 150mm	
300	Wall finish	Paint	Acrylic, washable		
302	Wall finish	Phenolic	Phenolic	Spillback	to beam, see also acceptable
401	Wall protection	Composite PVC	Polished	1500 x 600	
1907	Windows				isotriable
Fittings and Furniture (FF)					
ID	Description	Category	Group	Qty	Selection / Remarks
100	Air Handler	Furniture/Filing	3	2	to services pentant
120	Blind / Venetian blind	Furniture/Filing	1	2	to external and internal windows, control to both sides of internal windows
140	Bracket/ ECU master	Furniture/Filing	3	1	mounted on pentant
1470	Bracket/ straps	Furniture/Filing	3	1	mounted to lighting
2400	Bracket/ suspension ceiling	Manufacture	3	1	
2500	Chair/ recliner	Furniture/Filing	3	1	patient - convenient cov
2610	Chair/ recliner/ adjustable	Furniture/Filing	3	1	
Issued No: 1 Issue Date: 28 Jul 2022 Print Date: 28 Jul 2022 Page 1 of 3					

IHFG Standard Project for International use		Milestone: Current	Room Data Sheets						
Department	136 Intensive Care Unit-General - RDL 6, 24 Beds	Room Tag	1907						
Room Name	Patient Bay - Critical	Room Code	pbc-241						
ID	Description	Category	Group	Qty	Selection / Remarks				
4600	Curain track, bed screen	Manufacture	1	1					
4610	Curain/ Bed screen	Furniture/Filing	3	1					
1102	Dispenser/ Disposable glove	Furniture/Filing	2	1					
1104	Dispenser/ Paper hand basin	Furniture/Filing	2	1	to basin				
1106	Dispenser/ soap	Furniture/Filing	2	1	to basin				
1108	Dispenser/ soap antiseptic	Furniture/Filing	2	1	to basin				
1200	Frontend stand/ mobile	Furniture/Filing	3	1					
12000	Linear cabinet/ city, single	Furniture/Filing	3	1					
12002	Organ/ Resistant	Furniture/Filing	3	1	to services pentants				
1910	Shrine bin	Furniture/Filing	3	1	on trolley				
19100	Shel/ adjustable/ mobile, high	Furniture/Filing	3	1	to services pentant				
1980	Stiction/ stapler	Furniture/Filing	3	4	to services pentants				
20000	Table/ mobile	Furniture/Filing	3	1	to services pentant				
20000	Stiction/ bottle/ carrier	Furniture/Filing	3	1	mobile				
20100	Table/ mobile	Furniture/Filing	3	1	to services pentant				
2480	Trolley	Furniture/Filing	3	1					
24120	Wash bin/ alcohol	Furniture/Filing	3	1					
24100	Wash bin/ paper/ 20 Litre	Furniture/Filing	3	1	to basin				
24400	Washbasin	Furniture/Filing	2	1	1500mm x 600mm				
Furniture, Equipment and associated Services (FE)									
ID	Description	Group	Qty	Sub	Unit	Work	Top	Side	Selection/Remarks
1110	Beam stand/ Type A	FE	yes	yes	yes	yes	yes	yes	where to (RDL 6) pen
1710	Base/ ECU/ electric	FE	yes	yes	yes	yes	yes	yes	
1910	Clock/ digital/ electric	FE	yes	yes	yes	yes	yes	yes	setting mounted, master clock system
19100	Charger/ station	FE	yes	yes	yes	yes	yes	yes	with RO water & ketchup dish
19110	Light/ procedure/ ceiling	FE	yes	yes	yes	yes	yes	yes	
20000	Monitor/ cart/ 30"	FE	yes	yes	yes	yes	yes	yes	
41100	Service/ pendant/ 2 arm, height adj	FE	yes	yes	yes	yes	yes	yes	
44100	Television/ handset, handfree	FE	yes	yes	yes	yes	yes	yes	wall mounted
5213	Television/ flat screen	FE	yes	yes	yes	yes	yes	yes	optional
Services									
ID	Description	Service Category	Qty	Selection / Remarks					
1100	Network connection/ facilities and cabling	Communications	1	to services pentant					
1100	FT/ SATV	Communications	1	or data outlet for digital transmission					
1000	Voice/ Data/ outlet/ double	Communications	2	1 working services box - 1 ear					
1000	Voice/ Data/ outlet/ double	Communications	2	1 working services box - 1 ear					
1000	Voice/ Data/ outlet/ single	Communications	1	wall telephone					
1000	Acoustic/ ceiling	Lighting							
0001	General/ colour/ controlled	Lighting							
0001	General/ high/ light	Lighting							
7000	Medical Air (MAs)	Medical Gases	2	to services pentant					
0001	Oxygen (O2)	Medical Gases	1	to services pentant					
Issued No: 1 Issue Date: 28 Jul 2022 Print Date: 28 Jul 2022 Page 2 of 3									

IHFG Standard Project for International use		Milestone: Current	Room Data Sheets	
Department	136 Intensive Care Unit-General - RDL 6, 24 Beds	Room Tag	1907	
Room Name	Patient Bay - Critical	Room Code	pbc-241	
ID	Description	Service Category	Qty	Selection / Remarks
7040	Suction	Medical Gases	1	to services pentant
1000	Emergency call	Nurse Call	1	1 indicator button & light, to services pentant
1000	Person/ call/ handset	Nurse Call	1	1 call button on the handset
1000	Person/ Staff call	Nurse Call	1	1 indicator button & light, to services pentant
1010	Staff/ Nurse/ area/ call	Nurse Call	1	1 indicator button & light, to services pentant
0000	Control/ protected/ IPS	Power		all power
0000	Control/ connection	Power		2 to bring isolated services pentant box
0010	OPD/ Double	Power	2	to work
0010	OPD/ Double	Power	1	to check system
0010	OPD/ Emergency power	Power	1	to services pentant
0010	OPD/ Single	Power	12	to services pentant
0000	OPD/ Single	Power	12	to services pentant
0000	OPD/ Single	Power	2	TV, desk
11000	Ceiling	Services/ Finish	1	to power call, ceiling suspended
Issued No: 1 Issue Date: 28 Jul 2022 Print Date: 28 Jul 2022 Page 3 of 3				

Room Data Sheets (RDS) Generated from TAHPI HFBS Software

IHFG Standard Components		Room Layout Sheet	R/L Room Code	pbc-251
Room Name	Patient Bay - Critical (Enclosed), 25m ²		RDL Room Code	pbc-251
Issued No: 1 Issue Date: 28 Jul 2022 Print Date: 28 Jul 2022 Page 1 of 3				

IHFG Standard Components		Room Layout Sheet	R/L Room Code	pbc-251
Room Name	Patient Bay - Critical (Enclosed), 25m ²		RDL Room Code	pbc-251
Issued No: 1 Issue Date: 28 Jul 2022 Print Date: 28 Jul 2022 Page 2 of 3				

IHFG Standard Components		Room Layout Sheet	R/L Room Code	pbc-251
Room Name	Patient Bay - Critical (Enclosed), 25m ²		RDL Room Code	pbc-251
Issued No: 1 Issue Date: 28 Jul 2022 Print Date: 28 Jul 2022 Page 3 of 3				

Room Layout Sheets (RLS) based on TAHPI HFBS Software on BIM

MEDICAL EQUIPMENT PROCUREMENT

This phase looks into collecting all documentation required for a successful tender. TAHPI-MEQ team manages the tender process, vendor engagement, purchase orders, delivery schedules to make sure the selected equipment meets both operational and financial requirements and is in line with the overall procurement plan.



CONSTRUCTION ADMINISTRATION & SITE SUPERVISION

With TAHPI-MEQ team the monitoring of the project implementation is much smoother than ever.

During this phase, TAHPI-MEQ team ensures that all medical equipment is fully functioning and has met all safety, compliance, validation testing, commissioning requirements, and training programmes for staff have been organised to suit the equipment purchased. Certificates, warranties, operation and maintenance manuals are also provided for all relevant equipment and medical furniture during this phase.



HFBS MEQ MODULES OVERVIEW

Module

Key Features

Sample Screenshot

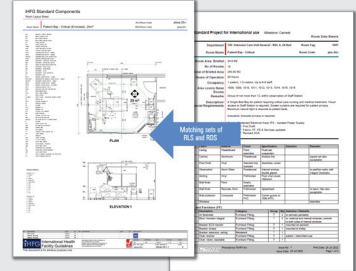


Auto-specs Module

The Auto-specs Module takes the Briefing Module contents and expands into detailed specifications. There are standard specification categories and content for each item category as well as unlimited user-defined categories.

Auto-spec features include:

- Integration with UMDNS
- Pre-populated Specs which remain editable
- Apply new field types to entire category
- Link to Products Module
- Link to Purchasing Module
- Direct integration with Briefing Module
- Exportable specification data



More info: hfbsinfo.com



Briefing Module

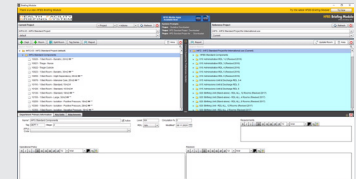
The Briefing Module rapidly creates detailed project briefs using the Health Facility Guidelines as the base. All actions are based on drag and drop.

Project hierarchy is defined as:

- Campus > Departments > Rooms
- Room Fabric and Finishes
- Furniture and Fittings
- Fixtures and Equipment
- Building Services

Other features include:

- Area calculations
- Auto update
- Asset tracking by SAID



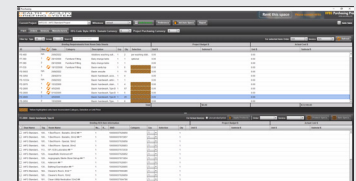
More info: hfbsinfo.com



Purchasing Module

The Purchasing Module is the reverse of the Briefing module, concentrating on the room contents. These are grouped by item type, and then displayed by Department and Room Location. There are provisions for Domain Budget, Project Budget and actual Project Cost. Features include:

- Link to Order and Invoice
- Specify items centrally from this module
- Results show up on Briefing Module
- Export to Excel
- One click update to the latest item menu



More info: hfbsinfo.com

Module



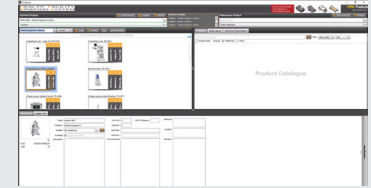
Products Module

The Products Module provide facilities to catalogue healthcare related products including:

- Building Finishes
- Furniture and Fittings
- Fixtures and Equipment

These can be uploaded either by suppliers or by the user. They can be grouped in unlimited Legends or Tender options (up to 4 per item). The system will offer product information as well as supplier, Region and Representative information. Contents can be linked to Auto- specs and inserted into the Briefing Module.

Sample Screenshot



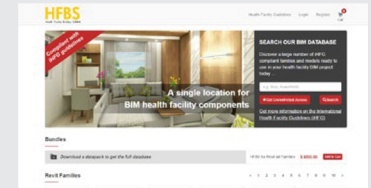
More info: hfbsinfo.com

HFBS
healthdesign.com.au/
RevitMarket

Revit Family Market

The HFBS Revit Family Market is an online marketplace containing a collection of over 1700 FF & FE items specifically created and named to be compatible with the HFBS Briefing Module. These families are in true 3D Revit BIM format. Some items have multiple versions representing brand-specific choice. The features include:

- Work with Revit software Consistent insertion points
- Generic dimensions, suit most applications
- Same naming system as Briefing Module
- Available individually or as complete set
- Available for download online



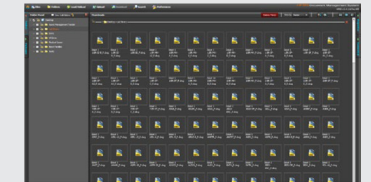
More info: hfbsinfo.com



Document Management Module

The Doc Management Module is a fully web-based document management system is as easy to use as Windows Explorer but with many more features including:

- Multi-layered security
- Version control with stacked card paradigm
- Screen previews and slide shows
- No screen refresh with open/shut panels
- Utilises users own Outlook email system
- Project vault for approval milestones
- Content mapping to HFBS hierarchy



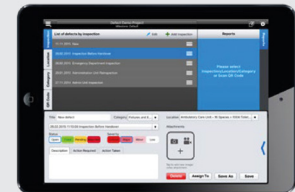
More info: hfbsinfo.com



Defects Management Module for iPad

Manage the project defects onsite, generate reports and track the history. Generate and look up defects under Date, Location, Category or QR code. Key features are:

- Severity: From Low to Critical
- Status: Open, Pending, Fixed Rejected
- Sort by: Date, Location, Status
- Take pictures and videos
- Annotate pictures by finger
- Notifications and Costs
- Repeat inspections
- Switch to Briefing for iPad and back to see the actual project requirements
- Locations pre-loaded from the HFBS



More info: hfbsinfo.com

RECENT PROJECTS

SHEIKH KHALIFA CENTRAL HOSPITAL, UNITED ARAB EMIRATES

The hospital has been planned for growth from the initial 205 beds to an optimal amount of 300 beds, 24 hours service to patients, 11 specialised departments, outpatient clinics and a 32-bed emergency ward, 3-storey rehabilitation center housed in a separate building and 673 parking spots.

The facility includes IPUs, ICU, CCU, NICU, ER, Burns unit, Laboratory, full service Medical Imaging and outpatient clinics for a variety of service lines.

TAHPI provided Medical Equipment Planning and MEP Review.



NEW DUBAI GYNAECOLOGY AND FERTILITY CENTRE, UNITED ARAB EMIRATES

The new Dubai Gynaecology & Fertility Clinic is designed for the Dubai Health Authority to be a center of excellence and is part of Latifa Hospital. It is a continuation of Latifa's best practice in healthcare and will provide a friendly and inviting environment for IVF and associated services.

TAHPI provided Medical Planning and Healthcare Architecture, Medical Equipment Planning and Biomedical Engineering as well as site supervision work.



AMAN HOSPITAL, QATAR

Aman Hospital is a premier Private Multi-specialty Hospital in Doha close to the airport and all transport routes. This 105 bed hospital has generous Outpatient and support facilities and 44,000 sqm of internal space. The facilities represent uncompromising levels of interior design, technology and models of care. The facility includes 8 Operating Theatres, ICU, NICU, IVF, full service Medical Imaging and outpatient clinics for a variety of service lines.

TAHPI provided Service Planning, Financial Feasibility, Full Architectural, Interior and MEP design, Full Medical Equipment Planning as well as Operational Commissioning services to this hospital.



THE VIEW HOSPITAL, QATAR

This project is a 250 bed multi-specialty private hospital designed over 15 floors plus a roof helipad. The facility incorporates 10 operating theatres including one robotic in addition to 2 cath labs, 2 endoscopy, one Angio suite, 2 C-Section operating rooms, a full range of imaging modalities and extensive clinical support services. Several floors include VIP and VVIP accommodation.

TAHPI provided detailed briefing, Medical Planning, Healthcare Architecture, Nurse Call, Medical Gases, Pneumatic Tube design, Medical Equipment Planning and Procurement as well as Biomedical Engineering site supervision work.



COMPREHENSIVE CANCER CENTRE AT SULTAN QABOOS UNIVERSITY, OMAN

Sultan Qaboos University Hospital Comprehensive Cancer Care Centre is a major new development of a stand-alone super-speciality hospital in Muscat Oman. The facility is within the university campus, offering a complete range of consultation, diagnostic and treatment facilities for Cancer Care. This 9 storey, 50,000 sqm facility is one of the largest of its kind in the region. Phase 1, which was completed in early 2021 offers 105 beds, 4 Radiotherapy Bunkers, 30 specialist consultation rooms, 36 Chemotherapy and Dialysis bays, Medical Imaging and Nuclear Medicine. Phase 1 also provides 2 operating theatres and 3 endoscopy rooms. Clinical support facilities include a comprehensive laboratory, Medical Imaging and Nuclear Medicine.

TAHPI provided the Country-scale Service Planning, Project Briefing, Full Architectural, MEP, Biomedical and Equipment Planning services.



DHAMAN AHMADI & JAHRA HOSPITALS, KUWAIT

Dhaman's primary objective is to become the first Kuwait based PPP healthcare company & a world class healthcare provider within the GCC by adopting global leading practices & quality healthcare standards. Dhaman will provide primary & secondary healthcare services for a target market of mainly expatriates, serving a projected population of approximately 2 million by 2026.

The initiative includes two 300 bed secondary care Hospitals at Jahra & Ahmadi which are currently under construction.

TAHPI provided Market Assessment & Feasibility Analysis, Design Review, Medical Equipment Planning, Clinical Services Modeling & will be providing Site Supervision Services for Medical Equipment & Biomedical Engineering.



PANTAI HOSPITAL AYER KEROH, MALAYSIA

Pantai Hospital Ayer Keroh is a major hospital expansion project that integrates with the existing building with additional 160 beds and other inpatient facilities. 3 brand new hybrid operating theatres has been added with significant Day Care facilities to support the growing patients' needs.

The hospital also has taken the opportunity to expand other services such as emergency. A multi-storey carpark will be added on the adjacent site with a connecting plaza to the medical block.

TAHPI provided Medical Equipment Planning services including Market Assessment of local distributors.



AGHA KHAN UNIVERSITY HOSPITAL, UGANDA

AKUH Hospital will be built on a land of sixty acres in central Kampala (Nakawa) to the vision of a high quality 600 bed tertiary teaching hospital.

The clinical services are part of an integrated health system consisting of 'Centers of Excellence' (COEs). The hospital is of international standard providing specialty care in several disciplines. It will also be a training site for doctors, nurses, and other health professionals. Once in full development, the site includes a range of supporting facilities such as Health Sciences, Student and Nurse Education, Residential accommodation, commercial and retail development. TAHPI provided Service Planning, Full Medical Planning and Healthcare Architectural, Interior and MEP design, and Full Medical Equipment Planning.



OTHER SELECTED RECENT PROJECTS

- Al Nakheel Hospital and Wellness Center, UAE
- Abu Dhabi Central Morgue, UAE
- Aspen Medical, 6 Modular Prefabricated Clinics, UAE
- An-Najah National University Hospital, Palestine
- Dubai Health Authority Health Facility Guidelines
- Diagnostic and Treatment Center, Doha, Qatar
- DOH, Health Facility Guidelines, Abu Dhabi
- ENOC OHSC Facility, UAE
- Fakeeh University Hospital Clinics, Dubai, UAE
- Forensic Laboratory Facility, Umm Al Quwain, UAE
- GKNM Hospital – Outpatient Block, India
- Hatta Supportive Service Centre, UAE
- IVF Center, Al Ain, UAE
- Institute of Neurological Sciences, Cote D'Ivoire
- International Medical Centre East Tower Expansion, KSA
- IMC Woman and Child Hospital, KSA
- Korean Medical Center, Qatar
- King Abdullah bin Abdulaziz Medical City, Bahrain
- Longevity Clinic, Abu Dhabi, UAE
- New Aspetar VIP Hospital, Qatar
- NEOM Health Facility Guidelines, NEOM, KSA
- Neurospinal Hospital & Radiosurgery Center, Dubai
- Health Facility Guidelines, Ministry of Health, Oman
- Outpatient Clinics Building– Dubai Hospital, UAE
- Oman Health Facility Guidelines (OHFG), Oman
- Quarantine Hospital, India
- Royal Women Hospital Due Diligence Study, Bahrain
- Security Forces Medical City, Saudi Arabia
- Sheikh Khalifa Bin Zayed Al Nahyan Hospital, Yemen
- Somaliland Polyclinic, Somalia
- TATA Trust Cancer Care Centres, India
- TEMA Women's Hospital, Ghana
- 2 Ambulatory Clinics, Riyadh, KSA

TWPI

TAHPI
Suite 401, Level 4, Building 25
Dubai Healthcare City, P.O. Box 27801
Dubai, United Arab Emirates

Phone: +971 4 4281348
Email: meq@tahpi.net
www.tahpi.net