

Health Facility Design Review Checklist

This checklist is to be used by the Local Health Authority or outsourced Design Reviewers to record any non-compliance of the submitted design of a new health facility or an existing facility undergoing major refurbishment (exceeding 50% of the existing).

1 General Information of Facility

Choose the applicable Facility Type of the proposed facility:

<input type="checkbox"/> General Hospital	<input type="checkbox"/> Specialty Hospital	<input type="checkbox"/> Oncology Centre
<input type="checkbox"/> Rehabilitation Centre	<input type="checkbox"/> Day Surgical Centre	<input type="checkbox"/> Fertility Centre
<input type="checkbox"/> Renal Dialysis Centre	<input type="checkbox"/> Polyclinic	<input type="checkbox"/> Specialty Clinic
<input type="checkbox"/> Convalescence House	<input type="checkbox"/> Radio Diagnostic Centre	<input type="checkbox"/> General Clinic
<input type="checkbox"/> Medical Laboratory	<input type="checkbox"/> Dental Laboratory	<input type="checkbox"/> Dental General Clinic
<input type="checkbox"/> Diagnostic Centre (Multiple Specialties)	<input type="checkbox"/> Hospital (Inpatient) Pharmacy	<input type="checkbox"/> Community (Outpatient) Pharmacy
<input type="checkbox"/> TCAM Centre	<input type="checkbox"/> Company Clinic	<input type="checkbox"/> Hotel Clinic
<input type="checkbox"/> School Clinic	<input type="checkbox"/> Drug Store	<input type="checkbox"/> Relaxing Massage Centre
<input type="checkbox"/> Special Needs Centre	<input type="checkbox"/> Air Ambulance	<input type="checkbox"/> Optical Centre
<input type="checkbox"/> Beauty Centre Salon	<input type="checkbox"/> Home Healthcare Agency	<input type="checkbox"/> Telehealth

All Mandatory FPU's provided (refer to appendix 17 of Part A) YES NO

Optional FPUs provided

Overall Facility RDL: 1 2 3 4 5 6

Design Consultant Prequalification Category: 1 2

Application type sought: Single Step Application
 2 Step Application - Schematic Design Submission
 Detailed Design Submission

Are all required deliverables as per applicable checklist provided? YES NO

(Refer to submitted Deliverables Checklist (Appendix 1 for Schematic Submission or Appendix 2 for Detailed Submission in Part A) by Applicant)

2 Functional Planning Unit (FPU) or Department

Choose the applicable FPU(s) being reviewed (ideally use one set of comments per FPU):

<input type="checkbox"/> Administration Unit	<input type="checkbox"/> Admissions Unit & Discharge	<input type="checkbox"/> Birthing Unit
<input type="checkbox"/> Cardiac Investigation Unit	<input type="checkbox"/> Catering Unit	<input type="checkbox"/> Clinical Information Unit
<input type="checkbox"/> Complementary and Alternative Medicine Centre	<input type="checkbox"/> Coronary Care Unit	<input type="checkbox"/> Day Surgery/ Procedure Unit
<input type="checkbox"/> Dental Surgery Unit	<input type="checkbox"/> Education Unit	<input type="checkbox"/> Emergency Unit
<input type="checkbox"/> Endoscopy Unit	<input type="checkbox"/> Engineering & Maintenance Unit	<input type="checkbox"/> Health Centres
<input type="checkbox"/> Housekeeping Unit	<input type="checkbox"/> Inpatient Unit - Bariatric	<input type="checkbox"/> Inpatient Unit - General
<input type="checkbox"/> Intensive Care Unit - General	<input type="checkbox"/> IVF Unit (Fertilisation Centres)	<input type="checkbox"/> Laboratory Unit
<input type="checkbox"/> Linen Handling Unit	<input type="checkbox"/> Main Entrance Unit	<input type="checkbox"/> Maternity Unit
<input type="checkbox"/> Medical Imaging Unit - General	<input type="checkbox"/> Medical Imaging Unit - Nuclear Medicine Unit & PET	<input type="checkbox"/> Mental Health Unit - Adult
<input type="checkbox"/> Mental Health Unit - Child & Adolescent	<input type="checkbox"/> Mental Health Unit - Older Persons	<input type="checkbox"/> Mobile Healthcare Unit
<input type="checkbox"/> Mortuary - General	<input type="checkbox"/> Oncology Unit - Medical (Chemotherapy)	<input type="checkbox"/> Oncology Unit - Radiation
<input type="checkbox"/> Operating Unit	<input type="checkbox"/> Outpatients Unit	<input type="checkbox"/> Pharmacy Unit
<input type="checkbox"/> Public & Staff Amenities	<input type="checkbox"/> Rehabilitation - Allied Health	<input type="checkbox"/> Renal Dialysis Unit
<input type="checkbox"/> Sterile Supply Unit (SSU)	<input type="checkbox"/> Supply Unit	<input type="checkbox"/> Waste Management Unit

FPU RDL: 1 2 3 4 5 6

(Note: default = the Whole Facility RDL)

New Facility

Refurbishment

% Refurbished

%

%New

%

% Cumulative Refurb

%

3 Architectural/ Medical Planning Compliance Checklist

Does this FPU comply fully with the mandatory SOA?

Yes No

Remarks: _____

Have any non-conformances been declared or not?

Yes No

Remarks: _____

Are the alternative design solutions acceptable or not?

Yes No

Remarks: _____

Are the functional relationships acceptable?

Internal - Yes No

External - Yes No

Remarks: _____

Do Room sizes matching the SOA's of the Guidelines?

Yes No

Note: Normally up to 10% deviation in area should be accepted

Note: Guidelines use the no-gap area measurement which should not be confused with clear area

Note: Any area approved in the design must be accepted by the inspector

Remarks: _____

Do all the corridor widths comply with the iHFG?

Yes No

Note: Minimum requirements of fire corridors (Local Authority) may not be sufficient. Operating Unit and ICU requires wider corridors.

Remarks: _____

Do clearances around beds and other objects comply with the iHFG?

Yes No

Note: First refer to the FPU diagrams. If not available refer to the relevant RLS for guidance on clearances

Remarks: _____

Hand wash basins are provided where they are required and shown in design?

Yes No

Note: also check the types required, eg Type A, B, C. Higher type can replace lower type. Antiseptic Hand Gel Dispenser is not a replacement for Hand Wash Basin.

Remarks: _____

Are all finishes specified are appropriate in clinical areas?

Yes No

Remarks: _____

Are there any sliding doors used in clinical areas?

Yes No

Note: Cavity sliders may only be used in non-clinical areas such as administration. In all clinical areas any sliding doors must only be surface sliders or swing doors. Surface above sliders should resist dust collection

Remarks: _____

Does minimum ceiling height comply with the iHFG?

Yes No

Note: Default ceiling height is 2700 except procedural area which are 3000 AFFL.

Note: When limited and local deviations are observed check against the allowance permitted in Part D

Remarks: _____

Are all door openings adequate as per the iHFG?

Yes No

Note: Pay particular attention to areas requiring bed movement and the geometry of space

Note: Also look for any mandatory observation panels which may be required (none required for standard patient bedrooms)

Remarks _____

Mandatory external windows, where required, are provided?

Yes No

Note: Refer to the allowances in the iHFG, sometimes borrowed light is allowed eg. in ICU

Mandatory direct light is only into Inpatient Bedrooms

Remarks: _____

Are proposed window treatments for sun control appropriate in clinical areas?

Yes No

Note: Curtains should not be used in clinical areas. Window sun control in operating theatres, labs, ED, ICU etc. can only be within double glazing. Curtains may be used in Inpatient Bedrooms except isolation rooms as well as non-clinical areas.

Remarks: _____

Does the facility comply with the ergonomics standard as per iHFG?

Yes No

Note: Refer to Part C for examples of ergonomics

Remarks: _____

Are hand rails provided to at least one side of the main corridors?

Yes No

Note: hand rails may be combined with crash bars but the handle still must comply with iHFG

Remarks: _____

4 MEP Engineering Compliance Checklist (only applicable for Detailed Design Submission)

Is the HVAC system design in compliance to the Project Requirements and iHFG Part E?

Yes No

Remarks: _____

Is Adequate Filtration and Air changes been provided for spaces according to iHFG?

Yes No

Remarks: _____

Are the mandated air pressurisation requirements for spaces met?

Yes No

Remarks: _____

Is a pressure display monitor provided for the isolation room?

Yes No

Remarks: _____

Has the exhaust for negative isolation rooms been provided with HEPA filtration and stack discharge?

Yes No

Remarks: _____

Has HEPA filtration been provided for the Operating Rooms, Burns Unit and Positive Isolation Rooms

Yes No

Remarks: _____

Has a fully ducted return air system been provided?

Yes No

Note: Ceiling plenum can never be used as a supply or return air duct.

Remarks: _____

Has the MRI room been provided with non-ferrous MEP systems?

Yes No

Remarks: _____

Has a quench pipe been provided to the MRI room?

Yes No

Remarks: _____

Has an emergency exhaust system been provided to the MRI room?

Yes No

Remarks: _____

Are the pharmacy clean rooms provided with HEPA filters?

Yes No

Remarks: _____

Have laboratory fume hoods been provided with dedicated exhaust?

Yes No

Is the exhaust provided with HEPA filtration and stack discharge?

Yes No

Remarks: _____

Are the IVF Procedure Rooms, Embryo Transfer Rooms and Labs provided with HEPA filtration?

Yes No

Remarks: _____

Has emergency power been provided in accordance to iHFG Part E?

Yes No

Remarks: _____

Has UPS power been provided in accordance to iHFG Part E?

Yes No

Remarks: _____

Has IPS power been provided in accordance to iHFG Part E Guidelines?

Yes No

Remarks: _____

Is the generator location been discussed and accepted by the Local Authority and complied to its requirements?

Yes No

Remarks: _____

Are the electrical rooms provided with 2 hour fire rating or fire suppression as per Local Authority requirements?

Yes No

Remarks: _____

Is the central server room located at a level where flooding cannot occur? Or are there remedial measures in place?

Yes No

Remarks: _____

Is the system resilience covered as per iHFG Part E requirements?

Yes No

Remarks: _____

Does the Fire Alarm system comply to Local Authority requirements?

Yes No

Remarks: _____

Has the Nurse Call and Emergency Call system provided?

Yes No

Note: Pull-cords are not acceptable due to safety aspect of patients.

Remarks: _____

Are the Annunciator or indicator lights provided and visible?

Yes No

Remarks: _____

Has the Electrical System been installed as per Local Authority requirements?

Yes No

Remarks: _____

Has the main incoming water service to the building been provided with a DCV after the water meter?

Yes No

Remarks: _____

Is the water system treated with special water treatment equipment?

Yes No

Note: If Yes, please select which system is present:

Low Level Chemical Water Treatment for Raw Water Tank

Water Softener

Ultra Violet

Multimedia Filtration

Copper Silver Ionisation

Microfiltration

Cooling Water Plant Via Heat Exchanger

Reverse Osmosis Water Treatment

Ozone Water Treatment

Remarks: _____

Has warm water been provided to each Hand Wash Basin?

Yes No

Note: : If Yes, please select which system is present:

TMV-03 at High Level connected to Hot Water Line

TMV-03 provided through Sanitaryware Mixing Tap

Warm Water Plant

Remarks: _____

Has a valve assembly set (includes PRV and DCV) been provided on cold and hot water services to each room?

Yes No

Remarks: _____

Has a water balancing valve been provided on the hot water return side?

Yes No

Remarks: _____

What is the pipe material for the water supply system?

Note: One of the following should be used.

Copper

MDPE

PVC

PPR

Stainless Steel

Remarks: _____

Has a RO Water Treatment system been provided for Washer Disinfectors?

Yes No

Remarks: _____

Is there an independent RO water System for the dialysis areas or areas with dialysis boxes?

Yes No

Remarks: _____

Has an independent RO water System been provided for areas outside dialysis areas (such as CSSD, Laboratory, Washer Disinfectors, HVAC Equipment etc)?

Yes No

Remarks: _____

Is the RO water system storage tank (treated Water Tanks) in Stainless Steel?

Yes No

Remarks: _____

Is the RO water system Pipework in Stainless Steel?

Yes No

Remarks: _____

Has a Water Re-use or Recycling system been installed?

Yes No

Note: If Yes, please state which area it serves:

External Irrigation Areas

Internal Irrigation Areas

All Irrigation Areas

Flushing WC System

All the Above

Remarks: _____

Has a Clean Steam System been provided to the facility?

Yes No

Note: If yes, please select which area (the system only serves the areas below):

SSU

Laboratory

Pharmacy

HVAC Equipment

Remarks: _____

Has Raw/Plant Steam been provided to the facility?

Yes No

Note: If yes, please select for which area (the system only serves the areas below):

Laundry Area

Kitchen Area

Hot Water Equipment

Remarks: _____

Has the above system been designed as per Local Authority requirements?

Yes No

Remarks: _____

Has leak prevention strategies been provided for drainage crossing patient/ clinical areas?

Yes No

Note: If yes, please select which strategy from below:

Double Pipe (Pipe-in-Pipe)

Drip Tray

Acoustically rated pipe

Remarks: _____

For Oncology Areas, has the drainage pipe been installed in steel, glass or plastic?

Yes No

Remarks: _____

For Oncology Areas, is the pipe buried in Concrete Bunkers?

Yes No

Remarks: _____

For Oncology Areas, is the buried pipe installed in a pipe-in-pipe system?

Yes No

Note: If yes, please select the exterior pipe material of the buried pipe from below:

Duplex Stainless Steel

304 L Stainless Steel

316 L Stainless Steel

HDPE Plastic

UPVC/PVC Plastic

Other

Remarks: _____

Is the laboratory drainage pipe material different from the general waste pipe drainage?

Yes No

Remarks: _____

Has an STP been provided?

Yes No

Remarks: _____

Has Liquid Oxygen been provided with Vaporiser?

Yes No

Remarks: _____

Have 2no. Liquid Oxygen Tanks been provided?

Yes No

Remarks: _____

Has Oxygen Generation Been Provided?

Yes No

Remarks: _____

Are the number cylinders system sized based on design-based data and **not** HTM-02-01 Conceptual data?

Yes No

Remarks: _____

Is there an Automatic Cylinder Manifold system for each medical gas system?

Yes No

Remarks: _____

Is there an Emergency Manual Manifold System for each medical gas system?

Yes No

Remarks: _____

Do both manifolds systems for all medical gas systems have an exhaust to atmosphere pipe from the manifold?

Yes No

Remarks: _____

Is the cylinder room located on the ground floor?

Yes No

Remarks: _____

Are the Oxygen and Nitrous Oxide Cylinders in the Same Room?

Yes No

Remarks: _____

Is there a spare Cylinder Room or just spare cylinder area?

Yes No

Remarks: _____

Has a central Carbon Dioxide Plant been provided?

Yes No

Remarks: _____

Is the Medical Air and Vacuum Air System provided?

Yes No

Note: If Yes, select the location of the main plant from below:

Ground Floor

Basement

Roof

Remarks: _____

As per the HVAC AHU strategy for Special areas (such as operating theatres, endoscopy rooms, etc), each room with a dedicated AHU needs a dedicated simplex AGSS unit, is this the case?

Yes No

Note: If Yes to the above, select the location of the system:

Plant Room above Special Areas

Roof

Remarks: _____

Has the facility been provided with Duplex AGSS system for other areas outside the simplex units?

Yes No

Remarks: _____

Has the main medical gas alarm panel provided?

Yes No

Note: If Yes, select the location below:

Fire Control Room

Security Room

Plant Room

Other

Remarks: _____

Are the general Medical Gas AVSU's been provided at the Staff Stations?

Yes No

Remarks: _____

Has more than one AVSU been provided for special areas as as Operating Theatres, ICU's etc?

Yes No

Remarks: _____

Has a dedicated AVSU been provided to special clinical areas such as Operating Theatres, ICU etc?

Yes No

Remarks: _____

Does the design specify a key access to the AVSU panel?

Yes No

Remarks: _____

Has the Electrical rooms (not LV switch rooms, just local floor rooms) been provided with an extinguishing system?

Yes No

Note: If Yes, select the applicable system from below:

Gas Suppression

Automatic Water Based Sprinkler

None - Due to 2 Hour Fire Rated Enclosure

Remarks: _____

Has the Server room been provided with an extinguishing system?

Yes No

Note: If Yes, select the applicable system from below:

Gas Suppression

Automatic Water Based Sprinkler

None - Due to 2 Hour Fire Rated Enclosure

Remarks: _____

Has the oil type generator been provided with an extinguishing system?

Yes No

Note: If Yes, select the applicable system from below:

Water Mist System

Deluge System

Foam System

Gas Suppression System

Other

Remarks: _____

Have the transformers been provided with an extinguishing system?

Yes No

Note: If Yes, select the applicable system from below:

Water Mist System

Deluge System

- Foam System
- Gas Suppression System
- Not required - Dry Type Transformer Used
- Other

Remarks: _____

Have the Main Electrical Rooms (LV) been provided with an extinguishing system?

- Yes
- No

Note: If Yes, select the applicable system from below:

- Water Mist System
- Deluge System
- Automatic Sprinkler System
- Foam System
- Gas Suppression System
- Other

Remarks: _____

Have extinguishing systems been provided in the special clinical areas such as Operating Theatres, Endoscopy procedure rooms etc?

- Yes
- No

Note: If Yes, select the applicable system from below:

- Pre-Action Automatic Double Interlock System
- Pre-Action Automatic Single Interlock System
- Automatic Sprinkler System
- Gas Suppression System
- Other

Remarks: _____

Have extinguishing systems been provided inside the imaging rooms?

- Yes
- No

Note: If Yes, select the applicable system from below:

- Pre-Action Automatic Double Interlock System
- Pre-Action Automatic Single Interlock System
- Automatic Sprinkler System
- Gas Suppression System
- Other

Remarks: _____

Has the fire protection system been designed as per Local Authority requirements?

Yes No

Remarks: _____

Has a gas solenoid valve been provided after the LPG or NG gas meter?

Yes No

Remarks: _____

Is the LPG, NG or Diesel fuel connection - points locked and can only accessed via key access?

Yes No

Remarks: _____

Are the LPG, NG or Diesel fuel connection points located on the ground floor?

Yes No

Remarks: _____

What is the pipe material for the installed fuel pipe?

Remarks: _____

Are the fuel pipe systems joints installed welded?

Yes No

Remarks: _____

Does the installed gas pipe run through the basement areas of the facility?

Yes No

Remarks: _____

If the installed pipe runs in the basement, is the pipe installed in a pipe-in-pipe system?

Yes No

Remarks: _____

Has the fuel system been designed as per Local Authority requirements?

Yes No

Remarks: _____