

**COMPLIANCE CHECKLIST**

**IP14: Surgical Services**

The following checklist is intended to be used in the plan review applications for health care facilities submitted to the Massachusetts Department of Public Health. This checklist summarizes and references the applicable requirements from the Licensure Regulations and the 2014 Edition of the FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities. Applicants must verify compliance of the plans submitted to the Department with all referenced requirements from the Licensure Regulations and FGI Guidelines when completing this Checklist. A separate Checklist must be completed for each nursing unit, hospital or clinic department, or clinical suite.

Other jurisdictions, regulations and codes may have additional requirements which are not included in this checklist, such as:

- NFPA 101 Life Safety Code (2000) and applicable related standards contained in the appendices of the Code
- State Building Code (780 CMR)
- Joint Commission on the Accreditation of Health Care Organizations
- CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities
- USP 797
- Accessibility Guidelines of the Americans with Disabilities Act (ADA)
- Architectural Access Board Regulations (521 CMR)
- Local Authorities having jurisdiction.

**Instructions:**

1. All requirement lines must be completed according to the following instructions and included in the plan submissions for Self-Certification Process or Part II of the Abbreviated Review Process.
2. This checklist must be completed by the project architect or engineer based on the design actually reflected in the plans at the time of completion of the checklist.
3. Each requirement line (\_\_\_) of this Checklist must be completed exclusively with one of the following symbols, unless otherwise directed in the checklist. If a functional space is not affected by a renovation project, the symbol "E" may be indicated on the requirement line (\_\_\_) before the name of the functional space (associated requirements on indented lines below that name, or associated MEP requirements do not have to be completed in this case). If more than one functional space serves a given required function (e.g. patient room or exam room), that clarification should be provided in the Project Narrative, and the requirement lines are understood to only address the functional spaces that are involved in the project.

**X** = Requirement is met, for new space, for renovated space, or for existing direct support space for an expanded service.

= Check box under section titles or individual requirements lines for optional services or functions that are not included in the project area.

**E** = Requirement relative to an existing suite or area that has been *licensed* for its designated function, is *not affected* by the construction project and *does not pertain to a required direct support space* for the specific service affected by the project.

**W** = Waiver requested for specific section of the Regulations or FGI Guidelines, where hardship in meeting requirement can be demonstrated (a Physical Plant Waiver Form must be completed for each waiver request).

4. All room functions marked with "X" must be shown on the plans with the same name labels as in this checklist.
5. Mechanical, electrical & plumbing requirements are only partially mentioned in this checklist. The relevant section of the FGI Guidelines must be used for project compliance with all MEP requirements and for waiver references.
6. Oxygen, vacuum, medical air, and waste anesthesia gas disposal outlets (if required) are identified respectively by the abbreviations "OX", "VAC", "MA", & "WAGD".
7. Requirements referenced with "FI" result from formal interpretations from the FGI Interpretations Task Group.
8. The location requirements including asterisks (\*) refer to the definitions of the Glossary in the beginning section of the FGI Guidelines.

Facility Name:

DoN Project Number: (if applicable)

Facility Address:

Satellite Name: (if applicable)

Building/Floor Location:

Satellite Address: (if applicable)

Submission Dates:

Project Description:

Initial Date:

Revision Date:

**Architectural Requirements**

**Building Systems Requirements**

2.2-3.3

**SURGICAL SERVICES**

2.2-3.3.1.1

Location & Layout:

- (1)  surgical suite located & arranged to prevent unrelated traffic through suite
- (2)  setting designed to facilitate movement of patients & personnel into, through & out of defined areas in surgical suite
- (3)  signs clearly indicate where surgical attire is required at all entrances to semi-restricted areas
- (4)  surgical suite divided into semi-restricted area & restricted area
  - restricted area can only be reached through the semi-restricted area

2.2-3.3.2

**OPERATING ROOMS**

Common Requirements:

- 2.1-7.2.3.1(6)  monolithic floors with integral covered 6" high wall base

Ventilation:

- 20 air changes per hour
- Positive pressure Table 7.1
- No recirculating room units
- Airflow unidirectional, downwards & average velocity of diffusers 25-35 CFM/ft<sup>2</sup> 4/7.4.1
- Diffusers concentrated to provide airflow pattern over patient & surgical team
- Area of primary supply diffuser array extends min. 12" beyond footprint of surgical table on each side
- No more than 30% of primary supply diffuser array area used for ceiling mounted equipment
- At least 2 low sidewall return or exhaust grilles on opposite corners or as far apart as possible, with bottom of these grilles installed approximately 8" above floor

Power:

- Total 24 receptacles minimum Table 2.1-1
  - 16 receptacles convenient to operating table
  - 2 receptacles on each wall
- Selected circuits on emergency power NFPA 99

Nurse Call System:

- Emergency staff assistance station Table 2.1-2

Medical Gases:

- 2 OX, 5 VAC, 1 MA, 1 WAGD Table 2.1-4

**Architectural Requirements**

**Building Systems Requirements**

2.2-3.3.2.1

**GENERAL OPERATING ROOM**

check if not included in project

Space Requirements:

New Construction:

- (1) \_\_\_\_\_ min. clear floor area 400 sf
- (a) \_\_\_\_\_ min. clear dimension 20'-0"

**or**

Renovations:

- (b) \_\_\_\_\_ min. clear floor area 360 sf
- \_\_\_\_\_ min. clear dimension 18'-0"

2.2-3.3.2.1

**SPECIAL OPERATING ROOM**

(OR for image-guided surgery or surgical procedures that required additional personnel and/or large equipment)

check if not included in project

Space Requirements:

New Construction:

- (1) \_\_\_\_\_ min. clear floor area 600 sf
- (a) \_\_\_\_\_ min. clear dimension 20'-0"

**or**

Renovations:

- (b) \_\_\_\_\_ min. clear floor area 500 sf
- \_\_\_\_\_ min. clear dimension 20'-0"

2.2-3.3.3

**HYBRID OPERATING ROOM**

(OR equipped for diagnostic imaging before, during, & after surgical procedures, with permanently installed imaging equipment that may include MRI, fixed single-plane & bi-plane tomographic imaging systems, & CT equipment)

check if not included in project

2.2-3.3.3.2(2)

Space Requirements:

New Construction:

- \_\_\_\_\_ minimum clear dimension 24'-0"
- \_\_\_\_\_ counted between walls, fixed cabinets, & mobile storage units parked against walls

**or**

Renovations:

- \_\_\_\_\_ minimum clear dimension 22'-0"
- \_\_\_\_\_ counted between walls, fixed cabinets, & mobile storage units parked against walls

2.2-3.3.3.3

\_\_\_\_\_ Control room

check if not included in project

- (1) \_\_\_\_\_ min. area 120 sf (includes fixed work surfaces)
- (2) \_\_\_\_\_ room physically separated from OR with walls & door
- (3) \_\_\_\_\_ viewing windows that allow for full view of patient & surgical team

**Architectural Requirements****Building Systems Requirements**

- 2.2-3.3.3.5 \_\_\_ Floor & ceiling structures designed to support weight of imaging equipment as well as other fixed ancillary equipment (e.g., lights, service columns) & movable ancillary equipment
- 2.2-3.3.3.6 \_\_\_ Protection from disruptive environmental vibrations & other disturbances in accordance with imaging equipment manufacturer specifications  
 \_\_\_ specifications have been submitted to DPH Plan Review
- 2.2-3.3.3.7 \_\_\_ Imaging equipment room  
 (1) \_\_\_ large enough to contain transformers, power distribution equipment, computers & associated electronics & electrical gear  
 (2) \_\_\_ physically separated from hybrid operating room with walls & door (may open into OR)
- 2.2-3.4.1.3 Radiation Protection:  
 \_\_\_ specifications of radiation shielding have been submitted to DPH Radiation Control Program  
 (1) \_\_\_ control room includes shielded view window designed to provide full view of examination/procedure table & patient at all times, including full view of patient when table is tilted or chest X-ray is used
- 2.2-3.3.3.9 \_\_\_ Hybrid OR with intraoperative CT  
 (1)  check if not included in project
- 2.2-3.4.2.2 \_\_\_ control room  
 (1) \_\_\_ shielded view window  
 (2) \_\_\_ angle between control & CT equipment centroid permits control operator to see patient's head & part of body being imaged in bore of scanner
- (2) \_\_\_ Hybrid OR with intraoperative MRI  
 check if not included in project
- 2.2-3.4.4.2(1) \_\_\_ sized to accommodate clearances in manufacturer specifications
- 2.2-3.4.4.3(1) \_\_\_ MRI hybrid OR Suite conforms to 4-zone screening & access control protocols identified by American College of Radiology  
 \_\_\_ **Zone I:** unrestricted areas  
 \_\_\_ **Zone II:** interface between Zone I & strictly controlled Zone III  
 \_\_\_ **Zone III:** no access by unscreened patients or non-MRI personnel due to interactions between persons or equipment & MRI scanner  
 \_\_\_ **Zone IV:** MRI hybrid operating room

**Architectural Requirements****Building Systems Requirements**

- 2.2-3.4.4.6  
(1)  MRI hybrid OR control room  
(a)  full view of patient & all activity in OR  
 operator's console positioned so operator has full view of approach & entrance to OR  
(b)  door in open position does not obstruct view of entry opening from operator's console  
(3)  space for emergency patient stabilization or resuscitation near control room but outside 5-gauss line
- 2.2-3.4.4.10  
(1) Special Design Elements:  
(a)  no ferromagnetic materials  
(b)  location or shielding to avoid radiofrequency interference from elevators or other mechanical-electrical equipment  
(2) (a)  floor structure designed to support weight of MRI scanner equipment  
 floor structure designed to minimize disturbance to MRI magnetic field  
(c)  floor structure designed to mitigate disruptive environmental vibrations  
 lighted sign with red light to indicate that magnet is always on  
(d)  acoustic control to mitigate ambient noise emitted by MRI scanner per Table 1.2-6
- 2.2-3.3.3.9(2)  entry doors to MRI hybrid OR swing outward from inside room
- (3)  Hybrid OR with vascular imaging systems  
 check if not included in project
- 2.2-3.5.6.1  
(2)  control room or area  
 shielded view window permits direct observation of patient from control console  
(3)  shielded control room configured to prevent radiation exposure into occupied areas of control room  
 check if not included in project (only for non-ionizing radiation modalities)  
(4)  separated from procedure room by door

**Architectural Requirements**

**Building Systems Requirements**

2.2-3.3.4 **PRE- & POST-OPERATIVE PATIENT CARE AREAS**

- 2.2-3.3.4.2  Preoperative patient care area
- (1)  check if not included in project  
(if surgical suite has only one OR)
- (a)  patient care stations accommodate  
stretcher patients as well as seating  
space for patients & visitors
- (b) Location:
  - unrestricted area
  - under direct observation of nursing  
staff

- dedicated preoperative area
- or**
- part of Phase II recovery area

- (2) Space Requirements:
  - patient bays\*
    - check if not included in project
    - min. clear floor area 60 sf
    - 5'-0" between sides of patient  
beds/stretchers
    - 4'-0" between sides of patient  
beds/ stretchers & adjacent walls  
or partitions
    - min. clearance 3'-0" between foot  
of bed & cubicle curtain
    - 8'-0" wide clear aisle independent  
of foot clearance between patient  
stations or other fixed objects
  - patient cubicles\*
    - check if not included in project
    - min. clear floor area 80 sf
    - min. clearance 3'-0" between  
sides & foot of lounge  
chairs/stretchers & adjacent walls  
or partitions
  - single-bed rooms
    - check if not included in project
    - min. clear floor area 100 sf
    - min. clearance 3'-0" between  
sides & foot of lounge  
chairs/stretchers & adjacent walls  
or partitions

- Nurse Call System:
  - Patient station
  - Emergency staff assistance  
station

Table 2.1-2

- (4)  Provisions for patient privacy

- 2.1-2.6.5 Handwashing Stations:
- 2.1-7.2.2.8(1)  Handwashing stations in patient care areas  
located to be visible & unobstructed

**Architectural Requirements**

**Building Systems Requirements**

- 2.1-2.6.5.3  Handwashing stations that serve multiple patient care stations  
 check if not included in project:
  - (1)  at least one handwashing station for every 4 patient care stations or fewer & for each major fraction thereof
  - (2)  evenly distributed  
 provide uniform distance from two patient care stations farthest from handwashing station

- 2.2-3.3.4.3  Phase I post-anesthetic care unit (PACU)
  - (1)  unrestricted area  
 at least one door to recovery room provides access directly from surgical suite without crossing unrestricted corridors  
 check if not included in project (only in case of renovated surgical suite)
  - (b)  min. 1.5 post-anesthesia patient care stations per operating room
  - (c) Pediatric Recovery Stations:  
 check if not included in project (only if no pediatric surgery is performed)
    - separate from adult stations
    - include space for parents
    - visible from nurse station
 Space Requirements:
    - (2) (a)  min. clear floor area 80 sf for each bay or cubicle
    - (b)  min. clearance 5'-0" between patient stretchers or beds
    - min. clearance 4'-0" between patient stretchers or beds & adjacent walls or other fixed elements (sides & foot)
    - min. clearance 3'-0" from foot of stretcher or bed to closed cubicle curtain
    - (4)  provisions for patient privacy

- Ventilation:
  - Min. 6 air changes per hour Table 7.1
  - No recirculating room units
- Power:
  - 8 receptacles convenient to head of each bed Table 2.1-1
  - Selected receptacles on emergency power NFPA 99
- Nurse Call System:
  - Emergency staff assistance station Table 2.1-2
  - Code call station
- Medical Gases:
  - 2 OX, 3 VAC, 1 MA for each bed Table 2.1-4
- Ventilation:
  - Min. 6 air changes per hour Table 7.1
  - No recirculating room units
- Power:
  - 8 receptacles convenient to head of each bed Table 2.1-1
  - Selected receptacles on emergency power NFPA 99
- Nurse Call System:
  - Emergency staff assistance station Table 2.1-2
  - Code call station
- Medical Gases:
  - 2 OX, 3 VAC, 1 MA for each bed Table 2.1-4

- 2.1-2.6.5 Handwashing Stations:
- 2.1-7.2.2.8(1)  Handwashing stations in patient care areas located to be visible & unobstructed
- 2.1-2.6.5.3  Handwashing stations that serve multiple patient care stations  
 check if not included in project:
  - (1)  at least one handwashing station for every 4 patient care stations or fewer & for each major fraction thereof
  - (2)  evenly distributed

**Architectural Requirements**

**Building Systems Requirements**

\_\_\_ provide uniform distance from two patient care stations farthest from handwashing station

2.2-3.3.4.4 \_\_\_ Phase II recovery area  
 check if not included in project  
 (only if no outpatient surgeries are performed)

(1)  
 (a) \_\_\_ separate Phase II or step-down recovery room  
**or**  
 \_\_\_ identifiable as separate & distinct part of PACU

(b) \_\_\_ unrestricted area  
 \_\_\_ at least one door from Phase II recovery area has access to Phase I PACU without crossing public corridors  
 check if not included in project  
 (only in case of renovated surgical suite)

(2) **Space Requirements:**  
 \_\_\_ patient bays\*  
 check if not included in project  
 \_\_\_ min. clear floor area 60 sf for each patient in lounge chair or stretcher  
 \_\_\_ min. clearance 4'-0" between sides of lounge chairs or stretchers  
 \_\_\_ min. clearance 3'-0" between walls or partitions & sides & foot of lounge chairs or stretchers

**Ventilation:**  
 \_\_\_ Min. 6 air changes per hour Table 7.1  
 \_\_\_ No recirculating room units  
**Power:**  
 \_\_\_ 4 receptacles convenient to stretcher or bed Table 2.1-1  
**Nurse Call System:**  
 \_\_\_ Patient station Table 2.1-2  
 \_\_\_ Emergency staff assistance station

\_\_\_ patient cubicles\*  
 check if not included in project  
 \_\_\_ min. clear floor area 80 sf for each patient care station  
 \_\_\_ min. clearance 3'-0" between walls or partitions & sides & foot of lounge chairs or stretchers  
 \_\_\_ single-bed rooms  
 check if not included in project  
 \_\_\_ min. clear floor area 100 sf  
 \_\_\_ min. clearance 3'-0" between walls or partitions & sides & foot of lounge chairs or stretchers

**Medical Gases:**  
 \_\_\_ Location of Phase II bays is not directly adjacent to PACU bays Table 2.1-4  
 \_\_\_ 1 OX, 1 VAC for each patient  
**or**  
 \_\_\_ Location of Phase II bays directly adjacent to PACU bays  
 \_\_\_ 1 OX, 3 VAC for each patient

(4) \_\_\_ provisions for patient privacy

2.1-2.6.5 **Handwashing Stations:**  
 2.1-7.2.2.8(1) \_\_\_ Handwashing stations in patient care areas located to be visible & unobstructed

**Architectural Requirements**

**Building Systems Requirements**

- 2.1-2.6.5.3  Handwashing stations that serve multiple patient care stations  
 check if not included in project:
  - (1)  at least one handwashing station for every 4 patient care stations or fewer & for each major fraction thereof
  - (2)  evenly distributed  
 provide uniform distance from two patient care stations farthest from handwashing station
  - (7)  patient toilet rooms
    - (a)  direct access to Phase II recovery area for exclusive use of patients
    - (b)  ratio of 1 patient toilet for each 8 patient care stations or fewer & for each major fraction thereof

- Ventilation:
  - Min. 10 air changes per hour Table 7.1
  - Exhaust

2.2-3.3.4.6 **SUPPORT AREAS FOR PRE- & POST-OPERATIVE PATIENT CARE AREAS**

- (1)  Nurse station
- (2)  Documentation area  
 Built-In Feature in Patient Care Space:  
 check if not included in project
- (3)  location of documentation surface allows direct observation of patient
- (4)  Clinical sink in postoperative patient care areas  
 provisions for cleaning bedpans

- 2.1-2.6.6  Medication safety zones
- 2.1-2.6.6.1  medication preparation room
- (2)  **or**  
 self-contained medication dispensing unit
  - (a)  located out of circulation paths to minimize distraction & interruption
  - (c)  work counters
  - (d)  task lighting
  - (e)  meet acoustic design criteria per 1.2-5.1

- 2.1-2.6.6.2 (1)  medication preparation room  
 check if not included in project
  - (a)  under visual control of nursing staff
  - (b)  work counter  
 handwashing station  
 lockable refrigerator  
 locked storage for controlled drugs
  - (c)  Sharps Containers:  
 check if not included in project  
 sharps containers placed at height that allows users to see top of container

- Ventilation:
  - Min. 4 air changes per hour Table 7.1
- Nurse Call System:
  - Duty station Table 2.1-2

**Architectural Requirements**

- (d)  space to prepare medicines in addition to any self-contained medicine-dispensing unit
- (2)  self-contained medication dispensing units  
 check if not included in project
- (a)  located at nurse station, in clean workroom or in an alcove  
 lockable unit to secure controlled drugs
- (b)  handwashing station located next to stationary medication-dispensing units

2.2-3.3.4.6(7)  Nourishment area or room

2.1-2.6.7.2

- (1)  handwashing station
- (2)  work counter
- (3)  refrigerator
- (4)  microwave
- (5)  storage cabinets
- (6)  space for temporary storage of unused & soiled food service implements

2.1-2.6.8  Ice-making equipment

2.1-2.6.8.1  located in an enclosed space

2.1-2.6.8.2

- (1)  self-dispensing ice-making equipment in public area
- (2)  check if not located in public area

2.2-3.3.4.6

(8)(b)  ice-making equipment is not located in semi-restricted area

(11)  Storage for equipment & supplies in Phase I PACU

Storage for stretchers in Phase I PACU

2.2-3.3.4.7 **SUPPORT AREAS FOR PACU STAFF**

- Staff toilet room
- located in postoperative patient care area to maintain staff availability to patients

Ventilation:  
 Min. 10 air changes per hour Table 7.1  
 Exhaust

2.2-3.3.4.8 **SUPPORT AREAS FOR PATIENTS, FAMILIES & VISITORS**

- (1)  Waiting area
- (2)  Patient changing area  
 check if not included in project (only if all private holding rooms or cubicles\*)  
 provisions for storing patients belongings during procedures  
 space for changing or gowning  
 patient toilet

Ventilation:  
 Min. 10 air changes per hour Table 7.1  
 Exhaust

**Architectural Requirements**

**Building Systems Requirements**

- 2.2-3.3.6 **SUPPORT AREAS FOR SURGICAL SUITE**
- 2.2-3.3.6.1  Control station
- (1)  located at point of primary ingress & permitted to be in unrestricted or in semi-restricted area
- (2)  permits direct visual observation of traffic into suite
- 2.2-3.3.6.3  Supervisor office or station
- 2.2-3.3.6.5  Hand scrub facilities
- in semi-restricted area
- 2.1-3.3.2  one hand scrub station consisting of two scrub positions permitted to serve 2 operating rooms if located next to the entrance of each operating room
- 2.1-3.3.3  placement of scrub station does not restrict minimum required corridor width
- 2.1-2.6.6  Medication safety zones
- 2.1-2.6.6.1  medication preparation room
- (2) **or**
- self-contained medication dispensing unit
- (a)  located out of circulation paths to minimize distraction & interruption
- (c)  work counters
- (d)  task lighting
- (e)  meet acoustic design criteria per 1.2-5.1
- 2.1-2.6.6.2  medication preparation room
- (1)  check if not included in project
- (a)  under visual control of nursing staff
- (b)  work counter
- handwashing station
- lockable refrigerator
- locked storage for controlled drugs
- (c) **Sharps Containers:**
- check if not included in project
- sharps containers placed at height that allows users to see top of container
- (d)  space to prepare medicines in addition to any self-contained medicine-dispensing unit
- (2)  self-contained medication dispensing units
- check if not included in project
- (a)  located at nurse station, in clean workroom, or in an alcove
- lockable unit to secure controlled drugs
- (b)  handwashing station located next to stationary medication-dispensing units

- Ventilation:
- Min. 4 air changes per hour Table 7.1
- Nurse Call System:
- Duty station Table 2.1-2

**Architectural Requirements**

**Building Systems Requirements**

2.2-3.3.6.9  Clean workroom  
 check if not included in project  
 (only if clean materials are not assembled in surgical suite prior to use)

Ventilation:  
 Min. 4 air changes per hour Table 7.1  
 Positive pressure  
 Nurse Call System:  
 Duty station

- (1) Location:
- (a)  separate from soiled holding rooms
- (b)  entered from semi-restricted or restricted area
- (2) Equipment:
- (a)  work counter
- (b)  handwashing station
- (c)  storage facilities for clean supplies
- (d)  space to package reusable items

- (4)  clean workroom used for sterile processing  
 complies with Section 2.2-3.3.6.13
- or**
- clean workroom not used for sterile processing

(3)  Storage for sterile supplies  
 separated from any clean workroom

Ventilation:  
 Min. 4 air changes per hour Table 7.1  
 Positive pressure

2.2-3.3.6.10  Soiled workroom or holding room

- (1)
- (a)  Separated from clean workrooms
- (b)  soiled workroom or holding room directly accessible\* to semi-restricted area of surgical suite (may be shared if separate access)
- (c)  soiled workroom or holding room does not have direct connection with operating rooms or other sterile activity rooms

- (2)
- (a)  soiled workroom equipped with:  
 flushing-rim clinical sink or equivalent flushing-rim fixture
- (b)  handwashing station
- (c)  work counter
- (d)  space for waste receptacles & soiled linen receptacles
- (e)  storage for supplies

Ventilation:  
 Min. 10 air changes per hour Table 7.1  
 Exhaust  
 Negative pressure  
 Nurse Call System:  
 Duty station

- (3)
- (b)  soiled holding room equipped with:  
 handwashing station
- (d)  space for waste receptacles & soiled linen receptacles
- (e)  storage for supplies  
 provisions made elsewhere in the suite for disposal of liquid waste

Ventilation:  
 Min. 10 air changes per hour Table 7.1  
 Exhaust  
 Negative pressure

**Architectural Requirements**

**Building Systems Requirements**

- 2.2-3.3.6.11  Equipment & supply storage room for surgical suite
  - (1)  sufficient storage area to keep its required corridor width free of equipment & supplies
    - min. 300 sf
    - min. 50 sf per operating room
  - (2)  located in semi-restricted area
  - (3)  medical gas storage located outside or inside facility per NFPA 99

- 2.1-2.6.12  Environmental services room
- 2.1-2.6.12.2  service sink or floor-mounted mop sink
  - (1)  provisions for storage of supplies & housekeeping equipment
  - (2)  handwashing station or hand sanitation station
  - (3)  for exclusive use of surgical suite (i.e. only semi-restricted area & restricted area)
    - directly accessible\* from surgical suite

- 2.2-3.3.6.13  Sterile processing room
  - check if not included in project (only if sterilization processes are not conducted in surgical suite)
  - (1)  consists of decontamination area & clean work area
    - (a)  one-way traffic pattern of contaminated materials/instruments to clean materials/instruments to sterilizer equipment
    - entrance to contaminated side of sterile processing room from semi-restricted area
    - exit from clean side of sterile processing room to semi-restricted area or to OR

- (2)  decontamination area
  - (a)  countertop
    - handwashing station
      - separate from instrument-washing sink
    - decontamination sink for washing instruments
    - storage for supplies
  - (b)  decontamination sink separated from clean work area by 4'-0" foot distance from edge of sink
    - or**
    - decontamination sink separated from clean work area by wall or screen that extends min. 4'-0" above sink

- Ventilation:
  - 10 air changes per hour Table 7.1
  - Exhaust

- Ventilation:
  - Min. 6 air changes per hour Table 7.1
  - Negative pressure
  - Exhaust
  - No recirculating room units

**Architectural Requirements**

- (3)  Clean work area
  - (a)  countertop
  - (b)  space for sterilizing equipment
    - check if not included in project
  - (c)  handwashing station
  - (d)  built-in storage for supplies
  
- 2.2-3.3.6.14  Storage for blood, organs & pathological specimens
  
- 2.1-4.1.2.3  refrigerator equipped with temperature-monitoring & alarm signals
  
- 2.2-3.3.6.15  Area for preparation & examination of frozen sections
  - located in surgical suite
  - or**
  - located in general laboratory if immediate results are obtainable without delaying completion of surgery

**Building Systems Requirements**

- Ventilation:
- Min. 4 air changes per hour Table 7-1
  - Positive pressure
  - No recirculating room units

2.2-3.3.7 **SUPPORT AREAS FOR SURGICAL SUITE STAFF**

- 2.2-3.3.7.1  Staff lounge
- 2.2-3.3.7.2  Staff changing areas & toilet facilities
  - (1)  locker area with one or more private changing rooms
  - (2)  lockers
  - (a)  showers
  - (b)  toilets
  - (c)  handwashing stations
  - (d)  space for donning surgical attire
  - (e)  provision for separate storage of clean & soiled surgical attire
  - (f)

**Architectural Details & MEP Requirements**

**2.1-7.2.2 ARCHITECTURAL DETAILS**

- 2.1-7.2.2.1 NFPA 101  Aisles, corridors & ramps required for exit access in a hospital not less than 8'-0" in clear & unobstructed width
  - or**
  - Code Review Sheet establishing compliance with NFPA 101 has been submitted
  - Aisles, corridors & ramps in adjunct areas not intended for the housing, treatment, or use of inpatients not less than 44" in clear width

**2.1-7.2.2.2 CEILING HEIGHT:**

- (1)  Min. ceiling height 7'-6" in corridors & normally unoccupied spaces
- (2)  Min. height 7'-0" in radiography, procedure & operating rooms from floor to lowest protruding element of equipment or fixture in stowed position
- (4)  Min. height 7'-6" above floor of suspended tracks, rails & pipes located in traffic path for patients in beds and/or on stretchers
- Min. ceiling height 7'-10" in other areas

- 2.1-7.2.2.3 DOORS & DOOR HARDWARE:
- (1)  
 (a) \_\_\_ Doors between corridors, rooms, or spaces subject to occupancy swing type or sliding doors
- (b) \_\_\_ Sliding doors  
 check if not included in project  
 \_\_\_ manual or automatic sliding doors comply with NFPA 101  
 \_\_\_ code review sheet attached  
 \_\_\_ no floor tracks
- (2)  
 (a) \_\_\_ Min. 45.5" clear door width for diagnostic/treatment areas  
 \_\_\_ Min. 83.5" clear door height for diagnostic/treatment areas
- (b) \_\_\_ Swinging doors for personnel use in addition to sliding doors  
 check if not included in project
- (3) \_\_\_ min. clear width 34.5"  
 \_\_\_ Doors do not swing into corridors (except doors to non-occupiable spaces & doors with emergency breakaway hardware)
- (4)  
 (b) \_\_\_ Lever hardware
- (5)  
 (a) \_\_\_ Doors for patient toilet facilities  
 \_\_\_ 2 doors separated by horizontal distance equal to one-half length of max. diagonal room dimension  
**or**  
 \_\_\_ door that swings outward  
**or**  
 \_\_\_ door equipped with emergency rescue hardware  
**or**  
 (b) \_\_\_ sliding door  
 \_\_\_ toilet room door opening in public area or corridor maintains visual privacy
- 2.1-7.2.2.7 GLAZING MATERIALS:  
 (4) \_\_\_ Glazing within 18" of floor  
 check if not included in project  
 \_\_\_ safety glass, wire glass or plastic break-resistant material
- 2.1-7.2.2.8 HANDWASHING STATIONS:  
 (1) \_\_\_ Handw. stations in patient care areas located to be visible & unobstructed
- (3) \_\_\_ Anchoring suitable for vertical or horizontal force of 250 lbs.

- (4) Handwashing Station Countertops:  
 check if not included in project
- (a) \_\_\_ porcelain, stainless steel or solid surface materials
- (b) \_\_\_ plastic laminate countertops  
 check if not included in project  
 \_\_\_ substrate marine-grade plywood (or equivalent) with impervious seal
- (5) \_\_\_ Designed to prevent storage beneath sink
- (6) \_\_\_ provisions for drying hands
- (a) \_\_\_ hand-drying device does not require hands to contact dispenser
- (d) \_\_\_ directly accessible\* to sinks
- (7) \_\_\_ Liquid or foam soap dispensers
- 2.1-7.2.2.9 GRAB BARS:  
 (2) \_\_\_ Grab bars anchored to sustain concentrated load of 250 lbs.
- 2.1-7.2.2.11 RADIATION PROTECTION:  
 check if no radiation emitting equipment is included in project  
 \_\_\_ Protection for X-ray & Gamma-ray installations are shown in the plans  
 \_\_\_ Documentation for radiation protection has been submitted separately to the DPH Radiation Control Program
- 2.1-7.2.2.12 NOISE CONTROL:  
 (1) \_\_\_ Recreation rooms, exercise rooms, equipment rooms & similar spaces with potential impact noises are not located directly over operating suites
- (2) \_\_\_ Partitions, floors & ceiling construction in patient areas conform to Table 1.2-6
- 2.1-7.2.3 SURFACES**
- 2.1-7.2.3.1 FLOORING & WALL BASES:  
 (1) \_\_\_ Selected flooring surfaces cleanable & wear-resistant for location
- (2) \_\_\_ Smooth transitions between different flooring materials
- (3) \_\_\_ Flooring surfaces, including those on stairways, stable, firm & slip-resistant
- (b) \_\_\_ Carpet  
 check if not included in project  
 \_\_\_ provides stable & firm surface
- (4) \_\_\_ Floors & wall bases of soiled workrooms, toilet rooms & other wet cleaned areas are not physically affected by cleaning solutions

## 2.1-7.2.3.2 WALLS &amp; WALL PROTECTION:

- (1)  
 (a) \_\_\_ Washable wall finishes  
 (b) \_\_\_ Wall finishes near plumbing fixtures smooth, scrubbable & water-resistant
- (2) \_\_\_ Monolithic wall surfaces in areas routinely subjected to wet spray or splatter
- (5) \_\_\_ No sharp, protruding corners  
 (6) \_\_\_ Wall protection devices & corner guards durable & scrubbable

## 2.1-7.2.3.3 CEILINGS:

- (1) Ceilings in areas occupied by patients, in clean rooms & soiled rooms:  
 \_\_\_ cleanable with routine housekeeping equipment  
 \_\_\_ acoustic & lay-in ceilings  
 (b) \_\_\_  check if not included in project  
 \_\_\_ do not create ledges or crevices
- (3) \_\_\_ Ceiling finishes in semi-restricted areas smooth, scrubbable, non-absorptive, non-perforated  
 (a) \_\_\_ lay-in ceiling  
 \_\_\_  check if not included in project  
 \_\_\_ ceiling tiles gasketed  
**or**  
 \_\_\_ each ceiling tile weighs at least one pound per square foot
- (b) \_\_\_ no perforated, tegular, serrated, cut, or highly textured tiles
- (4) Ceiling in restricted areas:  
 (a) \_\_\_ monolithic construction  
 \_\_\_ no cracks or perforations  
 (b) \_\_\_ ceiling finishes scrubbable  
 (c) \_\_\_ gasketed access openings

## 2.1-8.2 HEATING, VENTILATION, &amp; AIR-CONDITIONING (HVAC) SYSTEMS

## 4/6.1 Utilities:

- 4/6.1.1 \_\_\_ Space ventilation & pressure relationship requirements of Table 7.1 be maintained in event of loss of normal electrical power in operating rooms

## 4/6.3.1 Outdoor Air Intakes:

- 4/6.3.1.1 \_\_\_ Located min. 25 feet from cooling towers & all exhaust & vent discharges  
 \_\_\_ Bottom of air intake is at least 6'-0" above grade

## 4/6.3.1.2 Roof Mounted Air Intakes:

- check if not included in project  
 \_\_\_ bottom min. 3'-0" above roof level

## 4/6.4 Filtration:

- \_\_\_ Filter banks conform to Table 6.4  
 4/6.4.1 \_\_\_ Filter Bank #1 placed upstream of heating & cooling coils  
 4/6.4.2 \_\_\_ Filter Bank No. 2 installed downstream of cooling coils & supply fan

## 4/6.7 Air Distribution Systems

- 4/6.7.1 \_\_\_ Ducted return or exhaust systems in spaces listed in Table 7.1 with required pressure relationships  
 \_\_\_ Ducted return or exhaust systems in recovery rooms  
 \_\_\_ Ducted return or exhaust systems in inpatient care areas

## 4/6.7.3 Smoke &amp; Fire barriers:

- \_\_\_ HVAC zones coordinated with compartmentation to minimize ductwork penetrations of fire & smoke barriers

## 4/6.9 Duct Lining:

- \_\_\_ No duct lining in ductwork located downstream of Filter Bank #2

## 4/7. Space Ventilation:

- 4/7.1 \_\_\_ Spaces ventilated per Table 7.1  
 \_\_\_ Air movement from clean areas to less clean areas  
 \_\_\_ Min. number of total air changes indicated either supplied for positive pressure rooms or exhausted for negative pressure rooms  
 \_\_\_ Recirculating room HVAC units  
 \_\_\_  check if not included in project  
 \_\_\_ each unit serves only single space  
 \_\_\_ min. MERV 6 filter for airflow downstream of cooling coils

## 2.1-8.2.1.1 Acoustic Considerations:

- (5) \_\_\_ Equipment location or acoustic provisions limit noise associated with outdoor mechanical equipment to 65 dBA at building façade

## 2.1-8.2.1.2 Ventilation &amp; Space-Conditioning:

- (1) \_\_\_ All rooms & areas used for patient care have provisions for ventilation  
 (2) \_\_\_ Mechanical ventilation provided for all rooms & areas in facility in accordance with Table 7.1 of Part 4

2.1-8.2.2 HVAC Requirements for Specific Locations:

- 2.1-8.2.2.2  ETO sterilizer  
 check if not included in project
- (1)  dedicated exhaust system  
 exhaust outlet to outside min. 25'-0" from any air intake
  - (2)  all source areas exhausted
  - (a)  ETO cylinders located in well-ventilated, unoccupied equipment space  
**or**  
 exhaust hood over cylinders
  - (b)  relief valve terminated in well-ventilated, unoccupied equip space or outside building
  - (c)  floor drain for sterilizer discharge located in well-ventilated, unoccupied equip space, or equipped with exhaust drain cap
  - (3)  general airflow away from sterilizer operators
  - (4)  audible & visual alarm upon loss of airflow in exhaust system

2.1-8.2.3.1 Exhaust Systems:

- (1)  Room routinely used for administering inhalation anesthesia & inhalation analgesia  
 check if not included in project
- (b)  anesthesia scavenging system with air supply at or near ceiling & exhaust air inlets near floor level  
**or**
- (c)  gas-collecting system arranged so as not to disturb patients respiratory systems  
 gases from scavenging system exhausted directly to outside

2.1-8.2.3.2 Ventilation Hoods:

- Anatomic Pathology Facilities:  
 check if not included in project
- (d)  local exhaust ventilation for gross examination of surgical specimens  
 surgical specimen storage located in ventilated cabinets to contain vapors
  - (e)  specialty local exhaust ventilations systems equipped with visual & audible alarms for insufficient airflow

2.1-8.3 **ELECTRICAL SYSTEMS**

2.1-8.3.2 **ELECTRICAL DISTRIBUTION & TRANSMISSION**

2.1-8.3.2.1 Switchboards Locations:

- (1)  Located in areas separate from piping & plumbing equipment
- (b)  Not located in rooms they support  
 Accessible to authorized persons only
- (c)  Located in dry, ventilated space free of corrosive gases or flammable material

2.1-8.3.2.2 Panelboards:

- (1)  Panelboards serving life safety branch emergency circuits only serve same floor, floor above & floor below
- (2)  Panelboards serving critical branch emergency circuits only serve same floor
- (3)  New panelboards not located in exit enclosures

2.1-8.3.2.3 Ground-Fault Circuit Interrupters in Critical Care Areas:

- check if not included in project
- (2)  Provisions made to ensure that essential equip is not affected by activation of one interrupter

2.1-8.3.3.1 **EMERGENCY ELECTRICAL SERVICE**

- (1)  Emergency power per NFPA 99, NFPA 101 & NFPA 110

2.1-8.3.4 **LIGHTING**

- Operating Rooms:
- general lighting in addition to special lighting units provided at surgical & obstetrical tables
  - general lighting & special lighting on separate circuits

2.1-8.3.5 **ELECTRICAL EQUIPMENT**

- 2.1-8.3.5.2  Required handwashing station or scrub sink tied to building electrical service  
 check if not included in project  
 connected to essential electrical system

2.1-8.3.6 **ELECTRICAL RECEPTACLES**

- 2.1-8.3.6.2 Receptacles in Patient Care Areas:  
 receptacles provided according to Table 2.1-1

2.1-8.3.7 **CALL SYSTEMS**

- Nurse call equipment legend includes patient stations, bath stations, staff emergency stations & code call stations

- 2.1-8.3.7.1
- (1)  Nurse call system locations provided as required in Table 2.1-2
  - (2)  Nurse call systems report to attended location with electronically supervised visual & audible signals
  - (4)  Call systems meet requirements of UL 1069 *Standard for Hospital Signaling & Nurse Call Equipment*
  - (5)  Wireless system
    - check if not included in project
    - meet requirements of UL 1069

- 2.1-8.3.7.3 Bath Stations:
- (1)  provided at each patient toilet
  - alarm turned off only at bath station where it was initiated
  - (3)  located to side of toilets within 12" of front of toilet bowl & 3'-0" to 4'-0" above floor

- 2.1-8.3.7.4  Staff emergency stations for summoning local staff assistance for non-life-threatening situations at each patient care location

- 2.1-8.3.7.5  Code call station equipped with continuous audible or visual signal at point of origin

2.1-8.4.2 **PLUMBING & OTHER PIPING SYSTEMS**

- 2.1-8.4.2.5 Heated Potable Water Distribution Systems:
- (2)  systems serving patient care areas are under constant recirculation
  - non-recirculated fixture branch piping does not exceed 25'-0" in length
  - (3)  no dead-end piping
  - (4)  water-heating system has supply capacity at minimum temperatures & amounts indicated in Table 2.1-3
  - (5)  handwashing stations supplied as required above
- or**
- handwashing stations supplied at constant temperature between 70°F & 80°F using single-pipe supply

- 2.1-8.4.2.6 Drainage Systems:
- (1)  drainage piping above ceiling of, or exposed in operating rooms or electric closets
  - check if not included in project
  - special provisions to protect space below from leakage & condensation

- (2) Floor Drains:
- (a)  no floor drains in operating rooms
- (b)  floor drain in procedure room used for cystoscopy
  - check if not included in project
  - contains non-splash, horizontal-flow flushing bowl beneath drain plate

2.1-8.4.3 **PLUMBING FIXTURES**

- 2.1-8.4.3.1 (1)  Materials material used for plumbing fixtures non-absorptive & acid resistant

- 2.1-8.4.3.2 Handwashing Station Sinks:
- (1)  basins reduce risk of splashing to areas where direct patient care is provided, sterile procedures are performed & medications are prepared
  - (2)  basin min. 144 square inches
  - min. dimension 9 inches
  - (3)  made of porcelain, stainless steel, or solid-surface materials
  - (5)  water discharge point of faucets at least 10 inches above bottom of basin
  - (7)  anchoring for sinks withstands min. vertical or horizontal force of 250 lbs.
  - (8)  fittings operated without using hands for sinks used by medical & nursing staff, patients & public
- (a)  blade handles or single lever
- min. 4 inches long
  - provide clearance required for operation
- or**
- (b)  sensor-regulated water fixtures
  - meet user need for temperature & length of time water flows
  - designed to function at all times & during loss of normal power

- 2.1-8.4.3.4 Ice-Making Equipment:
- copper tubing provided for supply connections

- 2.1-8.4.3.5 Clinical Sinks:  
 check if not included in project  
(1)  trimmed with valves that can be operated without hands  
(2)  handles min. 6 inches long  
 integral trap wherein upper portion of water trap provides visible seal
- 2.1-8.4.3.6 Scrub Sinks:  
(1)  freestanding scrub sinks trimmed with foot, knee, or electronic sensor controls

2.1-8.4.4 **MEDICAL GAS & VACUUM SYSTEMS**

- Station outlets provided as indicated in Table 2.1-4
- 2.1-8.4.4.2  
(2)  Vacuum discharge at least 25'-0" from all outside air intakes, doors & operable windows

- 2.1-8.6.2 **ELECTRONIC SURVEILLANCE SYSTEMS**  
 check if not included in project
- 2.1-8.6.2.1  Devices in patient areas mounted in unobtrusive & tamper-resistant enclosures
- 2.1-8.6.2.2  Monitoring devices not readily observable by general public or patients
- 2.1-8.6.2.3  Receive power from emergency electrical system