

COMPLIANCE CHECKLIST**IP5 Critical Care Unit**

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 2018 Edition of the FGI Guidelines for Design and Construction of Hospitals. 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 (2012) and applicable related standards contained in the appendices of the Code
- State Building Code (780 CMR)
- Accreditation requirements of The Joint Commission
- CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities
- USP 797 & Regulations of the Massachusetts Board of Registration in Pharmacy
- Occupational Safety & Health Standards (OSHA)
- 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 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 marks, unless otherwise directed in the checklist. If a functional space is not affected by a renovation project, the mark "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. "E" must not be used for an existing required support space associated with a new patient care room or area.

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). An explicit floor plan or plan detail must be attached to 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, waste anesthesia gas disposal and instrument air outlets (if required) are identified respectively by the abbreviations "OX", "VAC", "MA", "WAGD" & "IA".
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 and reproduced in this checklist.

Facility Name:

DoN Project Number: (if applicable)

Facility Address:

Patient Care Unit Bed Complements:

Current = Proposed =

Satellite Name: (if applicable)

Building/Floor Location:

Satellite Address: (if applicable)

Submission Dates:

Initial Date:

Revision Date:

Project Description:

Architectural Requirements**Building Systems Requirements****2.2-2.6****CRITICAL CARE UNIT****2.1-1.2.3****Shared Services:**

- ___ No combined functions unless specifically allowed in this checklist

2.2-2.6.1.2**Location:**

- (1) ___ critical care unit located in same building as services and/or departments required to provide care to critical care patients (e.g. emergency, respiratory therapy, laboratory, radiology, surgery)
- (2) ___ unit be located so that medical emergency resuscitation teams can respond promptly to emergency calls with minimum travel time
- (3) ___ location does not permit unrelated traffic of staff, public or other patients through unit (except for emergency egress)

2.2-2.6.2**CRITICAL CARE PATIENT CARE AREAS****2.2-2.6.2.2****Space Requirements:**

- (1) ___ each patient care station is single-patient room
- (2) ___ each patient room has min. clear floor area 200 sf
___ min. headwall width 13'-0"
- (3)(a) ___ min. clearance 1'-0" from head of bed to wall
- (3)(b) ___ min. clearance 5'-0" from foot of bed to wall
- (3)(c) ___ min. clearance 5'-0" on transfer side
- (3)(d) ___ min. clearance 4'-0" on non-transfer side
- (5) ___ patient room sized to allow for minimum of two seated visitors without interfering with providers' access to patient & equipment

Ventilation:

- ___ Min. 6 air changes per hour Table 7.1

Lighting:

- ___ General lighting 2.1-8.3.4.3(1)
- ___ Lighting for bed permits staff observation of patient (c)
- ___ minimizes glare

Power:

- ___ Min. 16 receptacles in total Table 2.1-1
- ___ convenient to head of bed with one on each wall

Nurse Call System:

- ___ Patient station Table 2.1-2
- ___ Staff assistance station
- ___ Emergency call station

Medical Gases:

- ___ 1 OX, 3 VAC, 1 MA per bed Table 2.1-3

2.2-2.6.2.3**Windows In Patient Rooms:****2.1-7.2.2.5(1)**

- ___ each patient room provided with natural light by means of window to outside

2.1-7.2.2.5(3)

- (a) ___ minimum net glazed area be no less than 8% of required min. clear floor area of room served
- (b) ___ maximum 36 inches windowsill height above finished floor

Architectural Requirements**Building Systems Requirements**

2.2-2.6.2.4

- (1) Patient Privacy:
 ___ view panels to corridor with means to allow visual privacy
- (2) ___ existing multiple patient care stations in renovation projects
 ☐ check if not included in project
 ___ each patient care station has provisions for visual privacy from casual observation by other patients & visitors

2.2-2.6.2.5

- (1) Handwashing Stations:
 ___ handwashing station provided in each patient room
- (2) ___ existing multiple patient care stations in renovation projects
 ☐ check if not included in project
- (a) ___ at least one handwashing station provided for every 3 patient care stations
- (b) ___ handwashing station located near patient care station

2.2-2.6.2.6

- (1) Toilet Room or Human Waste Disposal Room:
 ___ enclosed toilet room
- (a) ___ toilet with bedpan-rinsing device
 ___ direct access from patient room
- or**
- ___ enclosed human waste disposal room
- (b) ___ flushing-rim clinical sink with bedpan-rinsing device
 ___ direct access from patient room

Ventilation:

- ___ Min. 10 air changes per hour Table 7.1
- ___ Exhaust
- ___ Negative pressure
- ___ No recirculating room units

2.2-2.6.4

SPECIAL PATIENT CARE AREAS

2.2-2.6.4.2

- (1) ___ Airborne infection isolation (AII) room
 ___ at least one AII room provided in one critical care unit

2.1-2.4.2.2

- ___ complies with requirements applicable to patient rooms
- (1) ___ capacity one bed
- (2) ___ personal protective equipment (PPE) storage at entrance to room
- (3) ___ handwashing station
- (4) ___ patient toilet room
 ___ serves only one AII room

Ventilation:

- ___ Min. 10 air changes per hour Table 7.1
- ___ Exhaust
- ___ Negative pressure
- ___ No recirculating room units

Architectural Requirements**Building Systems Requirements**

2.1-2.4.2.3

- ___ Anteroom
☐ check if not included in project
- (1) ___ provides space for persons to don personal protective equipment (PPE) before entering patient room
- (2) ___ all doors to anteroom have self-closing devices
or
 ___ audible alarm activated when AII room is in use as isolation room
- (3)(a) ___ handwashing station
 (3)(b) ___ storage for unused PPE
 (3)(c) ___ disposal/holding container for used PPE

Ventilation:

- ___ Min. 10 air changes per hour Table 7.1
 ___ Exhaust
 ___ No recirculating room units

2.1-2.4.2.4

(1)(a)

- Architectural Details & Furnishings:
 ___ perimeter walls ceiling & floor including penetrations constructed to prevent air exfiltration

(1)(b)

- ___ self-closing devices on all room exit doors
or
 ___ activation of audible alarm when AII room is in use as isolation room

(2) (a)

- ___ edge seals provided along sides & top of doorframe for any door into AII room
 ___ window treatments do not include fabric drapes & curtains

2.1-7.2.3.1(7)(a)

- ___ floors are monolithic & integral coved
 ___ wall bases are at least 6" high & tightly sealed to wall

2.1-2.4.2.5

- ___ room pressure visual or audible alarm

2.2-2.2.4.4

- ___ Protective environment (PE) room
☐ check if not included in project

2.1-2.4.2.2

- ___ complies with requirements applicable to patient rooms
- (1) ___ capacity one bed
 (2) ___ personal protective equipment (PPE) storage at entrance to room
 (3) ___ handwashing station

Ventilation:

- ___ Min. 12 air changes per hour Table 7.1
 ___ Positive pressure
 ___ No recirculating room units
- ___ Supply air diffusers are located above patient bed Part 3/7.2.2
 ___ Exhaust grilles or registers located near patient room door

Architectural Requirements

- (4) ☐ Patient toilet room
☐ serves only one PE room
- 2.1-2.2.6.3
 (1) ☐ toilet
 (2) ☐ handwashing station
 (3) ☐ bedpan washer
- 2.1-2.4.2.3
☐ Anteroom
☐ check if not included in project
- (1) ☐ provides space for persons to don personal protective equipment (PPE) before entering patient room
- (2) ☐ all doors to anteroom have self-closing devices
- or**
- ☐ audible alarm activated when PE room is in use as isolation room
- (3)(a) ☐ handwashing station
 (3)(b) ☐ storage for unused PPE
 (3)(c) ☐ disposal/holding container for used PPE
- 2.1-2.4.2.4
 (1)(a) ☐ Architectural Details & Furnishings:
☐ perimeter walls ceiling & floor including penetrations constructed to prevent air exfiltration
- (1)(b) ☐ self-closing devices on all room exit doors
- or**
- ☐ activation of audible alarm when PE room is in use as isolation room
- ☐ edge seals provided along sides & top of doorframe for any door into PE room
- (2) (a) ☐ window treatments do not include fabric drapes & curtains
- 2.1-7.2.3.1(7)(a) ☐ floors are monolithic & integral coved wall bases are at least 6" high & tightly sealed to wall
- 2.1-2.4.2.5 ☐ room pressure visual or audible alarm
- 2.2-2.2.4.4(5)
 (a) ☐ Special Design Elements:
☐ monolithic ceiling
☐ surfaces are cleanable
- (b) ☐ lighting fixtures have lenses & are sealed
- 2.1-7.2.3.1
 (7)(a) ☐ floors are monolithic & integral coved wall bases are at least 6" high & tightly sealed to wall

Building Systems Requirements

- Ventilation:
☐ Min. 10 air changes per hour Table 7.1
☐ Exhaust
☐ Negative pressure
☐ No recirculating room units
- Ventilation:
☐ Min. 10 air changes per hour Table 7.1
☐ No recirculating room units

Architectural Requirements**Building Systems Requirements****2.2-2.6.8 SUPPORT AREAS FOR CRITICAL CARE UNIT**

- 2.2-2.6.8.2(1) ☐ Administrative center or nurse station
 2.1-2.8.2.1(1) ☐ space for counters
 2.1-2.8.2.1(2) ☐ handwashing station next to or directly accessible*

or

- ☐ hand sanitation dispenser next to or directly accessible*

- (2) ☐ direct or remote visual observation between nurse station or staffed charting stations & all patient care stations in critical care unit
☐ observation provides view of patient while patient is in bed

- 2.2-2.6.8.3 ☐ Documentation areas
 (1) ☐ provided for each patient in or adjacent* to patient care station
 (2) ☐ Information review area located to facilitate concentration

Nurse Call System:

- ☐ Duty station (light/sound signal) 2.1-8.5.1.2(3)(b)

- 2.2-2.6.8.4 ☐ Nurse or supervisor office
 (1) ☐ office space for critical care medical & nursing management/administrative personnel
☐ immediately accessible* to critical care unit
 (2) ☐ offices linked with unit by telephone or intercommunications system

- 2.2-2.6.8.5 ☐ Multipurpose room
☐ at least one multipurpose room for each facility for patient conferences, reports, education, training sessions & consultation (may serve several patient care units & departments)

- 2.2-2.6.8.8 ☐ Medication safety zones
 2.1-2.8.8.1(2) ☐ Design Promoting Safe Medication Use:
 (a) ☐ medication safety zones located out of circulation paths
 (b) ☐ work space designed so that staff can access information & perform required tasks
 (c) ☐ work counters provide space to perform required tasks
 (e) ☐ sharps containers placed at height that allows users to see top of container
 (f) ☐ max. 45 dBA noise level caused by building systems

Lighting:

- ☐ Task-specific lighting level min. 100 foot-candles 2.1-2.8.8.1(2)(d)

Architectural Requirements		Building Systems Requirements	
2.1-2.8.8.2(1)	<input type="checkbox"/> medication preparation room <input type="checkbox"/> under visual control of nursing staff <input type="checkbox"/> work counter <input type="checkbox"/> handwashing station <input type="checkbox"/> lockable refrigerator <input type="checkbox"/> locked storage for controlled drugs <input type="checkbox"/> sharps containers <input type="checkbox"/> check if <u>not</u> included in project	Ventilation: <input type="checkbox"/> Min. 4 air changes per hour	Table 7.1
(a)		Lighting: <input type="checkbox"/> Task lighting	2.1-2.8.8.1(2)(d)
(b)		Nurse Call System: <input type="checkbox"/> Duty station (light/sound signal)	Table 2.1-2
(c)	<input type="checkbox"/> self-contained medication-dispensing unit <input type="checkbox"/> check if <u>not</u> included in project <input type="checkbox"/> room designed with space to prepare medications		
	or		
2.1-2.8.8.2(2)	<input type="checkbox"/> automated medication-dispensing unit <input type="checkbox"/> located at nurse station, in clean workroom or in alcove	Lighting: <input type="checkbox"/> Task lighting	2.1-2.8.8.1(2)(d)
(a)		Nurse Call System: <input type="checkbox"/> Duty station (light/sound signal)	Table 2.1-2
(c)	<input type="checkbox"/> handwashing station located next to stationary medication-dispensing units or stations		
2.2-2.6.8.9	<input type="checkbox"/> Nourishment area or room <input type="checkbox"/> located within critical care unit		
(2)	or <input type="checkbox"/> shared with another critical care unit <input type="checkbox"/> accessible from critical care unit without travel through public corridor		
2.1-2.8.9.2		Ventilation: <input type="checkbox"/> Min. 2 air changes per hour	Table 7.1
(1)	<input type="checkbox"/> handwashing station		
(2)	<input type="checkbox"/> work counter		
(3)	<input type="checkbox"/> refrigerator		
(4)	<input type="checkbox"/> microwave		
(5)	<input type="checkbox"/> storage cabinets		
(6)	<input type="checkbox"/> space for temporary storage of food service implements	Nurse Call System: <input type="checkbox"/> Duty station (light/sound signal)	2.1-8.5.1.2(3)(b)
2.1-2.8.9.3	<input type="checkbox"/> provisions & space are included for separate temporary storage of unused & soiled meal trays		
2.2-2.6.8.10	<input type="checkbox"/> Ice-making equipment		
(1)	<input type="checkbox"/> provides ice for treatment & nourishment		

	Architectural Requirements	Building Systems Requirements
2.2-2.6.8.11 (2)	Clean workroom or clean supply room <input type="checkbox"/> located within critical care unit or <input type="checkbox"/> shared with another critical care unit <input type="checkbox"/> accessible from critical care unit without travel through public corridor	
2.1-2.8.11.2 (1) (2) (3)	<input type="checkbox"/> clean workroom <input type="checkbox"/> used for preparing patient care items <input type="checkbox"/> work counter <input type="checkbox"/> handwashing station <input type="checkbox"/> storage facilities for clean & sterile supplies or	Ventilation: <input type="checkbox"/> Min. 4 air changes per hour Table 7.1 <input type="checkbox"/> Positive pressure Nurse Call System: <input type="checkbox"/> Duty station (light/sound signal) Table 2.1-2
2.1-2.8.11.3	<input type="checkbox"/> clean supply room <input type="checkbox"/> used only for storage & holding as part of system for distribution of clean & sterile supplies	Ventilation: <input type="checkbox"/> Min. 4 air changes per hour Table 7.1 <input type="checkbox"/> Positive pressure
2.2-2.6.8.12 (2)	Soiled workroom or soiled holding room <input type="checkbox"/> located within critical care unit or <input type="checkbox"/> shared with another critical care unit <input type="checkbox"/> accessible from critical care unit without travel through public corridor	
2.1-2.8.12.2 (1)(a) (1)(b) (1)(c) (1)(d) (2) (a) (b)	<input type="checkbox"/> soiled workroom <input type="checkbox"/> handwashing station <input type="checkbox"/> flushing-rim clinical service sink with bedpan-rinsing device or equivalent flushing-rim fixture <input type="checkbox"/> work counter <input type="checkbox"/> space for separate covered containers for waste & soiled linen <input type="checkbox"/> fluid management system is used <input type="checkbox"/> check if <u>not</u> included in project <input type="checkbox"/> electrical & plumbing connections that meet manufacturer requirements <input type="checkbox"/> space for docking station or	Ventilation: <input type="checkbox"/> Min. 10 air changes per hour Table 7.1 <input type="checkbox"/> Exhaust <input type="checkbox"/> Negative pressure <input type="checkbox"/> No recirculating room units Nurse Call System: <input type="checkbox"/> Duty station (light/sound signal) Table 2.1-2
2.1-2.8.12.3 (1) (2)	<input type="checkbox"/> soiled holding room <input type="checkbox"/> handwashing station or hand sanitation station <input type="checkbox"/> space for separate covered containers for waste & soiled linen	Ventilation: <input type="checkbox"/> Min. 10 air changes per hour Table 7.1 <input type="checkbox"/> Exhaust <input type="checkbox"/> Negative pressure <input type="checkbox"/> No recirculating room units

Architectural Requirements**Building Systems Requirements**

- 2.2-2.6.8.13(1) ☐ Clean linen storage
 (b) ☐ located within critical care unit
or
☐ shared with another critical care unit
☐ accessible from critical care unit without travel through public corridor
- 2.1-2.8.13.1
 (1) ☐ stored in clean workroom
or
☐ separate closet
or
☐ covered cart distribution system on each floor
 (2) ☐ storage of clean linen carts in designated corridor alcoves, clean workroom or closets
- 2.2-2.6.8.13(2) ☐ Equipment storage room or alcoves
 (a) ☐ sized to provide min. 20 sf per patient care station
 (b) ☐ equipment storage room contains space & provisions for recharging equipment
- (3) ☐ Wheelchair & gurney storage
- (4) ☐ Emergency equipment storage
- 2.1-2.8.13.4
 (1) ☐ each patient care unit has at least one emergency equipment storage location
 (2) ☐ provided under visual observation of staff
 (3) ☐ storage locations in corridors do not encroach on minimum required corridor width
- 2.2-2.6.8.14 ☐ Environmental services room
- 2.1-2.8.14.1 ☐ readily accessible* to unit or floor it serves (permitted to serve more than one patient care unit on floor)
- 2.1-2.8.14.2
 (1) ☐ service sink or floor-mounted mop sink
 (2) ☐ provisions for storage of supplies & housekeeping equipment
 (3) ☐ handwashing station
or
☐ hand sanitation station

Ventilation:

- ☐ Min. 10 air changes per hour Table 7.1
☐ Exhaust
☐ Negative pressure
☐ No recirculating room units

Architectural Requirements**Building Systems Requirements**

- 2.2-2.6.8.15 ☐ Examination room
☐ check if not included in project
- 2.1-2.1.2 Patient Privacy:
☐ provisions are made to address patient visual & speech privacy

- 2.1-3.2.2.1 (1) Space Requirements:
☐ min. clear floor area 120 sf
☐ min. clear dimension 10'-0"
- (2)(a) ☐ room size permits room arrangement with min. clearance 3'-0" at each side & at foot of exam table
☐ room arrangement (layout #1) shown in the plans
- (2)(b) ☐ exam table, recliner or chair is placed at angle closer to one wall than another or against wall to accommodate type of patient being served
☐ check if not included in project
☐ room arrangement (layout #2) shown in the plans

- 2.1-3.2.2.2 (2) ☐ storage for supplies
- (3) ☐ accommodations for written or electronic documentation
- (4) ☐ space for visitor's chair
- (5) ☐ handwashing station

- 2.2-2.6.8.16 (1) ☐ Patient-monitoring equipment
☐ each unit contains equipment for physiological monitoring with visual displays for each patient at bedside & at nurse station or centralized monitoring area
- (2) ☐ monitors located to permit easy viewing
☐ monitors do not interfere with access to patient

- 2.2-2.6.8.17 ☐ Image-viewing capability unit (may serve more than one critical care unit)

2.2-2.6.9 SUPPORT AREAS FOR STAFF

- 2.2-2.6.9.1 ☐ Staff lounge
☐ min. 100 sf
- (1) ☐ located in or adjacent* to critical care unit (may serve adjacent* critical care units)
- (2) ☐ telephone or intercom & emergency call station connections to critical care unit it serves
- (3) ☐ equipment & space for seating
- (4) ☐ equipment & space for seating

- Ventilation:
☐ Min. 6 air changes per hour Table 7.1
- Lighting:
☐ Portable or fixed exam light 2.1-8.3.4.3(3)
- Power:
☐ Min. 8 receptacles in total Table 2.1-1
☐ Min. 4 receptacles convenient to head of gurney or bed
- Nurse Call System:
☐ Staff assistance station Table 2.1-2
☐ Emergency call station

Architectural Requirements**Building Systems Requirements**

2.2-2.6.9.2 ___ Staff toilet rooms (permitted to be unisex)

___ readily accessible* to staff lounge

2.1-2.9.2.1 ___ readily accessible* to each patient care unit

2.1-2.9.2.2 ___ toilet & handwashing station

2.2-2.6.9.3 ___ Staff storage facilities

2.1-2.9.3.1 ___ securable closets or cabinet compartments for personal articles of staff

___ located in or near nurse station

2.2-2.6.9.4 ___ On-call staff accommodation

(1) ___ accommodations for sleeping & rest

(a) ___ space for chair

(b) ___ space for bed

(2) ___ individually secured storage for personal items

(3) ___ communication system

(4) ___ at least one toilet, shower & handwashing station

Ventilation:

___ Min. 10 air changes per hour Table 7.1

___ Exhaust

___ Negative pressure

___ No recirculating room units

Ventilation:

___ Min. 10 air changes per hour Table 7.1

___ Exhaust

___ Negative pressure

___ No recirculating room units

2.2-2.6.10 **SUPPORT AREAS FOR FAMILIES & VISITORS**

2.1-2.10.1 ___ Family & visitor lounge

___ each patient care unit provides access to lounge for family & visitors

Communications:

___ Public communication services provided in each family & visitor lounge 2.1-2.10.1.6

2.1-2.10.1.1 Size:

(1) ___ accommodates at least 3 chairs & 1 wheelchair space

(2) ___ accommodates at least 1.5 persons for every adult critical care bed

2.1-2.10.1.2 ___ immediately accessible* to patient care units served (permitted to serve more than one patient care unit)

2.1-2.10.1.4 ___ designed to minimize impact of noise & activity on patient rooms & staff functions

***LOCATION TERMINOLOGY:**Directly accessible: Connected to the identified area or room through a doorway, pass-through, or other opening without going through an intervening room or public spaceAdjacent: Located next to but not necessarily connected to the identified area or roomImmediately accessible: Available either in or adjacent to the identified area or roomReadily accessible: Available on the same floor or in the same clinic as the identified area or room

Architectural Details & MEP Requirements**2.1-7.2.2 ARCHITECTURAL DETAILS**

- 2.1-7.2.2.1 NFPA 101, 18.2.3.4**
- CORRIDOR WIDTH:**
- ___ Aisles, corridors & ramps required for exit access in a hospital not less than 8'-0" in clear & unobstructed width
- or**
- ___ Detailed code review incorporated in Project Narrative
- ___ Aisles, corridors & ramps in adjunct areas not intended for the housing, treatment, or use of inpatients not less than 44" in clear & unobstructed width
- or**
- ___ Detailed code review incorporated in Project Narrative
- 2.1-7.2.2.2**
- CEILING HEIGHT:**
- (1) ___ Min ceiling height 7'-6" in corridors & in normally unoccupied spaces
- (3) ___ Min. height 7'-6" above floor of suspended tracks, rails & pipes located in traffic path for patients in beds & on stretchers
- ___ Min. ceiling height 7'-10" in other areas
- 2.1-7.2.2.3**
- DOORS & DOOR HARDWARE:**
- (1) **Door Type:**
- (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
- ___ detailed code review incorporated in Project Narrative
- ___ no floor tracks
- (2) **Door Opening:**
- (a) ___ min. 45.5" clear door width for patient rooms
- ___ min. 83.5" clear door height for patient rooms
- (b) ___ swinging doors for personnel use in addition to sliding doors
- ___ ☐ check if not included in project
- ___ min. clear width 34.5"
- (3) **Door Swing:**
- (a) ___ doors do not swing into corridors except doors to non-occupiable spaces (e.g. environmental services rooms & electrical closets) & doors with emergency breakaway hardware

- (4) ___ Lever hardware or push/pull latch hardware
- (5) **Doors for Patient Bathing/Toilet Facilities:**
- (a) ___ two separate doors
- or**
- ___ door that swings outward
- or**
- ___ door equipped with emergency rescue hardware (permits quick access from outside the room to prevent blockage of the door)
- or**
- ___ sliding door other than pocket door
- (b) ___ bathing area or toilet room opens onto public area or corridor
- ☐ check if not included in project
- ___ visual privacy is maintained
- 2.1-7.2.2.5**
- WINDOWS IN PATIENT ROOMS:**
- 2.1-7.2.2.5(1)** ___ Each patient room provided with natural light by means of window to outside
- 2.1-7.2.2.5(2)** ___ Operable windows in patient rooms or suites
- ☐ check if not included in project
- ___ window operation is limited with either stop limit/restrictor hardware or open guard/screen
- ___ prevents passage of 4-inch diameter sphere through opening
- 2.1-7.2.2.6** ___ insect screens
- 2.1-7.2.2.5(3)**
- Window Size In Patient Rooms:**
- (a) ___ minimum net glazed area be no less than 8% of required min. clear floor area of room served
- (b) ___ maximum 36 inches windowsill height above finished floor
- 2.1-7.2.2.7**
- GLAZING MATERIALS:**
- ___ Glazing within 1 foot 6 inches of floor
- ☐ check if not included in project
- ___ must be safety glass, wire glass or plastic break-resistant material

- 2.1-7.2.2.8 **HANDWASHING STATIONS:**
- (1)(c) ☐ Handwashing stations in patient care areas located so they are visible & unobstructed
- (3)
(a) ☐ Handwashing station countertops made of porcelain, stainless steel, solid-surface materials or impervious plastic laminate assembly
- (b) ☐ Countertops substrate
☐ check if not included in project
☐ marine-grade plywood (or equivalent material) with impervious seal
- (4) ☐ Handwashing station casework
☐ check if not included in project
☐ designed to prevent storage beneath sink
- (5) ☐ Provisions for drying hands
- (a) ☐ hand-drying device does not require hands to contact dispenser
- (b) ☐ hand-drying device is enclosed to protect against dust or soil & to ensure single-unit dispensing
- (6) ☐ Liquid or foam soap dispensers
- 2.1-7.2.2.9 **GRAB BARS:**
- (1) ☐ Grab bars anchored to sustain concentrated load 250 pounds
- (2) ☐ Grab bars in toilet rooms used by patients of size anchored to sustain concentrated load 800 pounds
- (3) ☐ Ends of grab bars constructed to prevent snagging clothes of patients, staff & visitors
- 2.1-7.2.2.10 **HANDRAILS:**
- (1) ☐ Handrails installed on both sides of patient use corridors
- (3) ☐ Rail ends return to wall or floor
- (4) ☐ Handrail gripping surfaces & fasteners are smooth (free of sharp or abrasive elements) with 1/8-inch min. radius
- (5) ☐ Handrails have eased edges & corners
- (6) ☐ Handrail finishes are cleanable

- 2.1-7.2.2.12 **NOISE CONTROL:**
- (1) ☐ Recreation rooms, exercise rooms equipment rooms & similar spaces where impact noises may be generated are not located directly over patient bed areas
- or**
- ☐ Special provisions are made to minimize impact noise
- (2) ☐ Noise reduction criteria in Table 1.2-6 applicable to partitions, floors & ceiling construction are met in patient areas
- 2.1-7.2.2.14 **DECORATIVE WATER FEATURES:**
- (1) ☐ No indoor unsealed water features
- (2) ☐ Covered fish tanks
☐ check if not included in project
☐ restricted to public areas
- 2.1-7.2.3 **SURFACES**
- 2.1-7.2.3.1 **FLOORING & WALL BASES:**
- (1) ☐ Flooring surfaces cleanable & wear-resistant for location
- (3) ☐ Smooth transitions provided between different flooring materials
- (4) ☐ Flooring surfaces including those on stairways are stable, firm & slip-resistant
- (5) ☐ Floors & wall bases of soiled workrooms, toilet rooms & other areas subject to frequent wet cleaning are constructed of materials that are not physically affected by germicidal or other types of cleaning solutions
- 2.1-7.2.3.2 **WALLS & WALL PROTECTION:**
- (1)(a) ☐ Wall finishes are washable
- (1)(b) ☐ Wall finishes near plumbing fixtures are smooth, scrubbable & water-resistant
- (2) ☐ Wall surfaces in areas routinely subjected to wet spray or splatter (e.g. environmental services rooms) are monolithic or have sealed seams that are tight & smooth
- (5) ☐ Wall protection devices & corner guards durable & scrubbable

2.1-7.2.3.3	CEILINGS:	Part 3/6.1.2	Heating & Cooling Sources:
(1)	___ Ceilings provided in all areas except mechanical, electrical & communications equipment rooms	Part 3/6.1.2.1	___ heat sources & essential accessories are provided in number & arrangement sufficient to accommodate facility needs (reserve capacity) even when any one of heat sources or essential accessories is not operating due to breakdown or routine maintenance
(a)	___ Ceilings cleanable with routine housekeeping equipment		___ capacity of remaining source or sources is sufficient to provide for domestic hot water & heating for intensive care rooms
(b)	___ Acoustic & lay-in ceilings where used do not create ledges or crevices		
2.1-7.2.4	FURNISHINGS:		
2.1-7.2.4.1	Built-In Furnishings: ___ <input type="checkbox"/> check if <u>not</u> included in project ___ upholstered with impervious materials in patient treatment areas		
2.1-7.2.4.2	Window Treatments in Patient Rooms & Other Patient Care Areas:	Part 3/6.1.2.2	Central cooling systems greater than 400 tons (1407 kW) peak cooling load ___ <input type="checkbox"/> check if <u>not</u> included in project
(1)	___ blinds, sheers or other patient-controlled window treatments provided to allow for patient privacy & to control light levels & glare		___ number & arrangement of cooling sources & essential accessories is sufficient to support facility operation plan upon breakdown or routine maintenance of any one of cooling sources
(2)	___ window treatments do not compromise patient safety ___ easy for patients, visitors & staff to operate		
(3)	___ window treatments selected for ease of cleaning, disinfection or sanitization	Part 3/6.2 Part 3/6.2.1	AIR-HANDLING UNIT (AHU) DESIGN: ___ AHU casing is designed to prevent water intrusion, resist corrosion & permit access for inspection & maintenance
2.1-7.2.4.3	___ Privacy curtains in patient rooms & other patient care areas are washable ___ <input type="checkbox"/> check if <u>not</u> included in project		
2.1-8.2	HEATING VENTILATION & AIR-CONDITIONING (HVAC) SYSTEMS	Part 3/6.3	OUTDOOR AIR INTAKES & EXHAUST DISCHARGES:
Part 3/6.1	UTILITIES:	Part 3/6.3.1 Part 3/6.3.1.1	Outdoor Air Intakes: ___ located min. of 25 ft from cooling towers & all exhaust & vent discharges ___ outdoor air intakes located such that bottom of air intake is at least 6'-0" above grade ___ air intakes located away from public access
Part 3/6.1.1	Ventilation Upon Loss of Electrical Power: ___ space ventilation & pressure relationship requirements of Tables 7.1 are maintained for AII Rooms, PE Rooms in event of loss of normal electrical power	Part 3/6.3.1.3	___ intakes on top of buildings ___ <input type="checkbox"/> check if <u>not</u> included in project ___ located with bottom of air intake min. 3'-0" above roof level

Part 3/6.3.1.4 ☐ intake in areaway
☐ check if not included in project
☐ bottom of areaway air intake opening is at least 6'-0" above grade
☐ bottom of air intake opening from areaway into building is at least 3'-0" above bottom of areaway

Part 3/6.3.2 Exhaust Discharges for Infectious Exhaust Air:

Part 3/6.3.2.1 ☐ check if not included in project
☐ ductwork within building is under negative pressure for exhaust of contaminated air (i.e. air from AII rooms)

☐ exhaust discharge outlets with contaminated air located such that they reduce potential for recirculation of exhausted air back into building

Part 3/6.3.2.2 ☐ exhaust discharge outlets with contaminated air is arranged to discharge to atmosphere in vertical direction at least 10'-0" above adjoining roof level
☐ exhaust discharge outlets from AII rooms is located not less than 25 feet horizontally from outdoor air intakes, openable windows/doors & areas that are normally accessible to public

Part 3/6.4 FILTRATION:

☐ Two filter banks for inpatient care (see Table 6.4)
☐ Filter Bank No. 1: MERV 7
☐ Filter Bank No. 2: MERV 14
☐ Each filter bank with efficiency of greater than MERV 12 is provided with differential pressure measuring device to indicate when filter needs to be changed

Part 3/6.4.1 ☐ Filter Bank No. 1 is placed upstream of heating & cooling coils

Part 3/6.4.2 ☐ Filter Bank No. 2 is placed downstream of all wet-air cooling coils & supply fan

Part 3/6.5 HEATING & COOLING SYSTEMS:

Part 3/6.5.3 ☐ Radiant heating systems
☐ check if not included in project
☐ ceiling or wall panels with exposed cleanable surfaces or radiant floor heating are provided in AII room, PE room & burn unit

Part 3/6.7 AIR DISTRIBUTION SYSTEMS:

Part 3/6.7.1 ☐ pressure relationships required in tables 7.1 maintained in all modes of HVAC system operation
☐ Spaces that have required pressure relationships are served by fully ducted return systems or fully ducted exhaust systems
☐ Inpatient facilities are served by fully ducted return or exhaust systems

Part 3/6.7.2 Air Distribution Devices:

☐ supply air outlets comply with Table 6.7.2

Part 3/6.7.3 Smoke Barriers:

☐ HVAC zones coordinated with compartmentation to minimize ductwork penetrations of fire & smoke barriers.

Part 3/6.8 ENERGY RECOVERY SYSTEMS:

☐ check if not included in project
☐ Located upstream of Filter Bank No. 2
☐ AII room exhaust systems or combination AII/PE rooms are not used for energy recovery

Part 3/6.8.3 ☐ Energy recovery systems with leakage potential

☐ check if not included in project
☐ arranged to minimize potential to transfer exhaust air directly back into supply airstream
☐ designed to have no more than 5% of total supply airstream consisting of exhaust air

Part 3/7 SPACE VENTILATION

Part 3/7.1.a ☐ Spaces ventilated according to Table 7.1

Part 3/7.1.a.1 ☐ Air movement is from clean to less-clean areas

- Part 3/7.1.a.3 ☐ Min. number of total air changes required for positive pressure rooms is provided by total supply airflow
☐ Min. number of total air changes required for negative pressure rooms is provided by total exhaust airflow

- Part 3/7.1a.5 ☐ Air recirculation through room unit
☐ check if not included in project
☐ complies with Table 7.1
☐ room unit receive filtered & conditioned outdoor air
☐ serve only a single space
☐ provides min. MERV 6 filter located upstream of any cold surface so that all of air passing over cold surface is filtered

Part 3/7.2 **ADDITIONAL ROOM-SPECIFIC REQUIREMENTS:**

- Part 3/7.2.1 **Airborne Infection Isolation (AII) Rooms**
☐ check if not included in project
☐ AII rooms have permanently installed device and/or mechanism to constantly monitor differential air pressure between room & corridor
☐ Local visual means is provided to indicate whenever negative differential pressure is not maintained
☐ Air from AII room is exhausted directly to outdoors
☐ Exhaust air from AII rooms, associated anterooms & toilet rooms is discharged directly to outdoors without mixing with exhaust air from any other non-AII room or exhaust system
☐ Exhaust air grille or register in patient room is located directly above patient bed on ceiling or on wall near head of bed

- ☐ Anteroom
☐ check if not included in project
☐ AII room is at negative pressure with respect to anteroom
☐ Anteroom is at negative pressure with respect to corridor

- Part 3/7.2.2 **Protective Environment (PE) Rooms**
☐ check if not included in project

- Part 3/7.2.2 ☐ Supply air diffusers are located above patient bed
☐ Exhaust grilles or registers are located near patient room door.

- Part 3/7.2.3 **Combination Airborne Infectious Isolation/ Protective Environment Room (AII/PE)**
☐ check if not included in project
☐ Supply air diffusers are located above patient bed
☐ Exhaust grilles or registers are located near patient room door.
☐ Anteroom
☐ check if not included in project
☐ anteroom is at positive pressure with respect to both AII/PE room & corridor or common space
or
☐ anteroom is at negative pressure with respect to both AII/PE room & corridor or common space

- ☐ First device monitors pressure differential between AII/PE room & anteroom
☐ Second device monitors pressure differential between anteroom & corridor or common space
☐ Local visual means are provided to indicate whenever differential pressures are not maintained

2.1-8.3 **ELECTRICAL SYSTEMS**

- 2.1-8.3.2.2 **Panelboards:**
 (1) ☐ panelboards serving life safety branch circuits serve floors on which they are located & floors immediately above & below
 (2) ☐ panelboard critical branch circuits serve floors on which they are located
 (3) ☐ panelboards not located in exit enclosures or exit passageways

- 2.1-8.3.2.3 **Ground-Fault Circuit Interrupters in Critical Care Areas:**
☐ check if not included in project
 (2) ☐ each receptacle individually protected by single GFCI device

2.1-8.3.3 **POWER-GENERATING & -STORING EQUIPMENT**

- 2.1-8.3.3.1 ☐ Essential electrical system or

- emergency electrical power
- (1) _____ essential electrical system
complies with NFPA 99
- (2) _____ emergency electrical power
complies with NFPA 99
- 2.1-8.3.4 **LIGHTING:**
- 2.1-8.3.4.2 _____ Luminaires in wet areas have
smooth cleanable shatter-resistant
lenses & no exposed lamps
- 2.1-8.3.4.3(1) _____ Reading light for each patient bed
(a) _____ incandescent & halogen light
_____ ☐ check if not included in project
_____ placed or shielded to
protect patient from injury
_____ light source covered by diffuser
or lens
_____ flexible light arms
_____ ☐ check if not included in project
_____ mechanically controlled to
prevent lamp from
contacting bed linen
- 2.1-8.3.4.3(2) _____ Patient care unit corridors have
general illumination with provisions
for reducing light levels at night
- 2.1-8.3.5 **ELECTRICAL EQUIPMENT:**
- 2.1-8.3.5.1 _____ Handwashing sinks & scrub sinks
that depends on building electrical
service for operation are connected
to essential electrical system
_____ ☐ check if not included in project
- 2.1-8.3.6 **ELECTRICAL RECEPTACLES:**
- 2.1-8.3.6.1 **Receptacles In Corridors:**
- (1) _____ duplex-grounded receptacles
for general use installed 50'-0"
apart or less in all corridors
_____ duplex-grounded receptacles
for general use installed within
25'-0" of corridor ends
- (2) _____ receptacles in pediatric &
psychiatric unit corridors are of
tamper-resistant type
- 2.1-8.3.6.3 **Essential Electrical System
Receptacles:**
- (1) _____ cover plates for electrical
receptacles supplied from
essential electrical system are
distinctively colored or marked
for identification
- (2) _____ same color is used throughout
facility

2.1-8.4

PLUMBING SYSTEMS

2.1-8.4.2

Plumbing & Other Piping Systems:

2.1-8.4.2.1(3)

- _____ no plumbing piping exposed
overhead or on walls where
possible accumulation of dust or
soil may create cleaning problem

2.1-8.4.2.2

**Hemodialysis/Hemoperfusion Water
Distribution:**

- ☐ check if not included in project

(1)(a)

- _____ separate treated water
distribution system

(2)(b)

- _____ outlet at each individual
hemodialysis treatment bay
_____ outlet at hemodialysis
equipment repair area
_____ outlet at dialysate
preparation area

or

(1)(b)

- _____ dialysis equipment includes
sufficient water treatment
provisions for use of domestic
cold water

(1)(a)

- _____ drainage system independent
from tap water drainage

(4)

- _____ liquid waste & disposal system
for hemodialysis treatment area
are designed to minimize odor
& prevent backflow

(5)

- _____ hemodialysis distribution piping
is readily accessible* for
inspection & maintenance

2.1-8.4.2.5

**Heated Potable Water Distribution
Systems:**

(2)

- _____ heated potable water
distribution systems serving
patient care areas are under
constant recirculation
_____ non-recirculated fixture branch
piping max. length 25'-0"
_____ no installation of dead-end piping
(except for empty risers mains &
branches for future use)
_____ any existing dead-end piping is
removed

(3)(a)

(3)(c)

(3)(b)

(4)(a)

- ☐ check if not included in project
- _____ water-heating system supplies
water at temperatures &
amounts indicated in Table 2.1-4

- 2.1-8.4.2.6 Drainage Systems:
 (1)(a) ☐ drainage piping installed above ceiling of or exposed in electronic data processing areas & electric closets
☐ check if not included in project
☐ special provisions to protect space below from leakage & condensation
- (1)(b) ☐ drip pan for drainage piping above ceiling of sensitive area
☐ check if not included in project
☐ accessible
☐ overflow drain with outlet located in normally occupied area
- 2.1-8.4.3 PLUMBING FIXTURES:
 2.1-8.4.3.1(1) ☐ Materials used for plumbing fixtures are non-absorptive & acid-resistant
- 2.1-8.4.3.2 Handwashing Station Sinks:
 (1) ☐ designed with basins that will reduce risk of splashing to areas for direct patient care & medication preparation
- (2) ☐ sink basins have nominal size of no less than 144 square inches
☐ sink basins have min. dimension 9 inches in width or length
- (3) ☐ sink basins are made of porcelain, stainless steel or solid-surface materials
- (5) ☐ faucet water discharge point min. 10" above bottom of basin
- (7) ☐ anchored so that allowable stresses are not exceeded where vertical or horizontal force of 250 lbs. is applied
- (8) ☐ sinks used by staff, patients, & public have fittings that can be operated without using hands (may be single-lever or wrist blade devices)
- (a) ☐ blade handles
☐ check if not included in project
☐ at least 4 inches in length
☐ provide clearance required for operation
- (b) ☐ sensor-regulated water fixtures
☐ check if not included in project
☐ meet user need for temperature & length of time water flows
☐ designed to function at all times and during loss of normal power

- 2.1-8.4.3.4 Ice-Making Equipment:
☐ copper tubing provided for supply connections to ice-making equipment
- 2.1-8.4.3.5 Clinical Flushing-Rim Sinks:
☐ check if not included in project
- (1) ☐ trimmed with valves that can be operated without hands (may be single-lever or wrist blade devices)
- (a) ☐ handles are at least 6 in. long
- (2) ☐ integral trap wherein upper portion of water trap provides visible seal
- 2.1-8.4.3.7 Bedpan-Rinsing Devices:
 (1) ☐ bedpan-rinsing devices provided in each inpatient toilet room
- (2) ☐ use cold water only
- 2.1-8.4.4 **MEDICAL GAS & VACUUM SYSTEMS**
☐ Station outlets provided as indicated in Table 2.1-3
- 2.1-8.5.1 **CALL SYSTEMS**
 2.1-8.5.1.1
 (1) ☐ Nurse call stations provided as required in Table 2.1-2
- (2) ☐ Nurse call systems report to attended location with electronically supervised visual & audible annunciation as indicated in Table 2.1-2
- (4) ☐ Call system complies with UL 1069 "Standard for Hospital Signaling & Nurse Call Equipment"
- (5) ☐ Wireless nurse call system
☐ check if not included in project
☐ complies with UL 1069
- 2.1-8.5.1.2 Patient Call Stations:
 (1) ☐ each patient sleeping bed except nursery beds provided with patient call station equipped for two-way voice communication (use of dual call station are permitted when beds are located adjacent to each other)
- (2)(a) ☐ indicator light that remains lighted as long as voice circuit is operating
- (2)(b) ☐ reset switch for canceling call
- (3)(a) ☐ visible signal in corridor at patient's door
- Multi-Corridor Patient Areas:
☐ check if not included in project
☐ additional visible signals at corridor intersections

- 2.1-8.5.1.3 Bath Stations:
- _____ bath station that can be activated by patient lying on floor provided at each patient toilet, bathtub, sitz bath or shower stall
 - (1) _____ alarm in these areas can only be turned off at bath station where it was initiated
 - (2) _____ shower/tub bath stations located 3'-0" to 4'-0" above floor within view of user & within reach of staff without need to step into shower or tub
 - (3) _____ toilet bath stations located on the side of toilets within 12" of front of toilet bowl & 3'-0" to 4'-0" above floor
- 2.1-8.5.1.5 _____ Emergency call stations are equipped with continuous audible or visual confirmation to person who initiated the code call

- 2.1-8.6.2 **ELECTRONIC SURVEILLANCE SYSTEMS**
- ☐ check if not included in project
- 2.1-8.6.2.2 _____ monitoring devices are located so they are not readily observable by general public or patients
- 2.1-8.6.2.3 _____ electronic surveillance systems receive power from essential electrical system