COMPLIANCE CHECKLIST

IP7_Neonatal Intensive 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 2022 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.

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 <u>not</u> be used for an existing required support space associated with a new patient care room or area.

☒ = Check box under section titles or individual requirements lines for optional services or functions that are not included in the project 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 <u>same name labels</u> 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:

Project Description:

Initial Date:

Revision Date:

	Architectural Requirements	Building Systems Requirements
2.2-2.9	**NEONATAL INTENSIVE CARE UNIT**	
2.1-1.2.3	Shared Services: ___ No combined functions unless specifically allowed in this checklist	
2.2-2.9.1.2	Location:	
(1)	___ all entries to NICU secured with controlled access by door locking or by direct or indirect visual observation	
(2)	___ family entrance & reception area is clearly identified	
(3)	___ reception area permits visual observation & contact with all traffic entering unit	
(4)	___ NICU designed to protect physical security of infants parents & staff & to minimize risk of infant abduction	
2.2-2.9.2	**NICU ROOMS & AREAS**	
2.2-2.9.2.2 (1)(a)	___ Multiple-infant rooms (including those with bays, cubicles or movable cubicle partitions) ☐ check if not included in project	
	Space Requirements:	
	___ each infant care station contains min. clear floor area 150 sf per infant care bed	
(2)(a)	___ aisle adjacent* to each infant care station with min. width 4'-0"	
(2)(b)	___ fixed cubicle partitions ☐ check if not included in project	
	___ adjacent* aisle with min. clear width 8'-0" to permit passage of equipment & personnel	
(3)(a)	___ min. clearance 8'-0" provided between infant care beds	
(3)(b)	___ min. clearance 1 foot at head of infant care bed	
	___ min. clearance 4'-0" between sides of infant care beds & any wall or other fixed obstruction	
2.2-2.9.2.5(1)	Handwashing Stations: ___ every bed position located within 20'-0" of handwashing station	

Ventilation:	
___ Min. 4 air changes per hour	Table 7-1
Lighting:	2.1-8.3.4.3(1)
___ General lighting	(c)
___ Lighting for NICU bed permits staff observation of patient	
___ minimizes glare	
Power:	
___ Min. 16 receptacles in total	Table 2.1-1
___ convenient to head of bed	+ Errata
Nurse Call System:	
___ Staff assistance station for each bed	Table 2.1-2
___ Emergency call station for each bed	
Medical Gases:	
___ 3 OX, 3 VAC, 3 MA per bed	Table 2.1-3

Architectural Requirements

2.2-2.9.2.2 (1)(b) ___ Single-infant rooms
☐ check if not included in project
Space Requirements:
___ min. clear floor area 180 sf
(3)(b) ___ min. clearance 1 foot at head of infant care bed
___ min. clearance 4'-0" between sides of infant care beds & any wall or other fixed obstruction
Handwashing Stations:
2.2-2.9.2.5(2) ___ handwashing station provided in each room

2.2-2.9.2.3 (1) ___ Windows
___ at least one source of daylight is visible from infant care areas
(2)(a) ___ exterior windows glazed with insulating glass to minimize heat gain or loss
(2)(b) ___ exterior windows are situated at least 2'-0" from any part of infant bed
___ exterior windows are sized to minimize radiant heat loss from infant
(2)(c) ___ all daylight sources are equipped with shading devices

2.2-2.9.2.4 ___ Each infant care station is designed to allow visual privacy for infant & family

2.2-2.9.3 **NEONATAL COUPLET CARE ROOM**
☐ check if not included in project
2.2-2.9.3.1 Space requirements
(1) ___ minimum clear floor area 300 sf (150 sf for the infant care station & 150 sf for the mother's bed)
2.1-2.3.2.2
(2)(a) ___ min. clearance 5'-0"at foot of bed
(2)(b) ___ min. clearance 5'-6" on non-transfer side of bed from edge of expanded-capacity patient bed

Building Systems Requirements

Ventilation:	
___ Min. 4 air changes per hour	Table 7-1
Lighting:	2.1-8.3.4.3(1)(c)
___ General lighting	
___ Lighting for NICU bed permits staff observation of patient	
___ minimizes glare	
Power:	
___ Min. 16 receptacles in total	Table 2.1-1
___ convenient to head of bed	
Nurse Call System:	
___ Patient station	Table 2.1-2
___ Staff assistance station	
___ Emergency call for each bed	
Medical Gases:	
___ 3 OX, 3 VAC, 3 MA per bed	Table 2.1-3

	Architectural Requirements	Building Systems Requirements	
(2)(c)	Clearance on Transfer Side of Bed: ___ patient room equipped with ceiling- or wall-mounted lifts ___ rectangular clear floor area min. 10'-6" long by 5'-6" wide measured beginning 2'-0" from headwall **or** ___ patient room not equipped with ceiling- or wall-mounted lifts ___ rectangular clear floor area min. 10'-6" long by 7'-0" wide measured beginning 2'-0" from headwall		
2.2-2.9.2.2	___ Single-infant care station		
(3)(b)	___ min. clearance 1 foot at head of infant care bed ___ min. clearance 4'-0" between sides of infant care beds & any wall or other fixed obstruction	Ventilation: ___ Min. 4 air changes per hour Lighting: ___ General lighting ___ Lighting for NICU bed permits staff observation of patient ___ minimizes glare Power: ___ Min. 16 receptacles in total ___ convenient to head of bed Nurse Call System: ___ Patient station ___ Staff assistance station ___ Emergency call for each bed Medical Gases: ___ 3 OX, 3 VAC, 3 MA per bed	Table 7-1 2.1-8.3.4.3(1)(c) Table 2.1-1 Table 2.1-2 Table 2.1-3
2.2-2.9.3.2	Adult Patient Accommodations:		
2.1-2.1.2	Patient Privacy: ___ Provisions are made to address patient visual & speech privacy		
2.1-2.2.5	Handwashing Station in Patient Room:		
2.1-2.2.5.1	___ provided in patient room in addition to that in toilet room		
(1)	___ adjacent to entrance to patient room for use by health care personnel & others		
2.1-2.2.6	___ Patient toilet room		
2.1-2.2.6.2	___ serves no more than one patient room		
2.1-2.2.6.3		Ventilation:	
(1)	___ toilet	___ Min. 10 air changes per hour	Table 7-1
(2)	___ handwashing station	___ Exhaust	
(3)	___ bedpan washer	___ Negative pressure ___ No recirculating room units	
2.1-2.2.8	Patient Storage: ___ separate wardrobe, locker, or closet suitable for garments & for storing personal effects		

	Architectural Requirements	Building Systems Requirements	
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)			
(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		
2.2-2.9.3.3	___ Neonatal couplet care room combined with LDRP room		
(1)	___ min. clear floor area 435 sf		
2.2-2.9.2.2(3)	___ min. clearance 1 foot at head of infant care bed		
	___ min. clearance 4'-0" between sides of infant care beds & any wall or other fixed obstruction		
2.2-2.10.3.2			
(2)(a)	___ min. clearance 6'-0" from foot of bed to wall or fixed obstruction		
(2)(b)	___ min. clearance 5'-0" on transfer side of bed to wall or fixed obstruction		
(2)(c)	___ min. clearance 4'-0" on non-transfer side of bed to wall or fixed obstruction		
2.2-2.9.4	**SPECIAL PATIENT CARE ROOMS**		
2.2-2.9.4.2	___ Airborne infection isolation (AII) room		
(1)	___ provisions for observation of infant in AII room from adjacent* areas of NICU		
2.1-2.4.2.2	___ complies with requirements applicable to NICU patient rooms		
(1)	___ capacity one bed		
(2)	___ personal protective equipment (PPE) storage at entrance to room		
(3)	___ handwashing station		
2.1-2.4.2.3	___ Anteroom		
	☐ check if <u>not</u> included in project		
(1)	___ provides space for persons to don personal protective equipment (PPE) before entering patient room	Ventilation: ___ Min. 10 air changes per hour ___ Exhaust ___ No recirculating room units	Table 7-1

	Architectural Requirements	Building Systems Requirements
(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	
2.1-2.4.2.4	Architectural Details & Furnishings:	
(1)(a)	___ 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	
	___ edge seals provided along sides & top of doorframe for any door into AII 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	
2.2-2.9.8	**SUPPORT AREAS FOR NICU**	
2.2-2.9.8.2	___ 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*	
2.2-2.9.8.3	___ Documentation area	
2.1-2.8.3.1	___ work surface to support documentation process	
2.2-2.9.8.4	___ Nurse/supervisor office or station	
(1)	___ office space for intensive care medical & nursing management/administrative personnel	
	___ immediately accessible* to intensive care unit	
(2)	___ offices linked with unit by telephone or intercommunications system	
2.2-2.9.8.5	___ Multipurpose room	

	Architectural Requirements	Building Systems Requirements	
(1)	___ at least one multipurpose room for each facility for patient conferences, reports, education, training sessions & consultation (may serve several patient care units & departments)		
(2)	___ readily accessible* to patient care unit		
2.2-2.9.8.8	___ 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	Lighting: ___ Task-specific lighting level min. 100 foot-candles	2.1-2.8.8.1(2)(d)
(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		
2.1-2.8.8.2(1)	___ medication preparation room		
(a)	___ under visual control of nursing staff	Ventilation: ___ Min. 4 air changes per hour	Table 7-1
(b)	___ work counter ___ handwashing station ___ lockable refrigerator ___ locked storage for controlled drugs ___ sharps containers ☐ check if not included in project	Lighting: ___ Task lighting	2.1-2.8.8.1(2)(d)
(c)	___ self-contained medication-dispensing unit ☐ check if not included in project ___ room designed with space to prepare medications		
	or		
2.1-2.8.8.2(2)	___ automated medication-dispensing unit		
(a)	___ located at nurse station, in clean workroom or in alcove	Lighting: ___ Task lighting	2.1-2.8.8.1(2)(d)
(c)	___ handwashing station or hand sanitation dispenser located next to stationary medication-dispensing units or stations		
2.1-2.8.10	___ Ice-making equipment		
2.2-2.9.8.11	___ Clean workroom or clean supply room		
2.1-2.8.11.2	___ clean workroom ___ used for preparing patient care items	Ventilation: ___ Min. 4 air changes per hour	Table 7-1
(1)	___ work counter	___ Positive pressure	
(2)	___ handwashing station		
(3)	___ storage facilities for clean & sterile supplies		
	or		

	Architectural Requirements	Building Systems Requirements	
2.1-2.8.11.3	___ clean supply room ___ used only for storage & holding as part of system for distribution of clean & sterile supplies	Ventilation: ___ Min. 4 air changes per hour ___ Positive pressure	Table 7-1
2.2-2.9.8.12	___ Soiled workroom or soiled holding room		
2.1-2.8.12.2	___ soiled workroom	Ventilation: ___ Min. 10 air changes per hour ___ Exhaust ___ Negative pressure ___ No recirculating room units	Table 7-1
(1)(a)	___ handwashing station		
(1)(b)	___ flushing-rim clinical service sink with bedpan-rinsing device or equivalent flushing-rim fixture		
(1)(c)	___ work counter		
(1)(d)	___ space for separate covered containers for waste & soiled linen		
(2)	___ fluid waste management system is used ☐ check if not included in project		
(a)	___ electrical & plumbing connections that meet manufacturer requirements		
(b)	___ space for docking station		
	or		
2.1-2.8.12.3	___ soiled holding room	Ventilation: ___ Min. 10 air changes per hour ___ Exhaust ___ Negative pressure ___ No recirculating room units	Table 7-1
(1)	___ handwashing station or hand sanitation station		
(2)	___ space for separate covered containers for waste & soiled linen		
2.1-2.8.13.1	___ Clean linen storage		
(1)	___ stored in clean workroom or clean supply room **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		
2.1-2.8.13.2	___ Equipment & supply storage room or alcoves ___ sized to provide min. 10 sf per patient bed		
2.1-2.8.13.3	___ Storage space for gurneys, stretchers & wheelchairs		
2.2-2.9.8.13	___ Emergency equipment storage		
(1)	___ each patient care unit has at least one emergency equipment storage location		
(2)	___ provided under visual observation of staff		

	Architectural Requirements	Building Systems Requirements	
(3)	___ storage locations in corridors do not encroach on minimum required corridor width		
2.2-2.9.8.14	___ Environmental services room	Ventilation:	
(1)	___ not shared with other patient care units or departments	___ Min. 10 air changes per hour	Table 7-1
		___ Exhaust	
(2)	___ directly accessible* to NICU	___ Negative pressure	
2.1-2.8.14.2(1)	___ service sink or floor-mounted mop sink	___ No recirculating room units	
2.1-2.8.14.2(2)	___ provisions for storage of supplies & housekeeping equipment		
2.1-2.8.14.2(3)	___ handwashing station **or** ___ hand sanitation station		
2.2-2.9.8.15	Diagnostic Treatment & Service Areas: (provided in same building)		
(1)	___ respiratory therapy		
(2)	___ blood gas lab		
(3)	___ developmental therapy		
(4)	___ social work		
(5)	___ laboratory services		
(6)	___ pharmacy services		
(7)	___ radiology services		
(8)	___ other ancillary services		
2.2-2.9.8.16	___ Lactation support space		
	___ immediately accessible* to NICU for lactation support & consultation		
(1)	___ handwashing station		
	___ counter		
(2)(a)	___ refrigeration & freezing		
	___ immediately accessible* to NICU		
(2)(b)	___ storage for pump & attachments & educational materials		
	___ immediately accessible* to NICU		
2.2-2.9.8.17	___ Infant feeding preparation facilities		
(1)(a)	___ space for preparation & storage of formula & additives to human milk & formula provided in unit or other location away from patient bedside		
(1)(b)	___ work area & equipment layout designed to provide for flow of materials from clean to soiled to maintain aseptic preparation space		
(2)	___ infant feedings prepared on-site ☐ check if <u>not</u> included in project		
(a)	___ feeding preparation room with following spaces: ___ anteroom or anteroom area ___ preparation area ___ Storage space ___ Cleanup area		

	Architectural Requirements	Building Systems Requirements	
(3)	___ space for mixing additives into liquid formula or human milk provided in unit or in another location away from patient bedside		
(4)	___ provisions for human milk storage provided in designated space in infant feeding preparation room or in designated spaces on patient care unit ___ separate from formula storage		
(5) 2.1-7.2.3.1(6)	Special Design Elements: ___ surfaces in food preparation sanitation/ warewashing & serving areas be non-absorbent smooth & easily cleaned		
2.1-7.2.3.2(3) (a)	___ walls non-absorbent, smooth, easily cleaned & light in color		
2.2-2.9.9	**SUPPORT AREAS FOR STAFF**		
2.2-2.9.9.1	___ Staff lounge ___ provided in or adjacent* to unit ___ Staff locker room ___ provided in or adjacent* to unit ___ Staff toilet room ___ provided in or adjacent* to unit	Ventilation: ___ Min. 10 air changes per hour ___ Exhaust ___ Negative pressure ___ No recirculating room units	Table 7-1
2.2-2.9.9.2 (2) 2.2-2.6.9.4	___ On-call staff accommodations (may be located outside NICU)		
(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 ___ Exhaust ___ Negative pressure ___ No recirculating room units	Table 7-1
2.2-2.9.10	**SUPPORT AREAS FOR FAMILIES, PATIENTS & VISITORS**		
2.2-2.9.10.1	___ Family & visitor lounge	Communications:	
2.1-2.10.1	___ each patient care unit provides access to lounge for family & visitors	___ Public communication services provided in each family & visitor lounge	2.1-2.10.1.6
2.1-2.10.1.1(1)	___ accommodates at minimum 3 chairs & 1 wheelchair space		
2.1-2.10.1.4	___ designed to minimize impact of noise & activity on patient rooms & staff functions		
2.2-2.9.10.1(2)	___ immediately accessible* to NICU		

	Architectural Requirements	Building Systems Requirements	
2.2-2.9.10.2	___ Parent/infant room		
(3)	☐ check if not included in project (only if all NICU rooms are single-infant rooms)		
	___ provided in NICU that allows parents & infants extended private time together		
(1)(b)	___ communication linkage with NICU staff		
(1)(d)	___ sleeping facilities for at least one parent		
(1)(e)	___ sufficient space for infant's bed & equipment		
		Ventilation:	
		___ Min. 4 air changes per hour	Table 7-1
		Lighting:	2.1-8.3.4.3(1)
		___ General lighting	(c)
		___ Lighting for NICU bed permits staff observation of patient	
		___ minimizes glare	
		Power:	
		___ Min. 16 receptacles in total	Table 2.1-1
		___ convenient to head of bed	
		Nurse Call System:	
		___ Patient station	Table 2.1-2
		___ Staff assistance station	
		___ Emergency call for each bed	
		Medical Gases:	
		___ 3 OX, 3 VAC, 3 MA per bed	Table 2.1-3
(1)(a)	___ direct private access to sink, shower & toilet facilities	Ventilation:	
		___ Min. 10 air changes per hour	Table 7-1
		___ Exhaust	
		___ Negative pressure	
		___ No recirculating room units	
2.2-2.6.10.2	___ Place for meditation, bereavement & prayer		
2.1-6.2.5	___ dedicated space accessible to the public		
2.2-2.9.7	**SPECIAL DESIGN ELEMENTS**		
2.2-2.9.7.1	Architectural Details:		
(1)(a)	___ ceilings easily cleanable & non-friable		
(1)(b)	___ ceiling construction limit passage of particles from above ceiling plane into clinical environment		
(2)	___ wall sound isolation complies with Table 1.2-6		
(3)	___ floor sound isolation complies with Table 1.2-6		
2.2-2.9.7.2	Lighting:		
(1)	___ indirect lighting & high-intensity lighting in NICU		
(2)	___ color rendering index min. 80		
	___ full-spectrum color index min. 55		
	___ gamut area of no less than 65 & no greater than 100		
(3)	___ controls be provided to enable lighting to be adjusted over individual patient care spaces		
(4)	___ darkening for body transillumination is available		
(5)(a)	___ no direct ambient lighting in infant care station		

Architectural Requirements **Building Systems Requirements**

(5)(b) ___ any direct ambient lighting outside infant care station is located or framed to avoid direct line of sight from infant to fixture

(6) ___ lighting fixtures are cleanable

2.2-2.9.7.3 Noise Control:

___ infant rooms, staff work areas, family areas, staff lounge & sleeping areas meet room noise criteria in Table 1.2-6.1

*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 space

Adjacent: Located next to but not necessarily connected to the identified area or room

Immediately accessible: Available either in or adjacent to the identified area or room

Readily 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 CORRIDOR WIDTH:

NFPA 101, 18.2.3.3

___ 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

2.1-7.2.2.2 CEILING HEIGHT:

(1) ___ Min. ceiling height 7’-6” in corridors & in normally unoccupied spaces

(2) ___ Min. ceiling height 9'-0" in seclusion rooms & secure holding rooms

(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 to Patient Rooms:

(a) ___ min 45.5” clear door width

___ min 83.5” clear door height

(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 in behavioral health units & 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

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

2.1-7.2.2.12 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 cleaning solutions
(7)(a) Floors are monolithic & integral coved wall bases are at least 6" high & tightly sealed to wall in rooms listed below:
___ airborne infection isolation (AII) room
___ protective environment (PE) room
☐ check if not included in project
___ combination AII/PE room
☐ check if not included in project
___ anteroom to AII & PE rooms
☐ check if not included in project
___ soiled workroom & soiled holding room

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:
(1) ___ Ceilings provided in all areas except mechanical, electrical & communications equipment rooms
(a) ___ Ceilings cleanable with routine housekeeping equipment
(b) ___ Acoustic & lay-in ceilings where used do not create ledges or crevices

2.1-7.2.4.1 Built-In Furnishings:
☐ check if not included in project
___ upholstered with impervious materials in patient treatment areas

2.1-7.2.4.3 ___ Privacy curtains in patient rooms & other patient care areas are washable
☐ check if not included in project

2.1-8.2 **HEATING VENTILATION & AIR-CONDITIONING (HVAC) SYSTEMS**
Part 3/6.1 UTILITIES:
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 3/6.1.2 Heating & Cooling Sources:
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 is not operating

___ capacity of remaining source or sources is sufficient to provide for domestic hot water & to provide heating for intensive care nursery & inpatient rooms

Part 3/6.1.2.2 Central cooling systems greater than 400 tons (1407 kW) peak cooling load
☐ check if not included in project
___ number & arrangement of cooling sources & essential accessories is sufficient to support owner's facility operation plan upon breakdown or routine maintenance of any one of cooling sources

Part 3/6.2 AIR-HANDLING UNIT (AHU) DESIGN:
Part 3/6.2.1 ___ AHU casing is designed to prevent water intrusion resist corrosion & permit access

.

Part 3/6.3 OUTDOOR AIR INTAKES & EXHAUST DISCHARGES:
Part 3/6.3.1 Outdoor Air Intakes:
Part 3/6.3.1.1 ___ located such that shortest distance from intake to any specific potential outdoor contaminant source be equal to or greater than separation distance listed in Table 6-1
___ located min of 25 ft from cooling towers & all exhaust & vent discharges
___ air intakes located away from public access
___ all intakes designed to prevent entrainment of wind-driven rain
___ contain features for draining away precipitation
___ equipped with birdscreen of mesh no smaller than 0.5 inches
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:
Part 3/6.3.2.1 ___ 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'-0" horizontally from outdoor air intakes, openable windows/doors & areas that are normally accessible to public

Part 3/6.4 FILTRATION:
a. ___ Particulate matter filters, min. MERV-8 provided upstream of first heat exchanger surface of any air-conditioning system that combines return air from multiple rooms or introduces outdoor air
b. ___ Outdoor air filtered in accordance with Table 7-1
c. ___ Air supplied from equipment serving multiple or different spaces is filtered in accordance with Table 7-1
d. ___ Air recirculated within room is filtered in accordance with Table 7-1 or Section 7.1(a)(5)
h. ___ For spaces that do not permit air recirculated by means of room units & have minimum filter efficiency of MERV-14, MERV-16 or HEPA in accordance with Table 7-1, the min. filter requirement listed in Table 7-1 is installed 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 6-2

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

Part 3/6.8.1 ___ Located upstream of filters required by Part 3/6.8.4

Part 3/6.8.2 ___ AII room exhaust systems or combination AII/PE rooms are not used for energy recovery

Part 3/7 SPACE VENTILATION - HOSPITAL SPACES:

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 single space
___ provides min MERV 8 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

or

___ is discharged into the general exhaust stream, provided the All exhaust air first passes through a HEPA filter (all exhaust ductwork kept under negative pressure)

Part 3/7.2.1 ___ 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
___ PE rooms have permanently installed device to constantly monitor differential air pressure between room & corridor
___ Visual means is provided to indicate whenever positive differential pressure is not maintained

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

2.1-8.3.3 **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:**
2.1-8.3.4.1(1) ___ Luminaires in patient areas shall have smooth, cleanable, impact-resistant lenses concealing light source
2.1-8.3.4.1(2) ___ Luminaires dissipate heat such that touchable surfaces will not burn occupants or ignite materials.
2.1-8.3.4.2
(1) Patient rooms:
(a) ___ provide general level of illumination
___ provide exam level of illumination
(b) (may be dimmable & limited to patient care station)
(d) ___ no incandescent & halogen light sources
(e) ___ light sources are either encapsulated or covered by diffuser or lens or use fixtures designed to contain fragments

(f) Night-lighting:
___ at least one night-light fixture located in each patient room
___ night-lights used by staff that illuminate path from entry to bedside are switched at room entrance
___ night-light color temperature 2,700K or warmer

(2)(a) ___ Corridors in patient care units have general illumination with provisions for reducing light levels at night

(3) Exam/treatment rooms:
___ portable or fixed exam light
(6) Food & nutrition areas:
___ light sources in kitchen & serving areas are either encapsulated or covered by diffuser or lens or use fixtures designed to contain fragments
(7) ___ Uplight fixtures installed in patient care areas are covered

2.1-8.3.5 **ELECTRICAL EQUIPMENT:**
2.1-8.3.5.1 ___ Handwashing sinks that depend on building electrical service for operation are connected to essential electrical system

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

2.1-8.3.6.3 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

2.1-8.4.2.5 Heated potable water distribution systems:
(2) ___ heated potable water distribution systems serving patient care areas are under constant recirculation to provide continuous hot water at each hot water outlet

___ non-recirculated fixture branch piping does not exceed 10 feet in length

(3)(a) ___ no installation of dead-end
(3)(c) piping (installation of empty risers mains & branches for future use is permitted)

(3)(b) Renovations:
☐ check if not included in project
___ dead-end piping is removed

2.1-8.4.2.6 Drainage Systems:
(1)(a) ___ drainage piping above ceiling of or exposed in rooms listed below piping have special provisions to protect space below from leakage & condensation

- operating rooms
- delivery rooms
- procedure rooms
- trauma rooms
- nurseries
- central kitchens
- one-room sterile processing facilities
- clean workroom of two-room sterile processing facilities
- pharmacies
- Class 2 & 3 imaging rooms
- electronic mainframe rooms (EFs & TERs)
- main switchgear
- electrical rooms
- electronic data processing areas
- electric closets

(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 that is not open to restricted 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 & faucets that reduce risk of splashing to areas where direct patient care is provided, sterile procedures are performed, medications are prepared or food is prepared

(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) ___ water discharge point of faucets is at least 10 inches 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 medical/nursing 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 & 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 Sinks:
☐ check if not included in project
(1) ___ trimmed with valves that can are operated without hands (may be single-lever or wrist blade devices)
(a) ___ handles are at least 6 in long
(b) ___ integral trap wherein upper portion of water trap provides visible seal
(2) ___ integral trap wherein upper portion of water trap provides visible seal

2.1-8.4.3.7 Human waste disposal systems:
(2) ___ bedpan washer-disinfector system
(a) ___ located in soiled workroom
(b) ___ electrical & plumbing connections that meet manufacturer requirements are provided

or

(3) ___ disposable bedpan macerator system
(a) ___ installed in soiled workroom

(b) ___ electrical & plumbing connections per manufacturer requirements are provided

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

2.1-8.5.1.1(2) ___ Nurse call systems report to attended location with electronically supervised visual & audible annunciation as indicated in Table 2.1-2

2.1-8.5.1.1(4) ___ Call system complies with UL 1069 "Standard for Hospital Signaling & Nurse Call Equipment"

2.1-8.5.1.1(5) ___ Wireless nurse call system

☐ check if <u>not</u> 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

(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 <u>not</u> included in project

___ additional visible signals at corridor intersections

(3)(b) ___ visible & audible signal at the nurse master station of patient care units or patient care areas

2.1-8.5.1.2(4) ___ Nurse call system provided in each patient care area as required in Table 2.1-2

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 <u>not</u> included in project

2.1-8.6.2.1 ___ Display screens in patient areas are mounted in tamper-resistant enclosure that is unobtrusive

2.1-8.6.2.2 ___ Display screens 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