

COMPLIANCE CHECKLIST**IP15 Imaging 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 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:

Satellite Name: (if applicable)

Building/Floor Location:

Satellite Address: (if applicable)

Submission Dates:

Project Description:

Initial Date:

Revision Date:

Architectural Requirements**Building Systems Requirements**

2.2-3.4

IMAGING SERVICES

2.2-3.4.1.2

Table 2.2-2

- ___ **Class 1 Imaging Room**
(for X-ray, fluoroscopy, mammography, CT scanner, ultrasound, MRI & other imaging modalities that may use natural orifice entry & do not pierce or penetrate natural protective membranes)
- ☐ check if not included in project
- ___ room is an unrestricted area
- ___ accessed from unrestricted area

Flooring:

- ___ cleanable & wear-resistant for the location; stable, firm & slip-resistant

Wall Finishes:

- ___ washable

Ceiling:

- ___ cleanable with routine housekeeping equipment

2.2-3.4.2.3(1)

- ___ handwashing station

2.2-3.4.1.2

Table 2.2-2

- ___ **Class 2 Imaging Room:**
(for diagnostic & therapeutic procedures such as coronary, neurological, peripheral angiography & EP procedures)
- ☐ check if not included in project
- ___ room is a semi-restricted area
- ___ accessed from unrestricted area or semi-restricted area

Flooring:

- ___ cleanable & wear-resistant for the location; stable, firm & slip-resistant
- ___ monolithic floor with integral coved wall base carried up the wall min. 6"

Wall Finishes:

- ___ washable, free of fissures, open joints or crevices

Ceiling:

- ___ smooth & without crevices, scrubable, non-absorptive, non-perforated; capable of withstanding cleaning chemicals
- ___ lay-in ceiling

- ☐ check if not included in project
- ___ gasketed or each ceiling tile weighs at least one pound per square foot
- ___ no perforated, tegular, serrated, or highly textured tiles

Ventilation:

- ___ Min. 6 air changes per hour Table 7.1

Power:

- ___ Min. 8 receptacles in total Table 2.1-1
- ___ Min. 4 receptacles on each lateral side of imaging gantry

Nurse Call System:

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

Medical Gases:

- ___ 1 OX, 1 VAC Table 2.1-3

+ Errata

Ventilation:

- ___ Min. 15 air changes per hour Table 7.1
- ___ Positive pressure
- ___ No recirculating room units

Power:

- ___ Min. 12 receptacles in total Table 2.1-1
- ___ Min. 8 receptacles convenient to table placement
- ___ Min. 1 receptacle on each wall

Nurse Call System:

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

Medical Gases:

- ___ 1 OX, 2 VAC, 1 MA Table 2.1-3

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.2.3(2) Handwashing Station or Hand Scrub Facilities:
- (a) ☐ handwashing station
☐ directly accessible* to Class 2 imaging room
- (b) **or**
☐ hand scrub facilities
☐ hand scrub position directly outside entrance to Class 2 imaging room
- 2.1-2.8.6.3 ☐ scrub station does not restrict min. required corridor width

- 2.2-3.4.1.2 ☐ **Class 3 Imaging Room**
 Table 2.2-2 (for invasive procedures, i.e. any Class 2 procedure during which the patient will require physiological monitoring & is anticipated to require active life support)
☐ check if not included in project
☐ room is a restricted area
☐ accessed from semi-restricted area

Flooring:

- ☐ cleanable and wear-resistant for the location; stable, firm & slip-resistant
☐ monolithic floor with integral covered wall base carried up the wall min. 6"

Wall Finishes:

- ☐ washable; free of fissures, open joints, or crevices

Ceiling:

- ☐ monolithic, scrubbable, capable of withstanding cleaning & disinfecting chemicals, gasketed access openings

Ventilation:

- ☐ Min. 20 air changes per hour Table 7.1
☐ Positive pressure
☐ No recirculating room units

Power:

- ☐ Min. 36 receptacles in total Table 2.1-1
☐ Min. 16 receptacles convenient to patient table
☐ Min. 2 receptacles on each wall

Nurse Call System:


- ☐ Staff assistance station Table 2.1-2
☐ Emergency call station

Medical Gases:

- ☐ 2 OX, 5 VAC, 1 MA, 1 WAGD Table 2.1-3 + Errata


- 2.2-3.4.2.3(3) Hand Scrub Facilities:
☐ hand scrub facilities provided directly outside entrance to Class 3 imaging rooms
- 2.1-2.8.6.3 ☐ placement of scrub station does not restrict min. required corridor width
- 2.2-3.4.2.1(3) + Errata
- 2.2-3.3.3.2(3) Space Requirements:
 (may include minor wall encroachments of max. 12" deep by max. 10% of wall length)
☐ uses portable imaging equipment or surgical procedures that require additional personnel or large equipment
- (a) ☐ sized to accommodate personnel & equipment planned to be in room during procedures

Architectural Requirements**Building Systems Requirements**

- (b)  New Construction & Major Renovations:
 ___ min. clear floor area 600 sf
 ___ min. clear dimension 20'-0"
or
 Limited Renovations:
 ___ min. clear floor area 500 sf
 ___ min. clear dimension 20'-0"

- 2.2-3.4.1.3 Radiation Protection:
☐ check if not included in project (only if imaging equipment does not emit ionizing radiations)
 ___ certified radiation physicist representing owner has specified type, location & amount of radiation protection to be installed in accordance with layout & equipment selections
 ___ specifications of radiation shielding have been submitted to DPH Radiation Control Program
 (1) ___ shielded control alcove or room
☐ check if not included in project (only if radiation-emitting imaging equipment is portable)

- 2.2-3.4.3 **COMPUTED TOMOGRAPHY (CT) FACILITIES**
☐ check if not included in project

- 2.2-3.4.3.1  ___ CT scanner room meets above requirements for Class 1 imaging rooms
or
 ___ CT scanner room meets above requirements for Class 2 imaging rooms
or
 ___ CT scanner room meets above requirements for Class 3 imaging rooms

- 2.2-3.4.3.2
 2.2-3.4.1.3(1) ___ Shielded control alcove or room
 (a) Space Requirements:
 ___ sized & configured according to manufacturer's recommendations
 (c) ___ shielded view window designed to provide full view of examination/procedure table & patient at all times including full view of patient during imaging activities (use of additional closed-circuit video monitoring permitted)
 (d) ___ control room enclosed with walls & door
 (e) ☐ check if not included in project (only for Class 1 imaging room & where imaging room is not required to be under positive or negative pressure)

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.2.2
(1) Space Requirements:
 ___ imaging rooms are sized & configured to comply with manufacturer's recommendations for installation service & maintenance
 ___ installation plans from manufacturer have been submitted to DPH Plan Review
- (2)(a) ___ min. clearance 4'-0" on all circulating sides of patient table/bed/couch gantry or assembly
- 2.2-3.4.2.4(d) Structural Support:
 ___ floor & if applicable ceiling structures in imaging rooms designed to support weight of imaging equipment as well as other fixed & movable ancillary equipment
- 2.2-3.4.3.3
2.2-3.4.2.5 ___ System component room
 ___ ☐ check if not included in project
- (1) Location:
 (a) ___ accessed only from unrestricted or semi-restricted space outside imaging room
- (2) Space Requirements:
 ___ room sized to accommodate following as indicated by imaging equipment manufacturer:
 ___ transformers
 ___ power distribution equipment
 ___ power conditioning/UPS equipment
 ___ computers
 ___ associated electronics & electrical gear
- 2.2-3.4.4.2 **RADIOGRAPHY ROOM**
 ___ ☐ check if not included in project
- 2.2-3.4.3.1 ___ Radiography room meets above requirements for Class 1 imaging rooms
- 2.2-3.4.3.2
2.2-3.4.1.3(1) ___ Shielded control alcove or room
- (a) Space Requirements:
 ___ sized & configured according to manufacturer's recommendations
- (c) ___ shielded view window designed to provide full view of examination/ procedure table & patient at all times including full view of patient during imaging activities (use of additional closed-circuit video monitoring permitted)

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.2.2
(1) ☐ Space Requirements:
 ☐ imaging rooms are sized & configured
 to comply with manufacturer's
 recommendations for installation
 service & maintenance
 ☐ installation plans from
 manufacturer have been submitted
 to DPH Plan Review
- (2)(a) ☐ min. clearance 4'-0" on all circulating
 sides of patient table/bed/couch gantry
 or assembly
- 2.2-3.4.2.4(d) ☐ Structural Support:
 ☐ floor & if applicable ceiling structures in
 imaging rooms designed to support weight
 of imaging equipment as well as other
 fixed & movable ancillary equipment
- 2.2-3.4.2.5 ☐ System component room
 ☐ check if not included in project
- (1) Location:
 (a) ☐ accessed only from
 unrestricted or semi-restricted
 space outside imaging room
- (2) Space Requirements:
 ☐ room sized to accommodate
 following as indicated by imaging
 equipment manufacturer:
- (a) ☐ transformers
 (b) ☐ power distribution
 equipment
 (c) ☐ power conditioning/UPS
 equipment
 (d) ☐ computers
 (e) ☐ associated electronics &
 electrical gear

2.2-3.4.4.2(2) ☐ Handwashing station

2.2-3.4.4.3 **FLUOROSCOPY ROOM**
☐ check if not included in project

- 2.2-3.4.3.1 ☐ Fluoroscopy room meets above
 requirements for Class 1 imaging rooms
or
☐ Fluoroscopy room meets above
 requirements for Class 2 imaging rooms
or
☐ Fluoroscopy room meets above
 requirements for Class 3 imaging rooms

2.2-3.4.3.2

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.1.3(1) ☐ Shielded control alcove or room
- (a) ☐ Space Requirements:
☐ sized & configured according to manufacturer's recommendations
- (c) ☐ shielded view window designed to provide full view of examination/ procedure table & patient at all times including full view of patient during imaging activities (use of additional closed-circuit video monitoring permitted)
- (d) ☐ control room enclosed with walls & door
- (e) ☐ check if not included in project (only for Class 1 imaging room & where imaging room is not required to be under positive or negative pressure)
- 2.2-3.4.2.2
(1) ☐ Space Requirements:
☐ imaging rooms are sized & configured to comply with manufacturer's recommendations for installation service & maintenance
☐ installation plans from manufacturer have been submitted to DPH Plan Review
- (2)(a) ☐ min. clearance 4'-0" on all circulating sides of patient table/bed/couch gantry or assembly
- 2.2-3.4.2.4(d) ☐ Structural Support:
☐ floor & if applicable ceiling structures in imaging rooms designed to support weight of imaging equipment as well as other fixed & movable ancillary equipment
- 2.2-3.4.3.3
2.2-3.4.2.5 ☐ System component room
☐ check if not included in project
- (1) Location:
- (a) ☐ accessed only from unrestricted or semi-restricted space outside imaging room
- (2) Space Requirements:
☐ room sized to accommodate following as indicated by imaging equipment manufacturer:
- (a) ☐ transformers
- (b) ☐ power distribution equipment
- (c) ☐ power conditioning/UPS equipment
- (d) ☐ computers
- (e) ☐ associated electronics & electrical gear

Architectural Requirements**Building Systems Requirements**

2.2-3.4.4.3

(1)

Class 1 Fluoroscopy Room:

☐ check if not included in project☐ separate toilet room☐ handwashing station☐ directly accessible* from each dedicated Class 1 fluoroscopy room or combination radiography/fluoroscopy room☐ patients are able to leave toilet room without reentering fluoroscopy room

2.2-3.4.4.4

MAMMOGRAPHY ROOM☐ check if not included in project

2.2-3.4.3.1

☐ Mammography room meets above requirements for Class 1 imaging rooms**or**☐ Mammography meets above requirements for Class 2 imaging rooms

2.2-3.4.4.4(1)

(a)

Space Requirements:

☐ min. clearance 3'-0" on all circulating sides of patient position

2.2-3.4.4.4(2)

Visual Privacy:

☐ means to prevent views into mammography room by the public or other patients

2.2-3.4.4.4(3)

☐ Handwashing station

2.2-3.4.4.4(4)

☐ Changing rooms for mammography patients
☐ check if not included in project (only if appropriate area for changing is provided in each mammography room)☐ immediately accessible* to waiting area☐ immediately accessible* to imaging rooms

2.2-3.4.10.3(2)

☐ each room includes seat or bench & mirror

2.2-3.4.10.3(3)

☐ provisions for hanging patient clothing & securing valuables located either in patient changing room or in shared secured storage

2.2-3.4.4.1(3)

(b)

Radiation Protection:

☐ mammography machines has built-in shielding for operator:☐ letter from certified radiation physicist approving shielding for operator**or**☐ shielded control alcove

Architectural Requirements**Building Systems Requirements**

2.2-3.4.5

MAGNETIC RESONANCE IMAGING (MRI) FACILITIES☐ check if not included in project

2.2-3.4.5.1

(1)

Planning Configuration of MRI Suite:

___ conforms to 4-zone screening & access control protocols identified by American College of Radiology

___ **Zone I:** all areas that are freely accessible to the general public

___ **Zone II:** interface between the publicly accessible uncontrolled Zone I & strictly controlled Zone III (space for screening questions, patient histories, medical insurance questions)

___ **Zone III:** no free access by unscreened persons or non-MRI personnel due to interactions between persons or equipment & MRI scanner

___ **Zone IV:** MRI scanner room where access must be supervised by MRI personnel

(2)

___ MRI suite as well as spaces around, above & below designed to prevent unscreened individuals from entering 5-gauss volume around MRI equipment

(3)

Specific Support Areas for MRI Suite:

(a)

___ space for patient interviews & clinical screening

(b)

___ space for physical screening

(c)

___ ferromagnetic (only) detection & warning systems

(d)

___ access controls

(e)

___ space to accommodate site-specific clinical & operational requirements such as image-guided procedures emergent imaging or general anesthesia support

☐ check if not included in project

(f)

___ space for containment of non-MRI-safe objects outside restricted MRI safety zones

(g)

___ space for storage (patient lockers) of patient belongings & non-MRI-safe items

(4)

___ Any area in which magnetic field strength is equal to or greater than 5 gauss is physically restricted by use of key locks or pass-key locking systems

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.5.2 ☐ MRI scanner room
- 2.2-3.4.3.1 ☐ MRI scanner room meets above requirements for Class 1 imaging rooms
- or**
- ☐ MRI scanner room meets above requirements for Class 2 imaging rooms
- or**
- ☐ MRI scanner room meets above requirements for Class 3 imaging rooms

- 2.2-3.4.2.3(2) Handwashing Station or Hand Scrub Facilities:

- 2.2-3.4.5.2(2) ☐ handwashing station
- ☐ located in Class 1 MRI scanner room or directly outside entrance to Class 1 MRI scanner room

or

- 2.2-3.4.2.3(2) ☐ handwashing station
- (a) ☐ directly accessible* to Class 2 MRI scanner room

or

- (b) ☐ hand scrub facilities
- ☐ hand scrub position directly outside entrance to Class 2 or Class 3 imaging room

- 2.1-2.8.6.3 ☐ placement of scrub station does not restrict min. required corridor width

- 2.2-3.4.2.2 (1) Space Requirements:
- ☐ imaging rooms are sized & configured to comply with manufacturer's recommendations for installation service & maintenance
- ☐ installation plans from manufacturer have been submitted to DPH Plan Review

- (2)(a) ☐ min. clearance 4'-0" on all circulating sides of patient table/bed/couch gantry or assembly

- 2.2-3.4.2.4(d) Structural Support:
- ☐ floor & if applicable ceiling structures in imaging rooms designed to support weight of imaging equipment as well as other fixed & movable ancillary equipment

- Cryogen Venting System: 2.2-3.4.5.3
- ☐ Emergency exhaust provided in accordance with equipment manufacturer's technical specifications
- ☐ Passive pressure relief provided in accordance with equipment manufacturer's technical specifications

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.2.5 ☐ System component room
 ☐ check if not included in project
- (1) Location:
- (a) ☐ accessed only from
 unrestricted or semi-restricted
 space outside imaging room
- (2) Space Requirements:
- ☐ room sized to accommodate
 following as indicated by
 imaging equipment
 manufacturer:
- (a) ☐ transformers
- (b) ☐ power distribution
 equipment
- (c) ☐ power conditioning/UPS
 equipment
- (d) ☐ computers
- (e) ☐ associated electronics &
 electrical gear
- 2.2-3.4.5.4 ☐ MRI control room
- (1) ☐ operator console positioned so operator
 has full view of principal approach &
 entrance to MRI scanner room
- (2) ☐ outward-swinging door
 ☐ check if not included in project
 ☐ door in open position does not
 obstruct view of entry opening
 from operator's console
- 2.2-3.4.1.3(1) Space Requirements:
- (a) ☐ sized & configured according to
 manufacturer's recommendations
- 2.2-3.4.1.3(1) ☐ shielded view window designed to
 provide full view of patient at all times
 (use of additional closed-circuit video
 monitoring permitted)
- 2.2-3.4.1.3(1) ☐ control room enclosed with walls & door
- (d) ☐ check if not included in project
- 2.2-3.4.1.3(1) (only for Class 1 imaging room & where
 imaging room is not required to be under
 positive or negative pressure)
- 2.2-3.4.5.5 ☐ Control vestibule
- (1) ☐ located outside MRI scanner room so
 that patients health care personnel &
 other employees must pass through it
 before entering MRI scanner room
- (2) ☐ control vestibule is part of MRI control
 room
- or**
- ☐ control vestibule directly visible from
 control room

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.5.6 ☐ Patient treatment/resuscitation area
☐ adjacent* to MRI room
☐ space suitable for patient code treatment/resuscitation
- 2.2-3.4.5.7
 2.2-3.4.2.5 ☐ System component room
☐ check if not included in project
- (1) Location:
 (a) ☐ accessed only from unrestricted or semi-restricted space outside imaging room
- (2) Space Requirements:
☐ room sized to accommodate following as indicated by imaging equipment manufacturer:
 (a) ☐ transformers
 (b) ☐ power distribution equipment
 (c) ☐ power conditioning/UPS equipment
 (d) ☐ computers
 (e) ☐ associated electronics & electrical gear
 (e) ☐ associated electronics & electrical gear
- 2.2-3.4.5.8
 (1) ☐ Equipment Installation Requirements:
☐ power conditioning and/or uninterruptible power supply provided as indicated by MRI manufacturer's power requirements & specific facility conditions
- (2) ☐ radiofrequency (RF) shielding provided for clinical MRI installations to attenuate stray radio frequencies that could interfere with MRI imaging process
- (3) ☐ magnetic shielding
☐ check if not included in project (only if magnetic field hazards or interferences are adequately controlled through facility planning)
☐ assessed by certified physicist
- 2.2-3.4.5.9
 (1)(a) ☐ Special Design Elements for MRI Scanner Room:
☐ ferromagnetic materials that may become detached or otherwise interfere with operation of MRI scanner are not used in MRI scanner rooms
- (1)(b) ☐ MRI scanner room be located and/or shielded to avoid electromagnetic interference from elevators or other electromagnetic equipment

Ventilation:
☐ Min. 6 air changes per hour Table 7.1

Architectural Requirements**Building Systems Requirements**

- (2)(a) ☐ floor structure designed to support weight of MRI scanner equipment minimize disturbance to MRI magnetic field & mitigate disruptive environmental vibrations
- (2)(b) ☐ MRI rooms be marked with lighted sign with red light to indicate that magnet is always on
- (2)(c) ☐ acoustic control provided to mitigate noise emitted by MRI scanner per Table 1.2-6

2.2-3.4.6 ULTRASOUND FACILITIES

☐ check if not included in project

- ☐ Ultrasound room
- 2.2-3.4.3.1 ☐ meets above requirements for Class 1 imaging rooms

- 2.2-3.4.6.1 Space Requirements:
- (1)(a) ☐ min. clearance 3'-0" on all circulating sides of patient table or procedural chair
- (2) ☐ handwashing station

- 2.2-3.4.6.2 ☐ Patient toilet room
- 2.2-3.4.10.2(2) ☐ directly accessible* from imaging room

- (a) ☐ each toilet room serves one ultrasound room only
- 2.2-3.4.10.2(2) **or**
- (b) ☐ patient toilet room serves more than one ultrasound room
- (c) ☐ shared toilet rooms have interlocking door access hardware

Ventilation:

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

2.2-3.4.7 NUCLEAR IMAGING SERVICES

☐ check if not included in project

- 2.2-3.4.7.1 ☐ Nuclear imaging room meets above requirements for Class 1 imaging rooms
- 2.2-3.4.3.1 **or**
- ☐ Nuclear imaging room meets above requirements for Class 2 imaging rooms
- or**
- ☐ Nuclear imaging room meets above requirements for Class 3 imaging rooms

- 2.2-3.4.7.1(3) ☐ Exercise area or room
- (a) ☐ check if not included in project
- ☐ space for exercise equipment in imaging room
- or**
- ☐ space for exercise equipment in separate room directly accessible* to imaging room

Architectural Requirements**Building Systems Requirements**

- (b) ☐ staff work space in imaging room
or
☐ staff work space in separate room directly accessible* to imaging room
- 2.2-3.4.7.1(4) ☐ Handwashing stations
☐ provided throughout nuclear imaging suite at locations of patient contact &
☐ provided throughout nuclear imaging suite at locations where radiopharmaceutical materials are handled, prepared or disposed
- 2.2-3.4.7.1(5) ☐ Nuclear imaging dose administration area (may be combined with pre-procedure patient care area or PET patient uptake/cool-down room)
 (c)(d)
 (a) ☐ located near preparation area
 (b) ☐ provisions for visual privacy from other areas
- 2.2-3.4.7.1(6) ☐ Surfaces throughout nuclear imaging suite constructed of cleanable non-porous materials that can be decontaminated
- 2.2-3.4.7.2 ☐ Scintigraphy (gamma camera) rooms
☐ check if not included in project
- 2.2-3.4.2.2
 (1) ☐ Space Requirements:
☐ imaging rooms are sized & configured to comply with manufacturer's recommendations for installation service & maintenance
☐ installation plans from manufacturer have been submitted to DPH Plan Review
- (2)(a) ☐ min. clearance 4'-0" on all circulating sides of patient table/bed/couch gantry or assembly
- 2.2-3.4.2.4(d) ☐ Structural Support:
☐ floor & if applicable ceiling structures in imaging rooms designed to support weight of imaging equipment as well as other fixed & movable ancillary equipment
- 2.2-3.4.7.2(2) ☐ handwashing station

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.2.5 ☐ System component room
☐ check if not included in project
- (1) Location:
 (a) ☐ accessed only from unrestricted or semi-restricted space outside imaging room
- (2) Space Requirements:
☐ room sized to accommodate following as indicated by equipment manufacturer:
 (a) ☐ transformers
 (b) ☐ power distribution equipment
 (c) ☐ power conditioning/UPS equipment
 (d) ☐ computers
 (e) ☐ associated electronics & electrical gear
- 2.2-3.4.7.3 ☐ Positron emission tomography suite (PET)
☐ check if not included in project
- (1) PET Suite Configuration:
 (a) ☐ PET suites designed & positioned in facility to restrict incidental exposure to ionizing radiation sources by persons not immediately involved in PET examination
- (b) ☐ certified radiation physicist has determined required extent of radiation shielding at radio-pharmacy, hot lab, scanner room, patient holding & other spaces
☐ specifications of radiation shielding have been submitted to DPH Radiation Control Program
- (2) ☐ PET scanner room
☐ check if not included in project
- 2.2-3.4.3.1 ☐ PET scanner room meets above requirements for Class 1 imaging rooms
or
☐ PET scanner room meets above requirements for Class 2 imaging rooms
or
☐ PET scanner room meets above requirements for Class 3 imaging rooms
- 2.2-3.4.2.2 Space Requirements:
 (1) ☐ imaging rooms comply with manufacturer's recommendations
☐ installation plans from manufacturer have been submitted to DPH Plan Review
- (2)(a) ☐ min. clearance 4'-0" on all circulating sides of patient table/bed/couch gantry or assembly

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.2.4(d) Structural Support:
 ___ floor & if applicable ceiling structures
 in imaging rooms designed to
 support weight of imaging equipment
 as well as other fixed & movable
 ancillary equipment
- 2.2-3.4.7.3(2)
 (b) ___ handwashing station
 (3)(b) ___ control room (may serve more
 than one PET scanner room)
- 2.2-3.4.3.3
 2.2-3.4.2.5 ___ System component room
 ___ check if not included in project
- (1) Location:
 (a) ___ accessed only from
 unrestricted or semi-restricted
 space outside imaging room
- (2) Space Requirements:
 ___ room sized to accommodate
 following as indicated by
 equipment manufacturer:
- (a) ___ transformers
 (b) ___ power distribution
 equipment
 (c) ___ power conditioning/ UPS
 equipment
 (d) ___ computers
 (e) ___ associated electronics &
 electrical gear
- 2.2-3.4.7.3(5) ___ Cyclotron room
 ___ check if not included in project (only
 if radiopharmaceuticals are provided by
 commercial sources)
- (a) ___ located in access-restricted areas
 (b) ___ shielding requirements coordinated
 between equipment manufacturer
 & reviewing medical physicist
 ___ specifications of radiation shielding
 have been submitted to DPH
 Radiation Control Program
- (c) ___ handwashing station
- (6) ___ Patient uptake/cool-down room
 ___ radiation shielding provided for
 patient uptake/cool-down
- (b) ___ configured & appointed to
 minimize patient movement during
 radiopharmaceutical uptake period
- (c) ___ Toilet room with handwashing station &
 dedicated "hot" toilet to accommodate
 radioactive waste
 ___ directly accessible* or adjacent* to
 uptake/cool-down room

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.7.4 ☐ Single-photon emission computed tomography room (SPECT)
☐ check if not included in project
- 2.2-3.4.3.1 ☐ SPECT scanner room meets above requirements for Class 1 imaging rooms
or
☐ SPECT scanner room meets above requirements for Class 2 imaging rooms
or
☐ SPECT scanner room meets above requirements for Class 3 imaging rooms
- 2.2-3.4.2.2 Space Requirements:
 (1) ☐ imaging rooms comply with manufacturer's recommendations
☐ installation plans from manufacturer have been submitted to DPH Plan Review
- (2)(a) ☐ min. clearance 4'-0" on all circulating sides of patient table gantry or assembly
- 2.2-3.4.2.4(d) Structural Support:
☐ floor & if applicable ceiling structures in imaging rooms designed to support weight of imaging equipment as well as other fixed & movable ancillary equipment
- 2.2-3.4.7.4(2) ☐ handwashing station
- 2.2-3.4.2.5 ☐ System component room
☐ check if not included in project
- (2) Space Requirements:
☐ room sized to accommodate following as indicated by imaging equipment manufacturer:
- (a) ☐ transformers
 (b) ☐ power distribution equipment
 (c) ☐ power conditioning/UPS equipment
 (d) ☐ computers
 (e) ☐ associated electronics & electrical gear
- 2.2-3.4.8.15(1) **PRE- & POST-PROCEDURE PATIENT CARE AREA FOR CLASS 1 IMAGING ROOMS:**
☐ check if Class 1 imaging rooms not included in project
- (1) ☐ Min. one patient care station provided for every three Class 1 imaging rooms or fraction thereof (for point-of-care lab work or injection preparation with non-radiopharmaceutical contrast agents)

Architectural Requirements**Building Systems Requirements**

- 2.2-3.4.8.15(2) **PRE- & POST-PROCEDURE PATIENT CARE AREA FOR CLASS 2 OR CLASS 3 IMAGING ROOMS:**
☐ check if Class 2 & Class 3 imaging rooms are not included in project
 (3) (may be shared with adjacent* surgical services)
- 2.1-3.4.1.1 _____ Patient care stations accommodate lounge chairs, gurneys or beds for pre- & post-procedure (recovery) patient care
 _____ Patient care stations accommodate seating space for family/visitors
- 2.1-3.4.1.2 _____ Location in unrestricted area
- 2.1-3.4.1.3(2) _____ Layout:
 (a) _____ combination of pre- & post-procedure patient care stations in one patient care area
 _____ patient care stations combined in same area meet most restrictive requirements of areas to be combined
or
 (b) _____ separate pre-procedure patient care area & post-procedure recovery area
or
 (c) _____ three areas: pre-procedure patient care area Phase I post-anesthetic care unit (PACU) & Phase II recovery area
- 2.1-3.4.1.4 _____ Number of Patient Care Stations:
 (1) _____ pre- & post-procedure patient care stations are combined into one patient care area
☐ check if not included in project
 _____ at least two patient care stations for each Class 2 & Class 3 imaging room
- (2) _____ separate pre-procedure & recovery areas
☐ check if not included in project
- 2.1-3.4.3 _____ pre-procedure patient care room or area provides minimum of one patient care station per imaging room
- 2.1-3.4.4 _____ Phase I post-anesthetic care unit (PACU) provides minimum of one Phase I patient care station per Class 3 imaging room
- 2.1-3.4.5 _____ Phase II recovery room(s) or area
 _____ min. one Phase II patient care station per Class 2 or Class 3 imaging room

Architectural Requirements**Building Systems Requirements**

2.1-3.4.2.2

(2)(a)

Space Requirements:

- ☐ patient care bays
 - ☐ check if not included in project
 - ☐ min. clearance 5'-0" between sides of patient beds/gurneys/lounge chairs
 - ☐ min. clearance 3'-0" between sides of patient beds/gurneys/lounge chairs & adjacent* walls or partitions
 - ☐ min. clearance 2'-0" between foot of patient beds/gurneys/lounge chairs & cubicle curtain

Ventilation:

- ☐ Min. 6 air changes per hour Table 7.1
- ☐ No recirculating room units

Power:

- ☐ Min. 8 receptacles in total Table 2.1-1
- ☐ convenient to head of gurney or bed

Nurse Call System:

- ☐ Staff assistance station Table 2.1-2
- ☐ Emergency call station

Medical Gases:

- ☐ 1 OX, 3 VAC, 1 MA per station Table 2.1-3

(2)(b)

- ☐ patient care cubicles
 - ☐ check if not included in project
 - ☐ min. clearance 3'-0" between sides of patient beds/gurneys/lounge chairs & adjacent* walls or partitions
 - ☐ min. clearance 2'-0" between foot of patient beds/gurneys/lounge chairs & cubicle curtain

Ventilation:

- ☐ Min. 6 air changes per hour Table 7.1
- ☐ No recirculating room units

Power:

- ☐ Min. 8 receptacles in total Table 2.1-1
- ☐ convenient to head of gurney or bed

Nurse Call System:

- ☐ Staff assistance station Table 2.1-2
- ☐ Emergency call station

Medical Gases:

- ☐ 1 OX, 3 VAC, 1 MA per station Table 2.1-3

- ☐ bays or cubicles face each other
 - ☐ check if not included in project
 - ☐ aisle with min. clearance 8'-0" independent of foot clearance between patient stations or other fixed objects

(2)(c)

- ☐ single-patient rooms
 - ☐ check if not included in project
 - ☐ min. clearance 3'-0" between sides & foot of beds/gurneys/lounge chairs & adjacent* walls or partitions

Ventilation:

- ☐ Min. 6 air changes per hour Table 7.1
- ☐ No recirculating room units

Power:

- ☐ Min. 8 receptacles in total Table 2.1-1
- ☐ convenient to head of gurney or bed

Nurse Call System:

- ☐ Staff assistance station Table 2.1-2
- ☐ Emergency call station

Medical Gases:

- ☐ 1 OX, 3 VAC, 1 MA per station Table 2.1-3

2.1-3.4.2.4

2.1-2.1.2

Patient Privacy:

- ☐ provisions are made to address patient visual & speech privacy

2.1-3.4.2.5

2.1-2.8.7.1

Handwashing stations

- ☐ located in each room where hands-on patient care is provided

Architectural Requirements**Building Systems Requirements**

- 2.1-2.8.7.3 ☐ handwashing station serves multiple patient care stations
☐ check if not included in project
- (1) ☐ at least 1 handwashing station for every 4 patient care stations or fewer & for each major fraction thereof
- (2) ☐ handwashing stations evenly distributed

- 2.1-3.4.4.2 ☐ At least one route of patient transport provides direct access from semi-restricted area of surgical suite to Phase I recovery area without crossing public corridors

- 2.1-3.4.4.3 ☐ Design of Phase I recovery area provides observation of all patient care stations from nurse station

- 130.960(B) Cardiac Catheterization & Electrophysiology:
☐ check if not included in project
☐ patient recovery area directly accessible from the procedure room

- 2.2-3.4.8 **SUPPORT AREAS FOR IMAGING SERVICES**
(may be shared between different imaging modalities)

- 2.2-3.4.8.2 ☐ Reception area with control desk
- 2.2-3.4.8.3 ☐ Documentation area
- 2.1-2.8.3.1 ☐ work surface to support documentation process
- 2.2-3.4.8.4 ☐ Consultation area
☐ for consultation with patients or referring clinician (including remote consultation)

- 2.2-3.4.8.8(1) ☐ Medication safety zone & storage
☐ immediately accessible* from pre- & post-procedure patient care areas
- 2.2-3.4.8.8(2) ☐ provision for locked storage of medications

- 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

- 2.1-2.8.8.2(1) ☐ medication preparation room
- (a) ☐ under visual control of nursing staff
- (b) ☐ work counter
- ☐ handwashing station
- ☐ lockable refrigerator
- ☐ locked storage for controlled drugs
- ☐ sharps containers
- ☐ ☐ check if not included in project

- (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
- (c) ☐ handwashing station located next to stationary medication-dispensing units or stations

- 2.2-3.4.8.11 ☐ Clean workroom or clean supply room (may be shared with another department)
- (2) ☐ readily accessible* to imaging rooms
- (1) ☐ clean workroom
- 2.1-2.8.11.2 ☐ used for preparing patient care items
- (1) ☐ work counter
- (2) ☐ handwashing station
- (3) ☐ storage facilities for clean & sterile supplies

or

- 2.1-2.8.11.3 ☐ clean supply room
- ☐ used only for storage & holding as part of system for distribution of clean & sterile supplies

- 2.2-3.4.8.12 Soiled workroom or soiled holding room
- 2.1-2.8.12.2 ☐ soiled workroom

- (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 management system is used
- ☐ ☐ check if not included in project
- (a) ☐ electrical & plumbing connections that meet manufacturer requirements
- (b) ☐ space for docking station

or**Building Systems Requirements**

- Ventilation:
- ☐ Min. 4 air changes per hour Table 7.1
- Lighting:
- ☐ Task lighting 2.1-2.8.8.1(2)(d)
- Nurse Call System:
- ☐ Duty station (light/sound signal) Table 2.1-2

- Lighting:
- ☐ Task lighting 2.1-2.8.8.1(2)(d)
- Nurse Call System:
- ☐ Duty station (light/sound signal) Table 2.1-2

- Ventilation:
- ☐ Min. 4 air changes per hour Table 7.1
- ☐ Positive pressure
- Nurse Call System:
- ☐ Duty station (light/sound signal) Table 2.1-2

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

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

- Nurse Call System:
- ☐ Duty station (light/sound signal) Table 2.1-2

Architectural Requirements**Building Systems Requirements**

- 2.1-2.8.12.3 ☐ soiled holding room
- (1) ☐ handwashing station or hand sanitation station
- (2) ☐ space for separate covered containers for waste & soiled linen

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

- 2.2-3.4.8.12(2) ☐ Contaminated (hot) soiled holding
☐ check if not included in project (only if Nuclear Imaging is not involved or if written statement from medical physicist is provided)
- (a) ☐ provided in soiled workroom or soiled holding room
- ☐ separate from other waste holding areas

- 2.2-3.4.8.13(1) ☐ Clean linen storage
- + Errata ☐ storage area for clean linen

- 2.2-3.4.8.14 ☐ Environmental services room
 (2) (may be shared with other departments)
- (1) ☐ immediate access to imaging suite

- 2.1-2.8.14.2 ☐ service sink or floor-mounted mop sink
- (1)

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

- (2) ☐ provisions for storage of supplies & housekeeping equipment

- (3) ☐ handwashing station
- or**
- ☐ hand sanitation station

- 2.2-3.4.8.16 ☐ Contrast media preparation area
 (3) (may serve multiple imaging rooms)
- ☐ check if not included in project
- (1)(a) & (b) ☐ sink & counter
- ☐ check if not included in project (only if prepared media are used)
- (2)
- (c) ☐ storage to accommodate preparation of contrast media

- 2.2-3.4.8.17 ☐ Image management system
- (1) ☐ space provided for digital image management system to be used for image acquisition & transmission

- 2.2-3.4.8.18 ☐ Image interpretation/reading rooms
- (1) ☐ remote location of image interpretation/reading areas be permitted provided radiologists are immediately available when interventional imaging procedures are performed
- or**
- (2) ☐ on-site location of image interpretation/reading areas
- (a) ☐ adjustable ambient lighting with minimal glare projected onto computer monitors

Architectural Requirements**Building Systems Requirements**

- (b) _____ higher level of illumination for room maintenance (activated separately from ambient reading lighting)
 _____ workstation task lighting for writing or reading hard copy
 _____ acoustic control
 _____ materials, finishes & sound masking minimize disruption from conversational speaking dictation & surrounding noise

2.2-3.4.8.19 Facilities for Processing Ultrasound Probes:

☐ check if not included in project

- (1) _____ dedicated ultrasound probe processing room
- (c) _____ processing room allows for flow of ultrasound probes from decontamination area to clean area & then to storage
- (d) _____ decontamination area
 _____ work counter
 _____ instrument-washing sink appropriate to method of decontamination used
 _____ handwashing station
 _____ space & utility connections to support high-level disinfection process & equipment used

Errata

Ventilation:

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

or

- (2) _____ ultrasound probes processed at point of use or in separate area using automated high-level disinfection unit specifically designed for ultrasound probes
- (a) _____ space for disinfection device with access to electrical receptacle
- (b) _____ access to soiled workroom provided in same clinical area to support probe decontamination
 _____ soiled workroom equipped with instrument-washing sink

- (3) _____ clean ultrasound probe storage

2.2-3.4.8.21 _____ Radiopharmaceutical production pharmacy

☐ check if not included in project

_____ radiopharmacy provided with appropriate shielding

(1) Space Requirements:

- (a) _____ space provided for dose calibration quality assurance & record-keeping activities
- (b) _____ space for storage of radionuclides chemicals for preparation dose calibrators & records
- (2) _____ floors & walls be constructed of easily decontaminated materials

Ventilation:

- _____ Hoods for pharmaceutical preparation meet applicable standards

2.2-3.4.8.21 (3)

Architectural Requirements

- 2.2-3.4.8.22 ☐ Hot lab for nuclear imaging services
☐ check if not included in project
☐ securable area or room for storage & dosage of radiopharmaceuticals
- (2) ☐ hot lab shielded according to manufacturer's technical specifications
☐ manufacturer's technical specifications have been submitted to DPH Plan Review
- (3)(a) ☐ source storage area
 (3)(b) ☐ dose storage area
 (3)(c) ☐ storage area for syringe shields
 (3)(d) ☐ emergency eyewash & shower

SUPPORT AREAS FOR IMAGING SERVICES STAFF

- 2.2-3.4.9
 2.2-3.4.9.1 ☐ Staff lounge
 (1) ☐ readily accessible* to imaging suite
 (2) ☐ Provisions for securing staff belongings

- 2.2-3.4.9.2 ☐ Staff toilet room
 (1) ☐ directly accessible* to staff lounge

- (2) ☐ imaging suite has fewer than 3 imaging rooms
☐ staff toilet room readily accessible* to imaging suite
or
☐ imaging suite has 3 or more imaging rooms
☐ staff toilet room immediately accessible* to imaging suite

- 2.2-3.4.9.4 ☐ Staff changing area
 (may be shared with surgery services)
☐ check if not included in project (only if all imaging rooms are Class 1)

- 2.2-3.3.9.4(1) ☐ staff changing area with one or more private changing rooms or areas provided for male & female staff

- 2.2-3.3.9.4(2)

- (a) ☐ lockers
 (b) ☐ showers
 (c) ☐ toilets

- (d) ☐ handwashing stations
 (e) ☐ space for donning & doffing surgical attire
 (f) ☐ provision for separate storage of clean & soiled surgical attire

Building Systems Requirements**Ventilation:**

- ☐ Min. 6 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

Ventilation:

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

Architectural Requirements**Building Systems Requirements**

2.2-3.4.10

SUPPORT AREAS FOR PATIENTS

2.2-3.4.10.1

- (1) ☐ Patient waiting room or area
- ☐ screened & separated from unrelated traffic
- ☐ under staff control
- (2) ☐ seating capacity accommodates maximum expected patient volume
- (3) ☐ suite routinely used for inpatients at same time as outpatients
- ☐ check if not included in project
- ☐ outpatient waiting & inpatient holding areas separated to provide visual & acoustic privacy

- (4) Sub-Waiting Areas:
- ☐ check if not included in project
- ☐ provision of waiting areas for individual imaging modalities or sharing of sub-waiting areas among similar modalities
- ☐ located in areas adjacent* to imaging rooms is desired

2.2-3.4.10.2

- (1) ☐ Patient toilet rooms
- ☐ immediately accessible* to waiting areas
- ☐ immediately accessible* to changing rooms
- ☐ handwashing stations

- (3) ☐ Toilet rooms for nuclear imaging patients
- ☐ check if not included in project (only if Nuclear Imaging is not involved)
- (a) ☐ immediately accessible* to waiting areas
- ☐ immediately accessible* to nuclear imaging rooms
- (b) ☐ dedicated "hot" toilets for dosed nuclear imaging patients

2.2-3.4.10.3

- ☐ Patient changing rooms
- ☐ check if not included in project
- (1) ☐ located adjacent* to imaging rooms
- (2) ☐ each room includes seat or bench & mirror
- (3) ☐ provisions for hanging patient clothing & securing valuables located either in patient changing room or in shared secured storage

Ventilation:

- ☐ X-ray imaging rooms served
- ☐ min. 12 air changes per hour
- ☐ exhaust or recirculation through HEPA filter
- ☐ negative pressure
- or**
- ☐ no X-ray imaging rooms served
- or**
- ☐ ICRA attached to Project Narrative indicates that no special measures are needed to reduce risk of airborne infection transmission

Table 7.1

2.2-3.4.10.1(5)

Ventilation:

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

Table 7.1

Ventilation:

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

Table 7.1

***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:**

2.1-7.2.2.1 NFPA 101, 18.2.3.4 ☐ 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

(2) ☐ Min. height 7'-0" in radiography, procedure & operating rooms from floor to lowest protruding element of equipment or fixture in stowed position

(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 included in Project Narrative
☐ no floor tracks

(2)

(a)

Door Opening:

☐ 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

☐ min. clear width 34.5"

(3)

(a)

Door Swing:

☐ doors do not swing into corridors except doors to non-occupiable spaces & doors with emergency breakaway hardware

(4)

☐ Lever hardware or push/pull latch hardware

(5)

(a)

Doors for Patient Toilet Facilities:

☐ 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)

☐ toilet room opens onto public area or corridor

☐ check if not included in project

☐ visual privacy is maintained

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
☐ check if not included in project (only at hand scrub facilities)
- (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
- (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 with 1/8-inch min. radius
- (5) ☐ Handrails have eased edges & corners
- (6) ☐ Handrail finishes are cleanable

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 where impact noises may be generated are not located directly over operating suites
- 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

2.1-7.2.3 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
- (7)(a) ☐ Floors are monolithic & integral coved wall bases are at least 6" high & tightly sealed to wall in Class 2 & Class 3 imaging rooms

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 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) Semi-Restricted Areas:
☐ check if not included in project
- (a) ___ ceiling finishes are scrubbable, non absorptive, non perforated, & capable of withstanding cleaning with chemicals
- (b) ___ lay-in ceilings
 ___ gasketed or each ceiling tile weighs min. 1 Lbs. per sq. ft.
- (c) ___ no perforated, tegular, serrated or highly textured tiles
- or**
- ___ ceilings of monolithic construction

- (3) Restricted Areas:
☐ check if not included in project
- (a) ___ ceilings of monolithic construction (except for central diffuser array)
- (b) ___ ceiling finishes scrubbable & capable of withstanding cleaning & disinfecting chemicals
- (c) ___ access openings are gasketed

2.1-7.2.4

FURNISHINGS

2.1-7.2.4.1

- ___ built-in furnishings upholstered with impervious materials in patient treatment areas with risks of exposure & contamination from bodily fluids & other fluids

2.1-7.2.4.3

- ___ Privacy curtains in patient care areas are washable

2.1-8.2

HEATING VENTILATION & AIR-CONDITIONING (HVAC) SYSTEMS UTILITIES:

Part 3/6.1

Part 3/6.1.1

Ventilation Upon Loss of Electrical Power:

- ___ space ventilation & pressure relationship requirements of Table 7.1 are maintained for Class 2 & Class 3 imaging rooms in event of loss of normal electrical power

Part 3/6.1.2

Part 3/6.1.2.1

Heating & Cooling Sources:

- ___ heat 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
- ___ capacity of remaining source or sources is sufficient to provide heating for Class 2 & Class 3 imaging rooms & recovery 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
- ___ cooling sources sufficient to support facility operation plan upon breakdown or routine maintenance of any one of cooling sources

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

Part 3/6.3

OUTDOOR AIR INTAKES & EXHAUST DISCHARGES:

Part 3/6.3.1

Part 3/6.3.1.1

Outdoor Air Intakes:

- ___ located min. of 25'-0" 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 3/6.3.1.3

- ___ intakes on top of buildings
- ☐ check if not included in project
- ___ located with bottom of air intake min. of 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 3/6.4

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
- ___ Filter Bank No. 1 is placed upstream of heating & cooling coils
- ___ Filter Bank No. 2 is placed downstream of all wet-air cooling coils & supply fan

Part 3/6.4.1

Part 3/6.4.2

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 Class 2 & Class 3 imaging rooms

Part 3/6.7 AIR DISTRIBUTION SYSTEMS:

- Part 3/6.7.1 ☐ Maintain pressure relationships required in tables 7.1 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 & recovery rooms 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
- Part 3/6.8.1 ☐ Located upstream of Filter Bank No. 2
- 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
☐ not used from these exhaust airstream sources: radiology waiting rooms, darkroom, waste anesthesia gas disposal, soiled holding room, nuclear medicine hot lab & nuclear medicine treatment room

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 3/7.1.a.4 ☐ Entire minimum outdoor air changes per hour required by Table 7.1 for each space meet filtration requirements of Section 6.4

- Part 3/7.1.a.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 ROOM-SPECIFIC REQUIREMENTS:
Part 3/7.4.1 Operating Rooms

- ☐ check if not included in project
- ☐ Each OR has individual temperature control
- ☐ OR is provided with primary supply diffuser array designed as follows:
☐ airflow is unidirectional downwards & average velocity of diffusers is 25 to 35 CFM/ft²
☐ diffusers are concentrated to provide airflow pattern over patient & surgical team
☐ coverage area of primary supply diffuser array extends min. 12" beyond footprint of surgical table on each side
☐ no more than 30% of portion of primary supply diffuser array is used for non-diffuser uses
☐ additional supply diffusers provided within room outside of primary supply diffuser array
☐ check if not included in project
- ☐ each OR has at least two low sidewall return or exhaust grilles spaced at opposite corners or as far apart as possible with bottom of these grilles installed approximately 8" above floor

Part 3/7.4.3 Imaging Procedure Rooms

- ☐ check if not included in project
- ☐ Anesthetic gases are administered
☐ ventilation requirements for operating rooms are met
- or**
- ☐ No anesthetic gases are administered

2.1-8.3 ELECTRICAL SYSTEMS**2.1-8.3.2 ELECTRICAL DISTRIBUTION & TRANSMISSION**

- 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

2.1-8.3.5 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
- 2.1-8.3.5.2 ☐ Electronic health record system servers & centralized storage provided with uninterruptible power supply

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
- ☐ non-recirculated fixture branch piping max. length 25'-0"
- (3)(a) ☐ no installation of dead-end piping (except for empty risers mains & branches for future use)
- (3)(c) ☐ any existing dead-end piping is removed
- (3)(b) ☐ check if not included in project
- (4)(a) ☐ 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)(a) ☐ drainage piping installed above ceiling of or exposed in rooms listed below
- ☐ check if not included in project
- Sterile processing facilities
 - Class 2 & 3 imaging rooms,
 - Electronic data processing areas
 - Electric closets
- ☐ 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 that is not open to restricted area
- (2) Floor Drains:
- (a) ☐ no floor drains in Class 2 & Class 3 imaging rooms

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) ☐ sinks in handwashing stations are designed with basins that will reduce risk of splashing to areas where direct patient care is provided, sterile procedures are performed & medications are 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" 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:
- (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
- (b) ☐ integral trap wherein upper portion of water trap provides visible seal
- (2) ☐

2.1-8.4.3.6**Scrub Sinks:**

- ☐ check if not included in project
- (1) ☐ freestanding scrub sinks are trimmed with foot, knee or electronic sensor controls
- (2) ☐ no single-lever wrist blades except for temperature pre-set valve

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

2.1-8.5.1.3**Bath Stations:**

- ☐ bath station that can be activated by patient lying on floor provided at each patient toilet
- (1) ☐ alarm in these areas can be turned off only at bath station where it was initiated
- (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