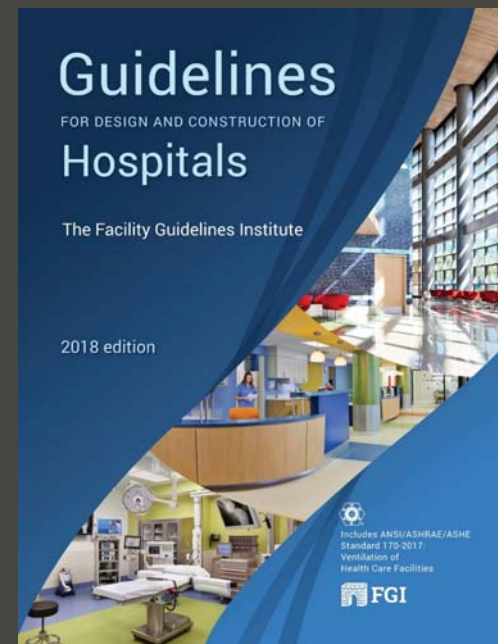
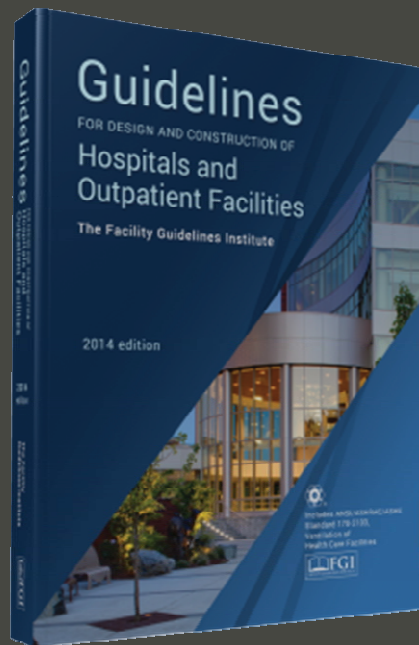


Major Changes in the 2018 FGI Guidelines



Construction Review Services
Washington State Department of Health

Susan Upton

susan.upton@doh.wa.gov

John Williams

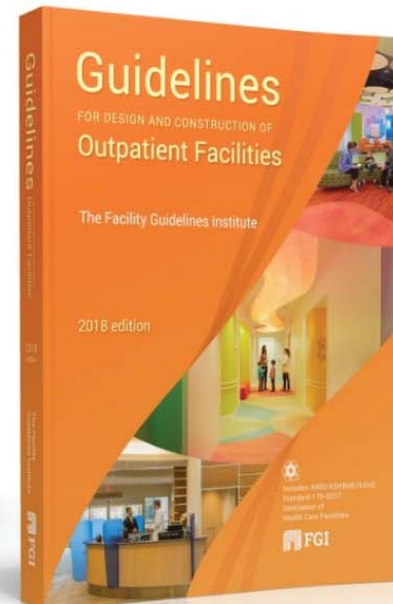
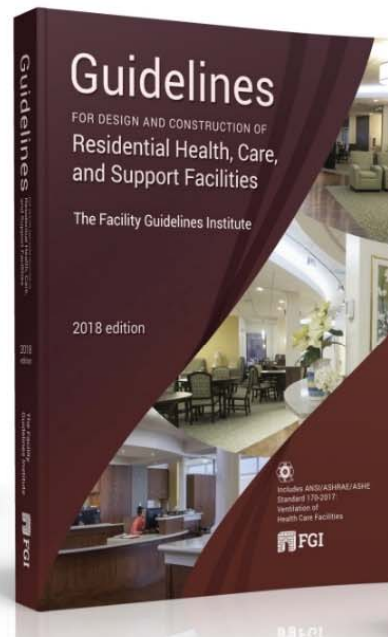
John.Williams@doh.wa.gov

2018 FGI Guidelines

Hospital

Residential

Outpatient



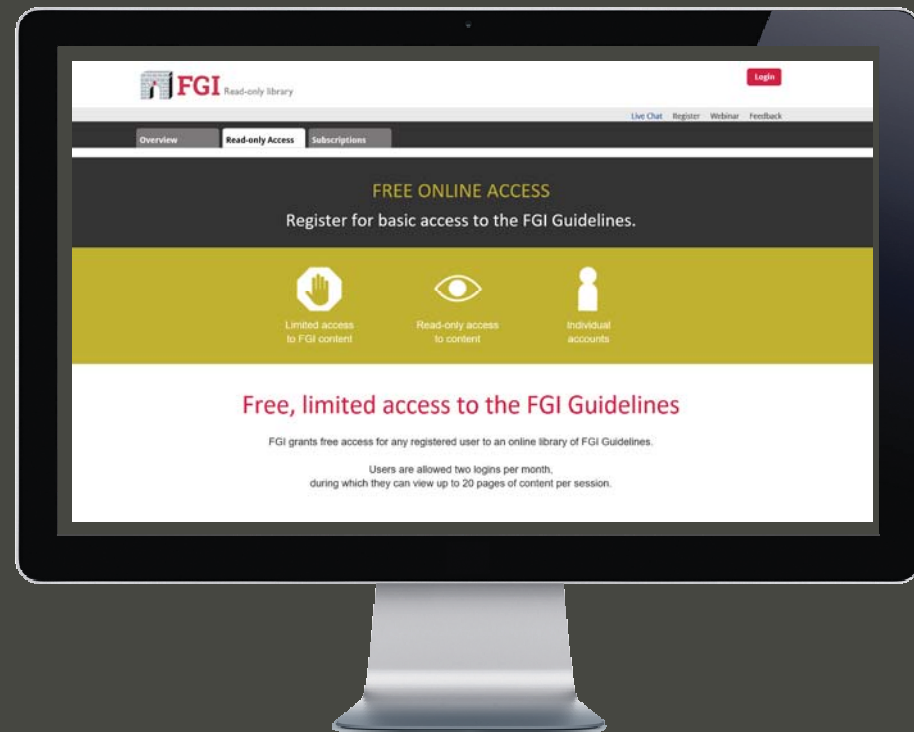
Free access to the 2018 FGI

Two Options:

1. Limited Site license

- *6 months*
- *Read only*
- *Few concurrent users*
- *Contact CRS for details*

2. Free site: www.fgireadonly.madcad.com

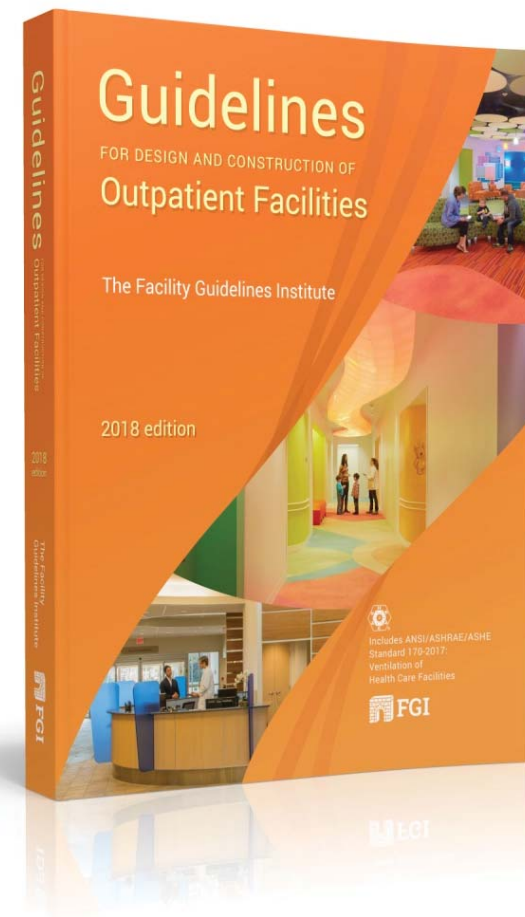


New book

Part 1: General

Part 2: Outpatient Facility Types

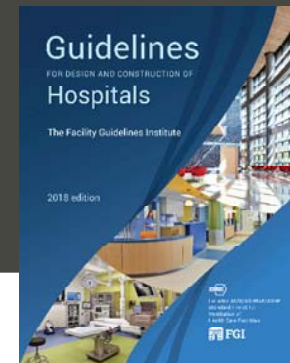
**Part 3: ASHRAE/ASHE 170:
*Ventilation of Health Care Facilities***



Hospital Book – Major Changes

Presentation Covers:

- POS – Patient of Size
- Telemedicine
- SAFE Room (sexual assault forensic exam)
- OR/Procedure/Treatment/Imaging
- Pre-Post Procedure Areas
- Sterile Processing Facilities
- New mobile/transportable unit chapter



Hospital – Section 2.1-2.3



POS

(Patients of Size)

Accommodations

Hospital – Section 2.1-2.3

Accommodations for POS

- Bariatric name change to POS
- Requirements moved to Common Elements Chapter
 - Required at POS inpatient care
 - Encouraged accommodations throughout (imaging)
- Facility determines need to accommodate POS

Hospital – Section 2.1-2.3.2.2

POS – Patient Room

Single patient room required

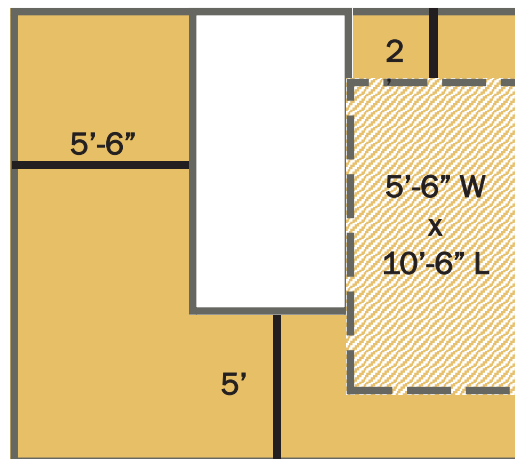
Room size based on clear floor area requirements

- 5 feet at foot of bed
- 5 feet 6 inches at non-transfer side of bed
- Transfer side clearance based on lift type

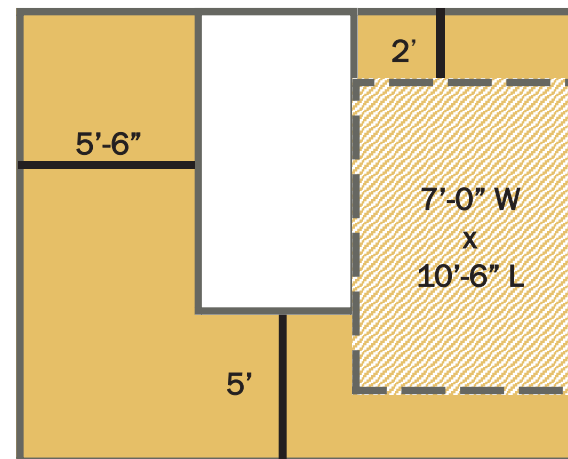
* Note - POS beds are expanded capacity beds

Hospital – Section 2.1-2.3.2.2

POS – Transfer side clearance



Overhead/wall mounted lift



Mobile/ floor lift

Hospital – Section 2.1-2.3.5

POS – Patient Toilet Room

- Where 600 lbs capacity lifts are provided they are required to transfer patient from bed to toilet
- Expanded-capacity toilet – 36 inch clearance from centerline of toilet to wall on both sides
- Clearance in front of toilet – 46 inch wide extending 72 inches from the front of the toilet

Hospital – Section 2.1-2.3.5

POS – Patient Toilet Room

- Shower stall 4 feet x 6 feet (no change)
- Shower grab bars 800lb capacity (was 1,000)
- Handheld spray nozzle at side wide shower (no change)

Hospital – Section 2.1-2.3.7

POS – Single Patient Exam/ Treatment

Room sized to permit clearances below:

- 5 feet clearance at foot of table
- 5 feet clearance at non-transfer side of table
- Clearance at transfer side of table:
 - 5 feet with ceiling/ wall mounted lift
 - 7 feet without ceiling/wall mounted lift

* Note - Expanded capacity tables

Hospital – Section 2.1-2.3.10.2

POS – Door openings

- (1) All door openings used for path of travel to public areas and areas where care of POS provided shall have min. width of 45.5 inches
- (2) Door opening to POS patient rooms shall have min. width of 57 inches (was 54 inches)
- (3) Door opening to POS toilet rooms shall have min. width of 45.5 inches (was 42 inches)

Hospital – Section 2.2-3.1.3.6

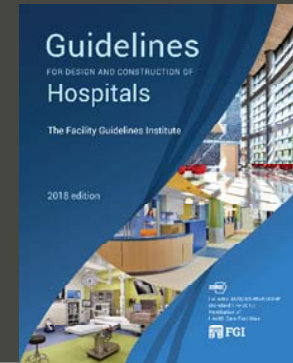
ED – Treatment room/ area

POS Treatment room required at all ED

- Rooms shall meet POS 2.1-2.3.7
- Transfer side clearance of 5 feet 6 inches where ceiling/ wall mounted lifts are provided

Outpatient FSED – based on planning assessment 1.2-6.4.1

Hospital – Section 2.1-3.2.4



SAFE
Room

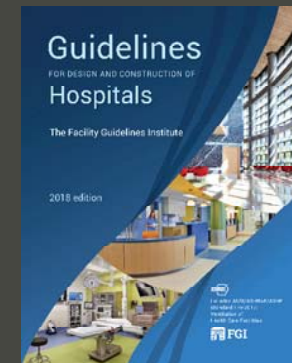
Hospital – Section 2.1-3.2.4

Sexual Assault Forensic Exam Rm

Where provided it shall meet the following:

- 2.1-3.2.2 - Single patient exam room
 - Pelvic exam table
 - Lockable forensic storage
 - Private toilet and shower directly accessible
- Consult room for family and law enforcement

Hospital – Section 2.1-3.3



Telemedicine Accommodations

Hospital – Section 2.1-3.3

Telemedicine Services

Clinical space requirements:

- Patient care area (bay, cubicle or room) that directly relates to the services provided
- Telemedicine room can be shared

*Section applies to virtual visits that require a physical exam

Hospital – Section 2.1-3.3.2.2

Telemedicine exam sized to provide:

- Exam table situated within view of camera
- Telemedicine equipment
- Peripheral devices
- On-site caregiver or patient presenter
- HW station with hands-on patient care
- Documentation area

Hospital – Section 2.1-3.3.2.4

Telemedicine

Acoustic Privacy:

- Speech privacy per Table 1.2-7
- Speech intelligibility per Table 1.2-4
- Sound Isolation per Table 1.2-6
- Background noise per Table 1.2-5

Hospital – Section 2.1-3.3.2.5

Telemedicine:

Lighting:

- Ability to provide direct frontal lighting
- Means for controlling glare of:
 - Natural light source
 - Artificial light source

Guidelines
FOR DESIGN AND CONSTRUCTION OF
Hospitals

The Facility Guidelines Institute

2018 edition

FGI
The Facility Guidelines Institute
www.fgi.org
1 South Dear Street
Chicago, IL 60604
1-800-368-5878



Pre and Post Procedure Patient Care Areas

Hospital – Section 2.1-3.4

Pre- and Post- Procedure Patient Care Area

- Pre and post procedure can be in one area
(separate PACU no longer required)
- Stations can be bays, cubicles or single-patient rooms
- Flexible stations must meet the most restrictive
(prep, recovery phase I, recovery phase II)
- Where pre- and post-procedures stations in one area:
2 patient stations required per Class 2 and Class 3
imaging, procedure and OR room

Hospital – Section 2.1-3.4

Pre- and Post- Procedure Patient Care Area

- With separate pre-procedure room:
 - Minimum of one patient station per imaging, procedure or operating room

- Phase II recovery room
 - Minimum of one patient station per imaging, procedure or operation room

Hospital – Section 2.1-3.4

Patient Care Stations

- Space requirements based on equipment and clearances
- Eliminates minimum SF area requirement
- Does not distinguish between Bed/Gurney/Chair

Hospital – Section 2.1-3.4

Pre/Post Procedure Care Areas

2014 Bay	2018 Bay Clearances
<ul style="list-style-type: none">▪ 60 SF Area▪ 5 feet between beds/stretchers▪ 4 feet between bed/stretcher and wall▪ 3 feet between foot of bed and curtain	<ul style="list-style-type: none">▪ 5 feet between side of beds/gurney/chair▪ 3 feet between bed/gurney/chair and wall▪ 2 feet between foot of bed/gurney/chair and curtain

Hospital – Section 2.1-3.4

Pre/Post Procedure Care Area Size

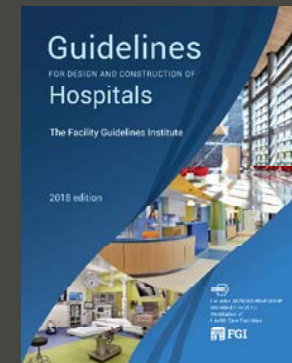
2014 Cubicle	2018 Cubicle Clearances
<ul style="list-style-type: none">▪ 80 SF Area▪ 3 feet between side of stretcher/chair and wall▪ 3 feet between foot of bed and curtain	<ul style="list-style-type: none">▪ 3 feet between side of bed/gurney/chair and wall▪ 2 feet between foot of bed/gurney/chair and curtain

Hospital – Section 2.1-3.4

Pre/Post Procedure Care Area Size

2014 Single Room	2018 Single Room
<ul style="list-style-type: none">▪ 100 SF Area▪ 3 feet between side of stretcher/chair and wall▪ 3 feet between foot of bed and wall	<ul style="list-style-type: none">▪ 3 feet between side of bed/gurney/chair and wall▪ 3 feet between foot of bed/gurney/chair and wall

Hospital – Section 2.2-2.3



Diagnostic &
Treatment
Facilities

Hospital – Section 2.2-3

Exam/ Treatment/ Procedure/ OR

Procedure Room Type	Imaging Room Type	Use
Exam/ Treatment Room	Class 1 Imaging Room	A room designated for the performance of patient care that may require high-level disinfected or sterile instruments but is not required to be performed with the environmental controls of a procedure room.
Procedure Room	Class 2 Imaging Room	A room designated for the performance of patient care that requires high-level disinfection or sterile instruments and some environmental controls but is not required to be performed with the environmental controls of an operating room.
Operating Room	Class 3 Imaging room (Hybrid OR)	A room that meets the requirements of a restricted area, is designated and equipped for performing surgical or other invasive procedures, and has the environmental controls for an OR as indicated in ASHRAE 170. An aseptic field is required for all procedures performed in an OR.

Hospital – Section 2.2-3

New Room Classification

- New Classification system for imaging rooms
 - Invasive (monitoring/life support)
 - Diagnostic and therapeutic
 - Diagnostic
- Room sizes based on space requirements
 - anesthesia team
 - Equipment
 - AORN clearances
- Locations for procedure type (access from semi-restricted)

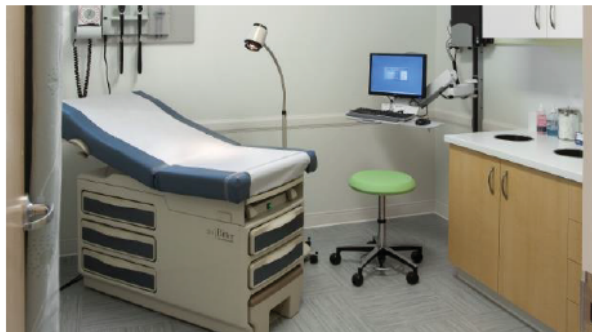
Room Classification



Invasive procedure – Operating room



Patient care that requires high-level disinfection or sterile instruments but does not require OR environmental controls – Procedure room



Non-invasive procedure – Exam room
Treatment room

Definition of Invasive Procedure – Definitions changes – Why does it matter?

- Operating Room – Invasive*
- Procedure Room -
 - Patient care that may require sterile instruments, requires some environmental controls but not OR levels
 - Semi-restricted area, can be outside surgical department
- Treatment/Exam room – Non-invasive

*Invasive Procedure includes procedures that do not begin as an open procedure but has a risk of requiring conversion to an open procedure

Hospital – Section 2.2-3

Exam/ Treatment Room

Room	Use	Design Requirements		
		Room Type	Location	Surfaces
Exam or treatment room	Patient care that may require high-level disinfected or sterile instruments but does not require the environmental controls of a procedure room	Unrestricted area	Accessed from an unrestricted area	<p><i>Flooring:</i> cleanable and wear-resistant for the location; stable, firm, and slip-resistant</p> <p><i>Wall finishes:</i> washable</p> <p><i>Ceiling:</i> cleanable with routine housekeeping equipment; lay-in ceiling permitted</p>

Hospital – Section 2.2-3

Procedure Room

Room	Use	Design Requirements		
		Room Type	Location	Surfaces
Procedure room	Patient care that requires high-level disinfection of the room, sterile instruments, and some environmental controls but does not require the environmental controls of an operating room Endoscopic procedures	Semi-restricted area	Accessed from an unrestricted or a semi-restricted area	<p>Flooring: cleanable and wear-resistant for the location; stable, firm, and slip-resistant <i>Floor and wall base assemblies in cystoscopy, urology, and endoscopy procedure rooms and endoscope processing room:</i> monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches</p> <p>Wall finishes: washable <i>Wall finishes in endoscopy procedure room and endoscope processing room:</i> washable; free of fissures, open joints, or crevices</p> <p>Ceiling: smooth and without crevices, scrubbable, non-absorptive, non-perforated; capable of withstanding cleaning chemicals; without crevices; lay-in ceiling permitted if gasketed or each ceiling tile weighs at least one pound per square foot and no perforated, tegular, serrated, or highly textured tiles</p>

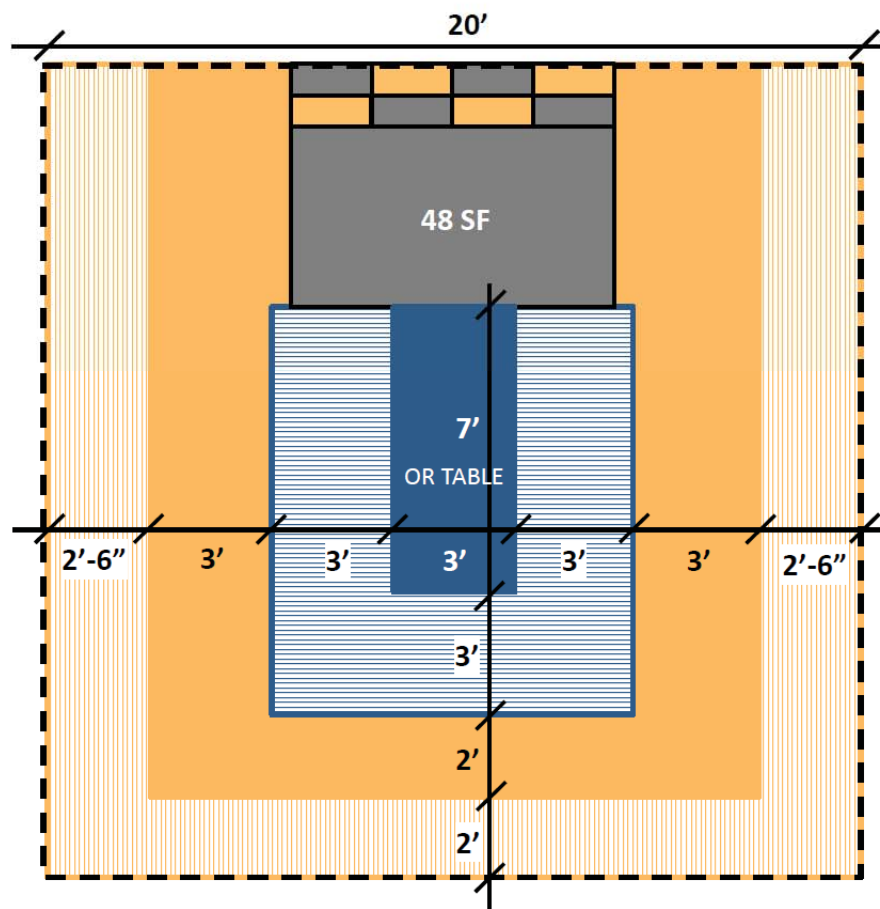
Hospital – Section 2.2-3

Operating Room

Room	Use	Design Requirements		
		Room Type	Location	Surfaces
Operating room	Invasive procedures ³ Any procedure during which the patient will require physiological monitoring and is anticipated to require active life support	Restricted area	Accessed from a semi-restricted area	<p>Floor and wall base assemblies: monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches</p> <p>Floor and wall base assemblies: monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches</p> <p>Wall finishes: washable; free of fissures, open joints, or crevices</p> <p>Ceiling: monolithic, scrubbable, capable of withstanding cleaning and/or disinfecting chemicals, gasketed access openings</p>

Hospital – Section 2.2-3

CLEARANCE ZONE DIAGRAM OPERATING ROOM – INPATIENT



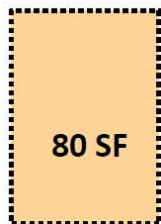
INPATIENT OPERATING ROOM

- Patient area
- Sterile field where scrub and physician work
- Circulation pathway where the circulator walks to perform duties. Cannot walk into sterile field.
- Movable equipment zone where the required movable equipment is stored and provides for door swing and opening of fixed drawers or opening of door and drawers on carts
- Anesthesia 6' x 8' work zone
- Gray and orange area= 2' area shared between anesthesia and circulator.
- CFA Clear Floor Area - 400 SF

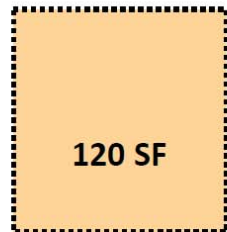
3' X 7' Gurney for planning purposes
3' at Sides & Foot – Sterile Field
3' at Sides, 2' at Foot – Circulation
2'-6" at Sides, 2' at Foot – Equipment
20' Minimum Width, 400 SF Minimum CFA

Hospital – Section 2.2-3

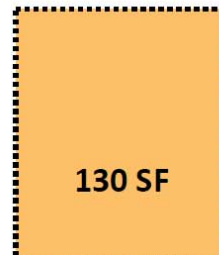
2018 GUIDELINES MINIMUM ROOM SIZES



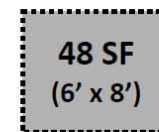
OP Exam



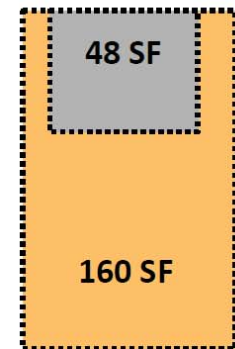
Hospital Exam



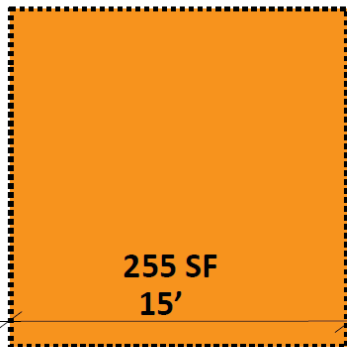
Procedure Room
(WITHOUT Need for Anesthesia Equip)



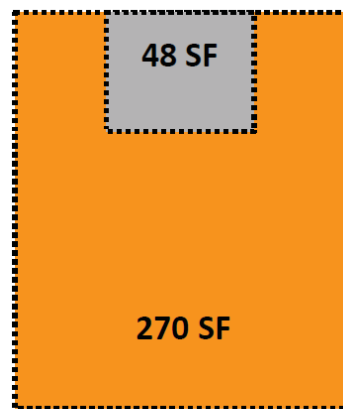
Anesthesia
Work Area



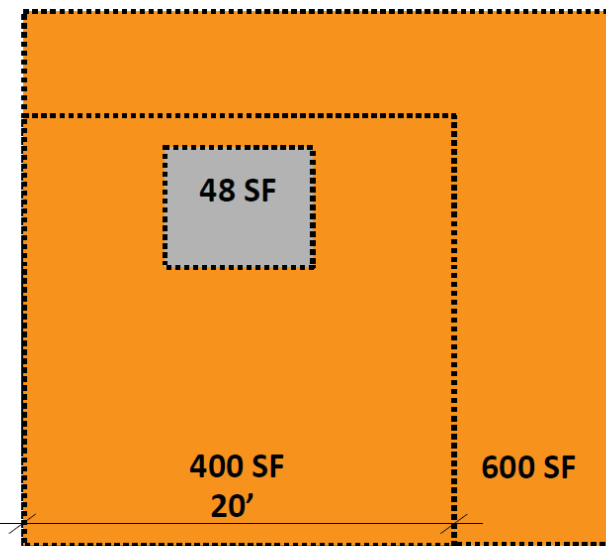
Procedure Room
(WITH Need for Anesthesia Equip)



Outpatient OR
(WITHOUT Need for Anesthesia Equip)



Outpatient OR
(WITH Need for Anesthesia Equip)



Hospital OR
(ALWAYS PLANNED for WITH Anesthesia Equip)

Hybrid

Hospital – 2.1-5.1



Sterile Processing Facilities

Two Room Sterile Processing

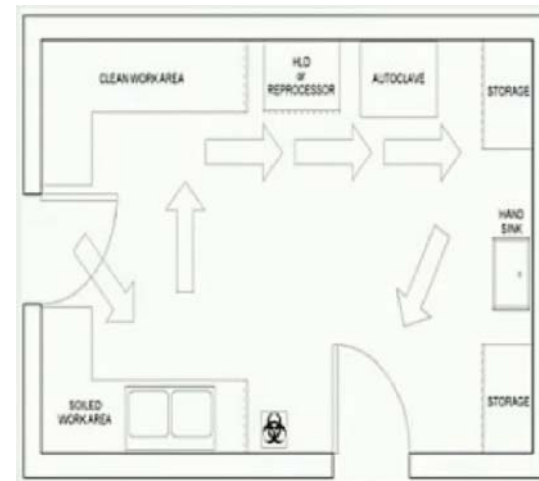
2.1-5.1.2.1

- Two-room sterile processing facility required
 - Clean workroom
 - Soiled workroom
- Semi-restricted area
- Support a one-way traffic pattern

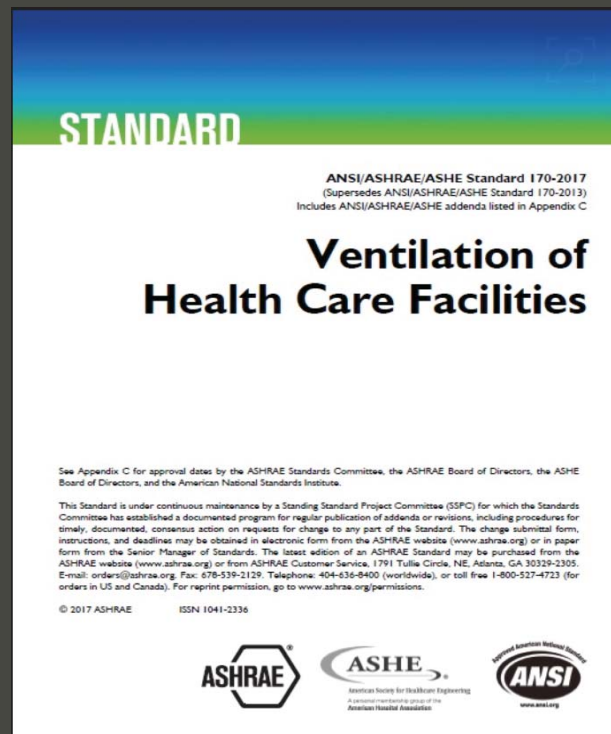
One Room Sterile Processing

2.1-5.1.2.3

- Limited to table-top sterilizers
- Separate clean and soiled areas
- One- way traffic



Part 3 - Ventilation



Ventilation

ASHRAE 170 – Tables

Outpatient Facilities

Only applies to the following facility types:

- Imaging facilities w/ Class 2 and 3 imaging rooms
- Infusion facilities
- Dialysis facilities

Note - Table is a direct copy of the Hospital Table. ASHRAE committee currently updating the table for Outpatient Facilities, anticipate issuing as an addendum.

ASHRAE 170

Outpatient Facilities

The following facility types do not have to comply with ASHRAE 170 but should follow local mechanical codes:

- General and specialty medical services
- Urgent care
- Class 1 Imaging
- Outpatient psychiatric
- Outpatient rehabilitation
- Dental facilities
- Birth centers

Part 3 - Ventilation Recap

- CMS adopted 2012 NFPA 99
- NFPA 99 directs use of 2008 ASHRAE 170
- NFPA 99 Temporary Amendments are NOT applicable (yet?)
- 2017 ASHRAE 170 edition in 2018 FGI
- Use 2008 as the baseline/starting point and work thru the details on a case-by-case basis

Part 3 Ventilation Exhaust Discharge & Switchable Rms

- Topic: Exhaust Discharge Reqmts -2013 add -d
 - Status: In 2017 edition Date Approved: 29 May 2015
 - Issues: CMS may not allow a reduction in exhaust/intake separation below 25', based on a re-entrainment analysis

- Topic: Switchable Room Prohibition -2013 add -e
 - Status: In 2017 edition Date Approved: 28 Nov 2014
 - Issues: None Anticipated

Hospital - 2.8

Outpatient – 2.11



Mobile/
Transportable
Medical Units

Transportable Medical Units



Mobile /Transportable Medical Units

- Complete Revision
 - Physical design requirements for specific medical services should be the same regardless of where they are provided
- Focus on modality
 - Imaging equipment
 - Exam/treatment
 - OR, etc.,

Mobile /Transportable Medical Units

- Medical Unit Type Designation
 - Class 1
 - Exam/treatment and Class 1 Imaging
 - Class 2
 - Procedure and Class 2 Imaging
 - Class 3
 - OR and Class 3 Imaging
- Based Table 2.2-1

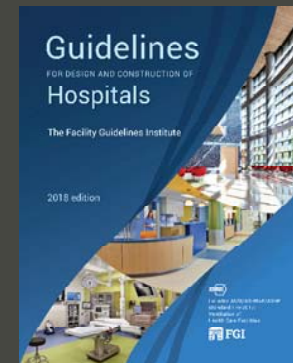
Mobile /Transportable Medical Units

- Sinks
 - Required if hands-on care is provided
 - No longer a 25' exception
- Support spaces may be provided in unit or facility except for Class 3 services

Mobile /Transportable Medical Units

- Electrical System: direct reference to NFPA 99 and 110
- Med Gas System: direct reference to NFPA 99
- Nurse call: see hospital requirements

Hospitals



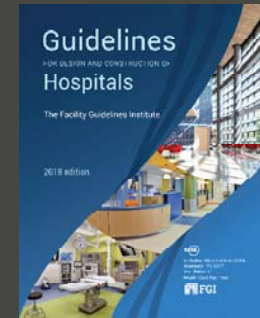
Other Notable Changes

Hospital - Part 1 General

- 1.2-6.1.7.2 Vibration Control and Isolation
 - New guidance based on type of construction and ground borne vibration
- 1.2-5.5 Sustainable Design -
 - Mercury reduction
 - Construction waste management plan
- 1.2-8.2.3.2 Commissioning – new requirements for heated potable water systems and security systems

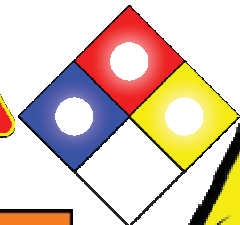
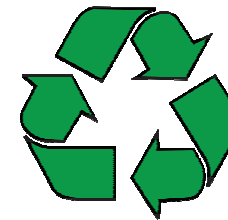
Hospital – Common Elements

2.1-5.4 Waste Management



Waste storage space for specific types required to be indicated on the design documents:

- Municipal Solid Waste (MSW)
- Regulated Medical Waste (RMW)
- Pharmaceutical Waste (RCRA and non-RCRA)
- Anatomical remains
- Hazardous Waste
- Chemotherapy Wastes (bulk and trace)
- Universal Wastes
- Radiologic Wastes



Hospital - Design and Construction

Windows and grab bars



2.1-7.2.2.5 (3) Windows in Patient rooms

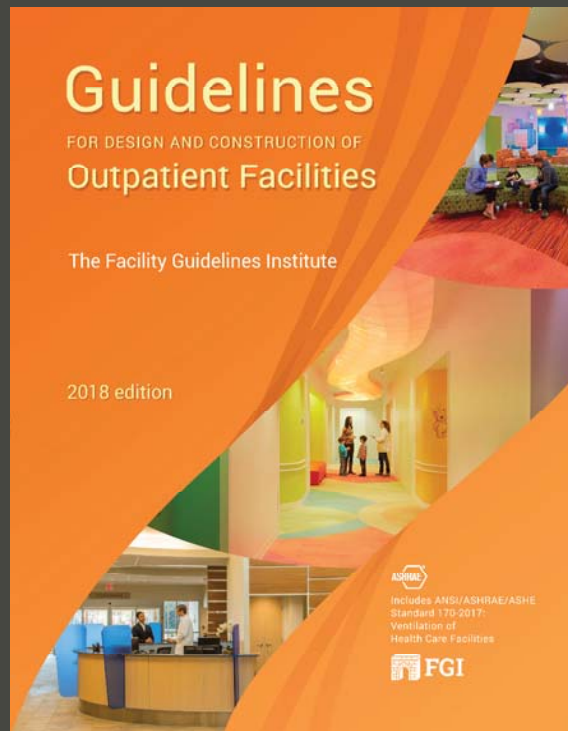
- In new construction, windowsill height in a patient room shall be a maximum of **36 inches** above the finished floor

2.1-7.2.2.9 (2) Grab bars

- Grab bars in toilet rooms used by patients of size shall be anchored to sustain a concentrated load of 800 pounds



Outpatient Facilities



Guidelines

For Design and Construction of

Outpatient Facilities

New Stand-alone Outpatient Book

- Two approaches to applying requirements “Frankenstein”
- POS – required at FS-ED
- OR/Treatment/Imaging/Exam
- Sterile Processing
- Mobile/ Transportable

Outpatient – Chapter 2.3

Imaging Facilities



- All requirements referenced to Chapter 2.1 Common Elements
- Imaging Room Classification System

Outpatient Tables – 2.1-4 and 2.1-5

Same as Hospital Tables

(number change only)

Table 2.1-4: Examination/Treatment, Procedure, and Operating Room Classification¹

Room	Use	Design Requirements ²		
		Room Type	Location	Surfaces
Exam or treatment room	Patient care that may require high-level disinfection or sterile instruments but does not require the environmental controls of a procedure room	Unrestricted area	Accessed from an unrestricted area	<p><i>Flooring:</i> cleanable and wear-resistant for the location; stable, firm, and slip-resistant</p> <p><i>Wall finishes:</i> washable</p> <p><i>Ceiling:</i> cleanable with routine housekeeping equipment; lay-in ceiling permitted</p>
Procedure room	Patient care that requires high-level disinfection of the room, sterile instruments, and some environmental controls but does not require the environmental controls of an operating room Endoscopic procedures	Semi-restricted area	Accessed from an unrestricted or a semi-restricted area	<p><i>Flooring:</i> cleanable and wear-resistant for the location; stable, firm, and slip-resistant</p> <p><i>Floor and wall base assemblies in cystoscopy, urology, and endoscopy procedure rooms:</i> monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches</p> <p><i>Wall finishes:</i> washable; free of fissures, open joints, or crevices</p> <p><i>Ceiling:</i> smooth and without crevices, scrubbable, non-absorptive, non-perforated; capable of withstanding cleaning chemicals; lay-in ceiling permitted if gasketed or each ceiling tile weighs at least one pound per square foot and no perforated, regular, serrated, or highly textured tiles</p>
Operating room	Invasive procedures Any procedure during which the patient will require physiological monitoring and is anticipated to require active life support	Restricted area	Accessed from a semi-restricted area	<p><i>Flooring:</i> cleanable and wear-resistant for the location; stable, firm, and slip-resistant</p> <p><i>Floor and wall base assemblies:</i> monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches</p> <p><i>Wall finishes:</i> washable; free of fissures, open joints, or crevices</p> <p><i>Ceiling:</i> monolithic, scrubbable, capable of withstanding cleaning and/or disinfecting chemicals, gasketed access openings</p>

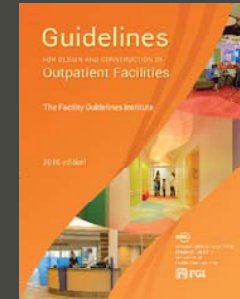
Table 2.1-5: Classification of Room Types for Imaging Services¹

Room	Use	Design Requirements ²		
		Room Type	Location	Surfaces
Class 1 imaging room	Diagnostic radiography, fluoroscopy, mammography, computed tomography (CT), ultrasound, magnetic resonance imaging (MRI), and other imaging modalities Services that use natural office entry and do not pierce or penetrate natural protective membranes	Unrestricted area	Accessed from an unrestricted area	<p><i>Flooring:</i> cleanable and wear-resistant for the location; stable, firm, and slip-resistant</p> <p><i>Wall finishes:</i> washable</p> <p><i>Ceiling:</i> cleanable with routine housekeeping equipment; lay-in ceiling permitted</p>
Class 2 imaging room	Diagnostic and therapeutic procedures such as coronary, neurological, or peripheral angiography Electrophysiology procedures	Semi-restricted area	Accessed from an unrestricted or a semi-restricted area	<p><i>Flooring:</i> cleanable and wear-resistant for the location; stable, firm, and slip-resistant</p> <p><i>Floor and wall base assemblies:</i> monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches</p> <p><i>Wall finishes:</i> washable; free of fissures, open joints, or crevices</p> <p><i>Ceiling:</i> smooth and without crevices, scrubbable, non-absorptive, non-perforated; capable of withstanding cleaning chemicals; lay-in ceiling permitted if gasketed or each ceiling tile weighs at least one pound per square foot and no perforated, regular, serrated, or highly textured tiles</p>
Class 3 imaging room	Invasive procedures Any Class 2 procedure during which the patient will require physiological monitoring and is anticipated to require active life support	Restricted area	Accessed from a semi-restricted area	<p><i>Flooring:</i> cleanable and wear-resistant for the location; stable, firm, and slip-resistant</p> <p><i>Floor and wall base assemblies:</i> monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches</p> <p><i>Wall finishes:</i> washable; free of fissures, open joints, or crevices</p> <p><i>Ceiling:</i> monolithic, scrubbable, capable of withstanding cleaning and/or disinfecting chemicals, gasketed access openings</p>

Outpatient Facilities

Other Notable
Changes

Outpatient – Renal Dialysis Hemodialysis Treatment Area



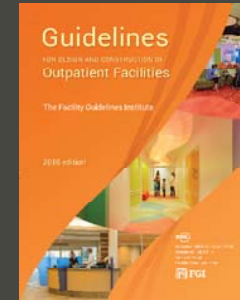
Individual hemodialysis treatment bays shall be clear of cabinetry.

*No cabinetry should be provided for clean supplies or patient belongings near the dialysis station due to the risk of cross-contamination or stored items and the potential for inappropriate use of storage space for clean supplies and patient belongings.



Outpatient – Renal Dialysis

2.10-3.2.2.1 (2) Clearances



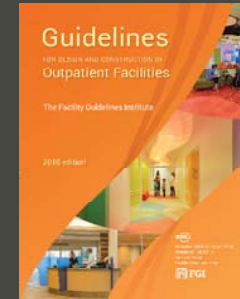
(b) 3 feet between sides of chairs and adjacent walls (was 4 feet in 2014 version)

(c) 2 feet between the foot of the chair and cubicle curtain (was 4 feet in the 2014 version)



Outpatient – Renal Dialysis

2.10 – 3.4.1 Airborne Infection Isolation room (All)



- Five foot high walls separating the Hep B patient care station **are no longer allowed**. An All room is now required.

The room shall provide:

- a minimum clear floor area of 120 sq ft
- a handwashing station inside the room
- direct observation of the patient



Construction Review Website

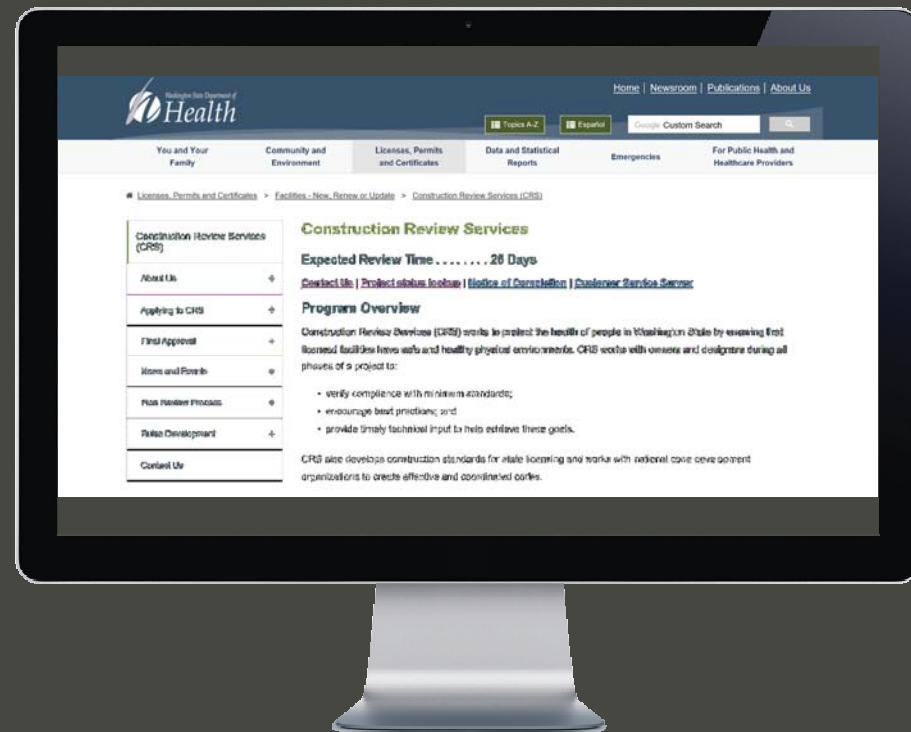
www.doh.wa.gov/crs

Listserv (GovDelivery)

- Updates

Rules Development page

- Rule proposal form
- Rules Comment form
- Contacts



Facility Guidelines Institute

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History

Major Revisions commentary

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Questions?