



Clinics and OSHPD 3

Webinar – Part 2
May 18, 2023



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The slide has a white background with a pattern of thin, curved lines. A large red rectangle is centered, containing white text. The AIA California logo is in the top right and top center. The text 'Proudly Partnered with AIA California' is in the center. Below it, two lines of smaller text provide details about AIA credit. The AIA Continuing Education Provider logo is in the bottom left.



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FUTURE OF HEALTHCARE

Within only **10 years**, there will be **one billion** older people worldwide.

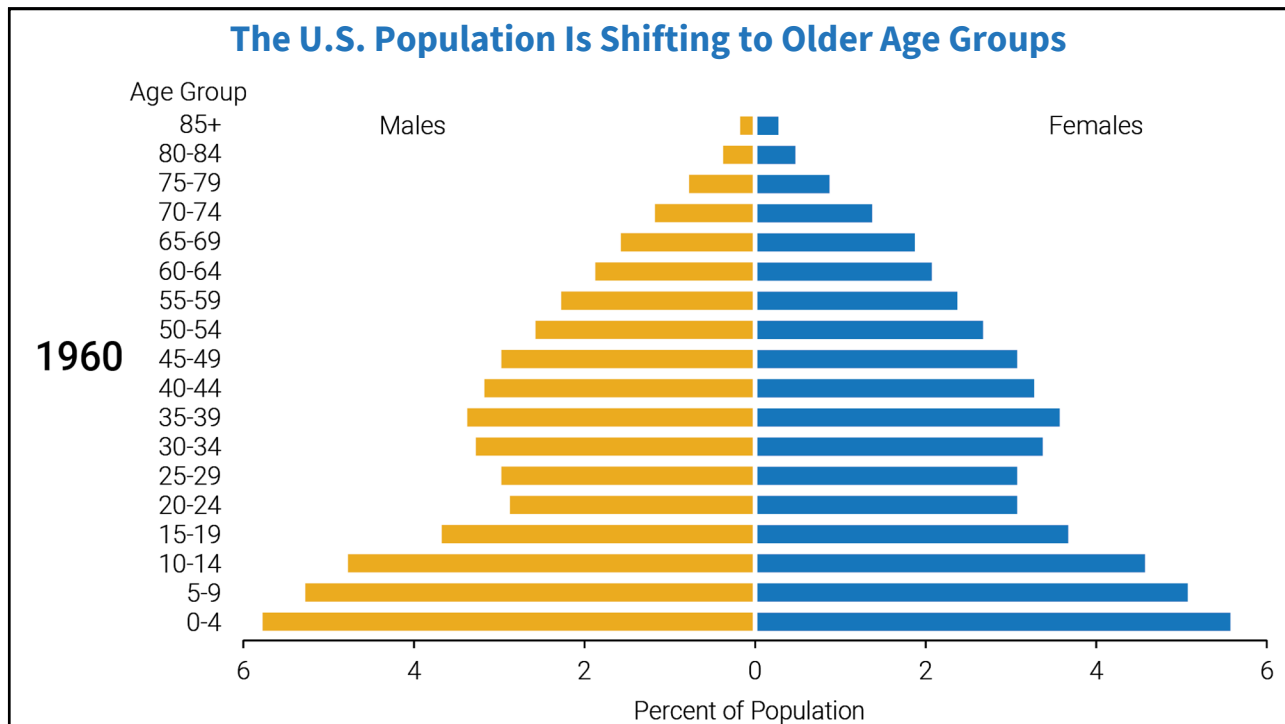


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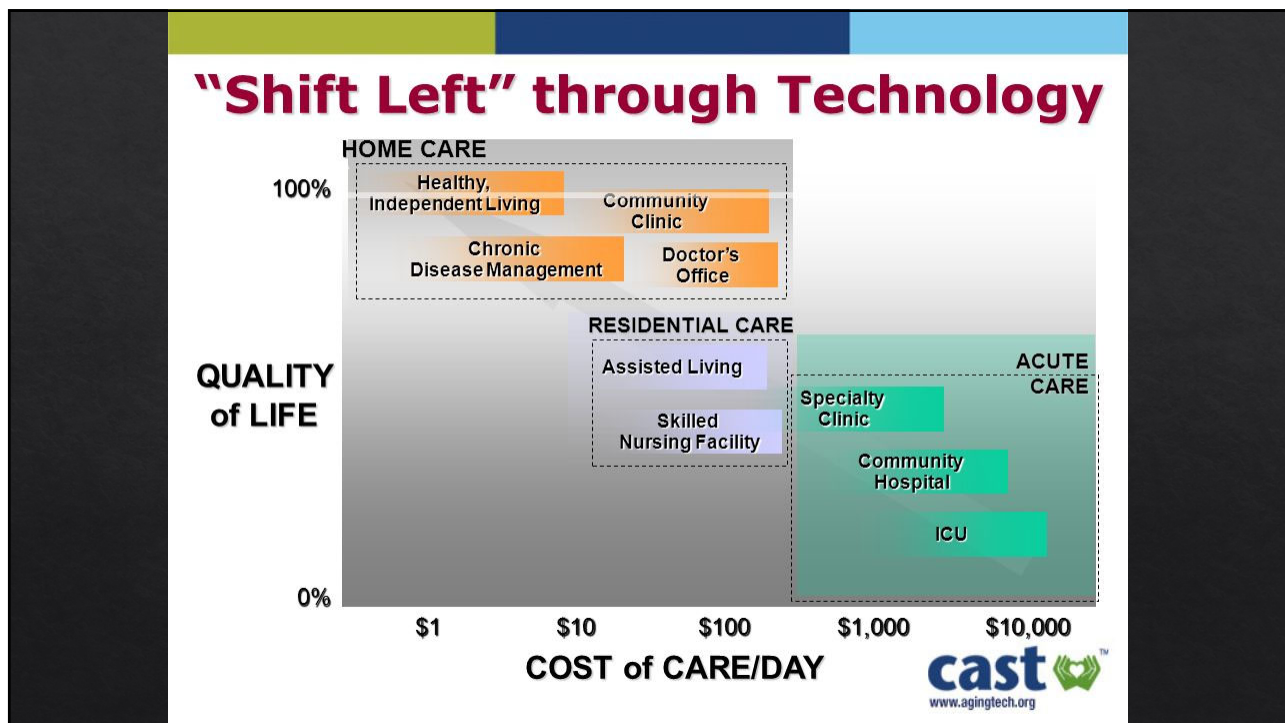
FUTURE OF HEALTHCARE

In 2050, the population aged 65 and over is projected to be 83.7 million, almost double its estimated population of 43.1 million in 2012.

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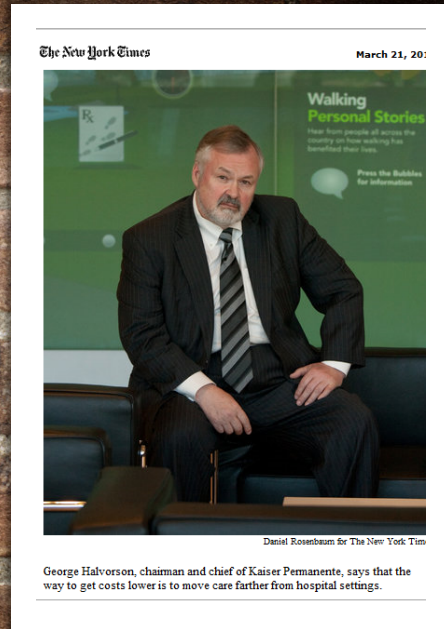
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FUTURE OF HEALTHCARE

"THE WAY TO GET COSTS LOWER IS TO MOVE FARTHER FROM HOSPITAL SETTINGS."



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Clinics

CDPH:

- Evaluates Program & Operations
- Conducts Surveys for compliance with NFPA 101 & NFPA 99
- Issues CDPH License

Local Building Department:

- Plan review & inspection for compliance with California Building Standards Code Regulations including OSHPD 3 requirements

HCAI (OSHPD):

- Promulgates California Building Standards Code Regulations
- Reviews Construction Drawings for OSHPD 3 Certification upon request

Local Fire Authority:

- Inspection for compliance with California Fire Code & California Code of Regulations Public Safety Standards, Title 19
- Issues Fire Clearance

SFM:

- Promulgates California Building Standards Code Regulations & California Code of Regulations Public Safety Standards

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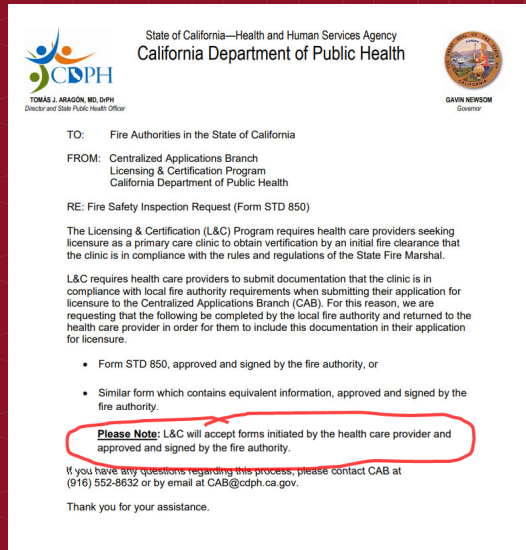


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Fire Clearance For Care Facilities

Facilities licensed by the California Department of Public Health and the California Department of Social Services-Community Care Licensing are required to have a fire clearance inspection in order to be licensed. All state-licensed care facilities require a fire safety inspection (or fire clearance) prior to initial licensing, or before any changes to a licensed facility can be approved by the State. Facilities requiring these inspections include:

- Day Care
- Residential Care for the Elderly or Disabled
- Health Care Facilities
- Drug/Alcohol Rehabilitation Facilities

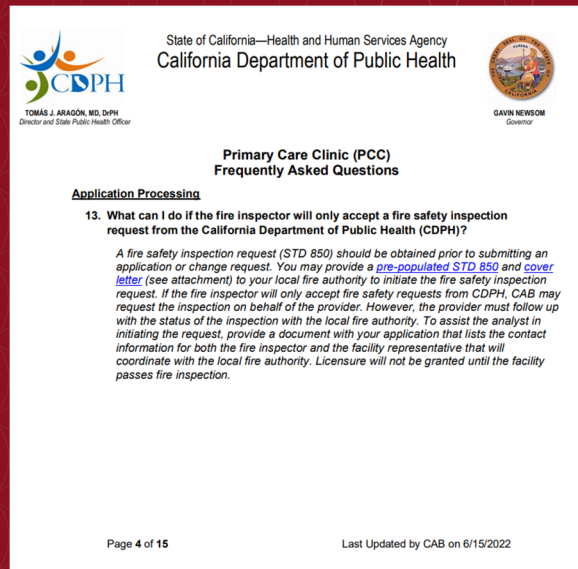


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- Health Care Facilities
- Drug/Alcohol Rehabilitation Facilities



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Q: Are Group I-2.1 Ambulatory Health Care Facilities listed as one of the required state mandated annual inspections?

A: No

Q: Can local Government charge a fee for inspections conducted in I-2.1 Occupancies?

A: Yes

STATE OF CALIFORNIA - FIRE SAFETY AND FIRE PROTECTION
FIRE SAFETY INSPECTION REQUEST See instructions on reverse.

ETA NUMBER: 10076

AGENCY CONTACT'S NAME Centralized Applications Branch	TELEPHONE NUMBER (219) 467-0395	REQUEST DATE 02/02/2022	PROGRAM LASC
INSPECTOR'S NAME Athens Utarini@calph.ca.gov	REQUESTING AGENCY FACILITY NUMBER FACID:930000064APPID:2479386 LNC0000336	REQUEST CODE 1A	CODES

LICENSING AGENCY NAME AND ADDRESS
 California Department of Public Health
 Licensing and Certification Program
 Centralized Applications Branch
 P.O. Box 997377, MS 3207
 Sacramento, CA 95899
 Fax (916) 943-0945

AMBULATORY	NONAMBULATORY	BEDROOM	TOTAL CAPACITY
CAPACITY 10	CAPACITY 10	CAPACITY 0	20
FACILITY NAME Caden-Sirral Ambulatory Surgery Center			LICENSE CATEGORY ASC
STREET ADDRESS (near gateway) 8336 Beverly Boulevard			NUMBER OF BUILDINGS 1
CITY Beverly Hills, CA 90048-1804			RESIDENT N/A
FACILITY CONTACT PERSON'S NAME Erick Sanchez	FACILITY CONTACT PERSON'S TELEPHONE NUMBER 313-966-0520		HOURS 0700 - 1900
SPECIAL CONDITIONS New license for ambulatory surgical center.			

TO BE COMPLETED BY INSPECTING AUTHORITY

FIRE AUTHORITY NAME AND ADDRESS Beverly Hills Fire Department 445 N. Rexford Drive Beverly Hills, CA 90210	INSPECTOR'S NAME (Typed or Printed) Athens Utarini	TELEPHONE NUMBER	CPI# NUMBER	OCCUPANCY CLASS
INSPECTION DATE 2/2	INSPECTOR'S SIGNATURE (Typed or Printed)			
EXPLAIN DENIAL, OR LIST SPECIAL CONDITIONS				


CLEARANCE ORINAL CODE:
 CODES
 1. FIRE CLEARANCE GRANTED
 2. FIRE CLEARANCE DENIED
 A. EXITS
 B. CONSTRUCTION
 C. FIRE ALARMS
 D. SPRINKLERS
 E. HOUSEKEEPING
 F. SPECIAL HAZARD
 G. OTHER

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OSHPD 3 CLINICS

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Facilities Development Division
Office of Statewide Health Planning and Development
400 R Street, Suite 200 - Sacramento, CA 95811 • (916) 440-2000
2218 K Street, Suite 200 - Los Angeles, CA 90012 • (213) 201-0968

SUBJECT
Clinics

CODE SECTION
Article 21, Chapter 7
California Administrative Code (CAC)
Article 21 - Plan Review, Building Inspection and Certification of Surgical Clinics, Chronic Dialysis Clinics and Outpatient Services Clinics

PURPOSE
The determination of which clinics and outpatient facilities are subject to the OSHPD 3 requirements found in Title 24, California Building Standards Code is complex. This results in a lack of consistency in application of the model code and OSHPD 3 requirements to clinic facilities, and uncertainty regarding the roles of the local building jurisdiction and OSHPD in the plan review, certification, and construction inspection processes.

Confusion exists, in part, because the use of the generic terms "clinics" and "outpatient facilities". The OSHPD 3 requirements found in the code apply only to those clinics and outpatient facilities that are licensed pursuant to Health and Safety Code (HASC) Section 1200 or 1250. There are variables in statute and regulations regarding the use and licensing of these clinic facilities, making consistent application of the regulations complex.

Another source of confusion is that the applicability of certain requirements is determined by factors that are normally out of the scope of work of the building department and designer. For example, sources of financial reimbursement and the specific type of license a clinic owner desires to obtain determine what regulations apply and who has jurisdiction for the project.

INTERPRETATION
In order to determine the applicability of OSHPD 3 requirements, it is necessary to know if the clinic facility is licensed, and if so, how it is licensed. OSHPD 3 requirements for clinics only apply to clinics that are licensed pursuant to HASC Section 1200 (which includes primary care clinics and specialty clinics) or HASC Section 1250 (which includes outpatient clinical services of a licensed hospital). Where the term "clinic" or "outpatient facility" is used relative to OSHPD 3 requirements in the California codes, it shall mean a clinic or outpatient facility licensed pursuant to HASC Section 1200 or 1250.

Indicates Revision Page 1 of 12 CAN 1-7-21"

CODE APPLICATION NOTICE

1-7-2100

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- ▶ The determination of which clinics and outpatient facilities are subject to the OSHPD 3 requirements found in the Title 24, California Building Standards Code is complex.
- ▶ This results in a lack of consistency in application of the model code and OSHPD 3 requirements to clinic facilities, and uncertainty regarding the roles of the local building/fire jurisdiction and OSHPD in the plan review, certification and construction inspection processes.

CLINICS

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- ▶ Confusion exists, in part, because the use of the generic terms “clinics” and “outpatient facilities”. The OSHPD 3 requirements found in the code apply only to those clinics and outpatient facilities that are **licensed** pursuant to Health and Safety Code (H&SC) Section 1200 or 1250.
- ▶ There are variables in statute and regulations regarding the use and licensing of these clinic facilities, making consistent application of the regulations complex.

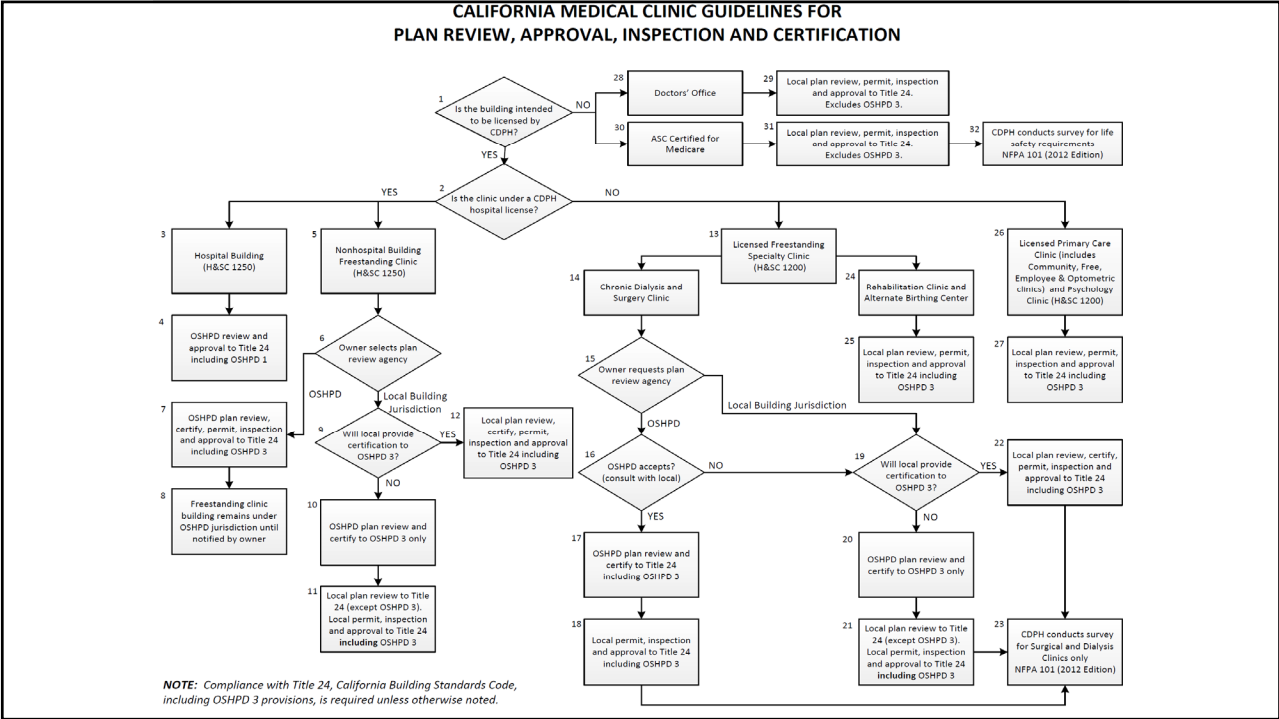
CLINICS

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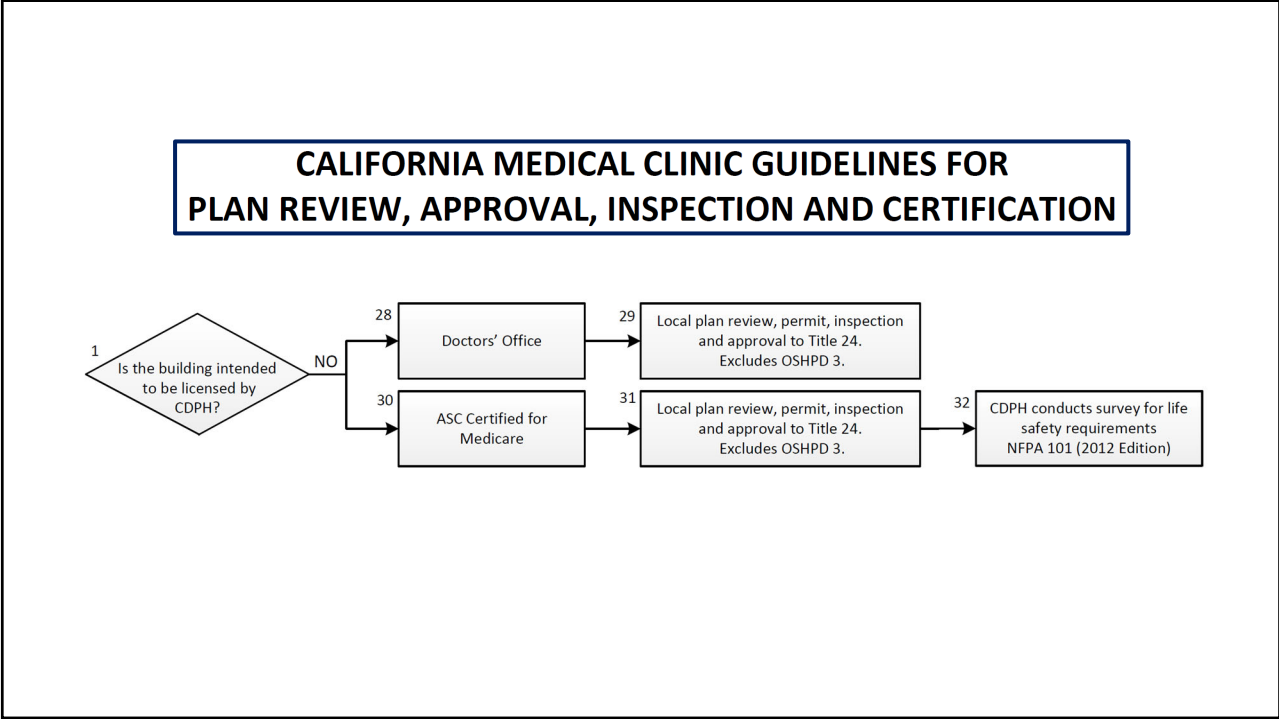
- ▶ Another source of confusion is that the applicability of certain requirements is determined by factors that are normally out of the scope of work of the building/fire department and designer.
- ▶ Sources of financial reimbursement and the specific type of license a clinic owner desires to obtain determine what regulations apply and who has jurisdiction for the project.

CLINICS

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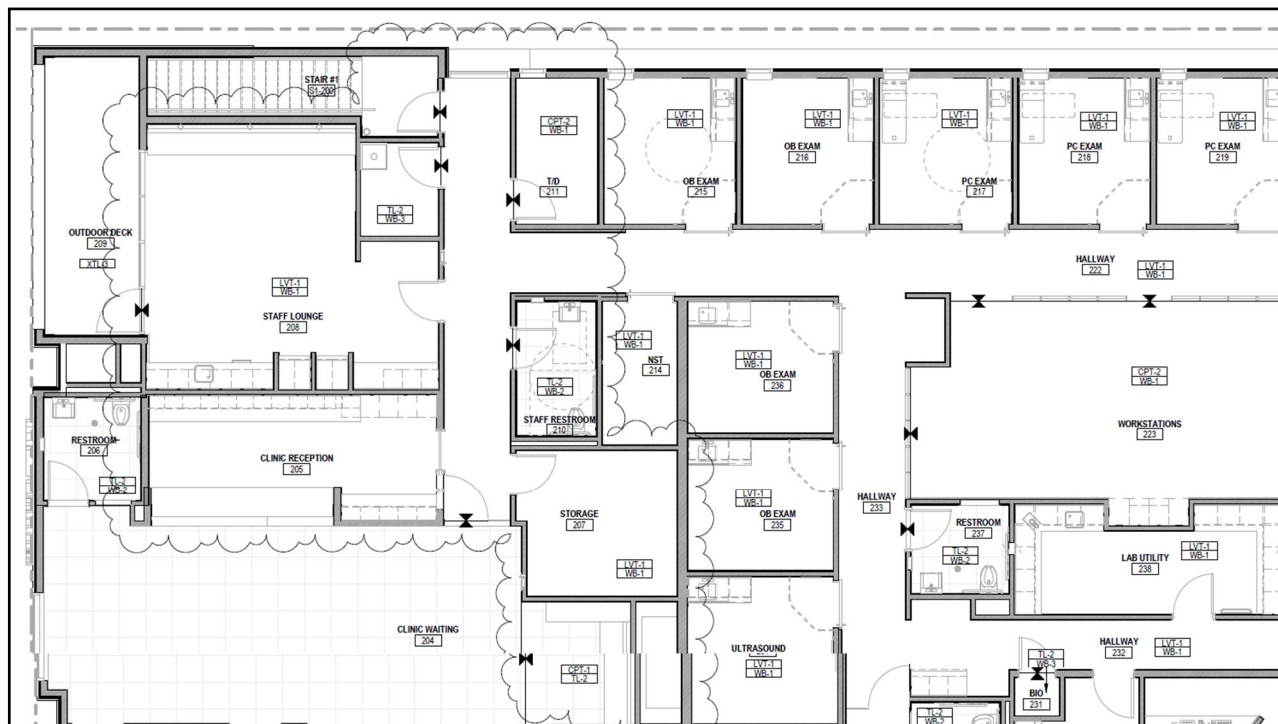
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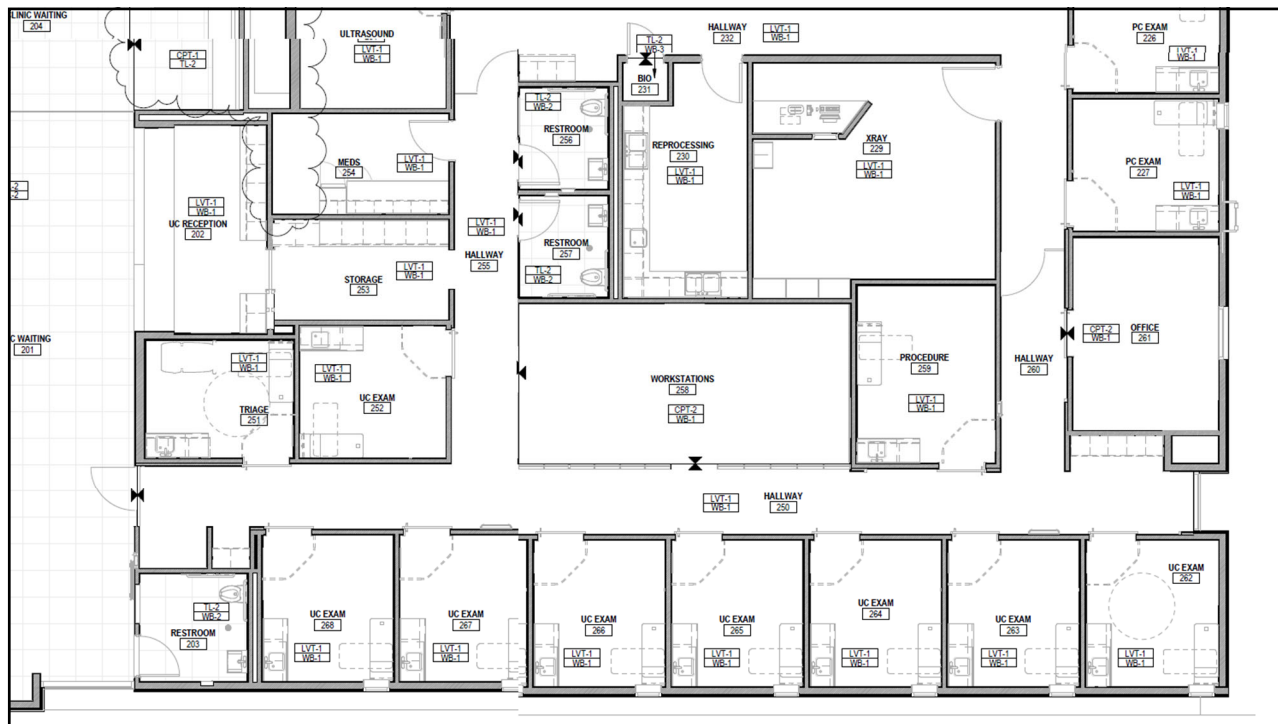
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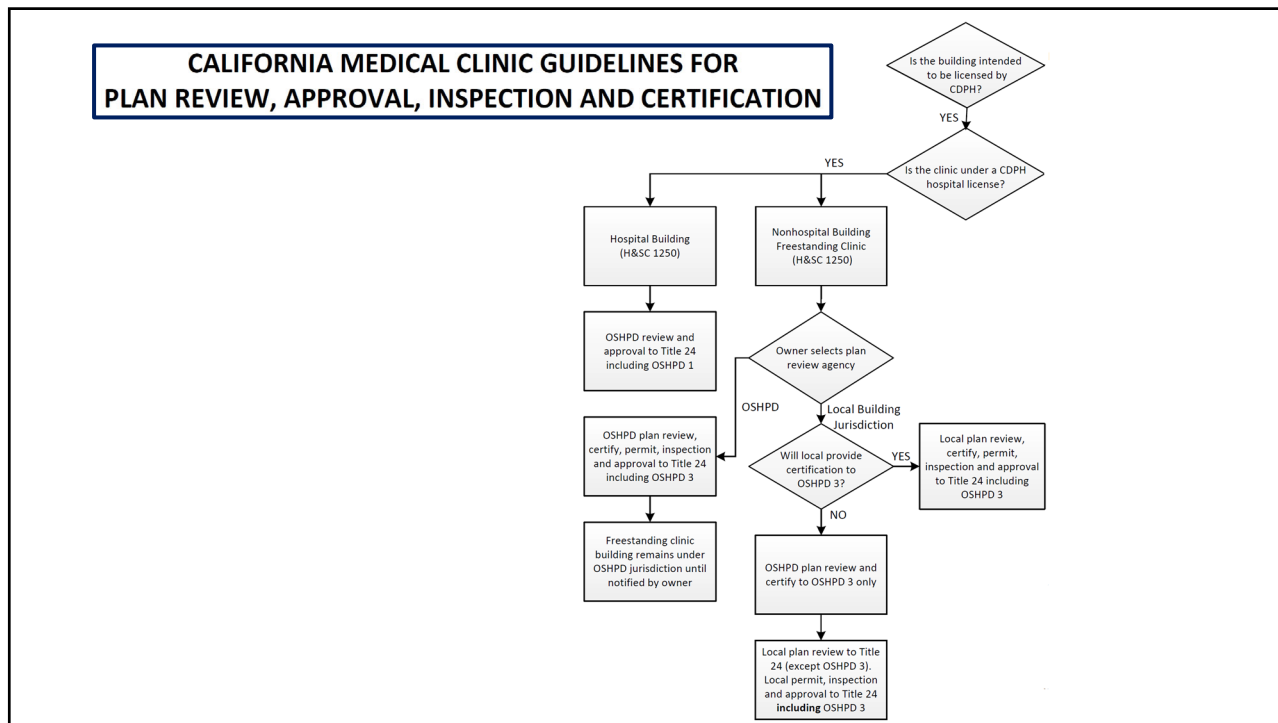
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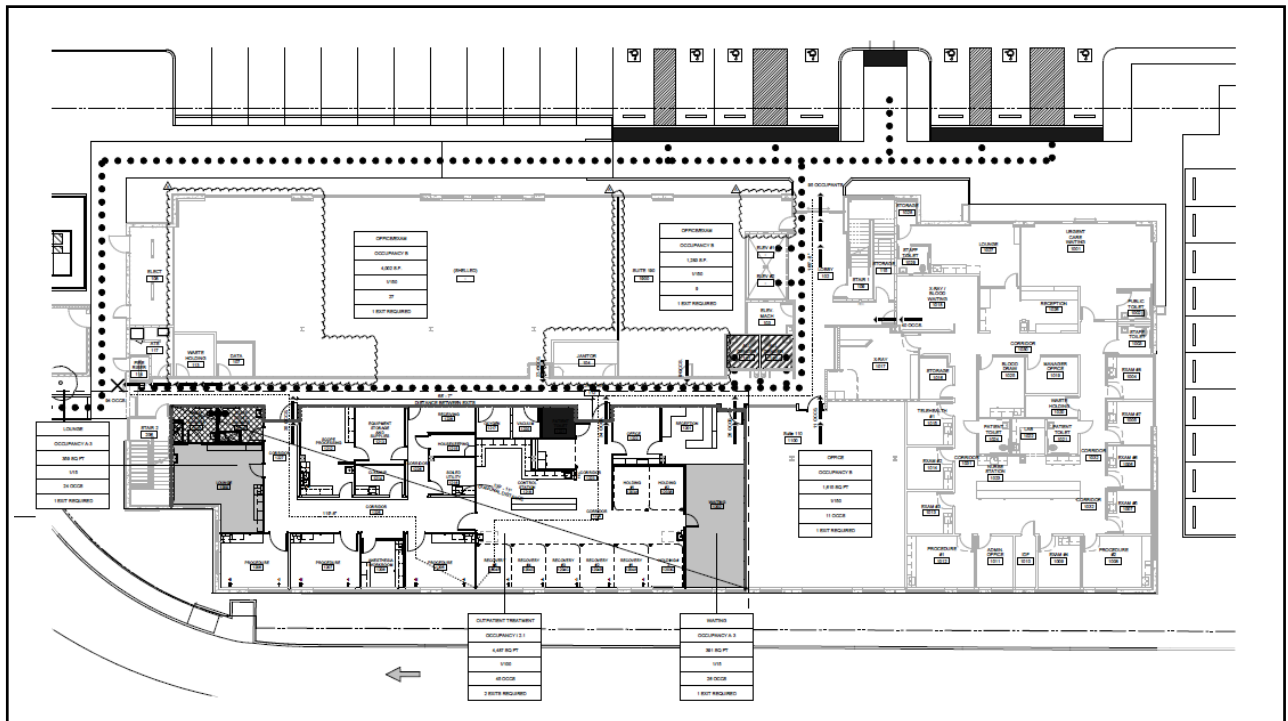
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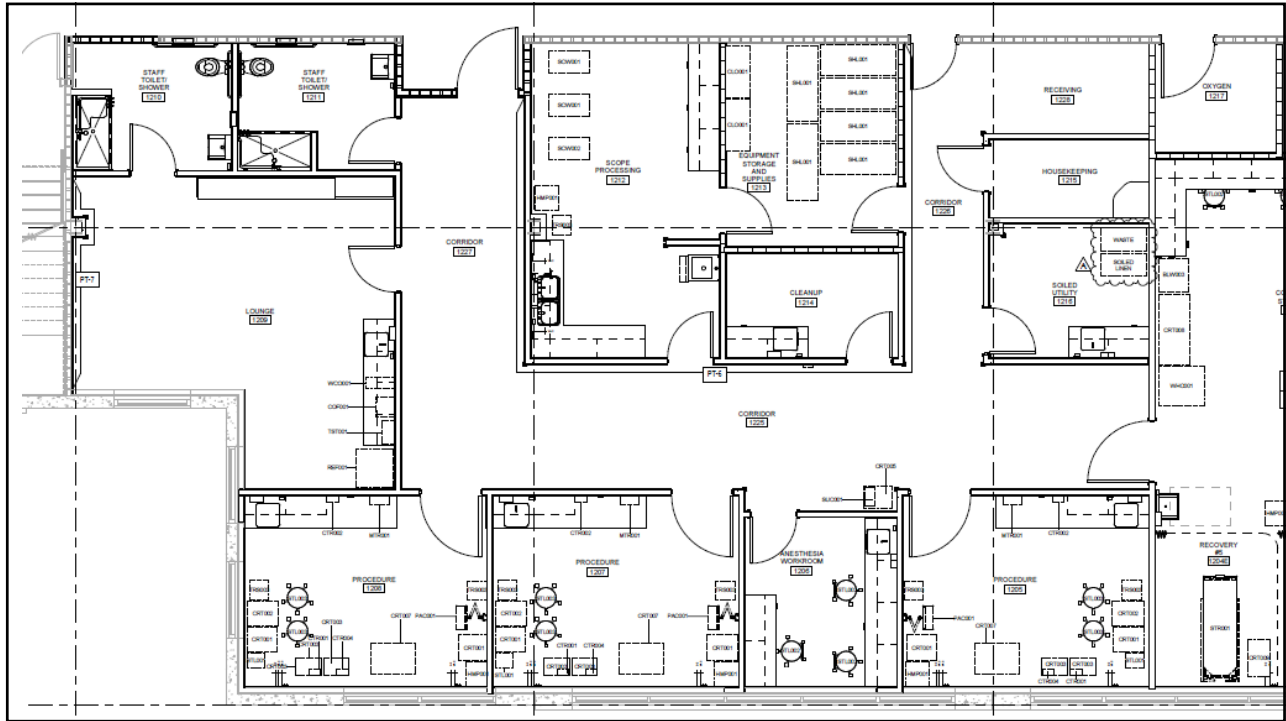
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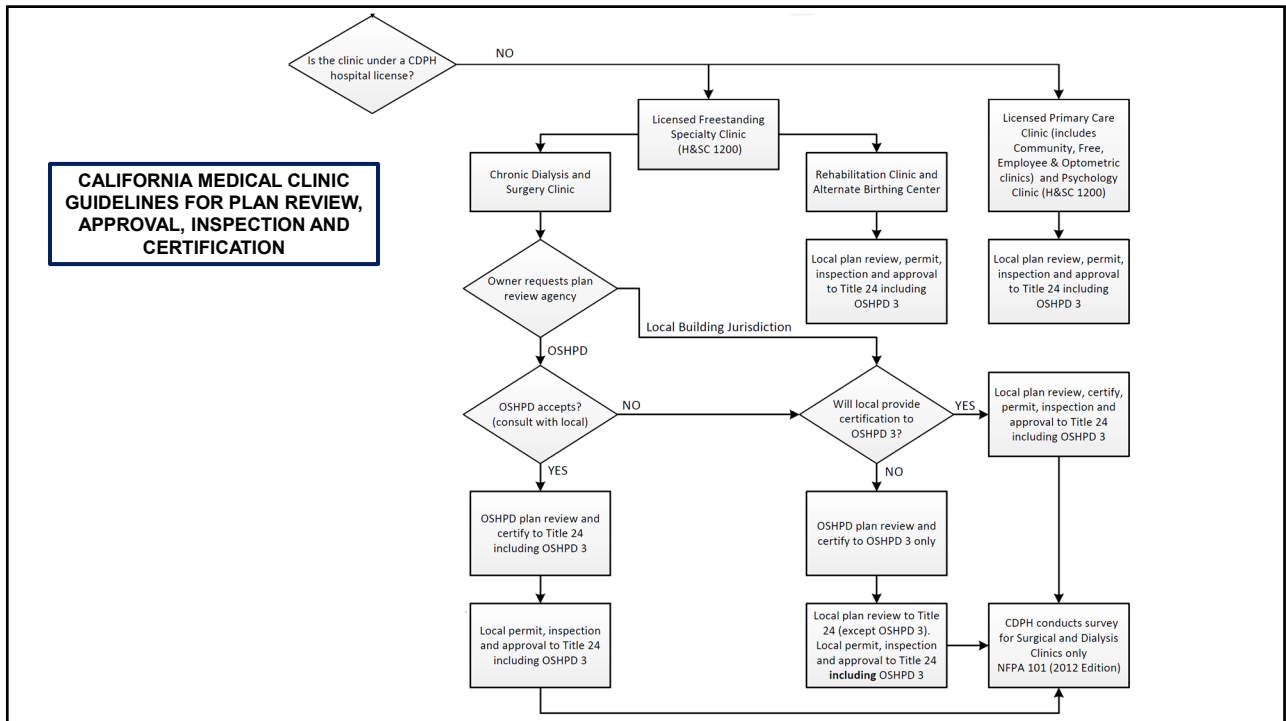
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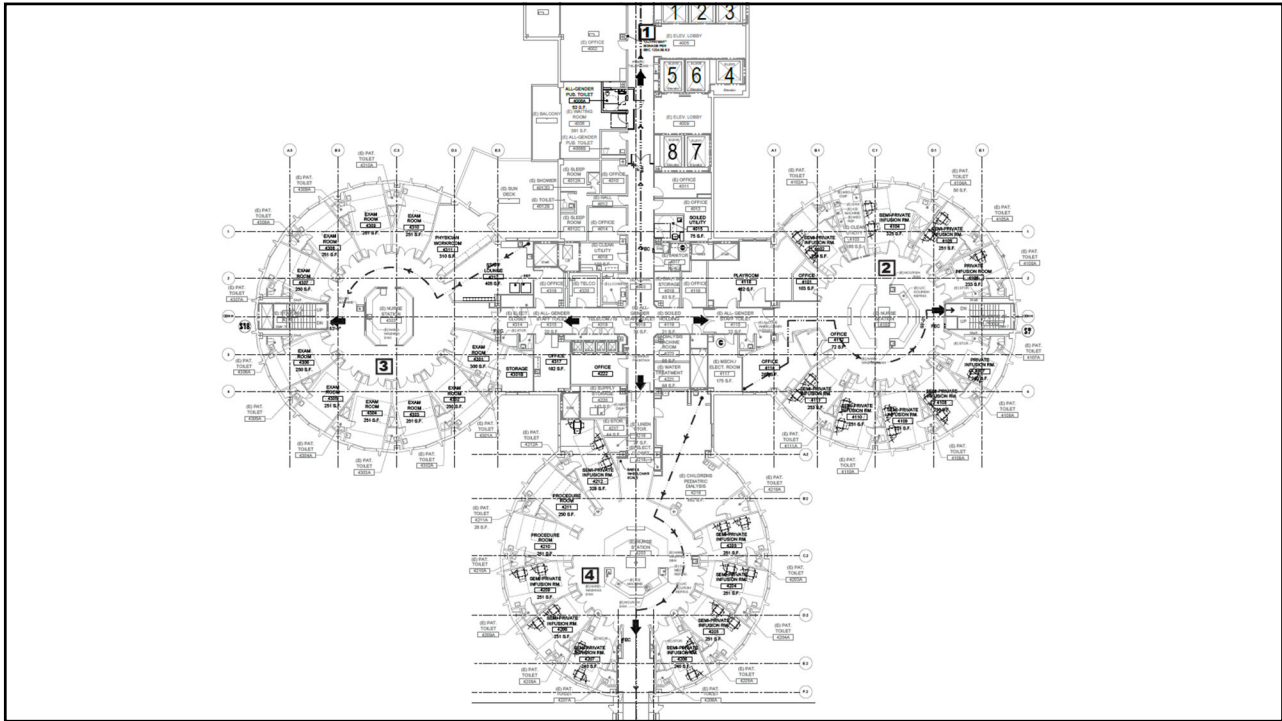
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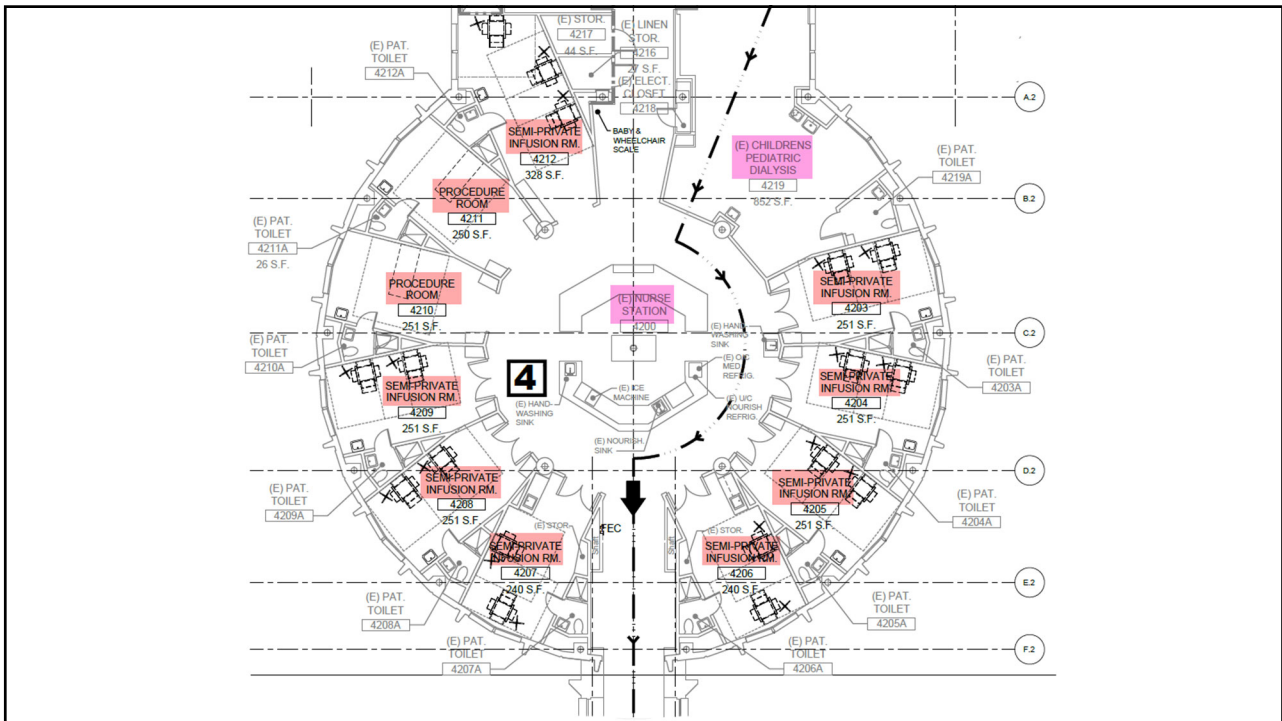
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Will the clinic be licensed by the Department of Public Health?

- ▶ If **Yes**, is the license a Health & Safety Code Section 1250 Hospital license or a Section 1200 Clinic license?
- ▶ If **No**, the clinic is not subject to OSHPD 3 requirements.

OSHPD 3 CLINICS

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- ▶ If a clinic is not licensed in accordance with Health & Safety Code Section 1250 or Section 1200, **OSHPD 3 provisions do not apply.**
- ▶ The clinic need only comply with the applicable provisions of – *California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.*

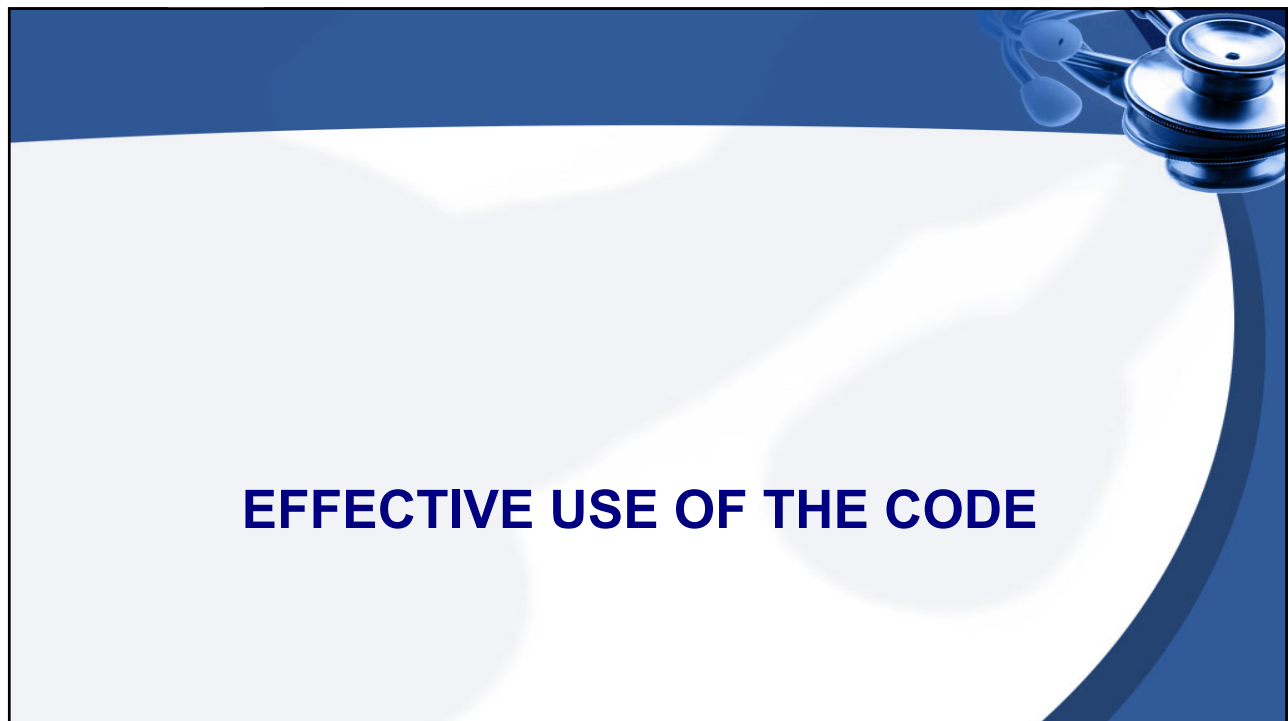
CLINICS

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Healthcare Facilities Design

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EFFECTIVE USE OF THE CODE

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Effective Use of the Code



1. Classify the building for occupancy and construction type.
2. Determine if the building is to be fully sprinklered.
3. Locate the building on the site.
4. Determine the allowable building size.
5. Identify special detailed occupancy requirements.
6. Identify and evaluate fire and smoke protective elements.

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Effective Use of the Code



7. Identify additional fire protection systems that may be required.
8. Identify and evaluate materials utilized as interior floor, wall and ceiling finishes.
9. Verify compliance with means of egress provisions.
10. Determine extent of other miscellaneous provisions.
 - a. Section 1226

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Hazards in Healthcare Facilities

- People Hazards
 - Bedridden and nonambulatory patients
 - Care providers need to safeguard patients
 - Restrained patients
 - Security
 - Emergency Departments
 - Labor/Delivery
 - Pediatrics
 - NICU
 - Stairs




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Hazards in Healthcare Facilities

- Occupancy Hazards
 - Operating rooms
 - Surgical procedures
 - Oxygen
 - Lasers
 - Radiology
 - Cardiac catheterization
 - Magnetic resonance imagery



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OCCUPANCY CLASSIFICATION

B vs. I-2.1

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Occupancy Classification

- **B Occupancy**
 - Ambulatory care facilities serving *five or fewer patients* (see Section 308.3.3, Institutional Group I-2.1 for facilities serving *six or more patients*)
 - **AMBULATORY CARE FACILITY.** Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to persons who are rendered incapable of self-preservation by the services provided or staff has accepted responsibility for care recipients already incapable.

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Occupancy Classification



- **B Occupancy**
 - Clinic-outpatient [*SFM*] (*not classified as Group I-2.1*)
 - **CLINIC, OUTPATIENT.** Buildings or portions thereof used to provide medical care on less than a 24-hour basis to persons who are **not** classified as nonambulatory or bedridden or rendered incapable of self-preservation by the services provided.

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Occupancy Classification



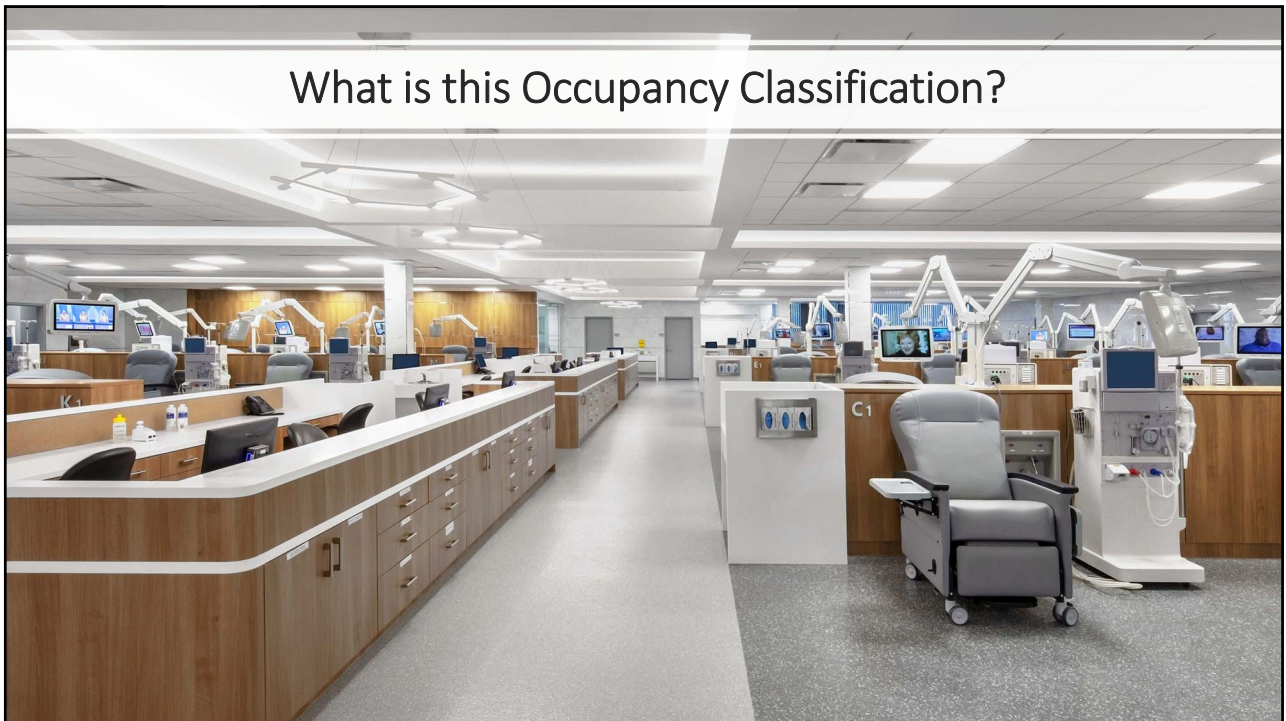
- **I-2.1 Occupancy**
 - **308.3.3 Institutional Group I-2.1.** A healthcare facility that receives persons for outpatient medical care that may render the patient incapable of unassisted self-preservation and where each tenant space accommodates **more than five** such patients.

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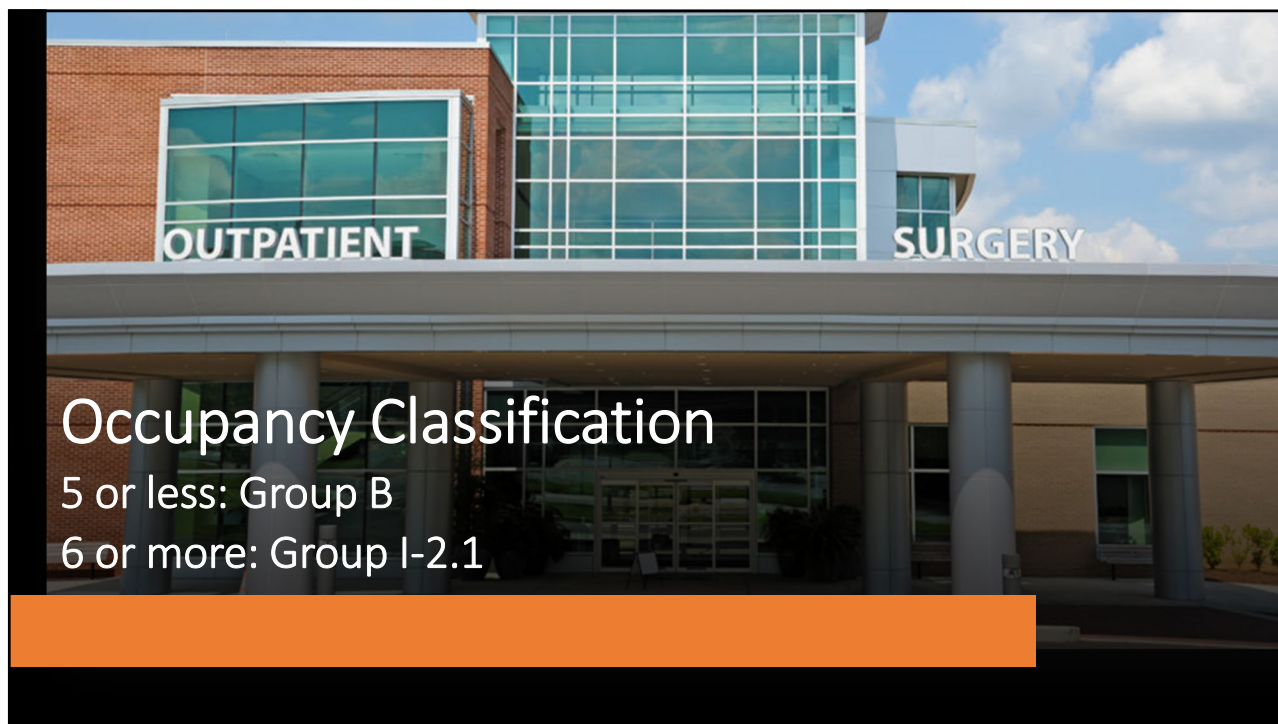
Capable of Unassisted Self-Preservation?

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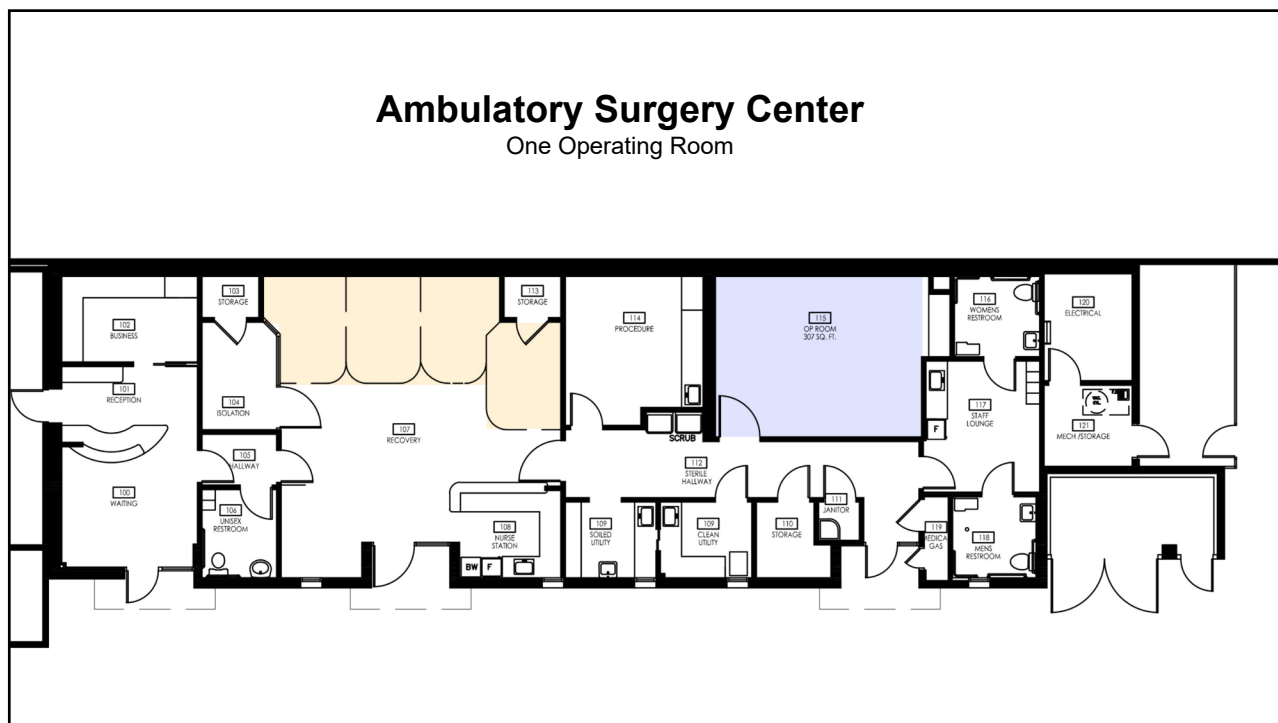


What is this Occupancy Classification?

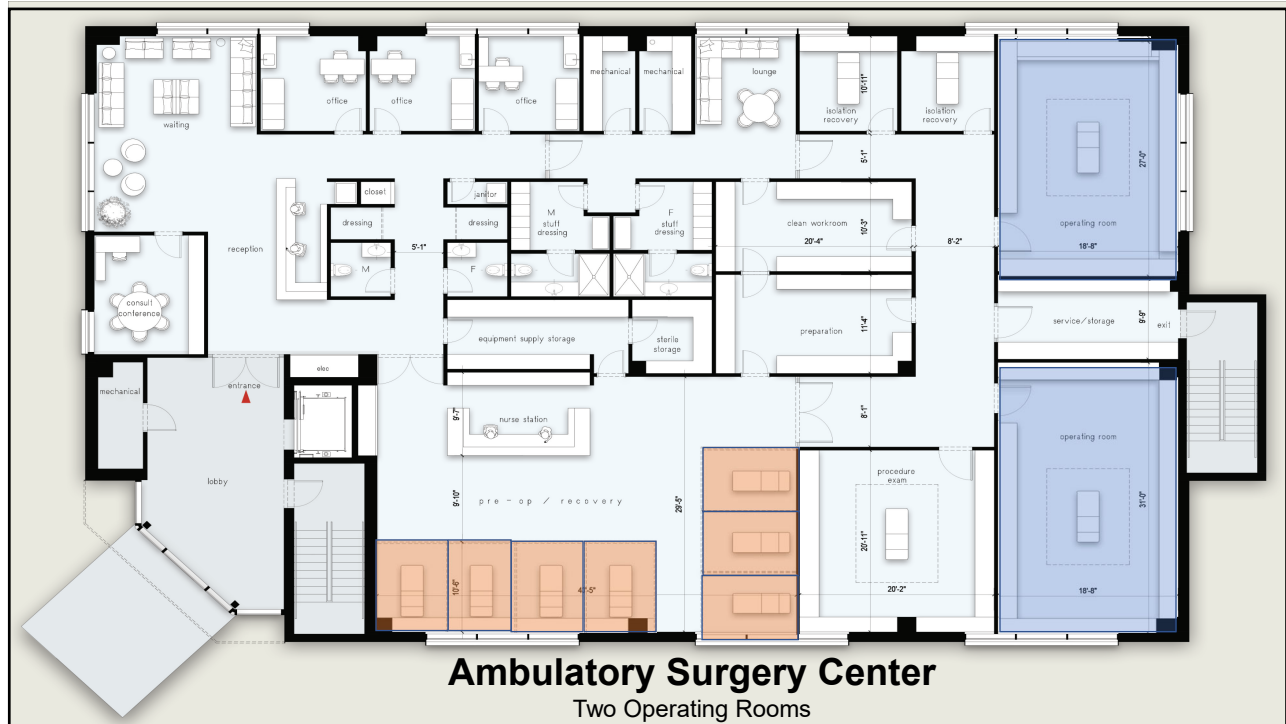
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Occupancy Classification

• Ambulatory Care Facilities - CBC 422

- Additional requirements for Group B occupancies classified as ambulatory care facilities include fire alarm systems and, where four or more care recipients are incapable of self-preservation at any time, sprinkler protection and separations from adjacent spaces; when a facility exceeds 10,000 sq. ft., smoke compartmentation is required.
- However, when six or more care recipients are present, an ambulatory care facility is classified as an Institutional Group I-2.1 Occupancy.
- Therefore, the Group B Ambulatory Care Facility classification requirements will usually apply to facilities with either **four** or **five** care recipients.

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Occupancy Classifications

Identify the occupancy:

- **Group B:** Always five or fewer patients.
 - **Ambulatory Care Facility:**
 - Patients are incapable of unassisted self-preservation
 - Fire alarm system is required
 - Four or five patients – Fire sprinklers and separation required
 - >10,000 sq. ft. - smoke barriers required
- **Group I-2.1:** Always six or more patients.

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CONSTRUCTION TYPES

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TYPES OF CONSTRUCTION

TABLE 504.4 ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE

TABLE 504.4
ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE^{a, b, n}

OCCUPANCY CLASSIFICATION	See Footnotes	TYPE OF CONSTRUCTION											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
B	NS	UL	11	5	3	5	3	5	5	5	5	3	2
	S	UL	12	6	4	6	4	18	12	9	6	4	3
I-2, I-2.1 ^{j, l}	NS ^{d, l}	UL	4	2	1	1	NP	NP	NP	NP	1	1	NP
	S (without area increase)	UL	5	3				NP	NP	NP			
	S (with area increase)	UL	4	2				NP	NP	NP			

n. In other than Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, the S increases for **height** and **stories** in Tables 504.3 and 504.4 are permitted in addition to the **S area increase** in accordance with Table 506.2.

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TYPES OF CONSTRUCTION

TABLE 504.3 ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE

TABLE 504.3
ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE^{a, i}

OCCUPANCY CLASSIFICATION	See Footnotes	TYPE OF CONSTRUCTION											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
B, F, M, S, U	NS ^b	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	270	180	85	85	70	60
I-2, I-2.1	NS ^{d, e, l}	UL	160	65	55	65	55	NP	NP	NP	65	50	40
	S (without area increase)	UL	180	85				NP	NP	NP			
	S (with area increase)	UL	160	65				NP	NP	NP			

i. In other than Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, the S increases for **height** and **stories** in Tables 504.3 and 504.4 are permitted in addition to the **S area increase** in accordance with Table 506.2.

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TYPES OF CONSTRUCTION

TABLE 506.2
ALLOWABLE AREA FACTOR (A_t = NS, S1, S13R, S13D or SM, as applicable) IN SQUARE FEET^{a, b, j}

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
B	NS	UL	UL	37,500	23,000	28,500	19,000	108,000	72,000	45,000	36,000	18,000	9,000
	S1	UL	UL	150,000	92,000	114,000	76,000	432,000	288,000	180,000	144,000	72,000	36,000
	SM	UL	UL	112,500	69,000	85,500	57,000	324,000	216,000	135,000	108,000	54,000	27,000
I-2, I-2.1	NS ^{d, f}	UL	UL	15,000	11,000	12,000	NP	36,000	24,000	12,000	12,000	9,500	NP
	S1	UL	UL	60,000	44,000	48,000	NP	144,000	96,000	48,000	48,000	38,000	NP
	SM (without height increase)	UL	UL	45,000	33,000	36,000	NP	108,000	72,000	36,000	36,000	28,500	NP
	SM (with height increase)	UL	UL	15,000	11,000	12,000	NP	NP	NP	NP	12,000	9,500	NP

*j. In other than Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, the S increases for **height** and **stories** in Tables 504.3 and 504.4 are permitted in addition to the **S area increase** in accordance with Table 506.2.*

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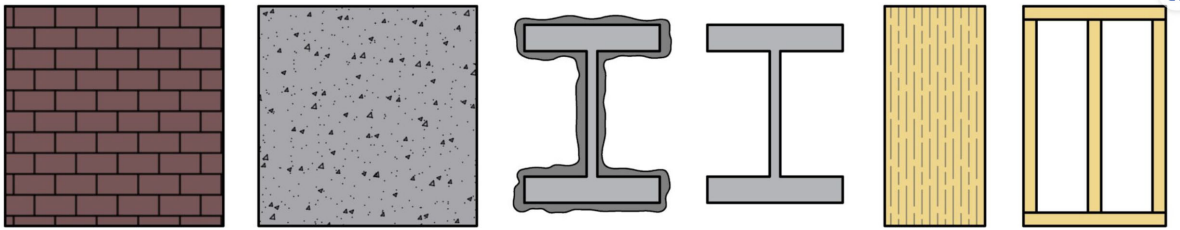
CBC TABLE 601

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (hours)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A ^a	B	A ^a	B	HT	A ^a	B
Structural frame ^a	3 ^b	2 ^b	1	0	1	0	HT	1	0
Bearing walls									
Exterior ^e	3	2	1	0	2	2	2	1	0
Interior	3 ^b	2 ^b	1	0	1	0	1/HT	1	0
Nonbearing walls and partitions	See Table 602								
Exterior	See Table 602								
Interior ^f	0	0	0	0	0	0	See Section 602.4.6	0	0
Floor construction Including supporting beams and joists	2	2	1	0	1	0	HT	1	0
Roof construction Including supporting beams and joists	1½ ^c	1 ^{c, d}	1 ^{c, d}	0 ^d	1 ^{c, d}	0 ^d	HT	1 ^{c, d}	0

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TYPES OF CONSTRUCTION



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TYPES OF CONSTRUCTION

Material	Structural Elements	Construction Types	
		IA	IB
Noncombustible	Exterior and interior (bearing or nonbearing) walls, floors, roofs, and structural elements to be of noncombustible materials	IIA	IIB
		IIIA	IIIB
Combustible	Exterior walls to be of noncombustible materials		IVHT
		VA	VB

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BUILDING ELEMENT	TYPE I	
	A	B
Primary structural frame ^f (see Section 202)	3 ^{a, b}	2 ^{a, b, c}
Bearing walls		
Exterior ^{e, f}	3	2
Interior	3 ^a	2 ^a
Nonbearing walls and partitions		
Exterior		
Interior ^d	0	0
Floor construction and associated secondary structural members (see Section 202)	2	2
Roof construction and associated secondary structural members (see Section 202)	1 ^{1/2} / b	1 ^{b, c}



TYPES OF CONSTRUCTION

TYPE I CONSTRUCTION

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BUILDING ELEMENT	TYPE II	
	A	B
Primary structural frame ^f (see Section 202)	1 ^{b, c}	0 ^c
Bearing walls		
Exterior ^{e, f}	1	0
Interior	1	0
Nonbearing walls and partitions	See Table 705.5	
Exterior		
Interior ^d	0	0
Floor construction and associated secondary structural members (see Section 202)	1	0
Roof construction and associated secondary structural members (see Section 202)	1 ^{b, c}	0 ^c

TYPES OF CONSTRUCTION

TYPE II CONSTRUCTION

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BUILDING ELEMENT	TYPE III	
	A	B
Primary structural frame ^f (see Section 202)	1 ^{b,c}	0
Bearing walls		
Exterior ^{e,f}	2	2
Interior	1	0
Nonbearing walls and partitions	See Table 705.5	
Exterior		
Nonbearing walls and partitions		
Interior ^d	0	0
Floor construction and associated secondary structural members (see Section 202)	1	0
Roof construction and associated secondary structural members (see Section 202)	1 ^{b,c}	0



TYPES OF CONSTRUCTION

TYPE III CONSTRUCTION

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BUILDING ELEMENT	TYPE IV			
	A	B	C	HT
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	2 ^a	HT
Bearing walls				
Exterior ^{e,f}	3	2	2	2
Interior	3	2	2	1/HT ^g
Nonbearing walls and partitions	See Table 705.5			
Exterior				
Nonbearing walls and partitions				See Section 2304.11.2
Interior ^d	0	0	0	
Floor construction and associated secondary structural members (see Section 202)	2	2	2	HT
Roof construction and associated secondary structural members (see Section 202)	1 ^{1/2}	1	1	HT

TYPES OF CONSTRUCTION

TYPE IV CONSTRUCTION

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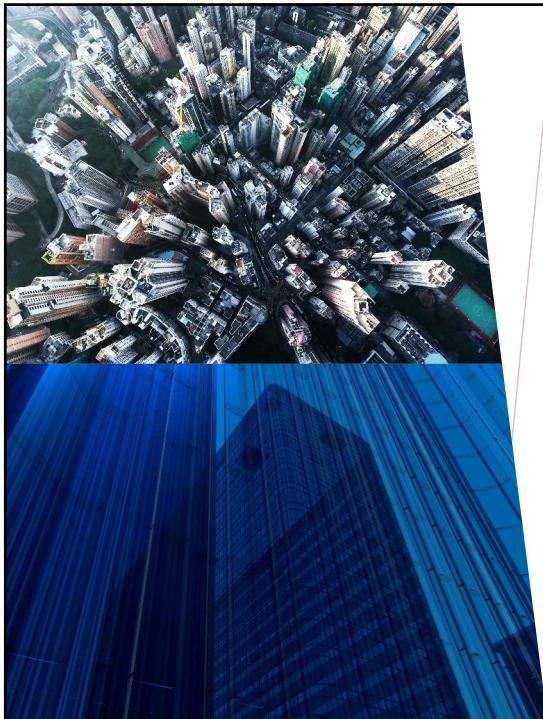
BUILDING ELEMENT	TYPE V	
	A	B
Primary structural frame ^f (see Section 202)	1 ^{b,c}	0
Bearing walls		
Exterior ^{e,f}	1	0
Interior	1	0
Nonbearing walls and partitions		
Exterior	See Table 705.5	
Interior ^d	0	0
Floor construction and associated secondary structural members (see Section 202)	1	0
Roof construction and associated secondary structural members (see Section 202)	1 ^{b,c}	0

TYPES OF CONSTRUCTION

TYPE V CONSTRUCTION

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LOCATION ON PROPERTY

506.3 Frontage increase. Every building shall adjoin or have access to a public way to receive an area factor increase based on frontage. Area factor increase shall be determined in accordance with Sections 506.3.1 through 506.3.3.

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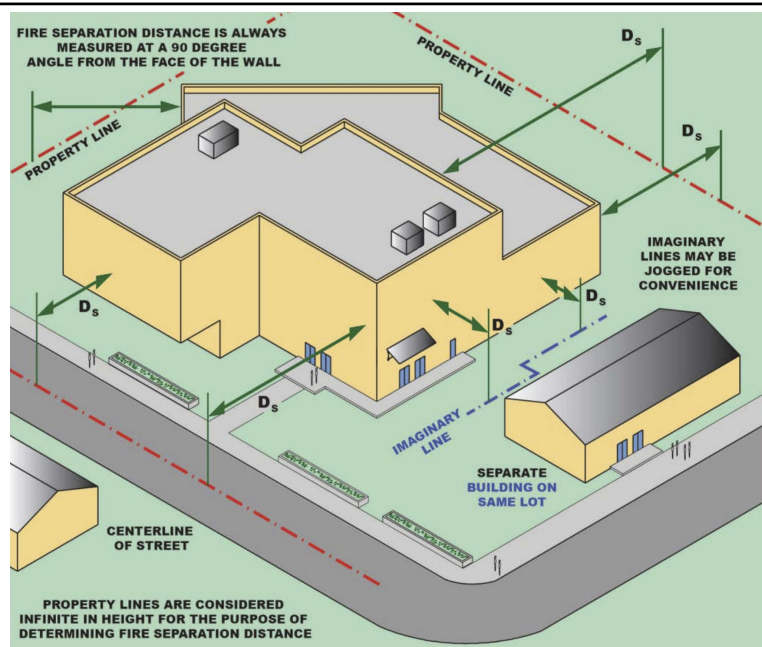
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Fire Separation Distance

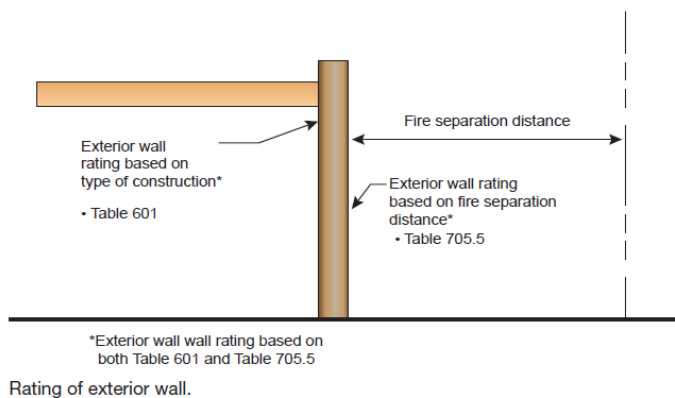
The distance measured from the building face to one of the following:

1. The closest interior lot line.
2. To the centerline of a street, an alley or public way.
3. To an imaginary line between two buildings on the lot.
4. The distance shall be measured at right angles from the face of the wall.



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**TWO
TABLES
ARE
NEEDED**

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**TABLE 705.5
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE^{a, d, g}**

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H ^e , L	OCCUPANCY GROUP F-1, M, S-1 ^f	OCCUPANCY GROUP A, B, E, F-2, I, R ^h , S-2, U ^h
$X < 5^b$	All	3	2	1
$5 \leq X < 10$	IA, IVA	3	2	1
	Others	2	1	1
$10 \leq X < 30$	IA, IB, IVA, IVB	2	1	1 ^c
	IIB, VB	1	0	0
	Others	1	1	1 ^c
$X \geq 30$	All	0	0	0

**Formerly Table 602*

69

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**SECTION 509
INCIDENTAL USES**

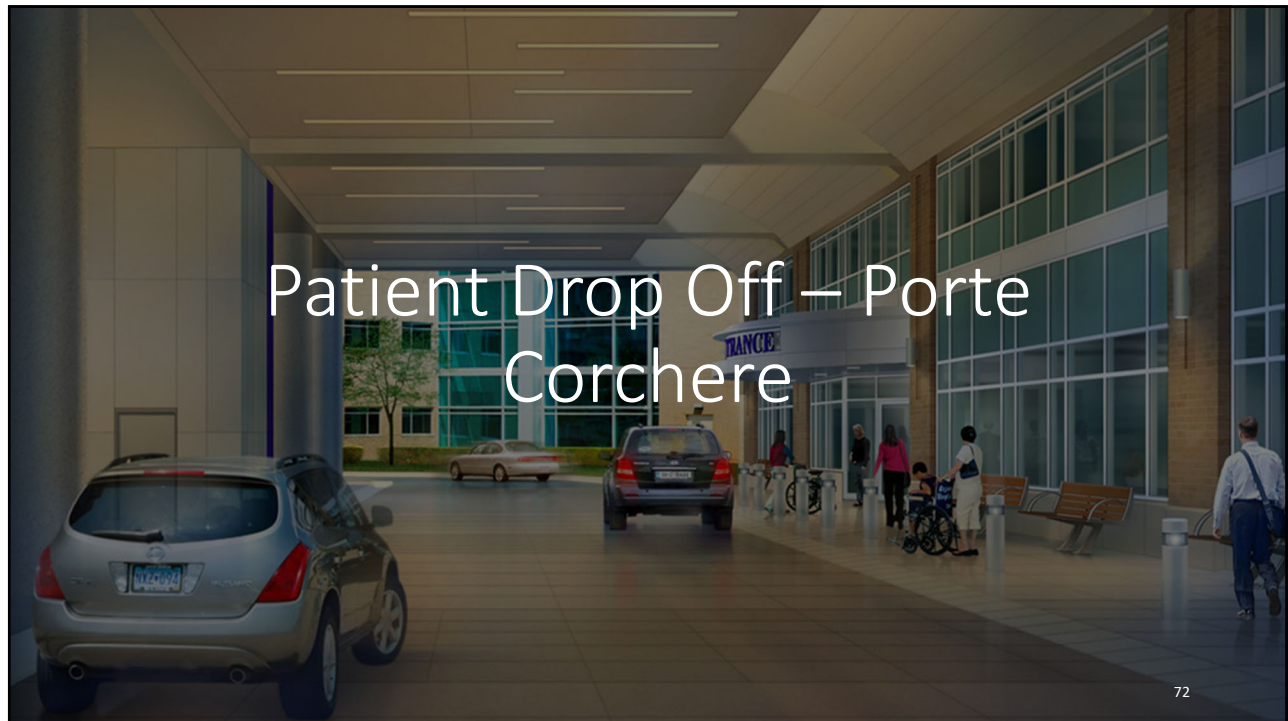
509.1 General Incidental uses located within single occupancy or mixed occupancy buildings shall comply with the provisions of this section. Incidental uses are ancillary functions associated with a given occupancy that generally pose a greater level of risk to that occupancy and are limited to those uses specified in Table 509.1.

509.4 Separation and protection. The incidental uses specified in Table 509.1 shall be separated from the remainder of the building or equipped with an automatic sprinkler system, or both, in accordance with the provisions of that table.

[F]TABLE 509.1
INCIDENTAL USES

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic sprinkler system
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic sprinkler system
Refrigerant machinery room	1 hour or provide automatic sprinkler system
Hydrogen fuel gas rooms, not classified as Group H	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and provide automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic sprinkler system
In Group E occupancies, laboratories and vocational shops not classified as Group H	1 hour or provide automatic sprinkler system
<i>[SFM] Rooms or areas with special hazards such as laboratories, vocational shops and other such areas not classified as Group H, located in Group E occupancies where hazardous materials in quantities not exceeding the maximum allowable quantity are used or stored.</i>	1 hour
In Group I-2 and I-2.1 occupancies, laboratories not classified as Group H	1 hour ^a
In ambulatory care facilities, laboratories not classified as Group H	1 hour or provide automatic sprinkler system
Laundry rooms over 100 square feet	1 hour or provide automatic sprinkler system
In Group I-2 and I-2.1 laundry rooms over 100 square feet	1 hour ^a
Group I-3 cells and Group I-2 and I-2.1 patient rooms equipped with padded surfaces	1 hour ^a
In Group I-2 and I-2.1 physical plant maintenance shops	1 hour ^a
In ambulatory care facilities or Group I-2 and I-2.1 occupancies, waste and linen collection rooms with containers that have an aggregate volume of 10 cubic feet or greater	1 hour ^a
In other than ambulatory care facilities and Group I-2 and I-2.1 occupancies, waste and linen collection rooms over 100 square feet	1 hour or provide automatic sprinkler system
In ambulatory care facilities or Group I-2 and I-2.1 occupancies, storage rooms greater than 100 square feet	1 hour ^a
Electrical installations and transformers	See Sections 110.26 through 110.34 and Sections 450.8 through 450.48 of the <i>California Electrical Code</i> for protection and separation requirements.

For SI: 1 square foot = 0.0929 m², 1 pound per square inch (psi) = 6.9 kPa, 1 British thermal unit (Btu) per hour = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L, 1 cubic foot = 0.0283 m³.
a. [SFM] Fire barrier protection and automatic sprinkler protection required throughout the fire area in I-2 and I-2.1 occupancies as indicated.



Separation of Occupancies

508.2.4 Separation of occupancies. No separation is required between accessory occupancies and the main occupancy.

Exceptions:

3. *Group I-2 and I-2.1 shall be separated from all other occupancies in accordance with Section 508.4.*

Exception: *No separation is required between Group B, E and R-2 sleeping units accessory to Group I-2 and I-2.1 and covered exterior entrances required by Section 11B-206.4.10 or Section 1224.33.2.1 accessory to Group I-2.*

903.2.21 Required exterior entrance covers. *An automatic sprinkler system shall be provided throughout covered exterior entrances required by California Building Code Section 11B-206.4.10 or Section 1224.33.2.1.*

73

TYPES OF CONSTRUCTION

- 603 – Combustible material in Type I and Type II construction.
 - Provides for 27 conditions where combustible material may be used in Type I and Type II construction.
 - I. Fire-retardant-treated wood shall be permitted in:
 - I.1. Nonbearing partitions where the required fire-resistance rating is 2 hours or less except in shaft enclosures within Group I-2 occupancies and ambulatory care facilities.
 - I.2. Nonbearing exterior walls where fire-resistance-rated construction is not required.

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SPRINKLER PROTECTION

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SPRINKLER PROTECTION

422.4 Automatic sprinkler systems. Automatic sprinkler systems shall be provided for Group B Ambulatory Care Facilities in accordance with Section 903.2.2.

76

SPRINKLER PROTECTION

- **903.2.2 Ambulatory Care Facilities.** An automatic sprinkler system shall be installed **throughout the entire floor** containing an ambulatory care facility where either of the following conditions exist at any time:
 1. Four or more care recipients are incapable of self-preservation, whether rendered incapable by staff or staff has accepted responsibility for care recipients already incapable.
 2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility.

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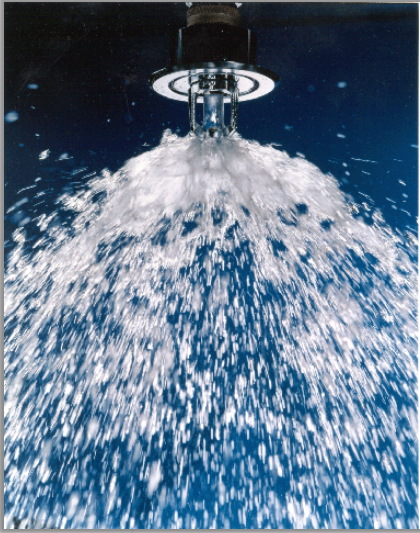


In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor where such care is provided as well as all floors below, and all floors between the level of ambulatory care and the nearest level of exit discharge, including the level of exit discharge.

SPRINKLER PROTECTION

78

SPRINKLER PROTECTION



- ▶ **903.2.6 Group I.** An automatic sprinkler system shall be provided **throughout buildings** with a Group I fire area.

79

903.3.2 Quick-response and residential sprinklers.

Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in all of the following areas in accordance with Section 903.3.1 and their listings:

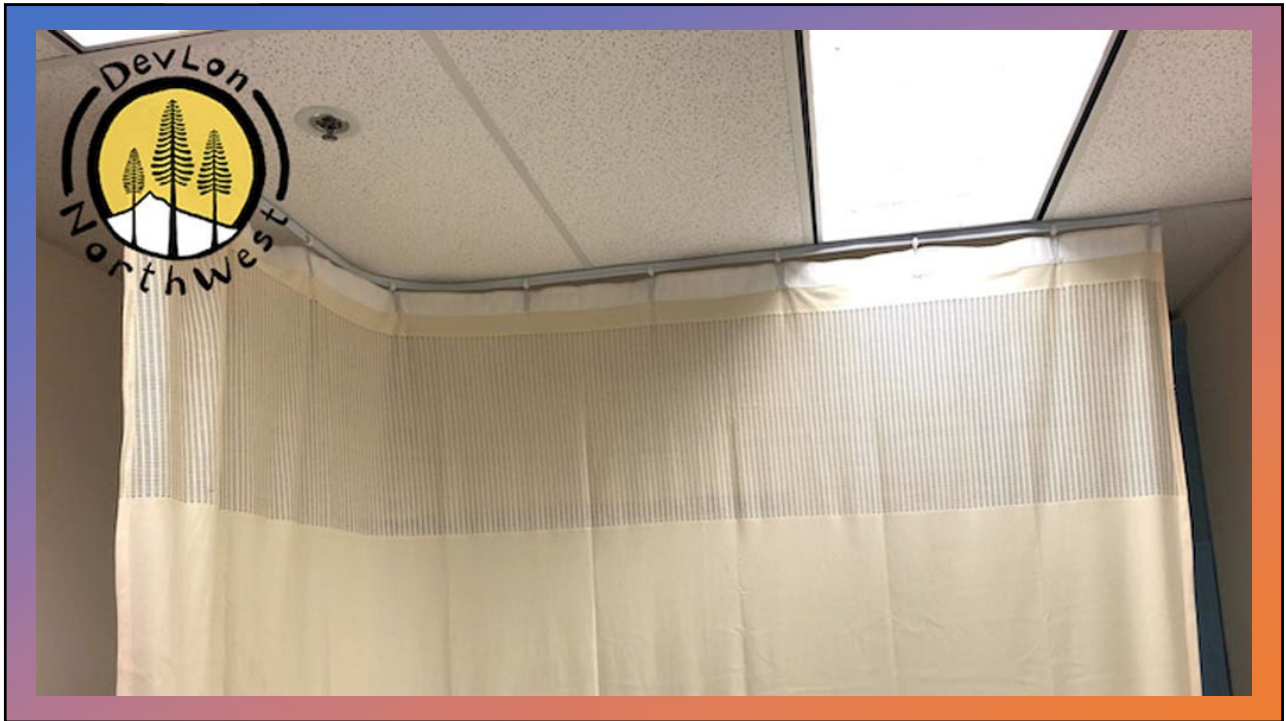
3. Throughout all spaces within a smoke compartment containing treatment rooms in ambulatory care facilities.



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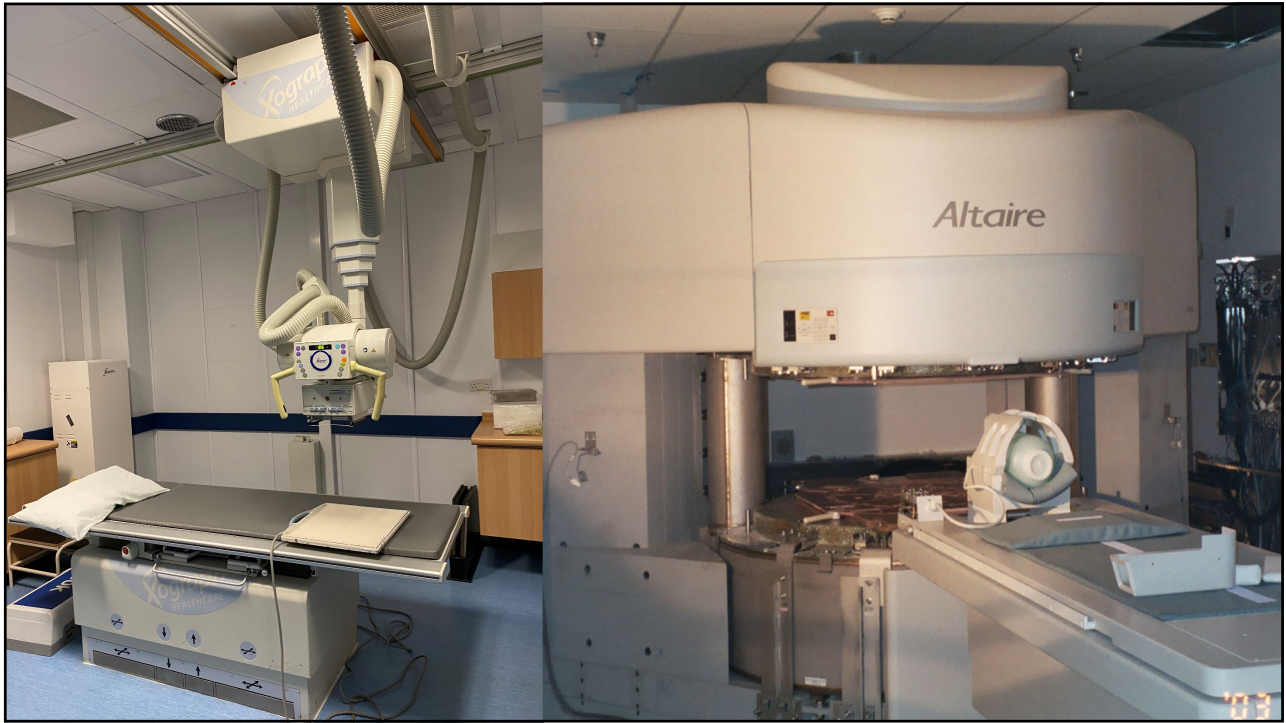
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- **907.2.2.1 Ambulatory Care Facilities.** Fire areas containing **ambulatory care facilities** shall be provided with an electronically supervised automatic smoke detection system installed within the ambulatory care facility and in public use areas outside of tenant spaces, including public corridors and elevator lobbies.
 - **Exception:** Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, provided the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

Ambulatory Care Facilities

87

Fire Alarm Systems

- **907.2.6.2 Groups I-2 and 1-2.1.** A manual and automatic fire alarm system shall be installed in Group I-2.1 occupancies.
- Audible appliances shall be used in non-patient areas.
- Visible appliances may be used in lieu of audible appliances in patient-occupied areas.
- Audible appliances placed in patient areas shall be only chimes or similar sounding appliances for alerting staff.
- *Where automatic fire suppression systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.*



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California State Fire Marshal
CODE INTERPRETATION

Date Issued	7/25/2011	Interpretation	10-056
Topic	Fire Alarm System Requirements in a mixed use occupancy containing Group I-2.1 and Group B occupancy		
Code Section(s)	2007 California Building and Fire Codes Sections 907.1.3 and 907.2.6.2		
Requested by	Cesar B. Fortuno, Pyro-Comm Systems, Inc (714) 902-8000 cfortuno@pyrocomm.com		

Where a Group I-2.1 Occupancy (Ambulatory Care Facility) is located within a fully sprinklered Group B Occupancy, is the entire building required to have an approved manual and automatic fire alarm system?

No, only the Group I-2.1 Occupancy portion and the subsequent shared egress would be required to have an approved manual and automatic fire alarm system.

89

[F] 907.2.6.2.2 *Smoke detectors shall be provided in accordance with this section.*

- *A minimum of one smoke detector shall be installed at the nurse station and centrally located.*
- *In waiting areas and corridors onto which they open, in the same smoke compartment, in accordance with Section 407.2.1.*
- *In areas where patients are restrained, smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/electrical spaces of smoke compartments and in adjacent smoke compartments where occupants of those compartments utilize the same means of egress.*

90

Fire Alarm Systems



- There are numerous code provisions requiring smoke detectors in hospital buildings. The following is a list where smoke detectors may be required in healthcare facilities:
 1. Patient Sleeping Rooms (CFC Sec. 907.2.6.2.1)
 2. Elevators lobbies and machinery rooms (CBC Sec. 3003.2)
 3. Cross-Corridor Doors in Smoke Barriers (CBC Sec. 709.5.1)
 4. Nurse's Stations (C.A.N. 2-407.2.2)
 5. For HVAC Shutdown (CMC Sec. 609.0)
 6. Auto-Closing Fire Doors (CBC Sec. 716.2.6.6)
 7. Smokeproof Stair Enclosures (CBC Sec. 909.20.2.1)

91

Fire Alarm Systems



- There are numerous code provisions requiring smoke detectors in hospital buildings. The following is a list where smoke detectors may be required in healthcare facilities:
 8. Waiting Areas open to corridors (CBC Sec. 407.2.1)
 9. Delayed Release Locks (CFC Sec. 907.3.2.2)
 10. UPS / Battery Rooms (CFC Sec. 907.2.22)
 11. Corridors of SNF's (NFPA 101, Section 18.3.4.5.3)
 12. Rooms housing Fire Alarm Control Panels, including remote power supply panels (NFPA 72, Sec. 4.4.5)
 13. I-2 occupancies with occupied floors over 75 ft. (CBC Sec. 403.4.1)

92

Fire Protection Systems

- FM200 Clean Agent Systems
- Kitchen Hood Suppression Systems
- Refrigeration Leak Detection Systems
- Smoke Control Systems



93

Special Detailed Occupancy Requirements

CBC Chapter 4

94

Corridors

CBC Section 407.2



- **407.2 Corridors continuity and separation.** Corridors in occupancies in Group I-2 and I-2.1 shall be continuous to the exits and shall be separated from other areas in accordance with Section 407.3 except spaces conforming to Sections 407.2.1 through 407.2.6.

95

- **407.2.1 Waiting and similar areas.** Waiting areas and **similar public use areas** or group meeting spaces constructed as required for corridors may be open to a corridor, only where all of the following criteria are met:

Corridors

CBC Section 407.2

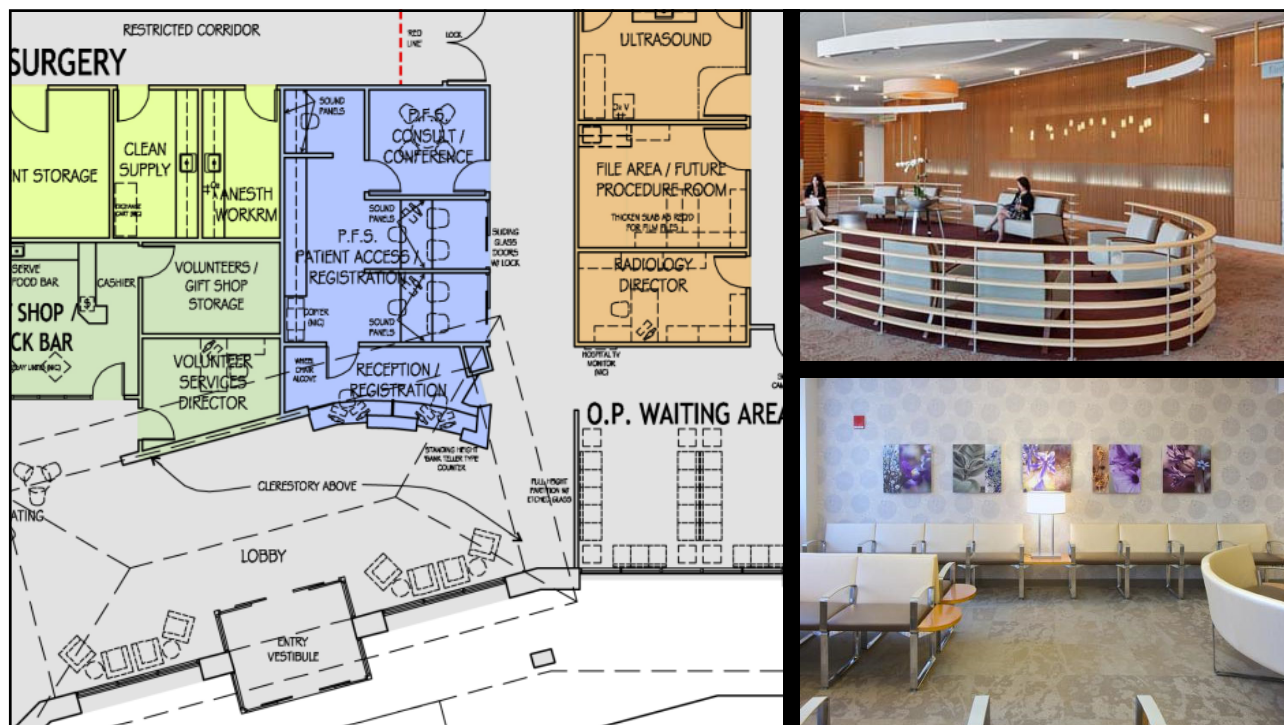


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Corridors

1. The spaces are not occupied as care recipient's sleeping rooms, treatment rooms, incidental uses *listed in Table 509*, or hazardous uses.
2. The open space is protected by an automatic fire detection system installed in accordance with Section 907.
3. The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic *smoke* detection system installed in accordance with Section 907, *and* the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.
4. The space is arranged so as not to obstruct access to the required exits.
5. *Each space is located to permit direct visual supervision by the facility staff.*


97



98



99



**California State Fire Marshal
CODE INTERPRETATION**

Date Issued	12/19/11	Interpretation	11-002
Topic	I occupancies "similar spaces"		
Code Section(s)	2010 CBC 107 and 407.2.1		
Requested by	Fire Safety Solutions Greg Granados 6125 Shenandoah Dr. Sacramento, CA 95841		

I am requesting a formal interpretation of the following questions and clarification of OSFM interpretation 09-003.

3. Question number 3 of interpretation 09-003 allows for only small spaces such as waiting rooms and similar spaces, would a dining area smaller than 750sq. ft. meet this intent?

Yes, see code commentary.

100

Corridors

CBC Section 407.2

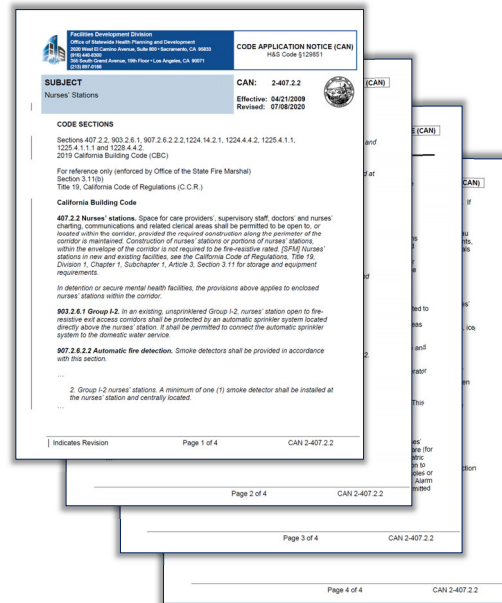
- **407.2.2 Nurse stations.** Spaces for care providers', supervisory staff, doctors' and nurses' charting, communications and related clerical areas shall be permitted to be open to, or located within the corridor, provided the required construction along the perimeter of the corridor is maintained. Construction of nurses' stations or portions of nurses' stations, within the envelope of the corridor is not required to be fire-resistive rated. Nurse stations in new and existing facilities see the California Code of Regulations, Title 19, Division 1, Chapter 1, Subchapter 1, Article 3, **Section 3.11(d)** for storage and equipment requirements.



101

Corridors

- OSHPD Code Application Notice 2-407.2.2 is still applicable until such time Title 19 Section 3.11(d) is codified.



102



103



104

Corridors

CBC Section 407.2

- **407.2.4 Gift shops.** Gift shops and associated storage that are less than 500 square feet in area shall be permitted to be open to the corridor where such spaces are constructed as required for corridors.



105

Corridors

CBC Section 407.3

- **407.3 Corridor wall construction.** Corridor walls shall be constructed as *fire* partitions in accordance with Section 708.



106

- **407.3.1 Corridor doors.** Corridor doors are **not** required to have a fire protection rating and *doors to patient sleeping rooms and treatment rooms* are **not** required to be self-closing or automatic-closing. Doors must be solid, have close-fitting operational tolerances, head and jamb stops, provide an effective barrier to limit the transfer of smoke and be equipped with positive latching. Roller latches are not permitted.

Corridors

CBC Section 407.3



107



108

Corridors

CBC Section 407.3



- **407.3.1.2 Swing of corridor doors.** Corridor doors, other than those equipped with self-closing or automatic-closing devices, **shall not** swing into the required width of corridors.

109

- **407.3.2 Glazing.** In fully sprinklered buildings, fixed fully tempered or laminated glass in **wood or metal frames** may be used in corridor walls, provided the glazed area does not exceed **25 percent** of the areas of the corridor wall of the room.



Corridors

CBC Section 407.3



110

Corridors

CBC Section 407.3

- **407.3.2 Glazing.** The total area of glass in corridor walls is **not limited** when the glazing is fixed 1/3-hour fire-protection-rated glazing in approved frames and the size of individual glazed panel does not exceed 1,296 square inches.



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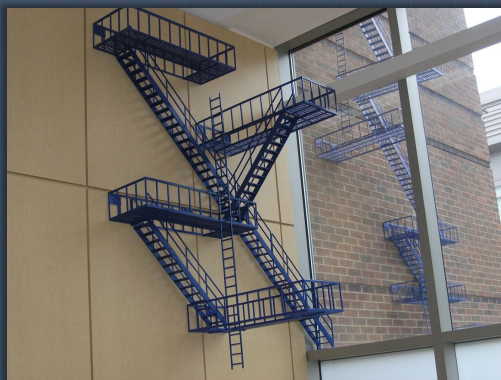


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407.4 Means of Egress



- Group I-2 and I-2.1 occupancies shall be provided with means of egress complying with Chapter 10 and Sections 407.4.1 through 407.4.4. The fire safety and evacuation plans provided in accordance with Section 1002.2 shall identify the building components necessary to support a defend-in-place emergency response in accordance with Sections 403 and 404 of the California Fire Code.

114

- **407.4.1 Direct access to a corridor.** **Habitable rooms** in Group I-2 and I-2.1 occupancies shall have an exit access door leading **directly to a corridor**.

– **Exceptions:**

1. Rooms with exit doors opening directly to the outside at ground level.
2. Rooms arranged as care suites complying with Section 407.4.3

Means of Egress

CBC Section 407.4




115

Corridors

- *Direct access to the corridor system from a patient sleeping room or treatment room is a key component to staff access and patient movement. The term “habitable rooms” is not intended to include individual bathrooms, closets, housekeeping rooms and similar spaces, as well as briefly occupied spaces, such as control rooms in radiology, medication rooms directly accessible from nursing stations and small storage/supply rooms. Habitable areas would include staff areas within the patient treatment and sleeping areas (i.e., nutrition rooms, clean/dirty linen rooms, staff lounge, staff work areas).*

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Group I Corridors

 Facilities Development Division Office of Behavioral Health Planning and Development 400 R Street, Suite 200, Sacramento, CA 95811-0916 484-8300 1916 N. Main Street, Suite 2007, Los Angeles, CA 90012-2713 461-0988		CODE APPLICATION NOTICE (CAN) H&S Code §120851
SUBJECT Direct Corridor Access from Habitable Rooms	CAN: 2-407.4.1 Effective: 11/12/2015 Revised: 3/06/2017	
CODE SECTIONS Section 407.4.1, Chapter 4 2016 California Building Code (CBC) Section 202, Chapter 2 2016 California Building Code (CBC) 407.4 Means of egress. Group I-2 and I-2.1 occupancies shall be provided with means of egress complying with Chapter 10 and Sections 407.4.1 through 407.4.4. The fire safety and evacuation plans provided in accordance with section 1001.4, shall identify the building components necessary to support a defend-in-place emergency response in accordance with Sections 404 and 408 of the California Fire Code. 407.4.1 Direct access to a corridor. Habitable rooms in Group I-2 and I-2.1 occupancies shall have an exit access door leading directly to a corridor. Exceptions: 1. Rooms with exit doors opening directly to the outside at ground level. 2. Rooms arranged as care suites complying with Section 407.4.4 407.4.4 Group I-2 care suites. Care suites in Group I-2 or I-2.1 shall comply with Sections 407.4.4.1 through 407.4.4.4 and either Section 407.4.4.5 or 407.4.4.6. 407.4.4.3 Access to corridor. Movement from habitable rooms shall be in accordance with Sections 407.4.4.3.1, 407.4.4.3.2 and 407.4.4.3.3. 202 DEFINITIONS CARE SUITE. In Group I-2 occupancies, a group of treatment rooms, care recipient sleeping rooms and the support rooms or spaces and circulation space within the suite where staff are in attendance for supervision of all care recipients within the suite, and the suite is in compliance with the requirements of Section 407.4.4. DIRECT ACCESS. A path of travel from a space to an immediately adjacent space through an opening in the common wall between the two spaces.		
Page 1 of 4 CAN 2-407.4.1		

The purpose of a Code Application Notice (CAN) is to clarify requirements of California Building Code, Section 407.4.1 and 407.4.4.3 relative to what areas, spaces or uses are considered habitable rooms, and when direct corridor access is required.

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Ambulatory Care Facility Corridors

422.2 Separation. Ambulatory care facilities where the potential for four or more care recipients are to be incapable of self-preservation at any time shall be separated from adjacent spaces, corridors or tenants with a fire partition installed in accordance with Section 708.

This separation provision is applicable to ambulatory care facilities with **four** or **five** care recipients. Facilities with greater than five care recipients are Group I-2.1. Facilities with less than four care recipients are Group B.

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Means of Egress

CBC Section 407.4



- **407.4.1.2 Basement exits.** All rooms below grade shall have not less than one exit access that leads directly to an exterior exit door opening directly to an exit discharge at *grade plane* or the *public way*.



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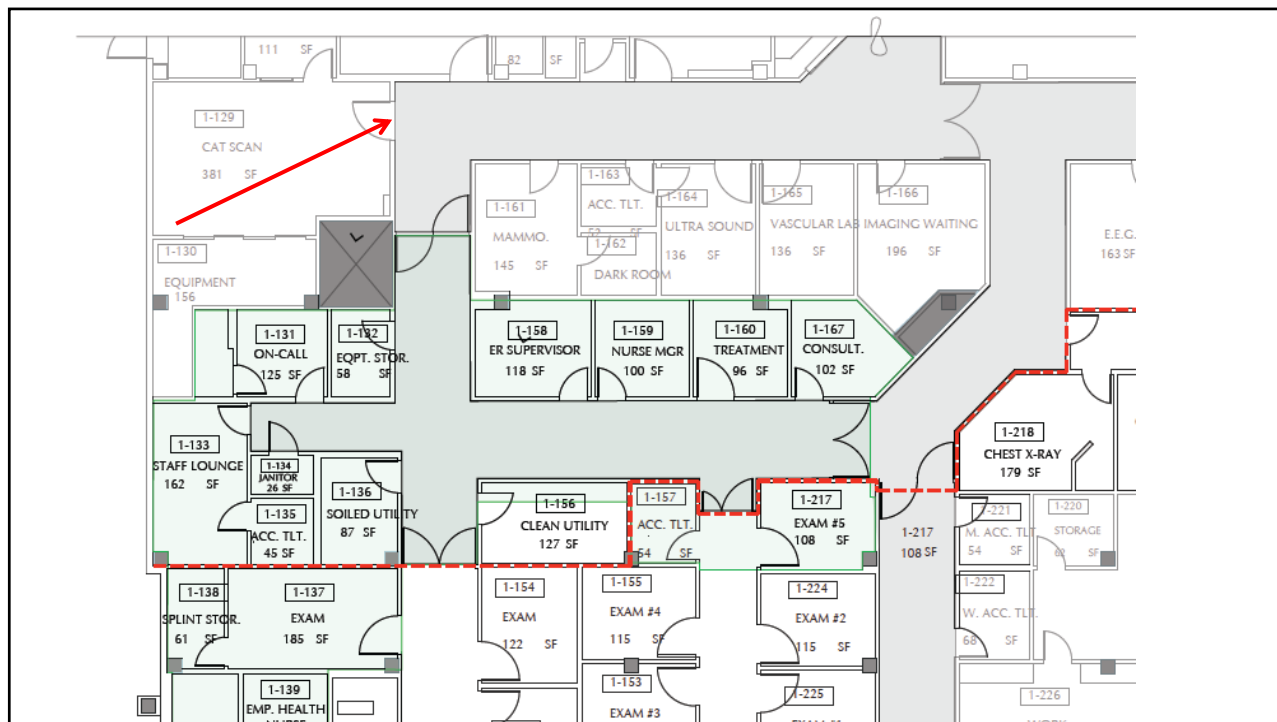
- **407.4.2 Distance of Travel.** The distance of travel between any point in a Group I-2 and I-2.1 occupancy *sleeping* room, not located in a care suite, and an exit access door in that room shall be not greater than 50 feet.

Means of Egress

CBC Section 407.4



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Means of Egress

CBC Section 407.4



- **407.4.2.1 Two means of egress.** Any **sleeping room** of more than **1,000 square feet** shall have no fewer than two exit access doors from the sleeping room. **Any room**, other than sleeping rooms, with an area of more than **2,500 square feet** shall have no fewer than two exit access doors from the room located.

122

Healthcare Suites

- **407.4.4 Group I-2 and I-2.1 care suites.** Care suites in Group I-2 and I-2.1 shall comply with Sections 407.4.4.1 through 407.4.4.4 and either Section 407.4.4.5 or 407.4.4.6.
 - **CARE SUITE.** In Group I-2 or I-2.1 occupancies, a group of treatment rooms, care recipient sleeping rooms and the support rooms or spaces and circulation space within the suite where staff are in attendance for supervision of all care recipients within the suite, and the suite is in compliance with the requirements of Section 407.4.4.

123

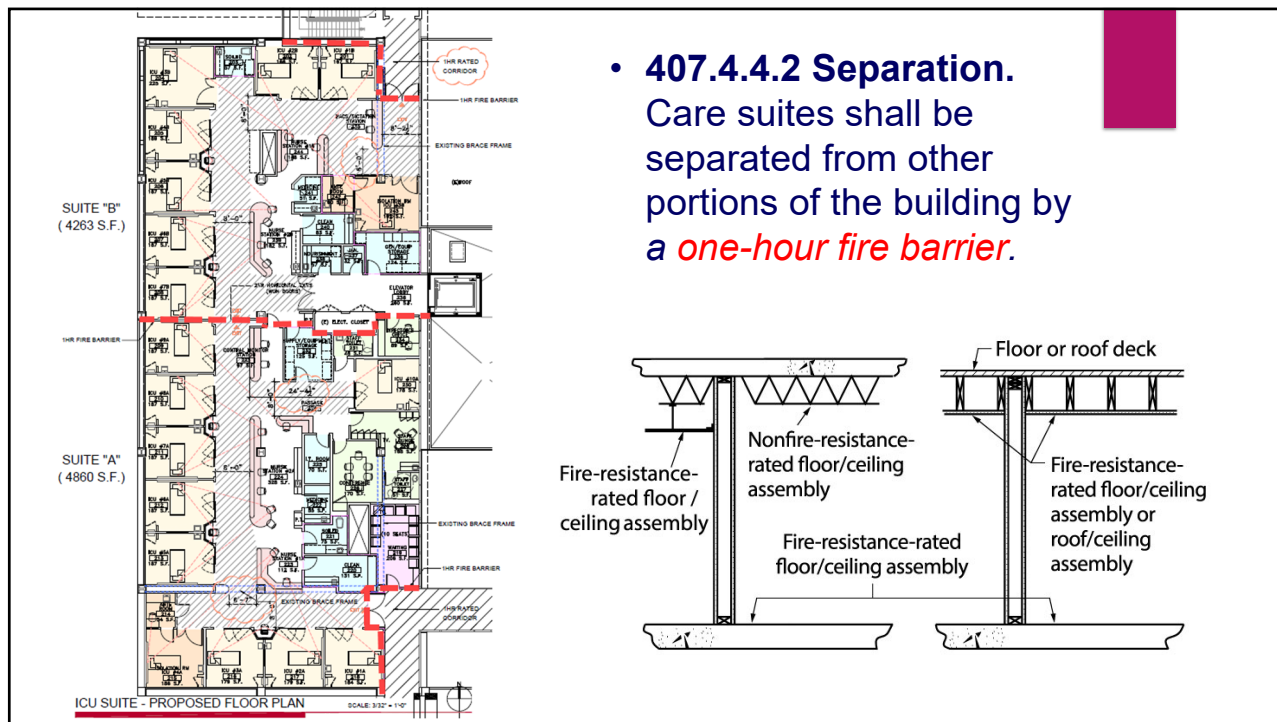
Means of Egress

CBC Section 407.4



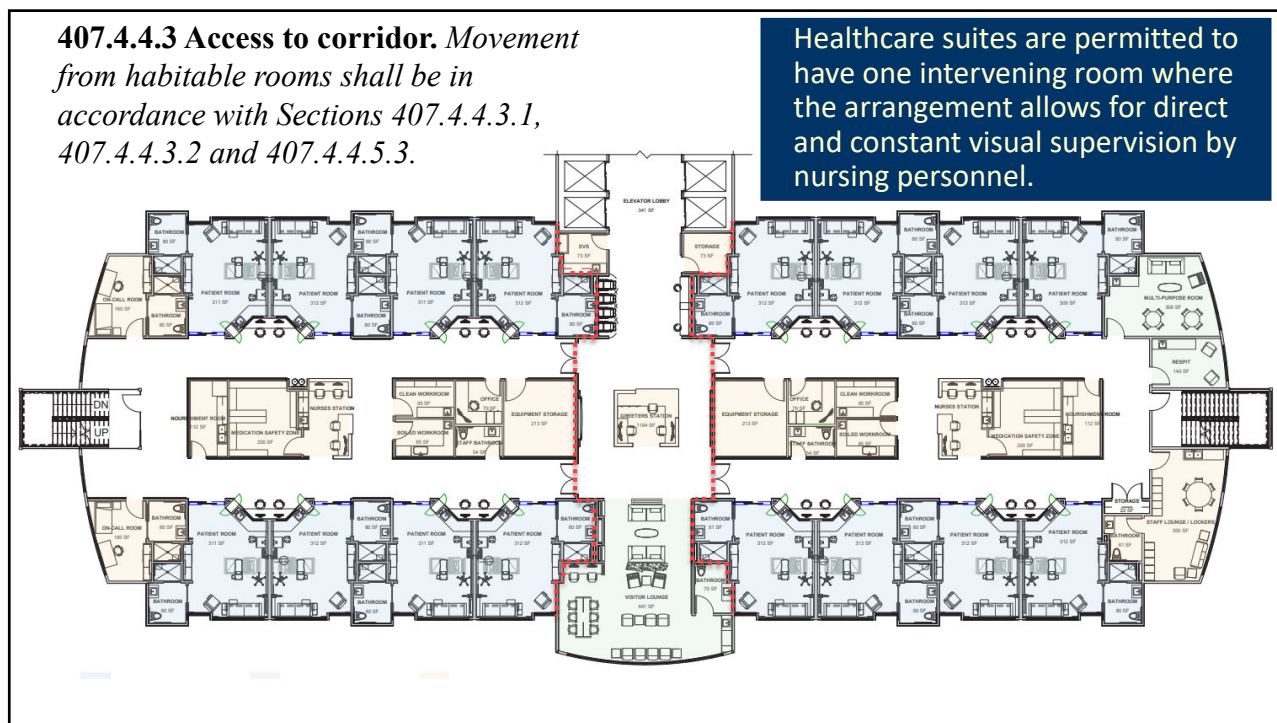
- **407.4.4.1 Exit access through care suites.** Exit access from all other portions of a building not classified as a care suite shall not pass through a care suite. **In a care suite required to have more than one exit, one exit access is permitted to pass through an adjacent care suite provided all of the other requirements of Sections 407.4 and 1014.2 are satisfied.**

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- 407.4.4.2 Separation.**
 Care suites shall be separated from other portions of the building by a *one-hour fire barrier*.

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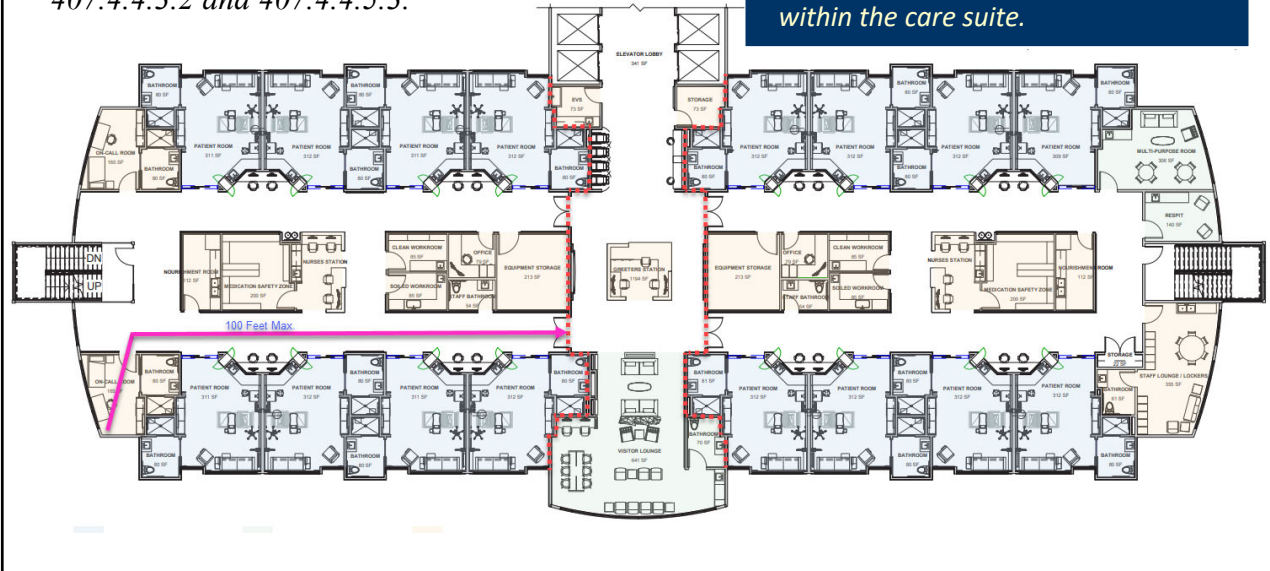
407.4.4.3 Access to corridor. *Movement from habitable rooms shall be in accordance with Sections 407.4.4.3.1, 407.4.4.3.2 and 407.4.4.5.3.*

Healthcare suites are permitted to have one intervening room where the arrangement allows for direct and constant visual supervision by nursing personnel.

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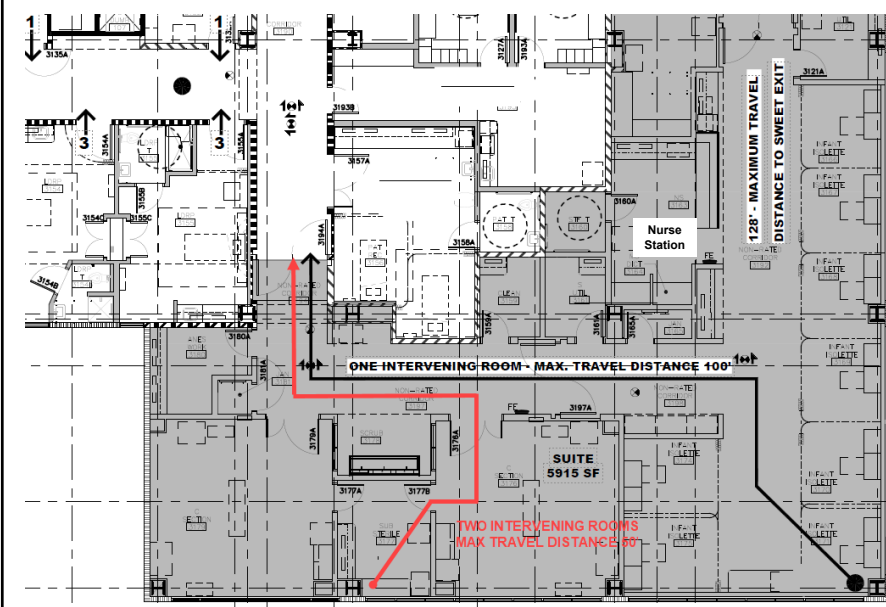
407.4.4.3 Access to corridor. Movement from habitable rooms shall be in accordance with Sections 407.4.4.3.1, 407.4.4.3.2 and 407.4.4.5.3.

407.4.4.3.1 Movement from habitable rooms shall not require passage through more than one intervening room and **100 feet** distance of travel within the care suite.



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Healthcare Suites



407.4.4.3.2 Movement from habitable rooms other than patient sleeping rooms located within a care suite, shall not require passage through more than two intervening rooms and 50 feet distance of exit access travel within the care suite.

Exception: The distance of travel shall be permitted to be increased to **100 feet** where an automatic fire sprinkler system is provided, and an automatic smoke detection system is provided throughout the care suite.

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Healthcare Suites

- **407.4.4.6 Care suites not containing sleeping rooms.** Treatment areas and associated rooms, spaces or circulation space may be grouped into care suites and shall conform to the limitations in Sections 407.4.4.6.1 and 407.4.4.6.2.
 - **407.4.4.6.1 Area.** Care suites of rooms, other than sleeping rooms, shall have an area not greater than **10,000 square feet**.
 - **407.4.4.6.2 Exit access.** Any room or care suite, other than sleeping rooms, with an area of **more than 2,500 square feet** shall have not fewer than two exit access doors from the room or care suite.

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Healthcare Suites

- **407.4.5 Group I-2 and I-2.1 nonpatient-care suites.** The means of egress provisions for nonpatient-care suites shall be in accordance with the primary use and occupancy of the suite.
 - **407.4.5.1 Separation.** Nonpatient-care suites shall be separated from other portions of the building, including other suites, by not less than a 1-hour fire barrier complying with Section 707.
 - **407.4.5.2 Area.** Nonpatient-care suites of rooms shall have an area not greater than 10,000 square feet.
 - **407.4.5.3 Automatic sprinkler system protection.** Nonpatient-care suites shall be located in fully sprinklered buildings.

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Healthcare Suites

1020.2 Construction. *A fire-resistance rating is not required for corridors within suites in a Group I-2.1 constructed in accordance with Section 407.4.4 or 407.4.5.*



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Smoke Barriers

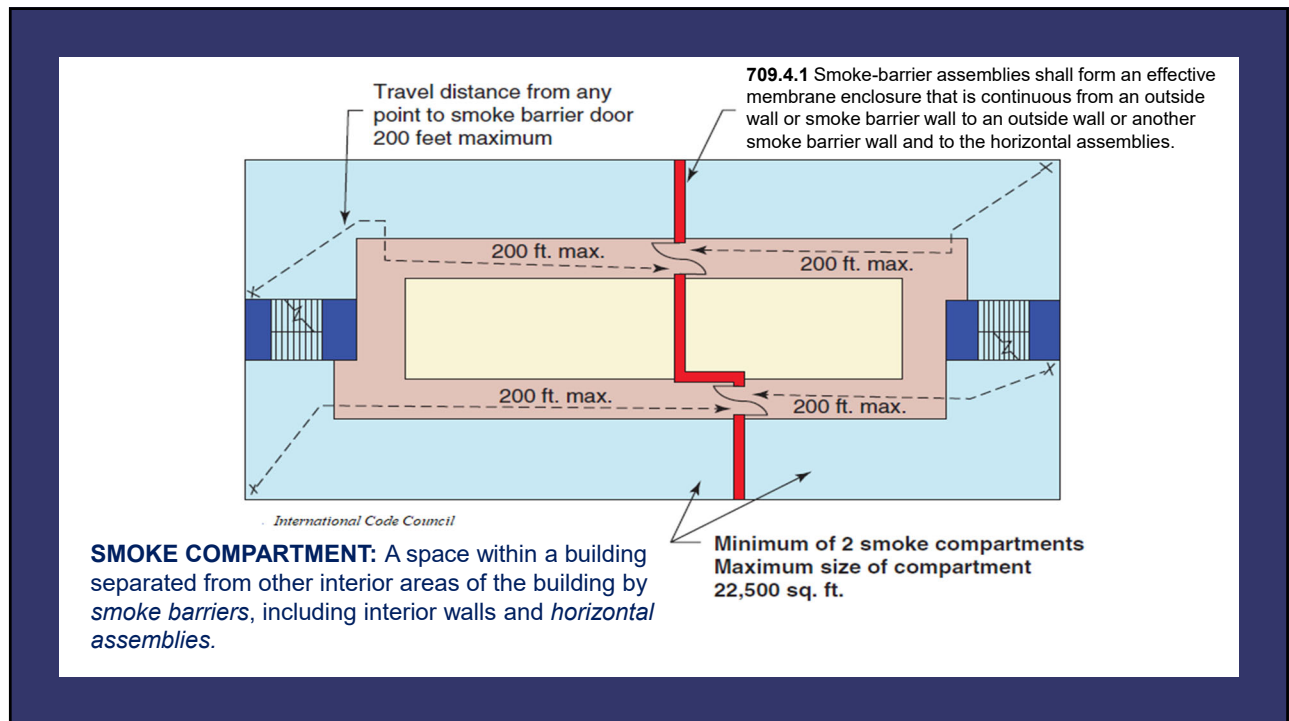
- Smoke barriers in Group I-2.1 shall:
 - subdivide every story $\geq 10,000$ sq. ft. used by patients receiving care or treatment
 - divide other stories with an occupant load of 50 into or more persons **regardless of occupancy**
 - form at least two smoke compartments
 - have an area of not more than 22,500 square feet
 - have a travel distance from any point in a smoke compartment to a smoke barrier door that does not exceed 200 feet

Smoke Barriers

CBC Section 407.5

CBC Section 422.3

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Smoke Barriers

CBC Section 407.5
CBC Section 422.3

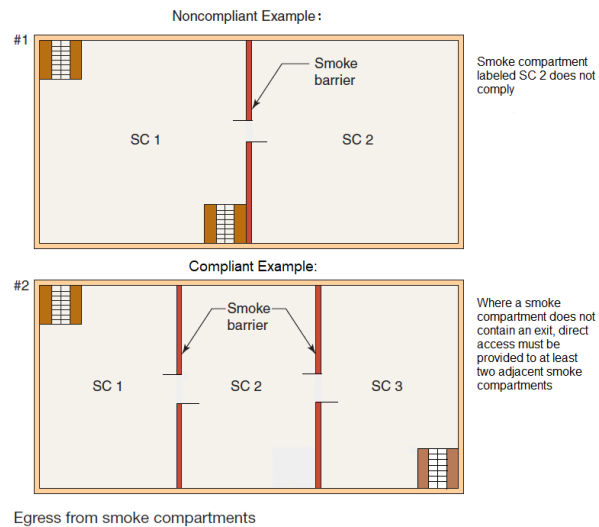


- Smoke barriers shall:
 - be at least 1-hour fire-resistive construction
 - be smoke-tight (leakage-rated)
 - be provided with protected openings
 - 20-minute doors
 - 45-minute windows
 - 90-minute smoke/fire dampers
 - have at least two means of egress from each smoke zone
 - means of egress may pass through adjacent zones, provided the means of egress does not return through the compartment zone from which exiting originated

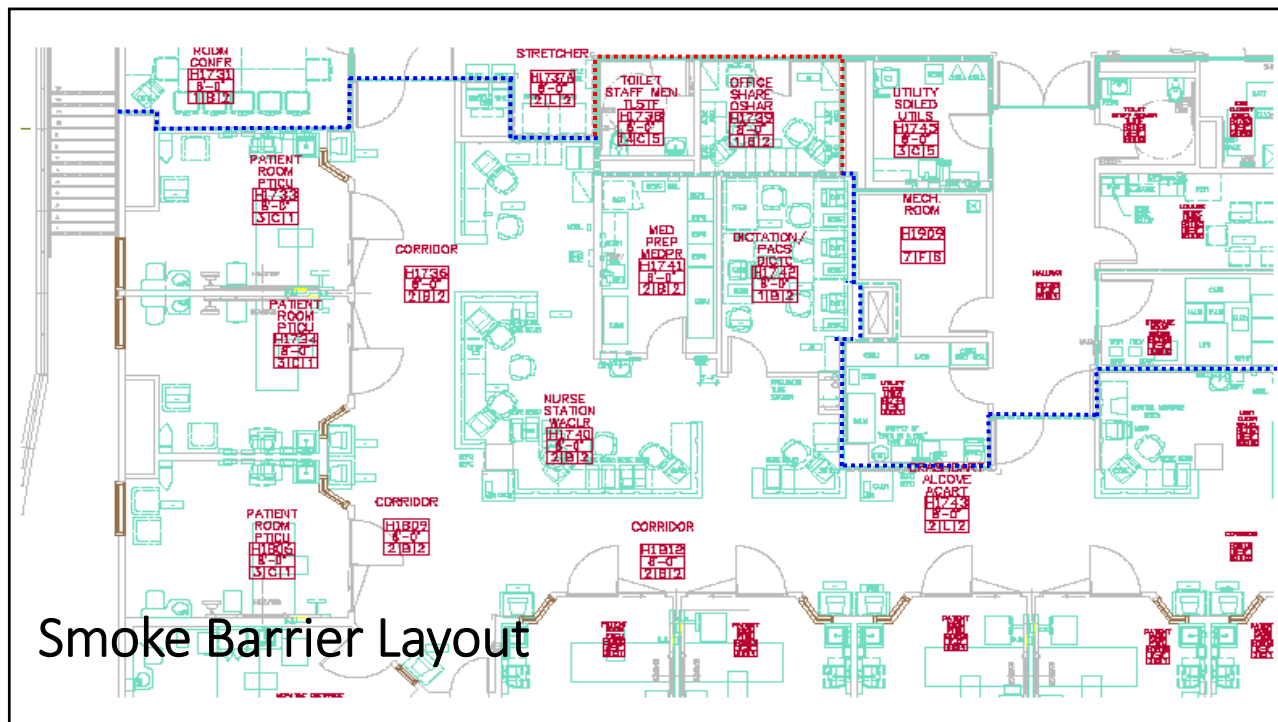
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Smoke Barriers

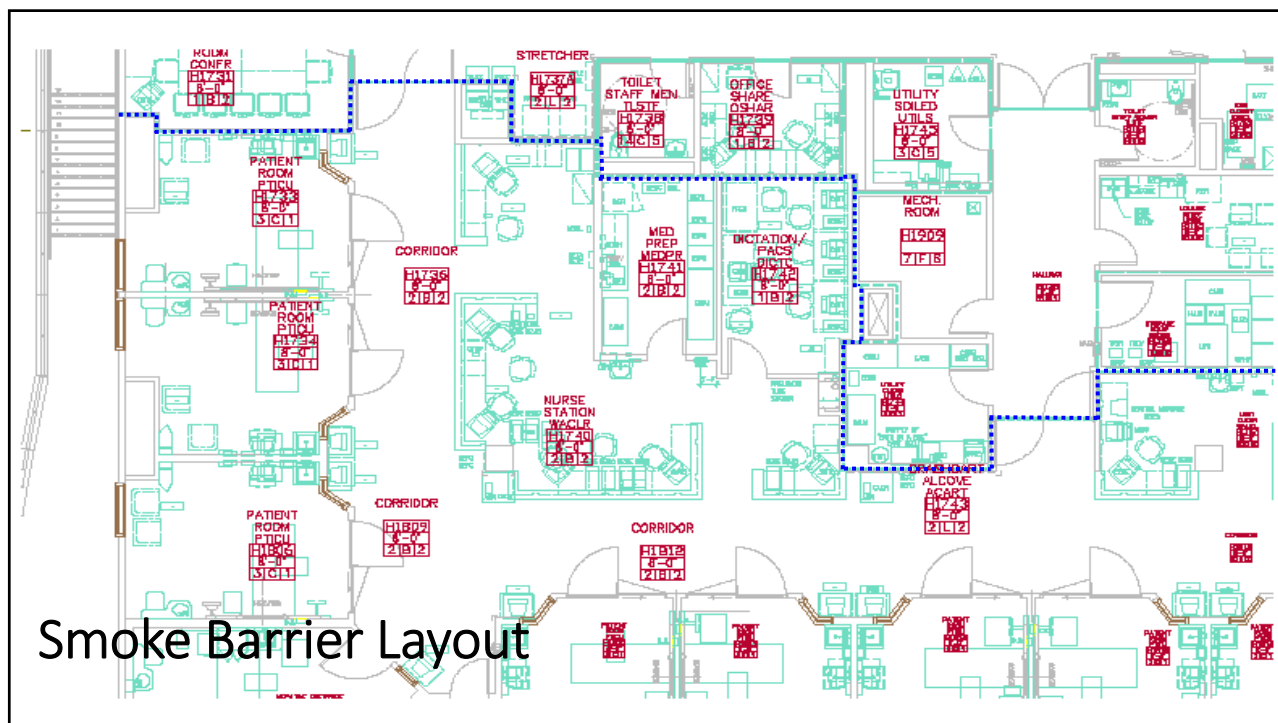
- **407.5.4 and 422.3.3 Independent egress.** A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated. Smoke compartments that do not contain an exit shall be provided with direct access to not less than two adjacent smoke compartments.



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Exceptions:

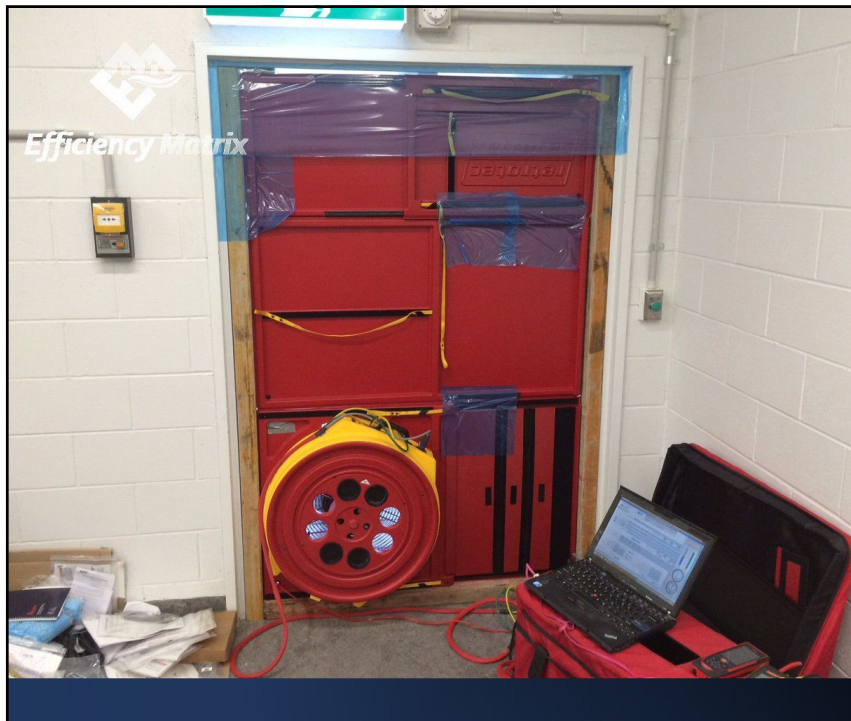
1. This requirement shall not apply to Group I-2.1 less than 10,000 sq ft.
2. An area in an adjoining occupancy shall be permitted to serve as a smoke compartment for a Group I- 2.1 facility if the following criteria are met:
 - 2.1. The separating wall and both compartments meet the requirements of 407.5.
 - 2.2. The Group I-2.1 is less than 22,500 sq ft.
 - 2.3. Access from the Group I-2.1 to the other occupancy is unrestricted.
3. This requirement shall not apply to the following:
 - 3.1. Any story, not containing a Group I-2 or I-2.1 occupancy, that is located above a story containing a Group I-2 or I-2.1 occupancy.
 - 3.2. Areas that do not contain a Group I-2 or I-2.1 occupancy, where such areas are separated from the Group I-2 or I-2.1 occupancy by a horizontal exit in accordance with Section 1025.2.
 - 3.3. Any story, not containing a Group I-2 or I-2.1 occupancy, that is located more than one story below a story containing a Group I-2 or I-2.1 occupancy.
 - 3.4. Any story housing only mechanical equipment where such story is located below a story containing a Group I-2 or I-2.1 occupancy and is separated from the story above by a horizontal assembly having not less than a 2 hour fire resistance-rating.

Smoke Barriers

CBC Section 407.5

CBC Section 422.3

139



909.5 Smoke barrier construction

Smoke barriers required for passive smoke control and a smoke control system using the pressurization method shall comply with Section 709. The maximum allowable leakage area shall be the aggregate area calculated using the following leakage area ratios in Section 909.5

140

Door Fan Test



909.5.2 Testing of leakage area.

Compliance with the maximum total leakage area shall be determined by achieving the minimum air pressure difference across the barrier with the system in the smoke control mode for mechanical smoke control systems utilizing the pressurization method. Compliance with the maximum total leakage area of passive smoke control systems shall be verified through methods such as door fan testing or other methods, as approved by the fire code official.

PRADA

141

Openings in Smoke Barriers

- **709.5 Openings.** Openings in a smoke barrier shall be protected in accordance with Section 716.

Exceptions:

1. In Group I-2, I-2.1, R-2.1 and ambulatory care facilities, where a pair of opposite-swinging doors are installed across a corridor in accordance with Section 709.5.1, the doors shall be protected in accordance with Section 716. The doors shall not have a center mullion. Factory-applied or field-applied protective plates are not required to be labeled. Doors installed across corridors shall comply with Section 1010.1.1.



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Openings in Smoke Barriers

- **709.5.1 Group I-2, I-2.1, R-2.1 and ambulatory care facilities.** In Group I-2.1 and ambulatory care facilities, where doors protecting openings in smoke barriers are installed across a corridor and have hold-open devices, the doors shall be automatic-closing in accordance with Section 716.2.6.6. Such doors shall have a vision panel with fire-protection-rated glazing materials in fire-protection-rated frames, the area of which shall not exceed that tested.



143

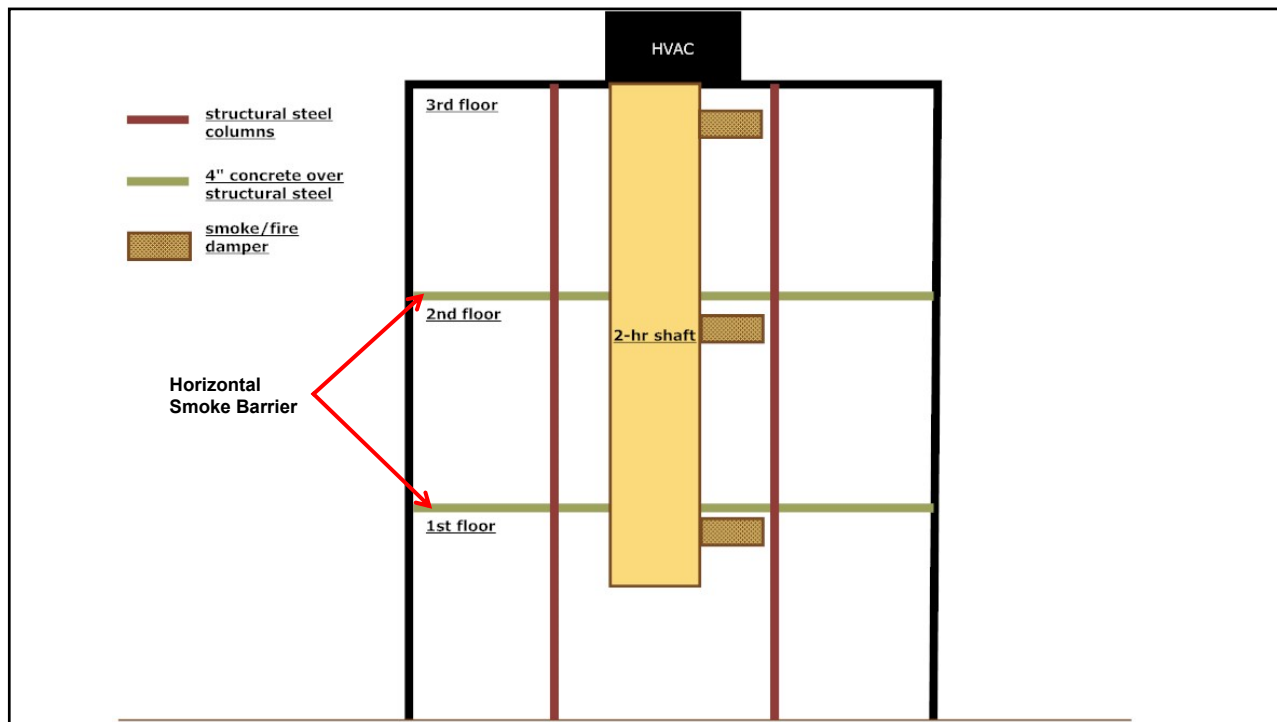
Smoke Barriers

CBC Section 407.5

- **407.5.5 Horizontal assemblies.** Horizontal assemblies supporting smoke barriers required by this section shall be designed to resist the movement of smoke.



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407.6 Automatic-closing doors

407.6.1 Activation of automatic-closing doors. Automatic-closing doors on hold-open devices in accordance with Section 716.2.6.6 shall also close upon activation of a *fire alarm system*, an *automatic sprinkler system*, or both. The *automatic* release of the hold-open device on one door shall release all such doors within the same *smoke compartment*.

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INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

TABLE 803.3
INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY*

GROUP	SPRINKLERED ^d			NONSPRINKLERED		
	Interior exit stairways and ramps and exit passageways ^{a, b}	Corridors and enclosure for exit access stairways and ramps	Rooms and enclosed spaces ^c	Interior exit stairways and ramps and exit passageways ^{a, b}	Corridors and enclosure for exit access stairways and ramps	Rooms and enclosed spaces ^c
A-1 and A-2	B	B	C	A	A ^d	B ^e
A-3 ^f , A-4, A-5	B	B	C	A	A ^d	C
B, E, M, R-1, R-4	B	C ^m	C	A	B ^m	C
F	C	C	C	B	C	C
H, L	B	B	C ^g	A	A	B
I-2, I-2.1	B	B	B ^{h,1}	A	A	B
I-3	A	A ^j	C	A	A	B
I-4	B	B	B ^{h,1}	A	A	B
R-2	C	C	C	B	B	C
R-2.1	B	C	C	A	B	B
R-3, R-3.1	C	C	C	C	C	C
S	C	C	C	B	B	C
U	No Restrictions			No Restrictions		

b. **In other than Group I-2 and I-2.1 occupancies** in buildings less than three stories above grade plane of other than Group I-3, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted in interior exit stairways and ramps.

b. In exit enclosures of buildings less than three stories in height of other than Group I-3, Class B interior finish for nonsprinklered buildings and Class C for sprinklered buildings shall be permitted.

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INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

804.3.3.2 Minimum critical radiant flux. In all occupancies, new interior floor finish and floor covering materials in enclosures for stairways and ramps, exit passageways, corridors and rooms or spaces not separated from corridors by full-height partitions extending from the floor to the underside of the ceiling shall withstand a minimum critical radiant flux.

The minimum critical radiant flux shall be **not less than Class II** in Groups B and I-2.1 occupancies.



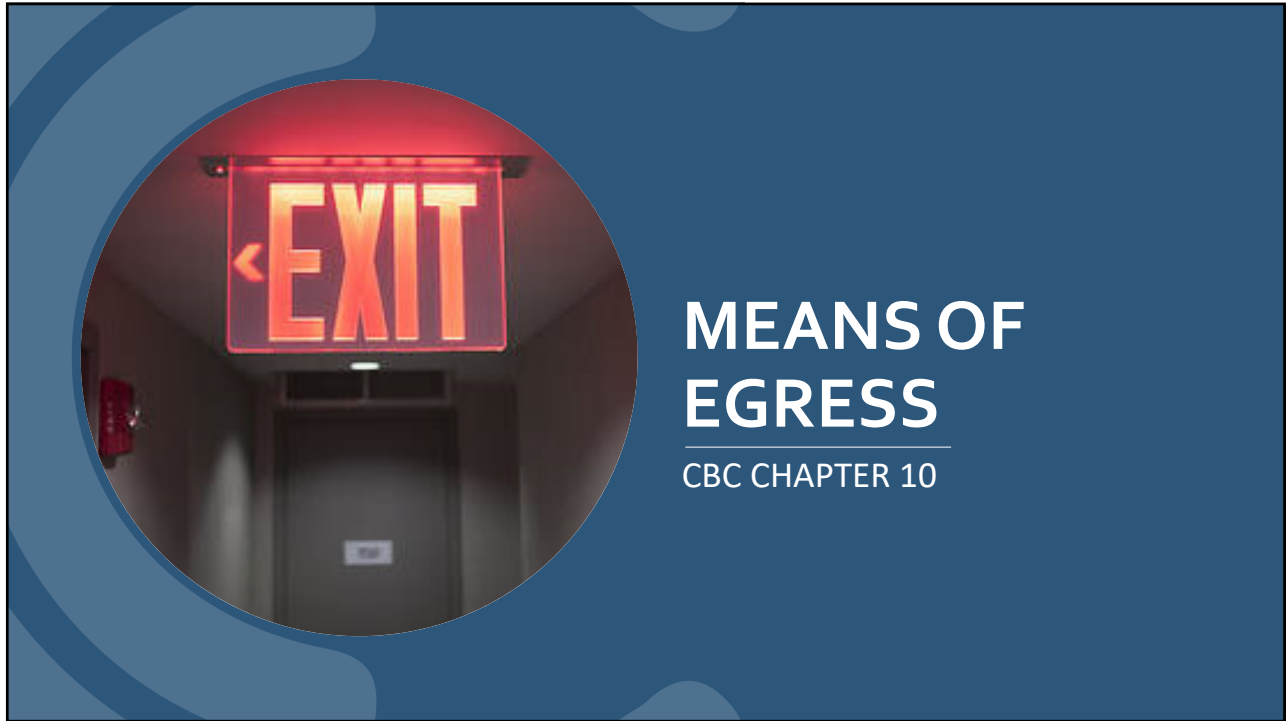
149



DECORATIVE MATERIALS AND ARTIFICIAL DECORATIVE VEGETATION

California Fire Code, Section 807.5.3.3 In Groups I-2.1 occupancies equipped throughout with an approved automatic sprinkler system, combustible decorative materials placed on walls shall be limited to not more than **30%** of the wall area to which they are attached.

150



151



152



153

- Egress components serving bed or stretcher patients shall be 44 inches
 - Aisles
 - Doors
 - Stairs
 - Ramps
- Horizontal projections
 - 1½ inches maximum
 - 3½ inches for handrails
 - 4 inches for alcohol-based hand-rub dispensers
 - 4 inches for manual pull stations with cover plates
- Maximum travel distance to an exit shall not exceed 200 feet



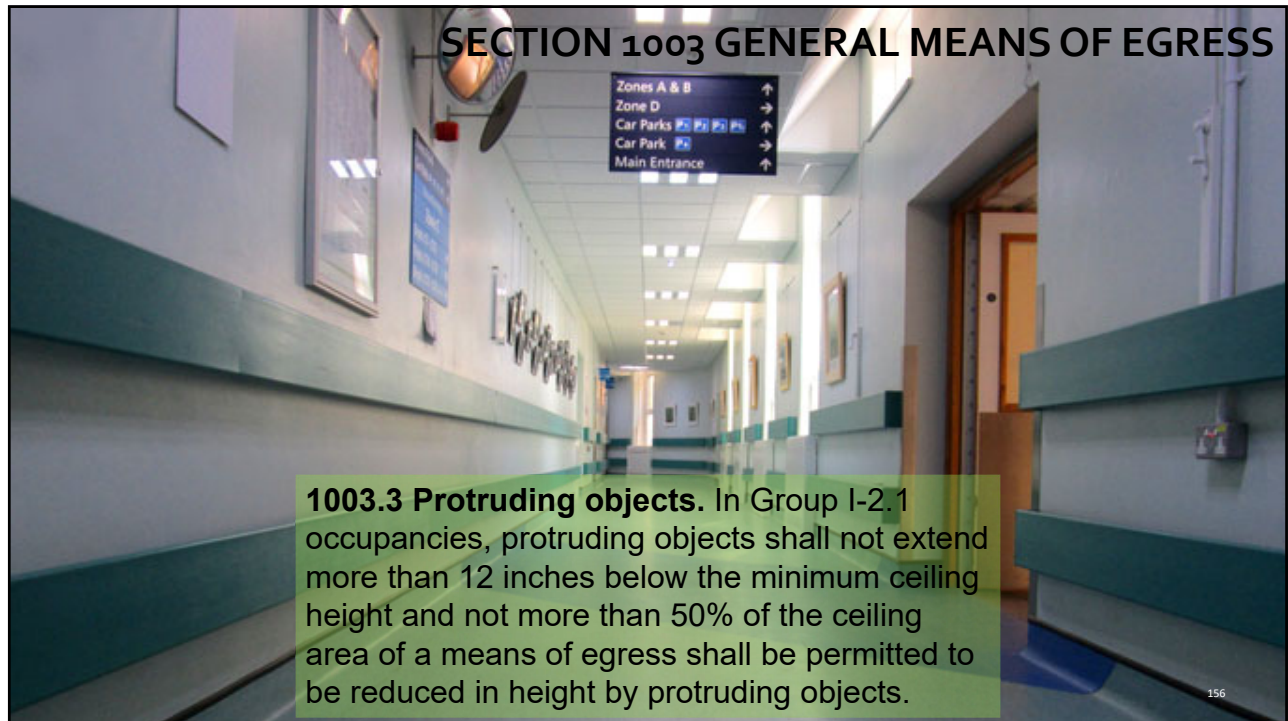
MEANS OF EGRESS

154

154

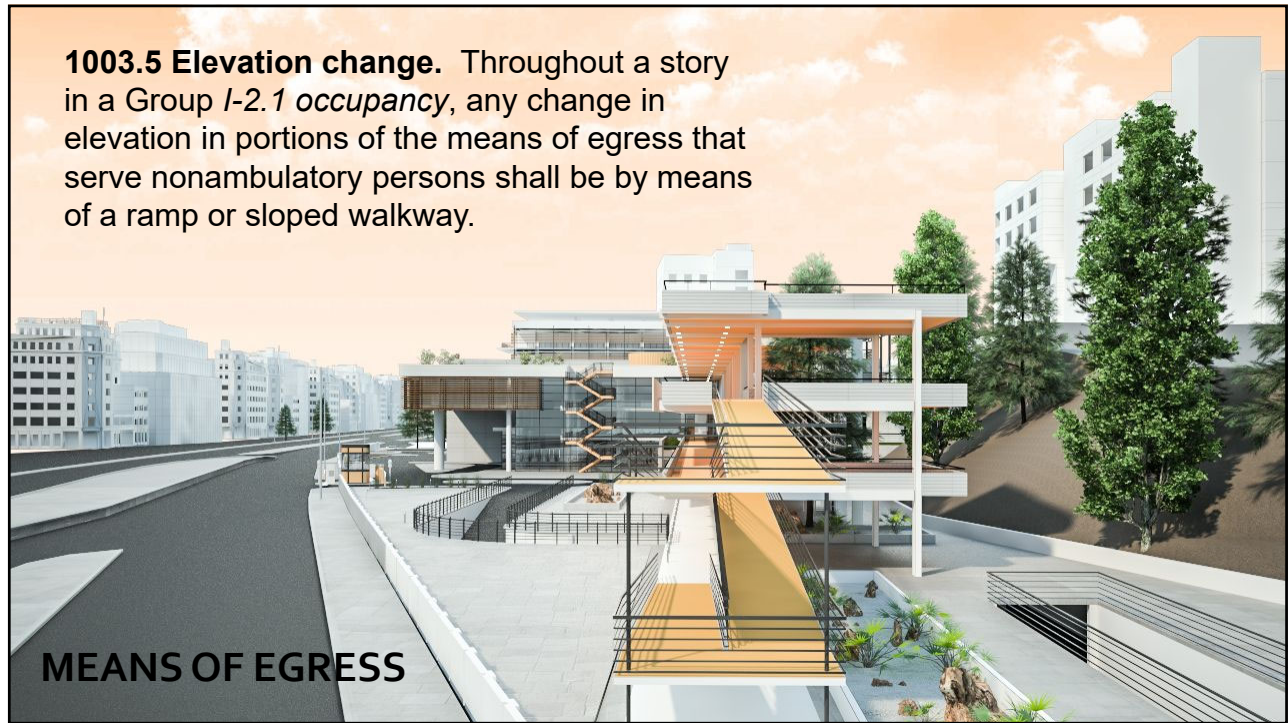


155



156

1003.5 Elevation change. Throughout a story in a Group I-2.1 occupancy, any change in elevation in portions of the means of egress that serve nonambulatory persons shall be by means of a ramp or sloped walkway.



MEANS OF EGRESS

157

1003.3.3.1 Horizontal projections for Group I-2.1 occupancies. Structural elements, fixtures or furnishings shall not project horizontally from either side more than 1½ inches into the required width of an exit access corridor serving any area caring for one or more nonambulatory or bedridden persons.

Exceptions:

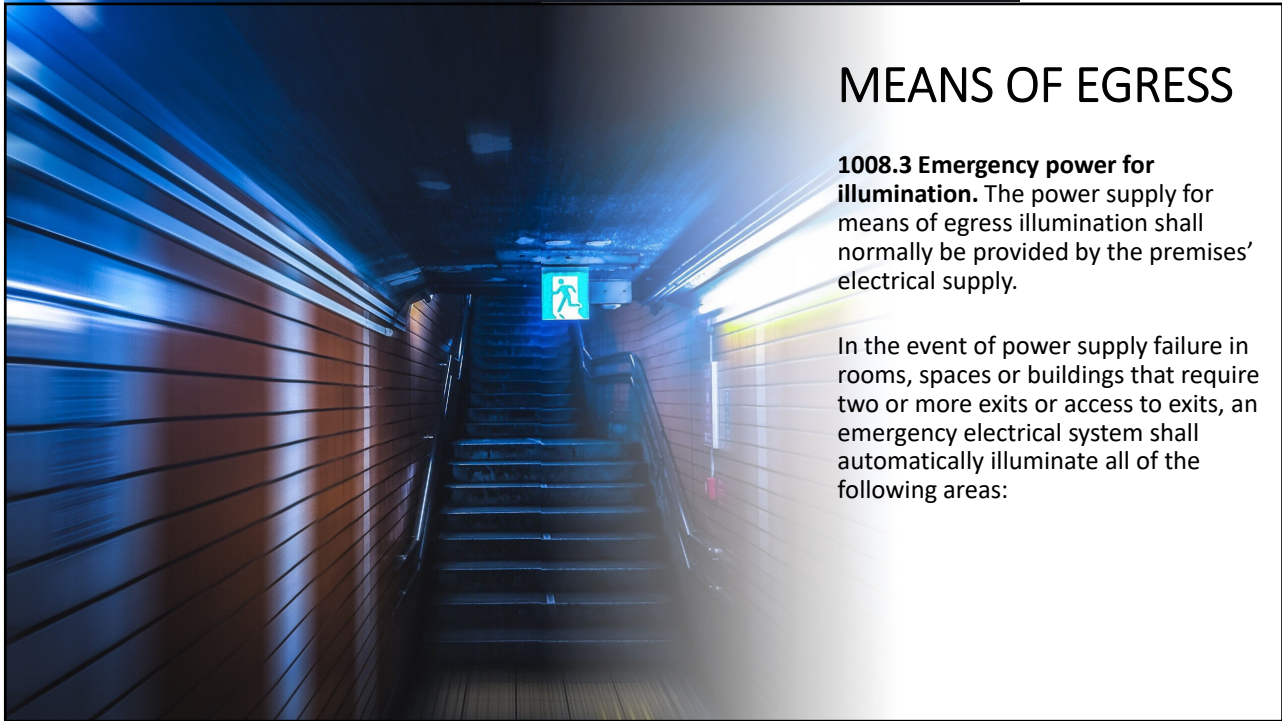
1. Handrails are permitted to protrude 3½ inches from the wall.
2. Alcohol-based hand-rub dispensers are permitted to protrude 4 inches.
3. Manual fire alarm boxes with a protective cover installed are permitted to protrude 4 inches.



MEANS OF EGRESS

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MEANS OF EGRESS

1008.3 Emergency power for illumination. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.

In the event of power supply failure in rooms, spaces or buildings that require two or more exits or access to exits, an emergency electrical system shall automatically illuminate all of the following areas:

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MEANS OF EGRESS

- Aisles.
- Corridors.
- Exit access stairways and ramps.
- Interior exit access stairways and ramps.
- Interior and exterior exit stairways and ramps.
- Exit passageways.
- Vestibules and areas on the level of discharge used for exit discharge in accordance with Section 1028.2.
- Exterior landings as required by Section 1010.1.5 for exit doorways that lead directly to the exit discharge.
- *Group I-2 and I-2.1 exit discharge stairways, ramps, aisles, walkways and escalators leading to a public way or to a safe dispersal area.*

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After a power failure, HID lamps such as Metal Halide and High-Pressure Sodium may take too long to reestablish minimum lighting levels. A review should include confirmation that outdoor lighting fixtures used for emergency egress illumination are a type that do not require a restrike time that exceeds 10 seconds.

161

MEANS OF EGRESS

1010.1.1 Size of doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of not less than 32 inches. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees.

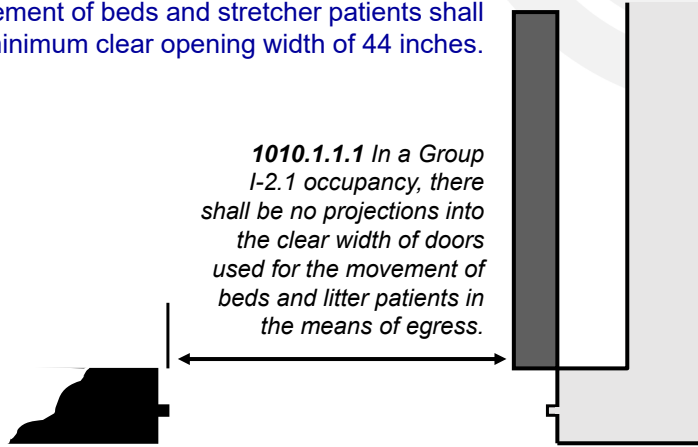
Maximum 4" projection permitted between 34" and 80" above floor with door open 90°

162

MEANS OF EGRESS

1010.1.1 Size of doors. In Group I-2 or I-2.1, doors serving as means of egress doors where used for the movement of beds and stretcher patients shall provide a minimum clear opening width of 44 inches.

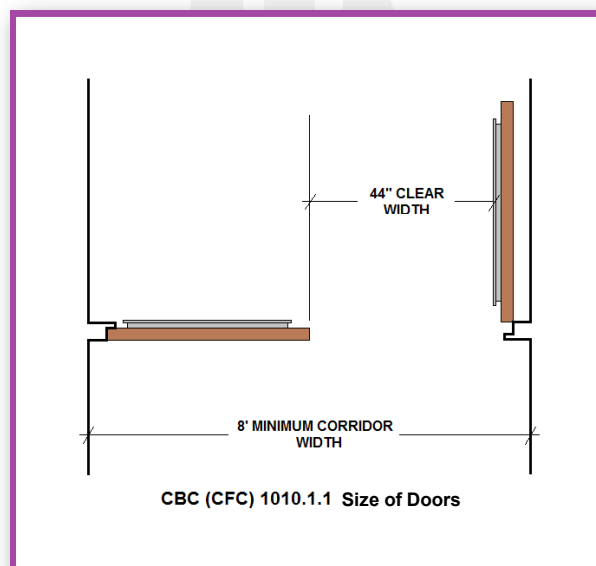
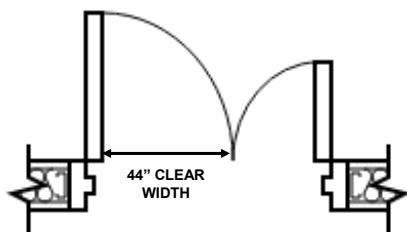
1010.1.1.1 In a Group I-2.1 occupancy, there shall be no projections into the clear width of doors used for the movement of beds and litter patients in the means of egress.



163

MEANS OF EGRESS

A State Fire Marshal amendment clarifies that as is the case with 32" doors, when a door opening includes two leaves, the clear width of an opening must be provided with a single leaf when a 44" clear opening is required.



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MEANS OF EGRESS

- **1010.2.9 Panic and fire exit hardware.** Swinging doors serving... rooms or spaces with an occupant load of 50 or more in a... Group I-2.1 occupancy shall not be provided with a latch or lock other than panic hardware or fire exit hardware.

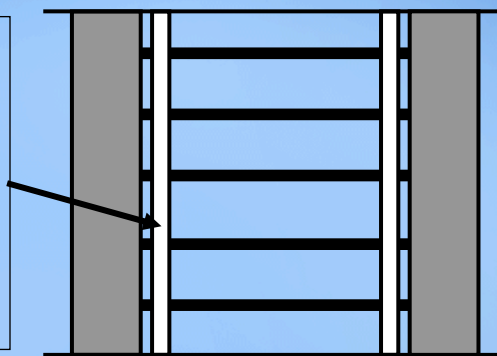


165

165

1011.2 Width and capacity. Means of egress stairs in a Group I-2.1 occupancy used for the movement of beds and stretcher patients shall provide a clear width not less than 44 inches.

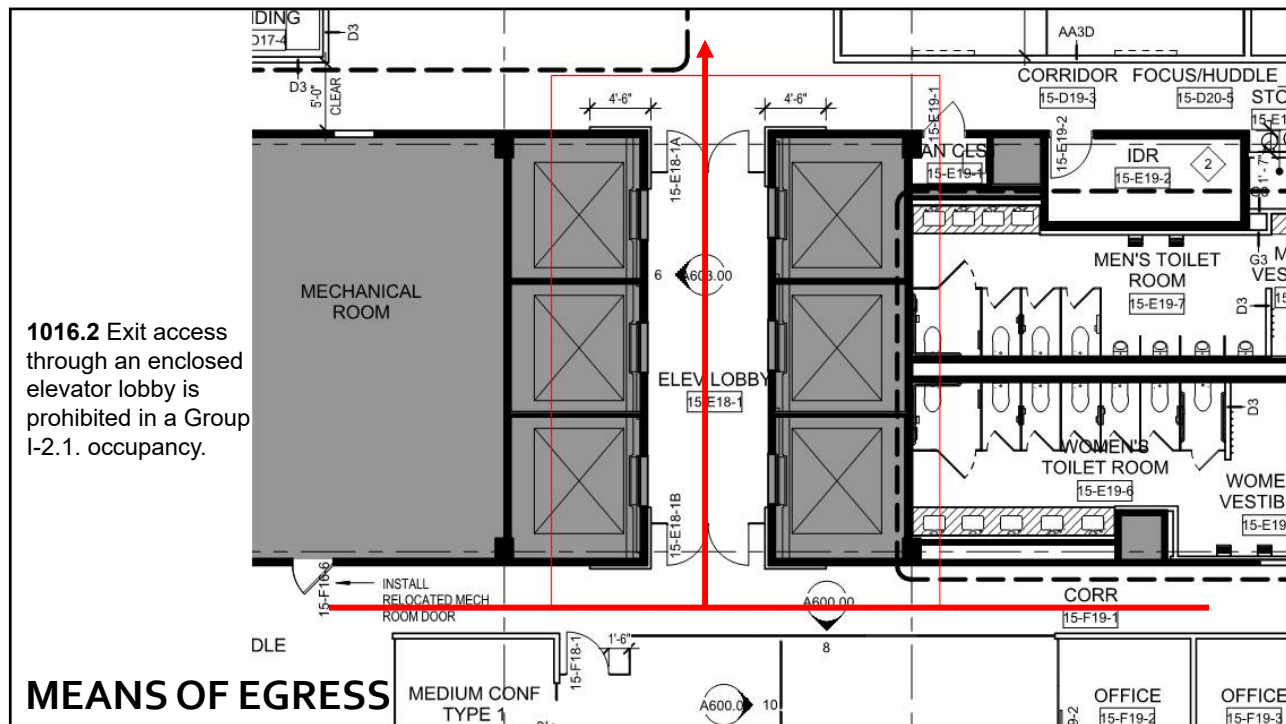
Projections of up to **4½ inches** permitted at and below each handrail. In Group I-2 occupancy, on ramps and stairways used for the movement of bed and litter patients, the clear width between handrails shall be 44 inches minimum.



**MEANS OF EGRESS
SECTION 1011
STAIRWAYS**

44" minimum occupant load of 51 or more;
Group I-2.1 used for movement of bed & litter patients
36" minimum occupant load of 50 or less
In no case less than width determined per 1005.1

166



167



1019.4 In Group I-2.1 occupancies, floor openings between stories containing exit access stairways or ramps are required to be enclosed with a shaft enclosure.

168

- Corridors – 1224.4.7
 - Minimum width in hospitals – 8 feet.
 - Psychiatric hospitals – 6 feet
 - Service corridors with light traffic – 5 feet
 - Administrative and business areas – 44 inches
 - Outpatient clinics or outpatient departments – 5 feet
 - *Laboratory*
 - *x-ray*
 - *physical therapy*
 - *occupational therapy,*
 - Outpatient clinics or outpatient departments – 44 inches
 - *waiting rooms*
 - *business offices*
 - *doctor's offices*
 - *examining rooms*



MEANS OF EGRESS

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CORRIDORS

1020.3 Width and capacity. The required capacity of corridors shall be determined as specified in Section 1005.1, but the minimum width shall be not less than that specified in Table 1020.3.

**TABLE 1020.3
MINIMUM CORRIDOR WIDTH**

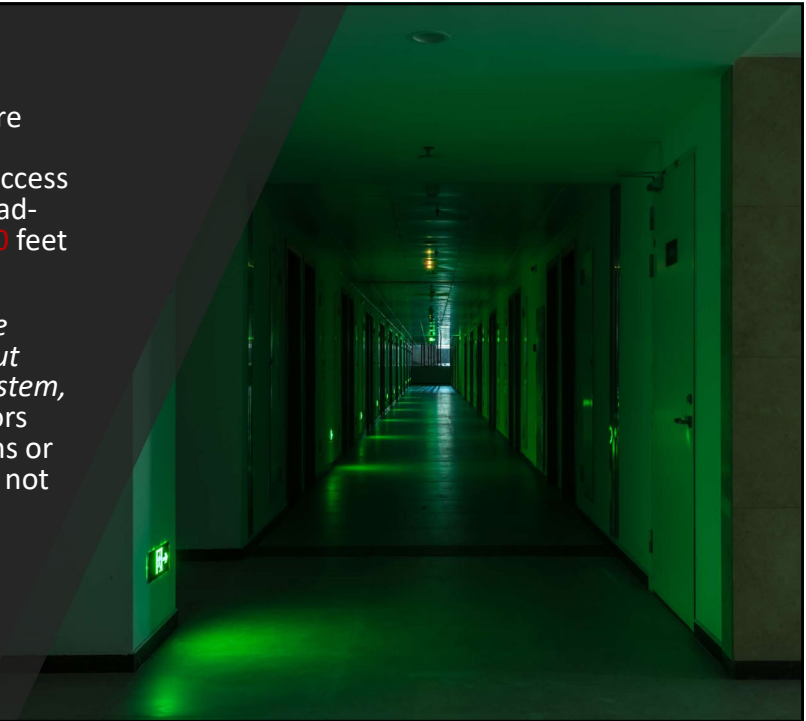
OCCUPANCY	MINIMUM WIDTH (inches)
Any facility not listed in this table	44
Access to and utilization of mechanical, plumbing or electrical systems or equipment	24
With an occupant load of less than 50	36
Within a dwelling unit	36
In Group E with a corridor having an occupant load of 100 or more	72
In corridors and areas serving stretcher traffic in ambulatory care facilities	72
Group I-2 in areas where required for bed movement	96
<i>Corridors in Group I-2 and I-3 occupancies serving any area caring for one or more nonambulatory persons.</i>	96

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170

1020.5 Dead ends. Where more than one exit or exit access doorway is required, the exit access shall be arranged such that dead-end corridors do not exceed **20** feet in length.

In *I-2.1* occupancies, where the building is equipped throughout with an automatic sprinkler system, the length of dead-end corridors that do not serve patient rooms or patient treatment spaces shall not exceed **30** feet.



171

MEANS OF EGRESS

- Corridors
 - 1-hour fire rated walls and ceilings
 - Non-rated, smoke-tight doors with positive latching
 - Closers not required on patient sleeping and treatment rooms
 - Non-rated, smoke-tight windows
 - Areas open to corridors
 - Waiting areas
 - Nurses' stations
 - Doctors' and nurses' charting areas
 - Related clerical areas
 - Mental health treatment spaces
 - Gift shops



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172



173



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Building Security

CBC Sec. 1010.2.12

- **Sensor release of electrically locked egress doors.** Sensor release of electric locking systems shall be permitted on doors located in the means of egress in any occupancy except Group H **subject to a number of specific conditions.**

See 907.3.2.2 for smoke detection requirements in Group I occupancies with special locking arrangements.



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Building Security

CBC Sec. 1010.2.13

- Delayed egress.** Delayed egress locking systems shall be permitted to be installed on doors... in buildings that are equipped throughout with an automatic sprinkler system *and* an approved automatic smoke or heat detection system **subject to a number of specific conditions.**

See 907.3.2.2 for smoke detection requirements in Group I occupancies with special locking arrangements.



176

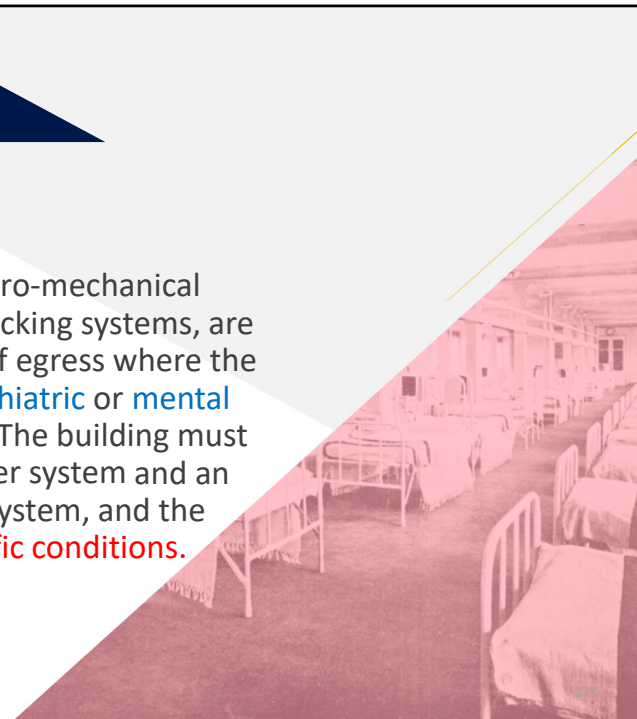
Clinical Security

CBC 1010.2.14

- Electric locking systems, including electro-mechanical locking systems and electromagnetic locking systems, are permitted to lock doors in the means of egress where the clinical needs of persons receiving **psychiatric or mental health care** require their containment. The building must be equipped with an automatic sprinkler system and an approved automatic smoke detection system, and the doors are **subject to a number of specific conditions**.

See 907.3.2.2 for smoke detection requirements in Group I occupancies with special locking arrangements.

Add a footer



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Infant Security

CBC 1010.2.14

- IBC Section 1010.2.14, Exception 2, is not adopted by SFM and is therefore not permitted for reducing the risk of child abduction from nursery and obstetric areas of a Group I-2 hospital or a Group I-2.1 birthing clinic. Delayed egress locking systems are permitted to be interfaced with child abduction systems.

See 907.3.2.2 for smoke detection requirements in Group I occupancies with special locking arrangements.

Add a footer



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Other Hazards in Healthcare Facilities

fppt.com

179

Other Hazards in Healthcare Facilities

- Medical Gases
 - Liquid Oxygen
 - Compressed Oxygen
 - Nitrogen
 - Helium
 - Hydrogen
 - Nitrous Oxide
 - Carbon Dioxide



180



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183



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Other Hazards in Healthcare Facilities

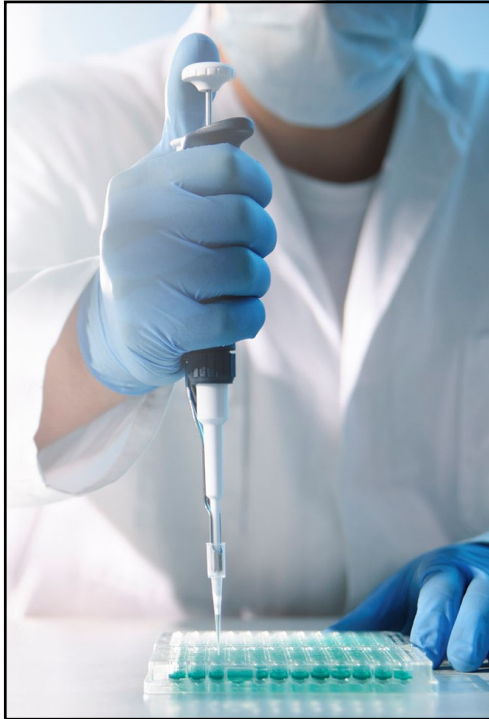
- Trash Chutes
- Linen Chutes
 - Accumulation of Debris



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190



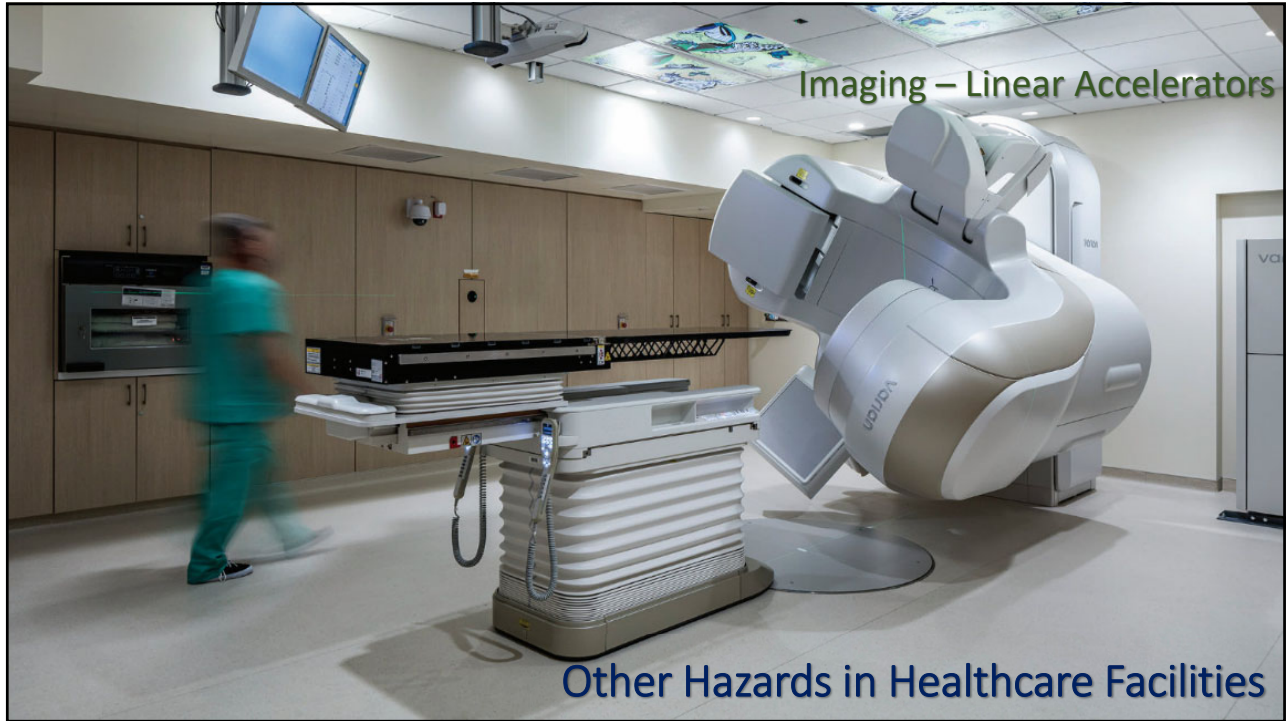
Other Hazards in Healthcare Facilities

- Laboratories
 - Clinical
 - Microbiological
 - Research
 - Pathology

191



192



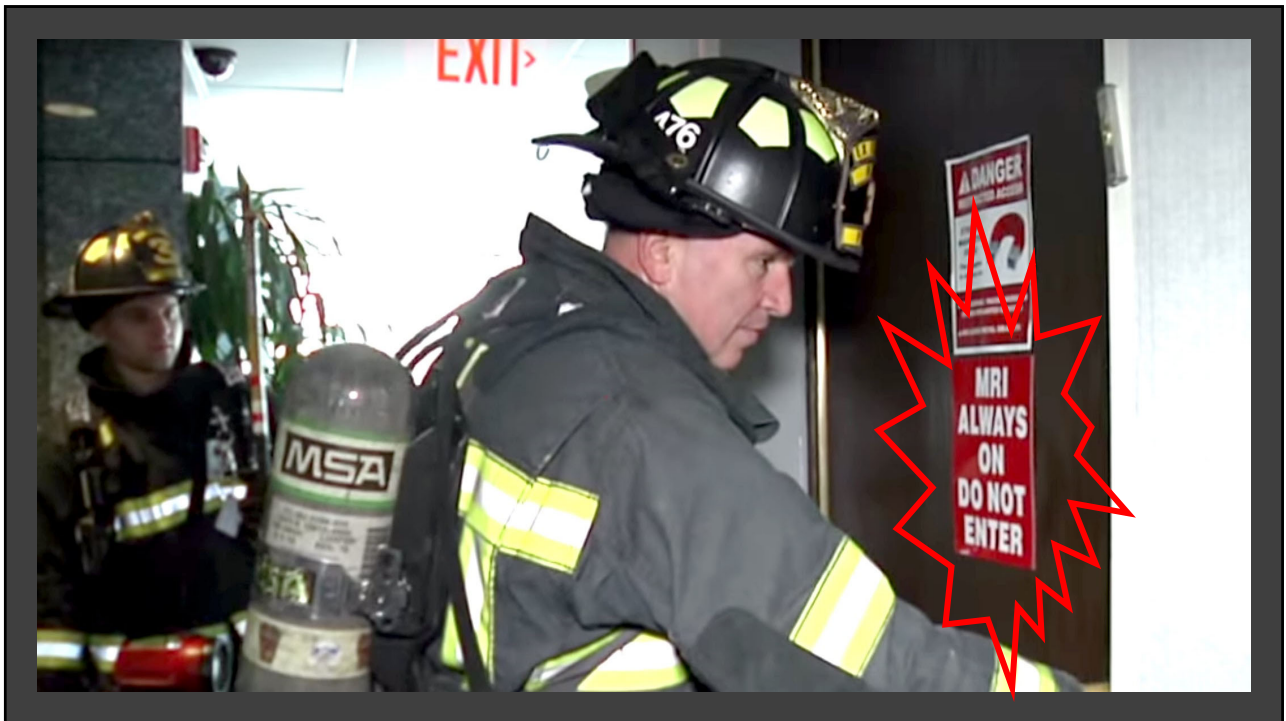
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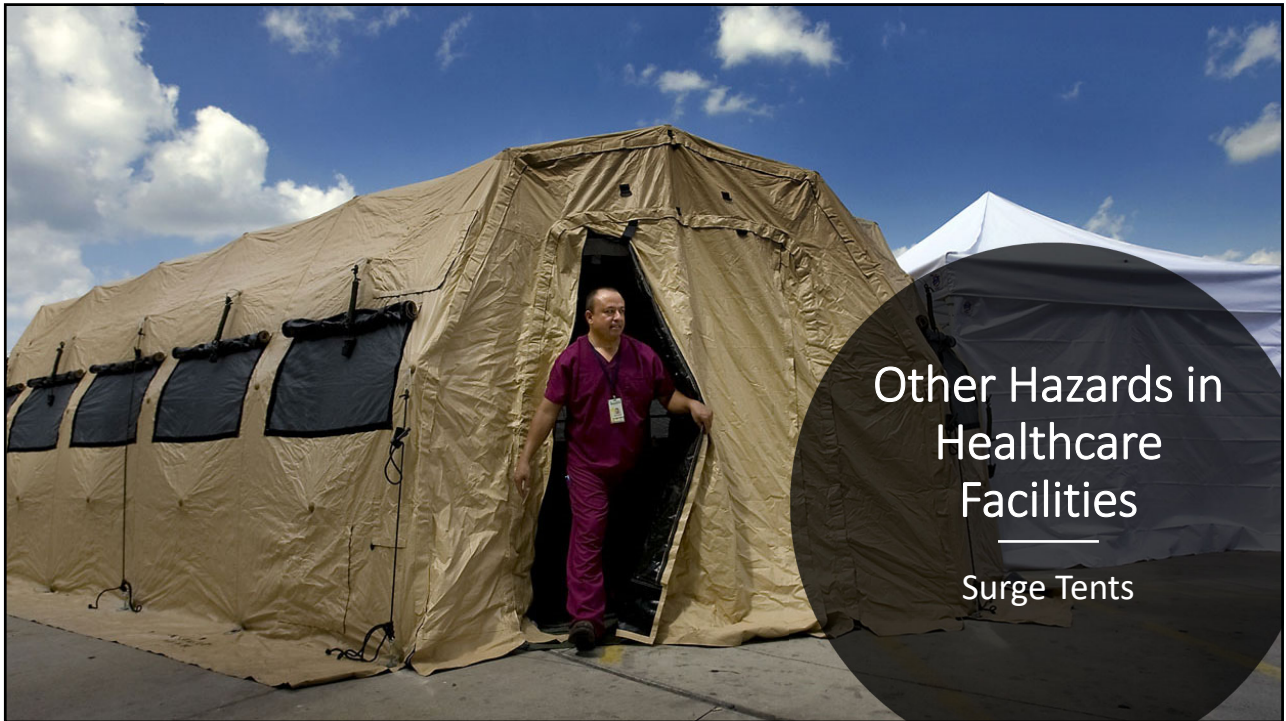
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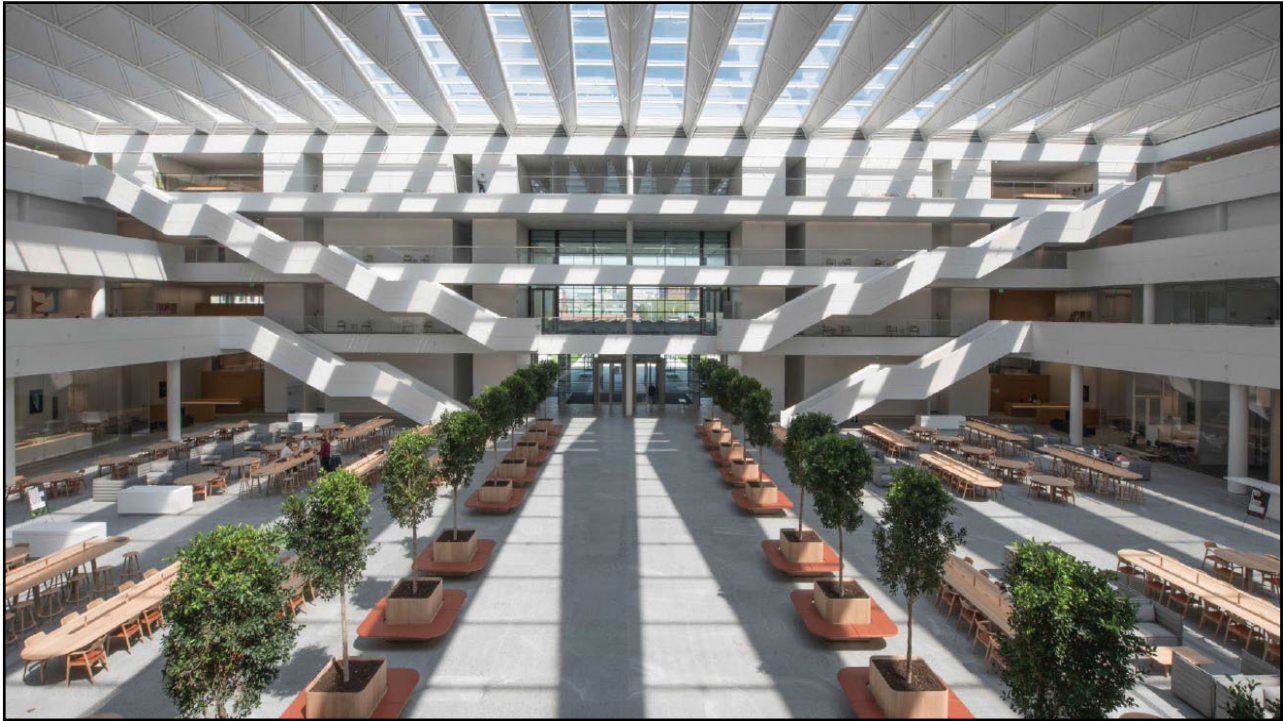
Other Hazards in
Healthcare
Facilities

Surge Tents

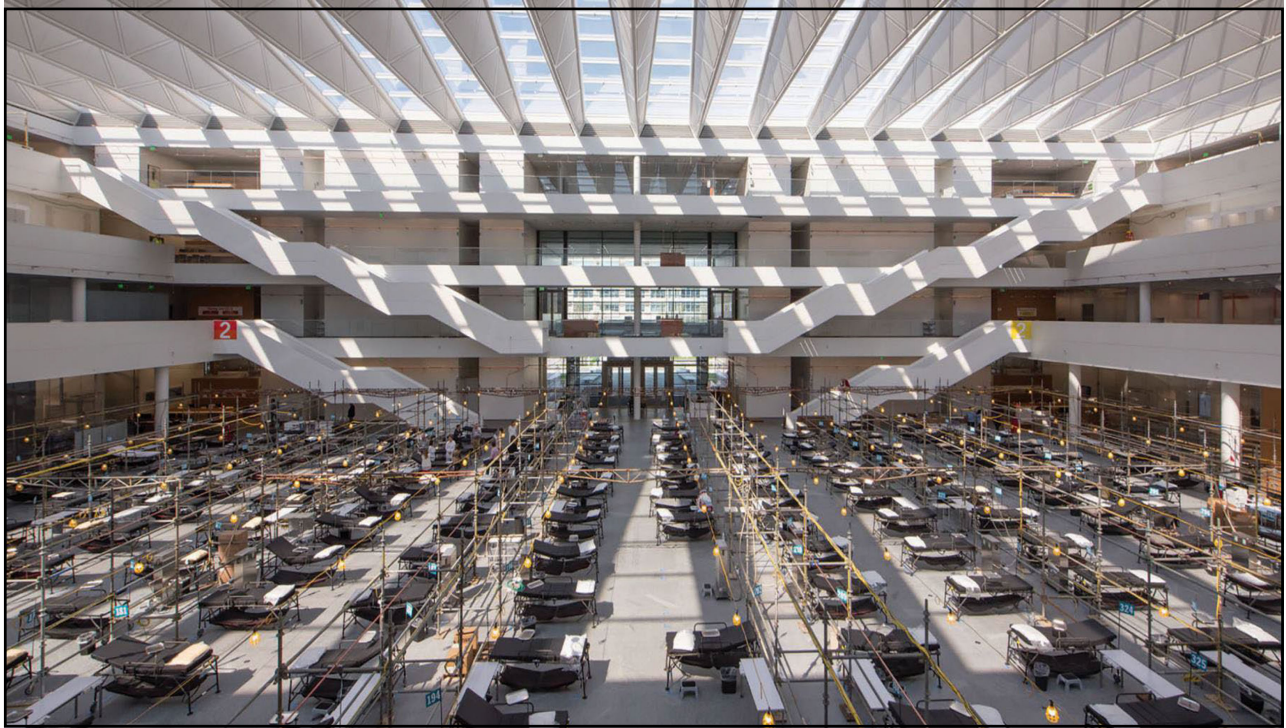
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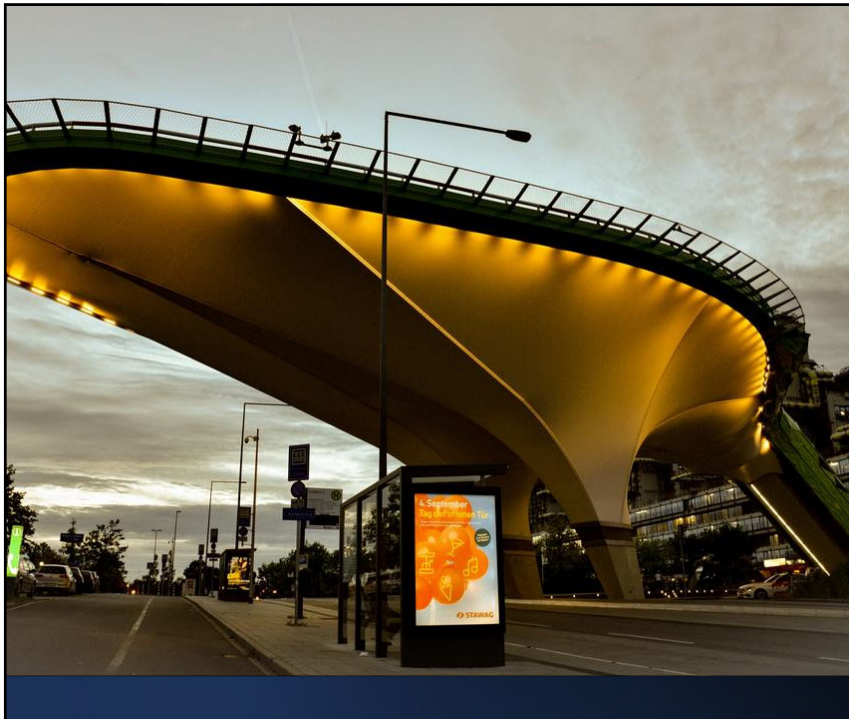
209



210



211



Other Hazards
in Healthcare
Facilities

Helistops

212



213



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Other Hazards in Healthcare Facilities

- Central Utility Plants
- Chillers/Refrigeration
- Boilers
- Emergency Generators
- Fuel Storage Tanks
- Medical Air Compressors
- Pumps

217

Other Hazards in Healthcare Facilities

- Emergency Power Supply Systems

218



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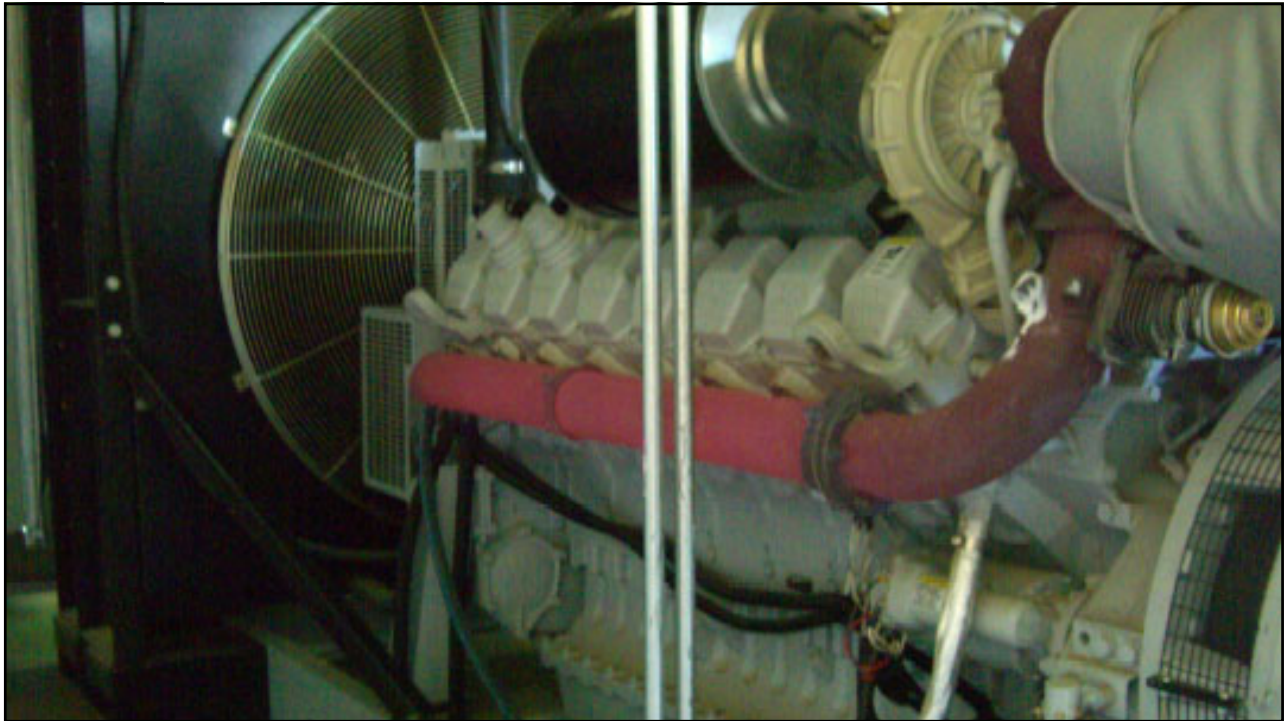
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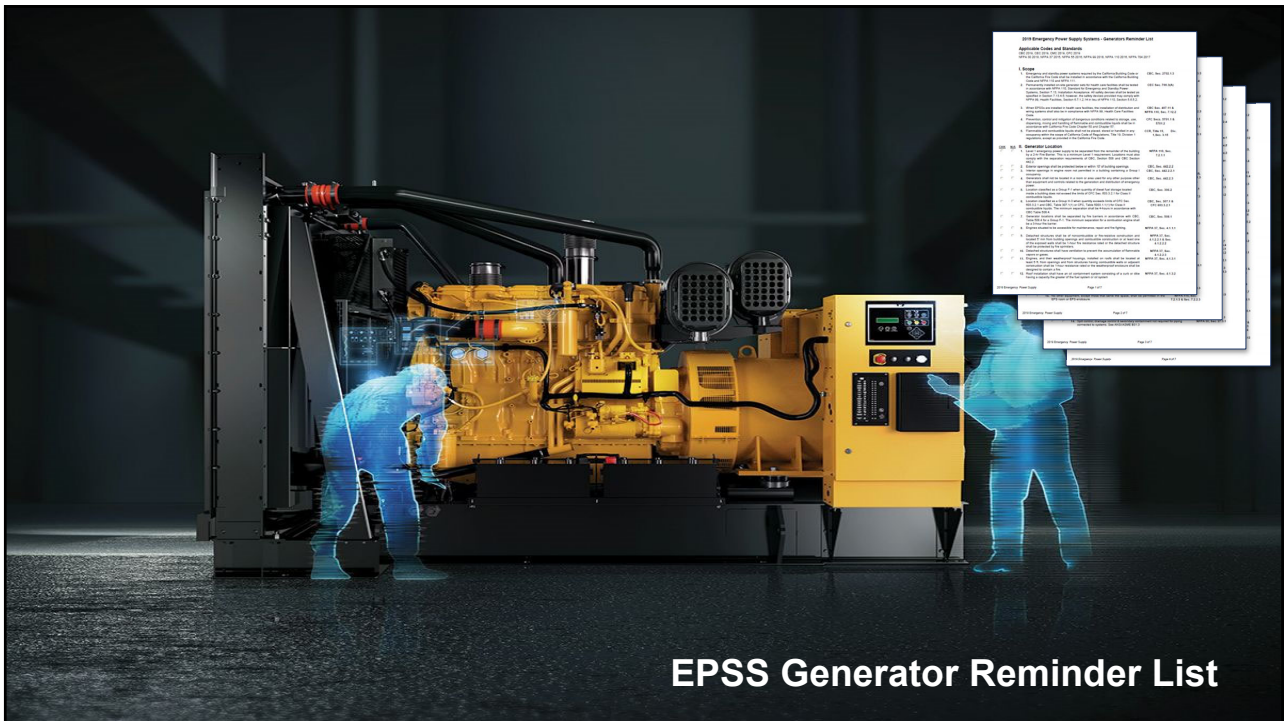
221



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223



224



Fuel Storage

Other Hazards in Healthcare Facilities

225



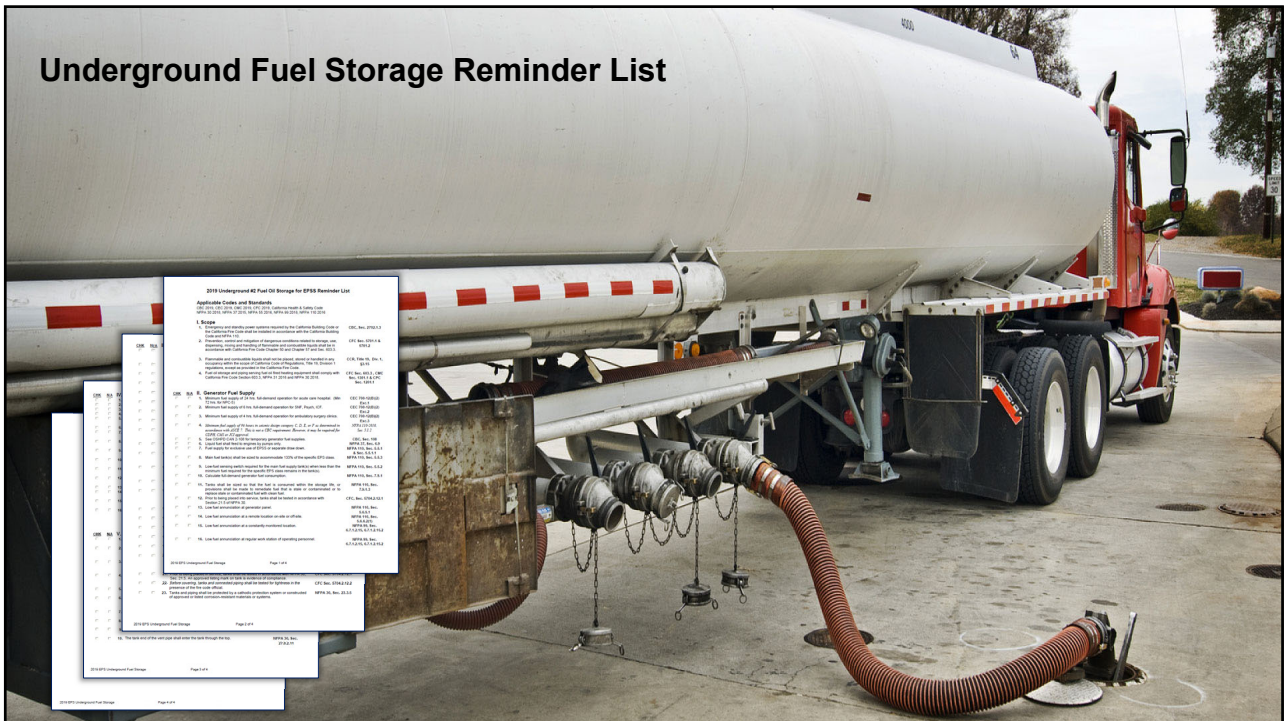
Other Hazards in Healthcare Facilities

Fuel Storage

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Underground Fuel Storage Reminder List

2013 Underground Fuel Storage for UST Reminder List
Applicable Codes and Standards
 2013 International Fire Code (IFC) - Section 905.10.1
 2013 International Building Code (IBC) - Section 905.10.1
 2013 International Plumbing Code (IPC) - Section 905.10.1
 2013 International Mechanical Code (IMC) - Section 905.10.1
 2013 International Fuel Gas Code (IFGC) - Section 905.10.1
 2013 International Fire Code (IFC) - Section 905.10.1
 2013 International Building Code (IBC) - Section 905.10.1
 2013 International Plumbing Code (IPC) - Section 905.10.1
 2013 International Mechanical Code (IMC) - Section 905.10.1
 2013 International Fuel Gas Code (IFGC) - Section 905.10.1

1. Marking
 A. Marking shall include, but not be limited to, the following:
 1. Name of the manufacturer or supplier.
 2. Model number or identification number.
 3. Date of manufacture.
 4. Capacity in gallons or liters.
 5. Material of construction.
 6. Identification of the owner or user.
 7. Identification of the location.
 8. Identification of the contents.
 9. Identification of the hazard.
 10. Identification of the safety instructions.

2. Installation
 A. Installation shall be in accordance with the manufacturer's instructions.
 B. Installation shall be in accordance with the applicable codes and standards.
 C. Installation shall be in accordance with the applicable codes and standards.
 D. Installation shall be in accordance with the applicable codes and standards.
 E. Installation shall be in accordance with the applicable codes and standards.
 F. Installation shall be in accordance with the applicable codes and standards.
 G. Installation shall be in accordance with the applicable codes and standards.
 H. Installation shall be in accordance with the applicable codes and standards.
 I. Installation shall be in accordance with the applicable codes and standards.
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 O. Installation shall be in accordance with the applicable codes and standards.
 P. Installation shall be in accordance with the applicable codes and standards.
 Q. Installation shall be in accordance with the applicable codes and standards.
 R. Installation shall be in accordance with the applicable codes and standards.
 S. Installation shall be in accordance with the applicable codes and standards.
 T. Installation shall be in accordance with the applicable codes and standards.
 U. Installation shall be in accordance with the applicable codes and standards.
 V. Installation shall be in accordance with the applicable codes and standards.
 W. Installation shall be in accordance with the applicable codes and standards.
 X. Installation shall be in accordance with the applicable codes and standards.
 Y. Installation shall be in accordance with the applicable codes and standards.
 Z. Installation shall be in accordance with the applicable codes and standards.

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Other Hazards in Healthcare Facilities

Chillers/Refrigeration Machinery

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Other Hazards in Healthcare Facilities

Chillers/Refrigeration Machinery - Ammonia

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Other Hazards in Healthcare Facilities

REFRIGERATION MACHINERY ROOM ACCESS AND EGRESS



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Other Hazards in Healthcare Facilities

REFRIGERANT VAPOR DETECTION AND ALARMS



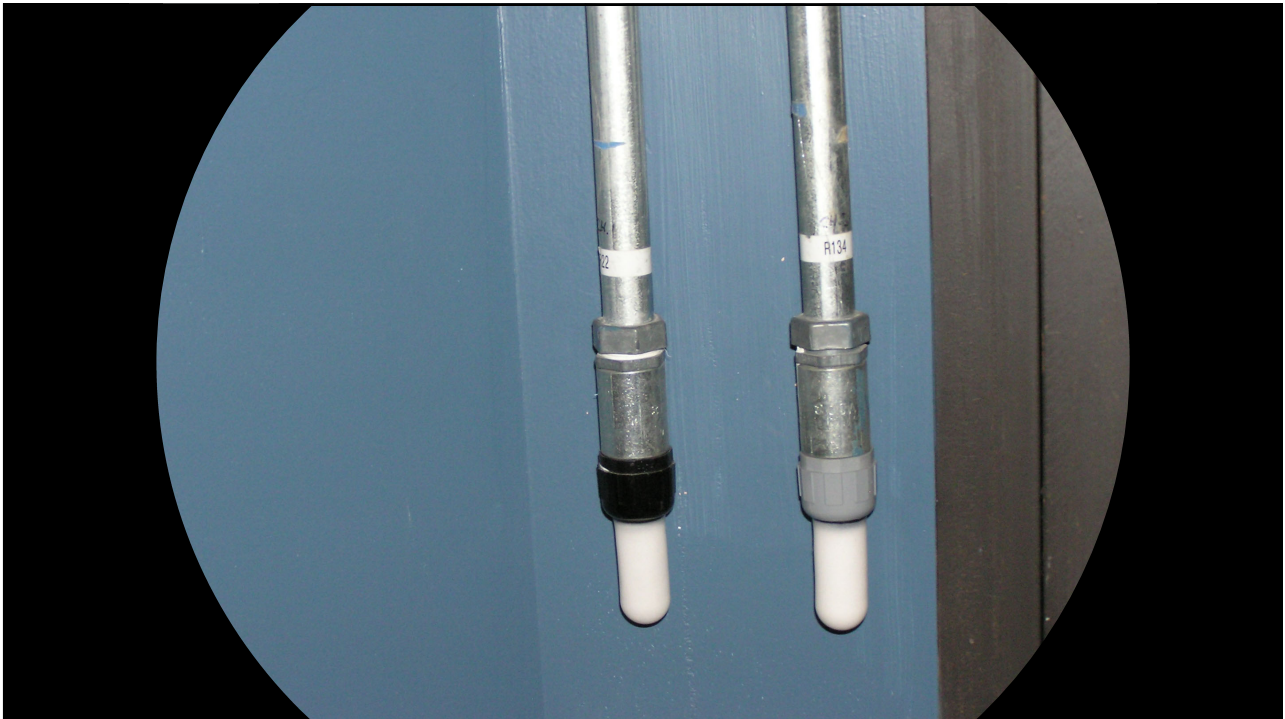
234

Other Hazards in Healthcare Facilities

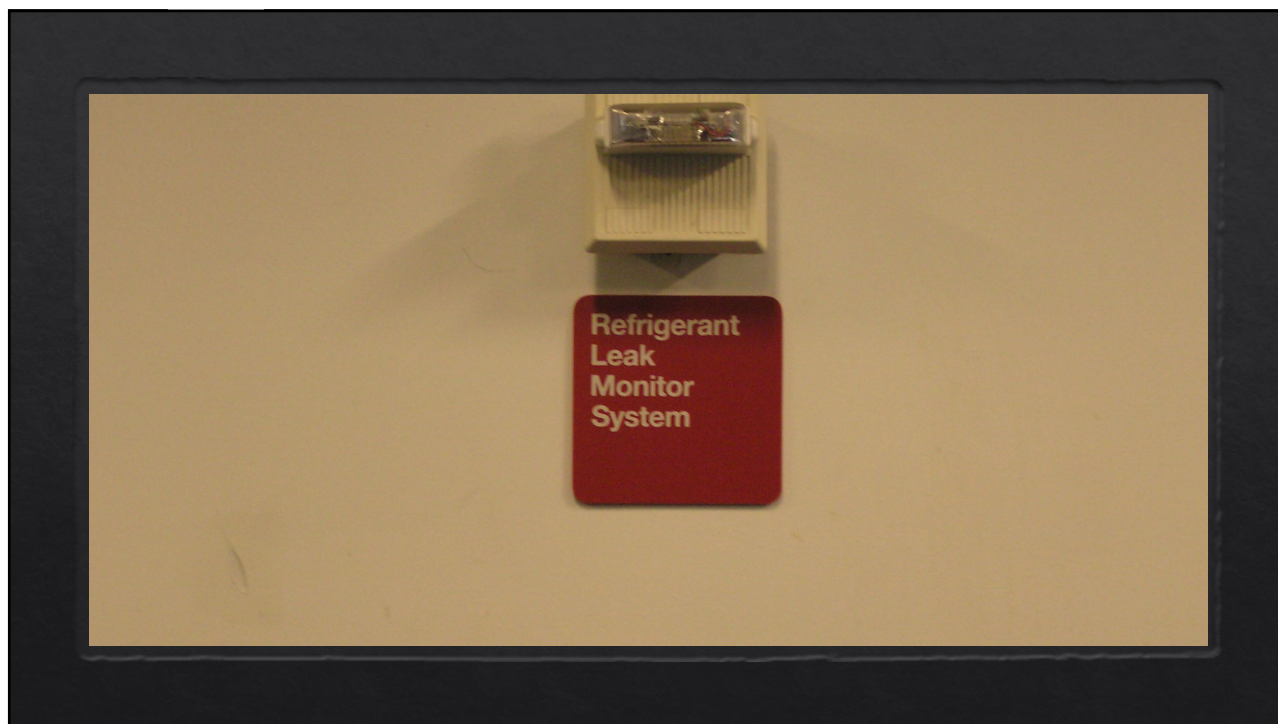
REFRIGERANT VAPOR DETECTION AND ALARMS



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238



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What is the hazard here?

245



Boilers

246



OTHER HAZARDS IN HEALTHCARE FACILITIES

Cooling Towers

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COOLING TOWERS

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OTHER HAZARDS
IN HEALTHCARE
FACILITIES

PUMPS



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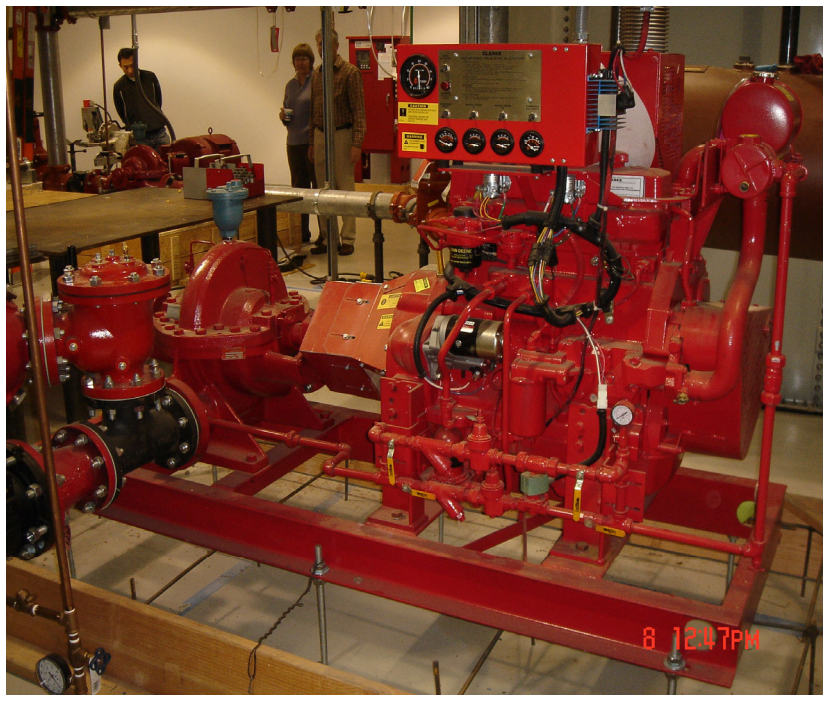
Other Hazards in
Healthcare
Facilities

- Fire Pumps

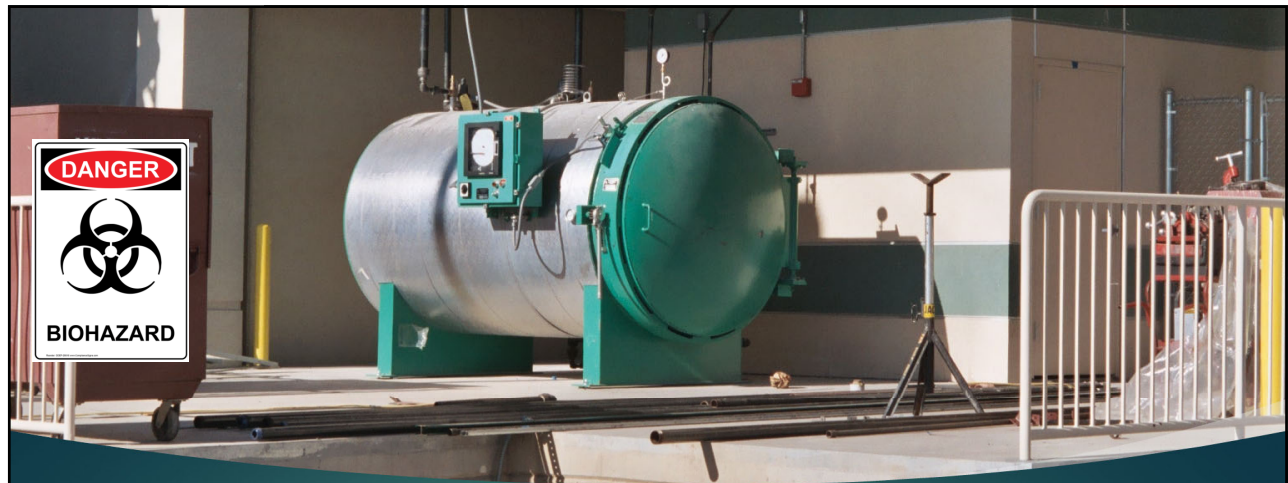
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Other Hazards in Healthcare Facilities

- Fire Pumps



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Other Hazards in Healthcare Facilities

BIOHAZARDOUS WASTE TREATMENT

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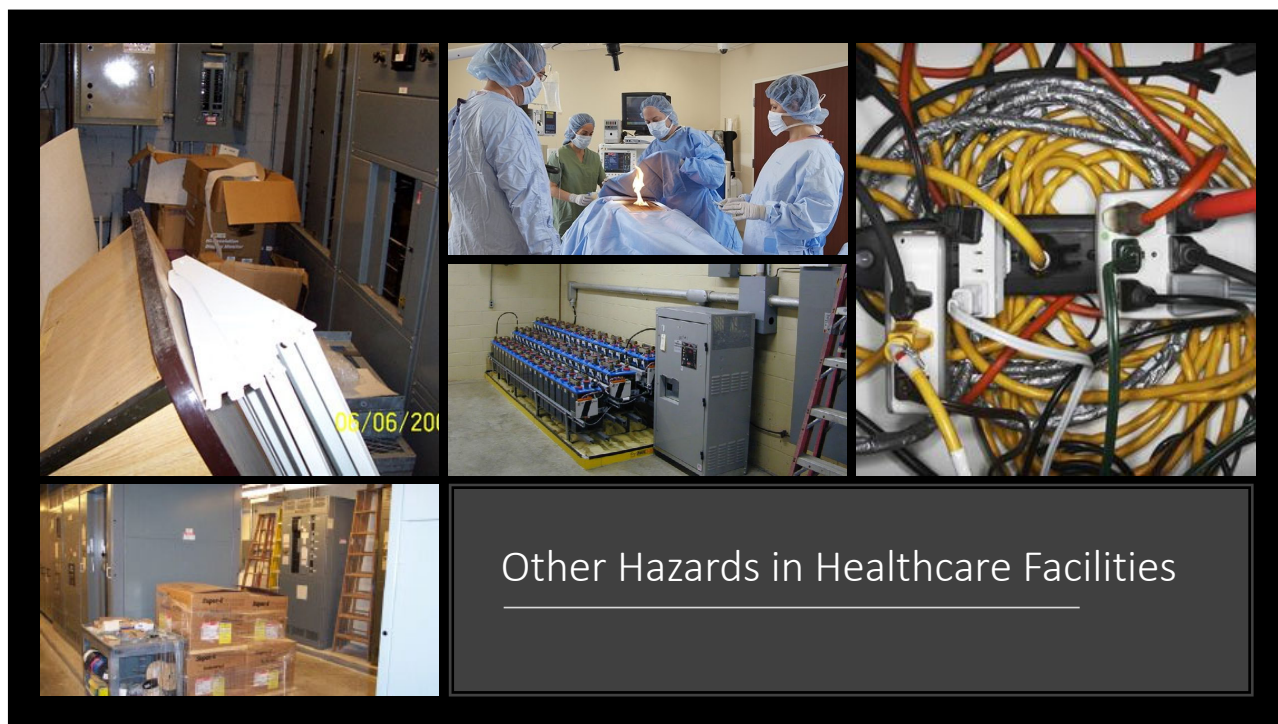
Other Hazards in Healthcare Facilities

Radiation Detection Systems

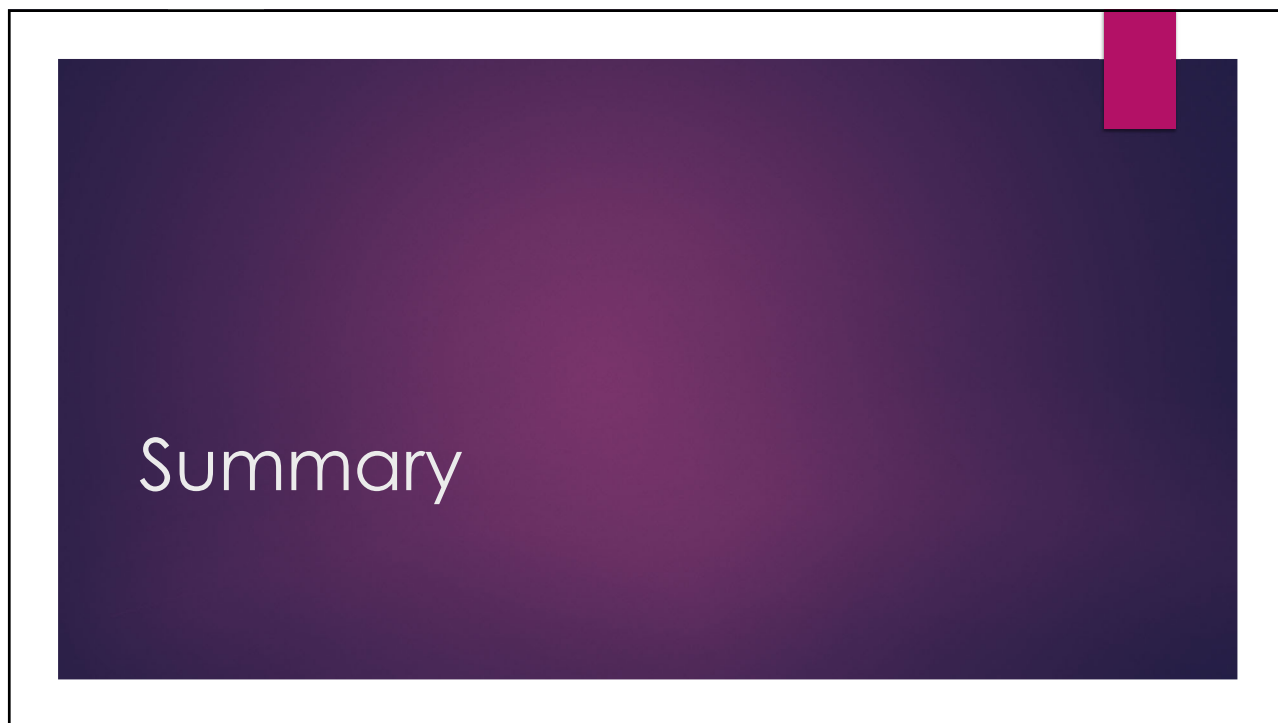
Radioactive Medical Waste Storage

The image contains two side-by-side photographs. The left photograph shows a hallway with a radiation detection system mounted on the wall. The right photograph shows a sink with a 'RADIOACTIVE WASTE' warning sign on the counter.

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To facilitate a minimum standard of care and assure life safety within health care clinics, components must be provided and maintained including:

- The fire rating of fire-resistive assemblies.
- The rating of the smoke barriers.
- The means of egress.
- The fire protection systems.
- The critical care systems.
- The functionality of specialized health care spaces.



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Summary

- ▶ Enforcement of OSHPD 3 requirements and the general provisions of the California Building Standards Code is the responsibility of the **local building department**.
- ▶ Enforcement of the fire & life safety provisions of the California Building Standards Code and SFM amendments is the responsibility of the **local fire authority**.

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