

## NCIDQ EXAMINATION BUILDING CODE REQUIREMENTS

*\*Code requirements listed below are for the purpose of the NCIDQ Examination only and may be applied to commercial and residential environments.*

### DEFINITIONS

**Common Path of Egress Travel** – The portion of the exit access [access to an exit] that must be traversed **BEFORE** two separate and distinct paths of travel to two exits are available. Common path of egress travel shall be included within the permitted travel distance.

**Travel Distance** – The distance measured from the most remote point within a story to the entrance to an exit along the natural and unobstructed path of egress travel.

**Building Types** – Buildings and structures erected or to be erected, altered or extended in height or area shall be classified in one of five construction types.

**Type I and II.** Types I and II construction are those types of construction in which the building elements are of noncombustible materials.

**Type III.** Type III construction is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of any material permitted by this code. Fire-retardant-treated wood framing shall be permitted within exterior wall assemblies of a 2-hour rating or less.

**Type IV.** Type IV construction (heavy timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid laminated wood without concealed spaces.

**Type V.** Type V construction is that type of construction in which the structural elements, exterior walls and interior walls are of any materials permitted by this code.<sup>1</sup>

### 1.0 FIRE-RESISTANT RATED CONSTRUCTION

1.1 Demising partitions between tenant spaces **MUST** be 1-hour fire rated.

1.2 Partitions along a public corridor **MUST** be 1-hour fire rated.

1.3 Partitions that demise an Assembly Occupancy of 750 sq. ft. [70 m<sup>2</sup>] or greater **MUST** be 1-hour fire rated.

1.4 A 2 hour fire separation is required between an Assembly Occupancy and a Mercantile Occupancy.

1.5 Fire-protection rating of a door assembly shall conform to the following table:

Item	Column 1	Column 2
	Fire-Resistance Rating of Wall Assembly	Required Fire Protection Rating of Door Assembly
1	30 min	20 min

2	45 min	45 min
3	1 h	45 min
4	1.5 h	1 h
5	2 h	1.5 h
6	3 h	2 h
7	4 h	3 h

- 1.6 A door assembly having a fire-protection rating not less than 20 minutes is permitted to be used in a wall assembly of a fire-resistance rating not more than 1 hour, located between a public corridor and a suite.
- 1.7 All door assemblies requiring a fire-protection rating shall have self-closing devices.
- 1.8 Storage rooms exceeding 100 sq. ft. [9.3 m<sup>2</sup>] **MUST** be 1-hour rated.
- 1.9 Glazing in fire rated partitions, doors or sidelights may not exceed 240 sq. in. [1548 cm<sup>2</sup>].

## 2.0 FIRE PROTECTION SYSTEM

- 2.1 There **MUST** be an audio/visual fire signal device located in each restroom, hallway, lobby, and general assembly area.
- 2.2 An audio/visual fire signal device **MUST** be visible from any location in the room or space and **MUST** be mounted between 6'-8" to 7'-6" [2 m to 2.3 m] AFF.
- 2.3 The minimum number of fire extinguishers **MUST** be calculated based on one (1) fire extinguisher per 3,000 sq. ft. [280 m<sup>2</sup>].
- 2.4 Fire extinguishers **MUST** be located no more than 75' [23 m] from the furthest occupant.
- 2.5 Smoke and Heat Detector coverage **MUST** include all rooms, corridors and storage areas.

## 3.0 MEANS OF EGRESS

### 3.1 General Means of Egress

- 3.1.1 The means of egress **MUST** have a ceiling height of not less than 7'-6" [2.3 m].
- 3.1.2 Protruding objects are permitted to extend below the minimum ceiling height provided a minimum headroom of 6'-8" [2 m] shall be provided along the path of egress, including any corridor, aisle or passageway.
- 3.1.3 Protruding objects **MUST NOT** reduce the minimum clear width of accessible routes.

- 3.1.4 **ALL** objects located on a wall between 27" [685 mm] and 80" [2115 mm] **MUST NOT** protrude more than 4" [100 mm] into an egress path of travel.

### 3.2 Exit Signs

- 3.2.1 Exit signs with a directional indicator (illuminated) showing the direction of travel shall be placed in every location where the direction of travel to reach the nearest exit is not apparent.

### 3.3 Illumination

- 3.3.1 In the event of power supply failure in rooms and spaces that require two or more means of egress, an emergency electrical system shall automatically illuminate all of the following areas:

- 3.3.1.1 Aisles
- 3.3.1.2 Corridors
- 3.3.1.3 Exit access stairways and ramps

- 3.3.2 Emergency illumination shall be provided for a minimum of 1½ hours in the event of failure of normal lighting. Emergency lighting facilities shall be arranged to provide initial illumination along the path of egress.

#### 3.3.3 Egress

In the event of power supply failure in buildings that require two or more means of egress, an emergency electrical system shall automatically illuminate all of the following areas:

- 3.3.3.1 Interior and exterior exit stairways and ramps.
- 3.3.3.2 Exit passageways
- 3.3.3.3 Vestibules and areas on the level of discharge used for exit discharge

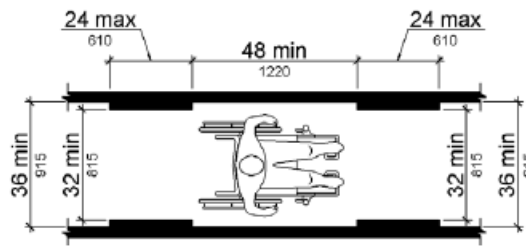
#### 3.3.4 Rooms and Spaces

In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

- 3.3.4.1 Electrical equipment rooms.
- 3.3.4.2 Fire command centers.
- 3.3.4.3 Fire pump rooms.
- 3.3.4.4 Generator rooms.
- 3.3.4.5 Public restrooms with an area greater than 300 square feet (27.87 m<sup>2</sup>).

### 3.4 Travel Distance

- 3.4.1 **ALL** paths of travel **MUST** be accessible (barrier-free) and provide at minimum a 60" [1500 mm] turning circle at changes of travel direction.
- 3.4.2 Where the *accessible* route makes a 180 degree turn around an *element* which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn **except** where the clear width at the turn is 60 inches (1525 mm) as stated in 4.4.1.

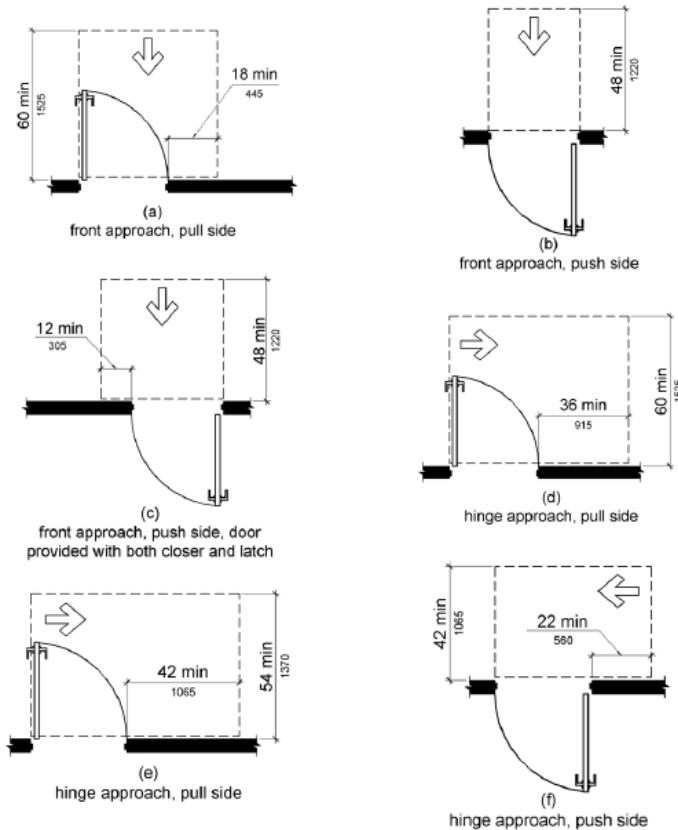


*Clear width of an accessible Route*

- 3.4.3 The path of egress travel **MUST NOT** pass through a secondary space that is subject to closure by doors or that contains storage materials or has items that project into the path of travel.
- 3.4.4 An *accessible* route with a clear width less than 60 inches (1525 mm) shall provide **passing spaces** at intervals of 200 feet (61 m) maximum. Passing spaces shall be either: a space 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum; or, an intersection of two walking surfaces providing a T-shaped space where the base and arms of the T-shaped *space* extend 48 inches (1220 mm) minimum beyond the intersection.
- 3.4.5 The common path of egress travel distance **MUST NOT** exceed 100'-0" [30.5 m].
- 3.4.6 The travel distance to an exit **MUST** be measured on the floor along the centerline of the natural path of travel, starting from the most remote point to the centerline of the exit.
- 3.4.7 The travel distance **MUST NOT** exceed 250'-0" [76.2 m] measured along the path of travel.

### 3.5 Exit Access Doors, Doorways, Door Hardware and Windows

- 3.5.1 The height of doors **MUST NOT** be less than 7'-0" [2.1 m].
- 3.5.2 **ALL** door openings shall be a **MINIMUM** of 36" [900 mm] wide and comply with the following illustrations and table for maneuvering clearances.



*Maneuvering Clearances at Manual Swing Doors and Gates*

Type of Use		Minimum Maneuvering Clearance	
Approach Direction	Door or Gate Side	Perpendicular to Doorway	Parallel to Doorway (Beyond latch side unless noted)
From front	Pull	60" [1525 mm]	18" (455mm)
From front	Push	48" [1220 mm]	0" [0 mm] <sup>1</sup>
From hinge side	Pull	60" [1525 mm]	36" [915 mm]
From hinge side	Push	54" [1370 mm]	42" [1065 mm]
From latch side	Pull	48" [1220 mm] <sup>4</sup>	24" [610mm]
From latch side	Push	42" [1065 mm] <sup>2</sup>	22" [560 mm] <sup>3</sup>

1. Add 12" [305 mm] if closer and latch are provided

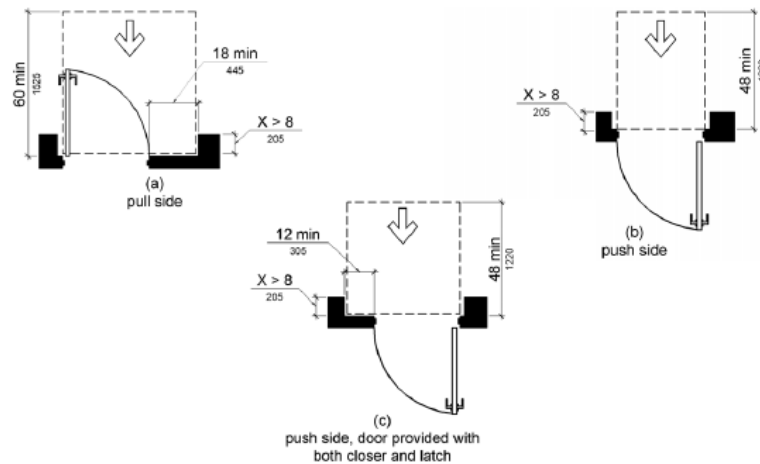
2. Add 6" [150 mm] if closer and latch are provided

3. Beyond hinge side

4. Add 6" [150mm] if closer is provided

**3.5.3** Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate. *Note:* A door can be recessed due to wall thickness or because of the placement of casework and

other fixed elements adjacent to the doorway. This provision must be applied wherever doors are recessed.

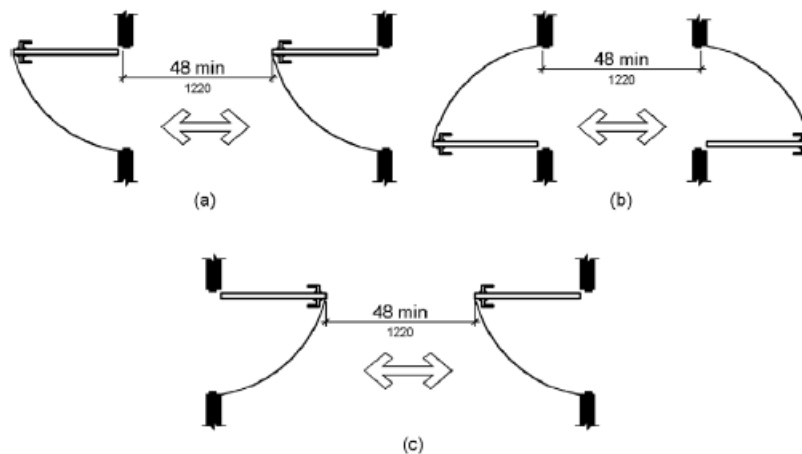


*Maneuvering Clearances at Recessed Doors and Gates*

### 3.5.4 Power Door Operations Controls

- 3.5.4.1 Where a power door operator is provided, it shall be installed on the latch side so as to allow persons to activate the opening of the door from either side.
- 3.5.4.2 Except where a proximity scanning device is installed, the control for a power door operator shall:
- 3.5.4.2.1 Have a face dimension of not less than 6" [150 mm] where the control is circular or 2" [50mm] x 4" [100mm] where the control is rectangular.
  - 3.5.4.2.2 Be operable using a closed fist.
  - 3.5.4.2.3 Be located so that it's centre is located not less than 35" [900 mm] and not more than 43" [1100 mm] from the finished floor or ground **or** be located so that it extends from not more than 8" [200 mm] to not less than 35" [900 mm] above the finished floor or ground
  - 3.5.4.2.4 Be located not less than 24" [600 mm] and not more than 59" [1500 mm] beyond the door swing where the door opens towards the control,
  - 3.5.4.2.5 Be located in a clearly visible position, and
  - 3.5.4.2.6 Contain a sign incorporating the International Symbol of Access.

- 3.5.5 Where a pair of doors is provided, one of the doors **MUST** not be less than 36" [900 mm] wide.
- 3.5.6 Locks, if provided, **MUST NOT** require the use of a key, special knowledge, or effort for operation from the egress side.
- 3.5.7 Handles, pulls, latches, locks, and other *operable parts* on doors and gates must be ADA accessible. *Operable parts* of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.
- 3.5.8 Door hardware must be able to be operated with a closed fist or a loose grip.
- 3.5.9 Thresholds, if provided at doorways, shall be ½ inch (13 mm) high maximum.
- 3.5.10 Doors opening from occupied spaces into the path of egress travel shall not project more than 7" [180 mm] into the required width.
- 3.5.11 Pivot or side-hinged swinging doors shall swing in the direction of egress travel where serving a room or area containing an occupant load of 50 or more persons.
- 3.5.12 The distance between two (2) hinge or pivoted doors in series and gates in series shall be 48" [1220 mm] minimum plus width of doors or gates swinging into the space.



*Doors in Series and Gates in Series*

- 3.5.13 Exit access doorways **MUST** be placed at a distance that is equal to or greater than:
  - 3.5.13.1 When the building is **NOT** sprinklered, one-half the length of the maximum overall diagonal dimension of the area being served,

measured in a straight line between exit doors or exit access doorways.

3.5.13.2 When the building is sprinklered, one-third the length of the maximum overall diagonal dimension of the area being served, measured in a straight line between exit doors or exit access doorways.

3.5.14 Two (2) exit access doorways **MUST** be provided from any space where the Occupancy Load exceeds 49 in Occupancy Groups A (Assembly), B (Business) and M (Mercantile) or exceeds 29 in Occupancy Group S (Storage).

3.5.15 Locks and latches shall be permitted to prevent operation of doors where any of the following exist:

3.5.15.1 Places of detention or restraint.

3.5.15.2 The locking device is readily distinguishable as locked.

3.5.15.3 A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background.

3.5.15.4 The use of the key-operated locking device is revocable by the building official for due cause.

3.5.15.5 Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts does not have a doorknob or surface-mounted hardware.

3.5.15.6 Doors from individual dwelling or sleeping units having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.

3.5.15.7 Fire doors are the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.

### 3.5.16 Bolt Locks

Manually operated flush bolts or surface bolts are not permitted.

Exceptions:



- 3.5.16.1 On doors not required for egress in individual dwelling units or sleep units.
- 3.5.16.2 Where a pair of doors serves a storage or equipment room, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf.
- 3.5.16.3 Where a pair of doors serves an occupant load of less than 50 persons. The inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.
- 3.5.16.4 Where a pair of doors serves patient care rooms, self-latching edge- or surface-mounted bolts are permitted on the inactive leaf provided that the inactive leaf is not needed to meet egress capacity requirements and the inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.
- 3.5.17 The unlatching of any door or leaf shall not require more than one operation.
- 3.5.18 Stairway doors
  - Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort. Exceptions:
  - 3.5.19 Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.
  - 3.5.20 In stairways serving not more than four stories, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.
  - 3.5.21 Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side where the only interior access to the tenant space is from a single exit stairway.
  - 3.5.22 Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side where the only interior access to the dwelling unit is from a single exit stairway.

3.5.23 Revolving doors shall comply with the following:

- 3.5.23.1 Shall be installed in accordance with the manufacturer's directions.
- 3.5.23.2 Each revolving door shall be capable of breakout and shall provide an aggregate width of not less than 36 inches (914 mm).
- 3.5.23.3 Shall not be located within 10 feet (3048 mm) of the foot or top of the stairways or escalators. A dispersal area shall be provided between the stairways or escalators and the revolving doors.
- 3.5.23.4 An emergency stop switch shall be provided near each entry point of power or automatic operated revolving doors within 48 inches (1220 mm) of the door and between 24 inches (610 mm) and 48 inches (1220 mm) above the floor. The activation area of the emergency stop switch button shall be not less than 1 inch (25 mm) in diameter and shall be red.
- 3.5.23.5 Each revolving door shall have a side-hinged swinging door in the same wall and within 10 feet (3048 mm) of the revolving door.
- 3.5.23.6 Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

3.6 Corridors

- 3.6.1 The **MINIMUM** interior corridor width **MUST** be 44" [1100 mm].
- 3.6.2 Dead end corridors **MUST NOT** exceed 20'-0" [6 m] in length, if sprinklered, must not exceed 50'-0" [15.2m]

3.7 Stairways

- 3.7.1 The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.3 inch (7.6mm) per occupant. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story.

In order to be considered part of an accessible means of egress, a stairway between stories shall have a clear width of 48 inches (1219 mm) minimum between handrails and shall either incorporate an area

of refuge within an enlarged floor-level landing or shall be accessed from an area of refuge. Exit access stairways that connect levels in the same story are not permitted as part of an accessible means of egress.

#### 3.7.2 Width and Capacity

The required capacity of stairways shall be determined based on occupancy load, but the minimum width shall not be less than 44 inches (1118 mm) except with stairways serving an occupant load less than 50 shall have a width of not less than 36 inches (914 mm).

#### 3.7.3 Wider Treads are not permitted in means of egress in stairways except within a dwelling unit.

#### 3.7.4 Stairway landings

There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall be not less than the width of stairways served. Every landing shall have a minimum width measured perpendicular to the direction of travel equal to the width of the stairway. Where the stairway has a straight run the depth need not exceed 48 inches (1219 mm). Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing. Where wheelchair spaces are required on the stairway landing, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.

Exception:

3.7.4.1 Where stairways connect stepped aisles to cross aisles or concourses, stairway landings are not required at the transition between stairways and stepped aisles.

#### 3.7.5 Stairways shall have handrails on each side except for stairways within dwelling units and spiral stairways are permitted to have a handrail on one side only.

## 4.0 ACCESSIBILITY

4.1 Service (reception/transaction) counters over 8'-0" [2.4 m] in length **MUST** have an accessible height service counter, a minimum of 36" [900mm] in length.

4.2 **ALL** accessible (barrier-free) countertops, sinks, reception/transaction surfaces, and other horizontal work surfaces **MUST NOT** exceed 34" [865 mm] AFF with a 27"H [685 mm] clear knee space below.

- 4.3 **ALL** front approach accessible (barrier-free) counters **MUST** have clear knee space of at least 30"W x 17"D [760 mm x 430 mm].
- 4.4 **ALL** exposed hot water pipes and drains **MUST** be insulated or otherwise configured to protect against contact.
- 4.5 **ALL** accessible (barrier-free) wall-mounted controls **MUST** be located between 15" [380 mm] and 44" [1100 mm] AFF for a Forward Reach and between 9" [230 mm] and 48" [1200 mm] AFF for a Side Reach.
- 4.6 **ALL** front approach accessible (barrier-free) elements **MUST** have a 6"D maximum x 9"H minimum [150mm x 230 mm] toe-kick.
- 4.7 **ALL** accessible (barrier-free) upper cabinets or shelves located above a work surface **MUST NOT** exceed 44" [1100 mm] AFF.
- 4.8 Restrooms [Washrooms]
  - 4.8.1 **ALL** accessible toilets **MUST** have an unobstructed 60" [1500 mm] turning circle.
  - 4.8.2 Centerline of accessible toilets **MUST** be 16"-18" [400 mm - 450 mm] from side wall or partition.
  - 4.8.3 Clearance around accessible toilets **MUST** be 60" [1500 mm] along the rear wall and 56" [1420 mm] along the side wall.
  - 4.8.4 Accessible toilets **MUST** be mounted at 17"-19" [430 mm – 480 mm] AFF to the top of the toilet seat.
  - 4.8.5 **ALL** grab bars at toilets **MUST** be 36" [900 mm] long at the rear and 42" [1060 mm] long at the side, mounted between 33" [840 mm] and 36" [900 mm] AFF.
  - 4.8.6 **ALL** accessible showers **MUST** have horizontal grab bars on three (3) sides mounted at a height between 33" [840 mm] and 36" [900 mm] AFF.
  - 4.8.7 Accessible showers **MUST** be a minimum of 30" [760 mm] x 60" [1500 mm].
  - 4.8.8 Accessible urinals **MUST** have an elongated rim at a maximum height of 17" [430 mm] AFF.
  - 4.8.9 A clear floor space of 30" [760 mm] x 48" [1200 mm] **MUST** be provided in front of accessible lavatories, urinals, showers, and bathtubs.
  - 4.8.10 Accessible mirrors **MUST** be mounted with the edge of the reflective surface no higher than 40" [1000 mm] AFF.

## 5.0 STRUCTURAL

- 5.1 Core drills **MUST NOT** be within 18" [450 mm] of any structural element.

## 6.0 ELECTRICAL

- 6.1 **ALL** electrical receptacles **MUST** be 18" [450 mm] AFF unless otherwise noted.
- 6.2 **ALL** electrical receptacles located within 36" [900 mm] of a water source **MUST** be GFI.
- 6.3 Clearance of 36" [900 mm] deep **MUST** be provided in front of power panels.

## 7.0 PLUMBING

- 7.1 Toilets shall be provided for each sex assuming that the occupant load is equally divided between males and females.
- 7.2 Urinals are permitted to be substituted for toilets for males and may be counted as toilets provided the number of urinals is not more than two-thirds (2/3) of the required number of toilets.
- 7.3 At least one lavatory shall be provided in a room containing one (1) or two (2) toilets or urinals, and at least one (1) additional lavatory shall be provided for each additional two (2) toilets or urinals.
- 7.4 The toilet and lavatory provided in a universal restroom [washroom] may be counted as part of the plumbing fixtures required for males and females if
  - 7.4.1 More than one (1) toilet is required for males and;
  - 7.4.2 More than one (1) toilet is required for females.
- 7.5 Both sexes are permitted to be served by a single toilet if the occupant load is not more than 10 persons in an Assembly Occupancy.
- 7.6 Except for residential occupancy, lavatories shall be equipped with faucets that operate automatically or have a lever type handle that do not close under spring action.
- 7.7 Plumbing fixture count is as follows<sup>2</sup>:

Minimum Number of Required Plumbing Fixtures						
Item	Classification	Description	Toilets		Lavatories	
			Male	Female	Male	Female
1	Assembly	Theaters and other buildings for performing arts and motion pictures	1 per 125	1 per 65	1 per 200	
		Nightclubs, bars, taverns, dance hall and buildings for similar purposes	1 per 40	1 per 40	1 per 75	
		Restaurants, banquet halls and food courts	1 per 75	1 per 75	1 per 200	
		Auditorium without permanent seating, art galleries, exhibition halls, museums, lecture halls,	1 per 125	1 per 65	1 per 200	

		libraries, arcades and gymnasiums			
		Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750
		Place of worship and other religious services	1 per 150	1 per 75	1 per 200
		Coliseum, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities	1 per 75 for the 1 <sup>st</sup> 1,500 and 1 per 120 for remainder exceeding 1,500	1 per 40 for the 1 <sup>st</sup> 1,520 and 1 per 60 for remainder exceeding 1,520	1 per 200 1 per 150
		Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities	1 per 75 for the 1 <sup>st</sup> 1,500 and 1 per 120 for remainder exceeding 1,500	1 per 40 for the 1 <sup>st</sup> 1,520 and 1 per 60 for remainder exceeding 1,520	1 per 200 1 per 150
2	Business	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 125 for 1 <sup>st</sup> 50 and 1 per 50 for the reminder exceeding 50		1 per 40 for the 1 <sup>st</sup> 80 and 1 per 80 for the reminder exceeding 80
3.	Institutional	Residential Care	1 per 10		1 per 10
		Hospitals, ambulatory nursing home patients	1 per per room		1 per per room
		Employees, other than residential care	1 per 25		1 per 35
		Visitors, other than residential care	1 per 75		1 per 100
		Prisons	1 per cell		1 per cell
		Reformatories, detention centers and correctional centers	1 per 15		1 per 15
		Employees	1 per 25		1 per 35
		Adult day care and child care	1 per 15		1 per 15
4.	Mercantile	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750

## 8.0 OCCUPANCY SENSORS

8.1 Occupant sensor controls shall be installed to control lights in the following space types:

- 8.1.1 Classrooms/lecture/training rooms.
- 8.1.2 Conference/meeting/multipurpose rooms.
- 8.1.3 Copy/print rooms.
- 8.1.4 Lounges.
- 8.1.5 Employee lunch and break rooms.
- 8.1.6 Private offices.
- 8.1.7 Restrooms [Washrooms].
- 8.1.8 Storage rooms.
- 8.1.9 Janitorial closets.
- 8.1.10 Locker rooms.
- 8.1.11 Other spaces 300 square feet (28 m<sup>2</sup>) or less that are enclosed by floor-to-ceiling height partitions.
- 8.1.12 Warehouse.

8.2 Occupant sensor controls in spaces other than warehouses shall comply with the following:

- 8.2.1 Automatic turn off lights within 30 minutes of all occupants leaving the space
- 8.2.2 Be manual on or controlled to automatically turn the lighting on to not more than 50% power.
- 8.2.3 Shall incorporate a manual control to allow occupants to turn lights off
- 8.2.4 **Except**, full automatic-on controls shall be permitted to control lighting in public corridors, stairways, restrooms [washrooms], primary building entrance areas and lobbies, and areas where manual-on operation would endanger the safety or security of the room or building occupants.

## 9.0 OCCUPANT LOAD TABLE

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. [m <sup>2</sup> ] PER OCCUPANT
Accessory storage areas, mechanical equipment room	300 [28 m <sup>2</sup> ]
Assembly without fixed seats	
Concentrated (chairs only—not fixed)	7 [.7 m <sup>2</sup> ]
Standing space	5 [.5 m <sup>2</sup> ]
Unconcentrated (tables and chairs)	15 [1.4 m <sup>2</sup> ]
Exercise rooms	50 [4.6 m <sup>2</sup> ]
Business areas	100 [9.3 m <sup>2</sup> ]

Education	
Classroom area	20 [1.9 m <sup>2</sup> ]
Shops and other vocational room areas	50 [4.6 m <sup>2</sup> ]
Exercise rooms	50 [4.6 m <sup>2</sup> ]
Kitchens, commercial	200 [18.6 m <sup>2</sup> ]
Mercantile	
Areas on other floors	60 [5.6 m <sup>2</sup> ]
Basement and grade floor areas	30 [2.8 m <sup>2</sup> ]
Storage, stock, shipping areas	300 [28 m <sup>2</sup> ]
Residential	200 [18.6 m <sup>2</sup> ]
Daycare	35 [3.3 m <sup>2</sup> ]

**Sources:**

1. International Code Council (2014). *2015 International Building Code*. Boston, MA: ICC.
2. Ontario Building Code (2012). Ontario Regulation 332/12 Building Code.