

SECTION

1

DESIGNING WITH BUILDING CODES

1 DESIGNING WITH BUILDING CODES

This section will help you determine which model building code and occupancy classifications to apply to the project you are designing. You will need to know these facts to have full access to the information throughout this book.

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BUILDING CODES AND ZONING ORDINANCES

A designer works under complex legal constraints that exert a powerful influence on the form a building may take. Local zoning ordinances control building uses, heights, areas, distances from property lines, and on-site parking capacities. Building codes enacted at the municipal, county, state, or provincial level regulate everything from building heights and areas to the types of interior finish materials that may be used. Further constraints are often imposed by local fire districts, by health and safety regulations pertaining to particular uses, and by national regulations governing equal access to public facilities and housing.

Zoning laws and use-specific codes are most often promulgated at the local level and do not lend themselves to simple generalization from one jurisdiction to the next. For this reason, this book does not attempt to address these requirements, and the designer should consult the regulations in effect for guidance in these areas. On the other hand, although building codes are also enforced at local levels, the vast majority of North American building codes are derived from just a few nationally recognized model codes. The use of model codes as the basis for the majority of local building codes results in sufficient standardization that these regulations can be simplified and generalized in a meaningful way. Thus,

preliminary guidelines can be provided for incorporating building code requirements into your project.

This book provides building code information based on two model building codes: the International Code Council's *International Building Code (2015)* and the National Research Council of Canada, Canadian Commission on Building and Fire Codes' *National Building Code of Canada (2015)*. These two model codes form the basis for the vast majority of building codes enacted by jurisdictions throughout the United States and Canada. This book condenses from these two model codes the provisions that have the most direct effects on building form: height and area limitations, beginning on page 371, and requirements for the design of egress systems and accessible spaces, starting on page 267. Code requirements having to do with the detailed design of structural and mechanical components of buildings are reflected here indirectly through the preliminary sizing charts for structural elements (pages 55–137) and the rules of thumb for providing space for mechanical and electrical systems (beginning on page 185).

To make use of the information provided in this book, start by selecting the model code appropriate to your project. For projects in the United States, use the

International Building Code, and for projects in Canada, use the National Building Code of Canada. Next, consult the appropriate code-specific index that follows, to ascertain the Occupancies for the building you are designing. These two pieces of information—model code and Occupancies—are the keys that will unlock code-related information throughout other sections of this book.

The building code information provided in the following pages is intended only for preliminary purposes. The extent to which this information will accurately reflect the regulations with which any particular project must comply will differ from one locale to another. In some instances, a jurisdiction may adopt one of the model codes included in this book almost verbatim. In many cases, you will find that your project's locale has adopted one of these model codes, but with amendments or alterations to its requirements. And occasionally, you may encounter building code regulations wholly different from either of the model codes included in this book. For these reasons, before becoming too deeply immersed in your design, be sure exactly which codes and regulations govern your project, and verify that the information you use fully and accurately reflects the legal requirements that apply, whether that information comes from this book or other sources.

OCCUPANCIES: INTERNATIONAL BUILDING CODE

WHEN TO USE THE INTERNATIONAL BUILDING CODE

If your project is in the United States, use the International Building Code, starting on this page, as the basis for determining preliminary code requirements for your project. If your project is in Canada, use the National Building Code of Canada, starting on page 13. For more information about model building codes and their applicability to your project, see page 5.

OCCUPANCY CLASSIFICATION

Buildings, or portions of buildings, are classified by the activities for which they are used, termed *Occupancies*. These classifica-

tions reflect the relative life-safety hazards associated with the activities and occupant characteristics. In general, buildings intended for larger numbers of occupants, for public use, and for inherently hazardous activities are afforded greater levels of protection than those designed for smaller groups, private uses, and nonhazardous activities. Use the information on the following pages to determine which Occupancies most appropriately describe your project.

If your building contains multiple uses, determine the Occupancy classification for each part. Later in this book, you will find more information on how to apply the various code requirements to such mixed-Occupancy facilities; if you would like to learn more about mixed-Occupancy buildings right now, turn to pages 374–377.

GENERAL DESCRIPTION OF OCCUPANCIES

The following table describes each Occupancy according to the International Building Code.

Occupancy	General Description
A ASSEMBLY	<p>Assembly Occupancies include social, recreational, entertainment, and civic gatherings of 50 or more persons. Assembly Occupancy includes five subgroups:</p> <p>A-1: This group includes theaters for the viewing of motion pictures and performing arts, usually with fixed seating.</p> <p>A-2: This group includes food and drink establishments.</p> <p>A-3: This group includes recreational, amusement, and religious worship uses not specifically covered by other Assembly subgroups, including, for example, galleries, churches, community halls, courtrooms, dance halls, indoor sports facilities without fixed seating, lecture halls, libraries, museums, passenger station waiting areas, and the like.</p> <p>A-4: This group includes indoor sports facilities with spectator seating.</p> <p>A-5: This group includes outdoor sports arenas.</p> <p>Gathering spaces less than 750 sq ft (70 m²) in area or accommodating fewer than 50 persons are treated as Group B, Business Occupancies, or, when located within other Occupancies, as part of the surrounding Occupancy.</p> <p>Assembly spaces located within Group E, Educational facilities, are treated as part of the Group E Occupancy.</p>
B BUSINESS	<p>Business Occupancies include office, professional, and service activities, and storage of related records and accounts. Business Occupancy also includes education facilities past the 12th grade, but does not include retail or wholesale sales, which are classified as Group M Mercantile. Meeting rooms, auditoriums, or other spaces related to business uses but with 50 or more persons are classified as Assembly Occupancy.</p>

(continued)

OCCUPANCIES: INTERNATIONAL BUILDING CODE

Occupancy	General Description
E EDUCATIONAL	<p>Educational Occupancies include spaces used for grades K through 12 education and day care facilities for children older than 2½ years of age accommodating six or more children.</p> <p>Auditoriums, gymnasiums, and other assembly areas within Group E facilities are treated as part of the Group E Occupancy. Educational facilities above the 12th grade are classified as Group B Business.</p> <p>Educational rooms and auditoriums within religious facilities, accommodating not more than 99 persons, are considered part of that facility's overall classification, usually Group A-3 Assembly. If they accommodate 100 or more persons, such spaces must be classified separately as Group E.</p> <p>An Educational Occupancy may also include day care for up to 100 children 2½ years and younger when all rooms housing such children are on the ground level and have exit doors leading directly to the exterior.</p>
F FACTORY INDUSTRIAL	<p>Factory industrial Occupancies include manufacturing, fabricating, finishing, packaging, repairing, and other industrial processes, except those considered especially hazardous, classified as Group H Hazardous, or those classified Group S Storage. Factory Occupancy has two subgroups:</p> <p>F-1 Moderate-Hazard: This group includes manufacturing and industrial processes with moderate fire hazard, such as those involving aircraft, appliances, automobiles, machinery, electronics, plastics, printing, woodworking, and any others not classified as Group F-2.</p> <p>F-2 Low-Hazard: This group includes manufacturing and industrial processes using nonflammable materials, such as those involving nonalcoholic beverages, brick and masonry, ceramics, glass, gypsum, ice, and metal fabrication.</p> <p>Office and storage areas associated with factory facilities are classified as Group B and Group S Occupancies, respectively, unless they are small enough to be treated as accessory to the primary Factory Occupancy (see page 375 for Accessory Occupancies).</p>
H HIGH-HAZARD	<p>High-Hazard Occupancies include manufacturing, processing, and storage of materials with a high potential for health or fire hazard. Hazardous use classifications are specific and detailed about the amounts and types of explosive, flammable, corrosive, or toxic materials involved. If you are considering the design of such a facility, you should consult the appropriate codes from the very outset of your project to determine requirements. High-Hazard Occupancy has five subgroups:</p> <p>H-1: This group includes facilities housing significant quantities of materials that are at risk of explosion or otherwise chemically highly unstable, for example, dynamite.</p> <p>H-2: This group includes facilities housing significant quantities of materials that can act as accelerants in a fire, for example, flammable gasses or combustible dust.</p> <p>H-3: This group includes facilities housing significant quantities of materials that readily support combustion or that otherwise present a physical hazard to occupants, such as combustible fibers, consumer fireworks, or oxidizing chemicals.</p> <p>H-4: This group includes facilities housing significant quantities of materials that are corrosive or highly toxic.</p> <p>H-5: This group includes semiconductor fabrication plants and comparable research and development facilities that involve the use of significant quantities of materials specifically identified in the building code as hazardous production materials.</p>
I INSTITUTIONAL	<p>Institutional Occupancies include facilities where occupants cannot fully care for themselves, including residential care, health care, day care, and correctional facilities. Institutional Occupancies are divided into four subgroups:</p> <p>I-1: This group includes 24-hour residential care facilities for 17 or more occupants (not including care staff), for example, group homes, assisted living facilities, convalescent homes, and alcohol and drug rehabilitation centers. Occupants must be capable of responding to an emergency with no more than limited assistance from the facility staff.</p> <p>I-2: This group includes 24-hour medical, psychiatric, and custodial care facilities for six or more persons, in which the occupants are not capable of self-preservation in an emergency, for example, hospitals, nursing homes, and child care facilities.</p>

(continued)

OCCUPANCIES: INTERNATIONAL BUILDING CODE

Occupancy	General Description
	<p>I-3: This group includes facilities with six or more occupants (not including staff) who are under restraint or detention, for example, prisons, correctional centers, and reformatories.</p> <p>I-4: This group includes nonmedical day care facilities for six or more occupants of any age (not including staff).</p> <p>Offices, dining areas, gifts shops, and other such areas often associated with some Group I facilities should be classified as the appropriate A, B, or M Occupancies unless they are small enough to be treated as accessory to the primary I Occupancy. (See page 375 for Accessory Occupancies.)</p> <p>For more information on the classification of residential and day care facilities, see page 12.</p>
M MERCANTILE	Mercantile Occupancies include the display and sale of retail and wholesale merchandise and the related stocking of such goods.
R RESIDENTIAL	<p>Residential Occupancies include facilities where people live and sleep when not in a supervised setting that would otherwise be classified as Institutional Occupancies. Residential Occupancies are divided into four subgroups:</p> <p>R-1: This group includes hotels, motels, short-term boarding houses, and other facilities where occupants are primarily transient, typically with stays not exceeding 30 days.</p> <p>R-2: This group includes apartment houses, nontransient boarding houses, convents, dormitories, nontransient hotels and motels, timeshare properties, and other facilities where occupants are primarily permanent.</p> <p>R-3: This group includes residential facilities not classified as Group I Institutional or other R Occupancies, including one- and two-family residences, and care facilities (both 24-hour and day) for not more than five occupants of any age. Dormitories, fraternities, sororities, and other congregate living facilities where residents share kitchen, dining, and bath areas, with up to 16 permanent residents or 10 transient residents, may also be classified as Group R-3.</p> <p>R-4: This group includes residential care or assisted living facilities for between 6 and 16 occupants above the age of 2½ years. Residents must be capable of responding to an emergency with no more than limited assistance from the facility staff.</p> <p>For more information on the classification of residential and day care facilities, see page 12.</p> <p>Detached one- and two-family dwellings and townhouses, not more than three stories in height, most often are built to comply with the <i>International Residential Code</i>, a separate model code written specifically for these building types. Where the activities described in Occupancies R-3 or R-4 are housed in such buildings, these buildings may in many cases be constructed to the requirements of this code. See pages 436 and 438.</p>
S STORAGE	<p>This classification includes storage not classified as H Hazardous, and is divided into two subgroups:</p> <p>S-1 Moderate-Hazard: This group includes storage of books, paper, furniture, grain, lumber, tires, and other materials of moderate fire hazard, as well as motor vehicle repair facilities.</p> <p>S-2 Low-Hazard: This group includes parking garages and buildings for the storage of noncombustible materials.</p> <p>Accessory storage spaces that are less than 100 sq ft (9.3 m²) in area are classified as part of the primary Occupancy.</p>
U UTILITY AND MISCELLANEOUS	This classification includes agricultural buildings and other structures not included in other Occupancy classifications, such as carports, private garages, greenhouses, livestock shelters, retaining walls, sheds, stables, tanks, towers, and other miscellaneous uses.

OCCUPANCIES: INTERNATIONAL BUILDING CODE

INDEX OF OCCUPANCIES

You may use the following detailed list of building uses to determine the Occupancy classifications for your project. If the specific use for your project is not listed, choose the most similar use based on comparisons of the number and density of occupants, nature of the activity, and any associated fire- or life-safety risks.

WHERE DO I GO FROM HERE?

Once you have determined the building code Occupancy classifications for your project, you can use this information throughout the other sections of this book. If you are unsure of where to go next, see page ix, "How to Use This Book," for suggestions on how to proceed.

Building Use	Occupancy
Agricultural buildings, barns, livestock shelters	U
Aircraft hangars, accessory to one- or two-family residences	U
Aircraft hangars, storage and repair	S-1
Aircraft manufacturing	F-1
Airport traffic control towers	B
Alcohol and drug centers, 24-hour care	I-1; see also Institutional and Residential Care Occupancies, p. 12
Amusement arcades	A-3
Amusement park structures	A-5
Animal hospitals, kennels, pounds	B
Apartment houses	R-2
Art galleries	A-3 or B, depending on the number of occupants
Assisted living	I-1; see also Institutional and Residential Care Occupancies, p. 12
Auditoriums	A-3
Auditoriums, part of Group E Educational facilities	E
Banks	B
Banquet halls	A-2
Barber and beauty shops	B
Barns	U
Bleachers, outdoors	A-5
Boarding houses, not transient	R-2, or R-3 with 16 or fewer occupants
Boarding houses, transient	R-1, or R-3 with 10 or fewer occupants
Boarding houses, with rented guest rooms in a single-family dwelling	See Lodging houses

Building Use	Occupancy
Bowling alleys	A-3
Business offices	B
Car washes	B
Care facilities, 24-hour	See Institutional and Residential Care Occupancies, p. 12
Carpools	U
Child care, 24-hour, 6 or more children 2½ years of age or less	I-2; see also Institutional and Residential Care Occupancies, p. 12
Child care, day, 6 or more children 2½ years of age or less	I-4; see also Institutional and Residential Care Occupancies, p. 12
Churches	See Places of religious worship
Civic administration	B
Clinics, outpatient	B
Community halls	A-3
Concert halls	A-2
Congregate living facilities combining individual sleeping units with shared dining, bathing, and recreation (such as dormitories, fraternities, sororities, and convents), 10 or fewer transient residents	R-3
Congregate living, 11 or more transient residents	R-1
Congregate living facilities, 16 or fewer permanent residents	R-3
Congregate living facilities, 17 or more permanent residents	R-2
Convalescent facilities, 24-hour	I-1; see also Institutional and Residential Care Occupancies, p. 12
Convents	See Congregate living facilities

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Building Use	Occupancy	Building Use	Occupancy
Correctional centers	I-3	Homes, single- or two-family	See International Residential Code, p. 436
Courtrooms	A-3	Hospitals	I-2
Dance halls	A-3	Hotels	R-1
Day care, 5 or fewer occupants	R-3; see also Institutional and Residential Care Occupancies, p. 12	Jails	I-3
Day care, 6 or more occupants	I-4; see also Institutional and Residential Care Occupancies, p. 12	Kitchens, part of restaurants or dining facilities	A-2
Day surgery centers	B	Kitchens, not part of a restaurant or dining facility	F-1 if more than 2500 sq ft (232 m ²) in area, otherwise B
Department stores	M	Laboratories, testing and research	B
Detention centers	I-3	Lecture halls	A-3
Detoxification facilities, 24-hour	I-2; see also Institutional and Residential Care Occupancies, p. 12	Libraries	A-3
Doctors' offices	B	Lodging houses, with not more than five rented guest rooms in a single-family dwelling	R-3
Drugstores	M	Markets	M
Dry boat storage	S-2	Martial arts studios	B
Dry cleaners and laundries	B	Medical care, 24-hour	I-2
Educational facilities, above the 12th grade	B	Monasteries	See Congregate living
Educational facilities, K through 12	E	Mosques	See Places of religious worship
Educational rooms in places of religious worship	Same Occupancy as the main facility, usually A-3	Motels	R-1
Electronic data processing	B	Motion picture theaters	A-1
Exhibition halls	A-3	Motor vehicle repair	S-1
Factories	F-1, F-2, or H, depending on the hazard	Motor vehicle service stations	M
Fences, more than 6 ft (1.8 m) high	U	Motor vehicle showrooms	B
Fire and police stations	B	Museums	A-3
Food processing	See Kitchens	Nightclubs	A-2
Fraternities	See Congregate living	Nursing homes	I-2
Funeral parlors	A-3	Offices	B
Grandstands, outdoors	A-5	Outpatient clinics	B
Greenhouses	U	Parking garages, private	U
Group homes	I-1; see also Institutional and Residential Care Occupancies, p. 12	Parking garages, public	S-2
Gymnasiums	A-3	Passenger station waiting areas	A-3
Halfway houses, 17 or more persons	I-1; see also Institutional and Residential Care Occupancies, p. 12	Places of religious worship, including related public areas, gathering spaces, educational, and child care areas	A-3
Hazardous materials processing and storage	H-1 through H-5; consult the code for more information	Places of religious worship, business areas	B
		Pool and billiard halls	A-3
		Post offices	B
		Prisons	I-3

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OCCUPANCIES: INTERNATIONAL BUILDING CODE

Building Use	Occupancy	Building Use	Occupancy
Professional services	B	Sororities	See Congregate living
Radio and television stations, with audience facilities	A-1	Sports arenas, indoor	A-4
Radio and television stations, without audience facilities	B	Stadiums, outdoors	A-5
Reformatories	I-3	Storage	S-1, S-2, or H, depending on the hazard
Rehabilitation facilities	I-1; see also Institutional and Residential Care Occupancies, p. 12	Swimming pools, indoor, with spectator seating	A-4
Religious facilities	See Places of religious worship	Swimming pools, indoor, without spectator seating	A-3
Residential care	See Institutional and Residential Care Occupancies, p. 12	Tanks	U
Restaurants	A-2	Taverns and bars	A-2
Retail stores	M	Telephone exchanges	B
Retaining walls	U	Tennis courts, indoors, with spectator seating	A-4
Sales rooms	M	Tennis courts, indoors, without spectator seating	A-3
Sheds	U	Theaters	A-1
Skating rinks with spectator seating, indoor	A-4	Tower structures, nonoccupied	U
Sleep clinics	B	Training facilities, nonacademic	B
		Wholesale stores	M

OCCUPANCIES: INTERNATIONAL BUILDING CODE

INSTITUTIONAL AND RESIDENTIAL CARE OCCUPANCIES

In the International Building Code, day care and residential care facilities are assigned to Occupancies based on the ages of the individuals under care, the number of individuals receiving care, the duration of the care, and the extent to which occupants can fend for themselves in the event of a building emergency. Use the following table to

determine the most appropriate Occupancy classification for such uses. Other related classifications, not listed in the table, include the following:

■ Day facilities for able-bodied adults who do not require personal care and are capable of responding to emergencies without assistance are classified as either Occupancy A-3 or B, depending on the number of occupants. This includes, for example, community centers, YMCAs, and other similar facilities.

■ Doctors' offices, outpatient clinics, and similar facilities where patient stays do not exceed 24 hours are classified as Occupancy B.

■ Facilities that provide medical care extending beyond a 24-hour stay, and where residents require physical assistance in the case of a building emergency, are classified as Occupancy I-2. This includes, for example, hospitals, nursing homes, detoxification facilities, and child care facilities with stays extending beyond 24 hours.

DAY AND 24-HOUR CARE OCCUPANCIES

Age of Occupants	Day Care (less than 24-hour)		24-Hour Care		
	1–5 occupants	6 or more occupants	1–5 occupants	6–16 occupants	17 or more occupants
2½ years or less	R-3	I-4 ^a	R-3	I-2	I-2
Over 2½ years, not capable of self-preservation	R-3	I-4 ^a	R-3	I-2	I-2
Over 2½ years and capable of self-preservation	Accessory to primary Occupancy, or R-3	E for children up to the 12th grade I-4 for adults ^a	R-3	R-4	I-1

Numbers of occupants includes only individuals receiving care, and excludes staff and care providers.

^aDay Care Exceptions:

Day care occurring during worship activities within a religious facility may be classified with the primary Occupancy, usually A-3.

Up to 100 children 2½ years or less in age may receive day care in a Group E Occupancy when all such children are located in rooms on the ground floor, with exit doors in each room leading directly to the exterior.

Day care facilities for adults above the 12th grade and capable of responding to an emergency without assistance may also be classified as Group R-3, if the facility meets other code requirements for this Occupancy.

OCCUPANCIES: NATIONAL BUILDING CODE OF CANADA

WHEN TO USE THE NATIONAL BUILDING CODE OF CANADA

If your project is in Canada, use the National Building Code of Canada, starting on this page, as the basis for determining preliminary code requirements for your project. If your project is in the United States, use the International Building Code, starting on page 6. For more information about model building codes and their applicability to your project, see page 5.

OCCUPANCIES

Buildings, or portions of buildings, are classified by the primary activities for which they are used, termed *Major Occupancies*. These classifications reflect the relative life-safety hazard associated with the activities and occupant characteristics. In general, buildings intended for larger numbers of occupants, for public use, and for inherently hazardous activities are afforded greater levels of protection than those designed for smaller groups, private uses, and nonhazardous activities. Use the information on the following pages to determine what Occupancy

classifications most appropriately describe your project.

If your building contains multiple uses, determine the occupancy for each part. Later in this book you will find more detailed information on how to apply the various code requirements to such mixed-occupancy facilities; if you would like to learn more about mixed-use buildings right now, turn to pages 374–377.

GENERAL DESCRIPTION OF OCCUPANCIES

The following table describes each Occupancy according to the National Building Code of Canada.

Occupancy	General Description
A ASSEMBLY	<p>Assembly Occupancy includes social, recreational, and civic gatherings, and includes four subdivisions:</p> <p>A-1: This division includes facilities for the public production and viewing of the performing arts, such as motion picture theaters, performing arts halls and theaters, and broadcast studios with viewing audiences.</p> <p>A-2: This division includes a broad range of Assembly-type uses not specifically falling under other Assembly subdivisions, for example, auditoriums, churches, community halls, courtrooms, dance halls, gymnasiums, lecture halls, libraries, museums, passenger stations and depots, nonresidential schools and colleges, and other public gathering facilities.</p> <p>A-3: This division includes indoor arena-type facilities, such as swimming pools (with or without spectator seating), arenas, and rinks.</p> <p>A-4: This division includes open-air Assembly facilities such as outdoor sports stadiums, amusement park structures, and other facilities with outdoor bleachers or grandstands.</p>
B CARE, TREATMENT, OR DETENTION	<p>Care, Treatment, or Detention Occupancy includes facilities where occupants cannot fully care for themselves, and includes three subdivisions:</p> <p>B-1: This division includes Detention Occupancies in which occupants are under restraint or incapable of self-preservation due to security measures, such as prisons and jails, as well as psychiatric hospitals, reformatories, and other care facilities with detention quarters.</p> <p>B-2: This division includes medical or health-related treatment Occupancies that do not include detention, such as hospitals, infirmaries, and psychiatric hospitals, as well as convalescent homes, hospices, nursing homes, respite centers, and other similar facilities where medical treatment is provided.</p> <p>B-3: This division includes facilities providing cognitive, behavioral, or physical care, without medical treatment or detention, such as assisted living, children's custodial homes, convalescent homes, group homes, nursing homes, reformatories, and respite centers.</p>
C RESIDENTIAL	<p>Residential Occupancy includes all kinds of residential uses not classified as Care or Detention, for example, apartments, boarding houses, residential colleges and schools, hotels, single-family houses, and the like.</p>

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OCCUPANCIES: NATIONAL BUILDING CODE OF CANADA

Occupancy	General Description
D BUSINESS AND PERSONAL SERVICES	Business and Personal Services Occupancy includes office, professional, and service activities, such as banks, beauty parlors, doctors' offices, business offices, police stations (without detention), and radio stations. This Occupancy does not include retail or wholesale sales, which are classified as Occupancy E.
E MERCANTILE	Mercantile Occupancies include the display and sale of retail and wholesale merchandise and the related stocking of such goods.
F INDUSTRIAL	Industrial Occupancies include manufacturing and industrial facilities, and include three subdivisions: F-1: This division includes high-hazard manufacturing processes, such as those involving highly flammable or hazardous substances. F-2: This division includes medium-hazard manufacturing processes and materials. F-3: This division includes low-hazard manufacturing processes and materials.

OCCUPANCIES: NATIONAL BUILDING CODE OF CANADA

INDEX OF OCCUPANCIES

You may also use the following index of uses to determine the Occupancy classification(s) for your project. If the specific use for your project is not listed, choose the most similar use based on comparisons of the number and density of occupants, nature of the activity, and any associated fire- or life-safety risks.

WHERE DO I GO FROM HERE?

Once you have determined the building code Occupancy classifications for your project, you can use this information throughout the other sections of this book. If you are unsure of where to go next, see page ix, "How to Use This Book," for suggestions on how to proceed.

Building Use	Occupancy
Aircraft hangars	F-2
Aircraft hangars (light-aircraft, storage only)	F-3
Amusement park structures	A-4
Apartments	C
Appliance rental and service establishments, small	D
Arenas, indoor, including when used for occasional trade shows or exhibitions	A-3
Art galleries	A-2
Assisted living facilities	B-3
Auditoriums	A-2
Banks	D
Barber shops	D
Beauty shops	D
Beverage establishments	A-2
Bleachers, open air	A-4
Boarding houses	C
Bowling alleys	A-2
Box factories	F-2
Candy manufacturing plants	F-2
Care facilities, with medical treatment	B-2
Care facilities, without medical treatment	B-3
Cereal mills	F-1
Chemical plants	F-1
Children's custodial homes	B-3
Children's custodial homes, with not more than 10 ambulatory occupants living as a single housekeeping unit	C

Building Use	Occupancy
Clubs, nonresidential	A-2
Cold storage	F-2
Colleges, nonresidential	A-2
Colleges, residential	C
Community halls	A-2
Concert halls	A-1
Convalescent centers, with medical treatment	B-2
Convalescent centers, with not more than 10 ambulatory occupants living as a single housekeeping unit	C
Convalescent centers, without medical treatment	B-3
Convents	C
Courtrooms	A-2
Creameries	F-3
Dance halls	A-2
Dental offices	D
Department stores	E
Distilleries	F-1
Dormitories	C
Dry cleaning establishments, not using flammable or explosive solvents or cleaners	F-2
Dry cleaning establishments, self-service	D
Dry cleaning plants, other	F-1
Electrical stations	F-2
Exhibition halls, mercantile	E
Exhibition halls, other than mercantile	A-2

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OCCUPANCIES: NATIONAL BUILDING CODE OF CANADA

Building Use	Occupancy	Building Use	Occupancy
Factories	F-1, F-2, F-3, depending on hazard	Nursing homes, with medical treatment	B-2
Farm buildings	Must conform to the National Farm Building Code of Canada, not included in this publication	Nursing homes, without medical treatment	B-3
Feed mills	F-1	Opera houses	A-1
Flour mills	F-1	Paint, varnish factories	F-1
Freight depots	F-2	Paper-recycling plants	F-1
Garages, repair	F-2	Parking garages, enclosed or open	F-3
Grain elevators	F-1	Passenger stations, depots	A-2
Grandstands, open air	A-4	Penitentiaries	B-1
Group homes	B-3	Places of religious worship	A-2
Gymnasiums	A-2	Planing mills	F-2
Hairdressing shops	D	Police stations, not more than 1 story in height and 600 m ² (6460 ft ²) in building area	B-2
Helicopter rooftop landing areas	F-2	Police stations, with detention quarters	B-1
Hospices, with medical treatment	B-2	Police stations, without detention facilities	D
Hospices, without medical treatment	B-3	Power plants	F-3
Hospitals	B-2	Printing plants	F-2
Hotels	C	Prisons	B-1
Houses	C	Psychiatric hospitals, with detention quarters	B-1
Industrial salesrooms	F-1, F-2, or F-3, depending on hazard	Psychiatric hospitals, with medical treatment	B-2
Industrial sample display rooms	F-3	Radio stations	D
Infirmaries	B-2	Recreational piers	A-2
Jails	B-1	Reformatories, with detention quarters	B-1
Laboratories	F-1, F-2, or F-3, depending on hazard	Reformatories, without medical treatment	B-3
Lacquer factories	F-1	Rehabilitation centers, with medical treatment	B-2
Laundries, except self-service	F-2	Rehabilitation centers, without medical treatment	B-3
Laundries, self-service	D	Respite centers, with medical treatment	B-2
Lecture halls	A-2	Respite centers, without medical treatment	B-3
Libraries	A-2	Restaurants	A-2
Lodging houses	C	Reviewing stands, open air	A-4
Markets	E	Rinks, indoor	A-3
Mattress factories	F-1 or F-2, depending on hazard	Rubber-processing plants	F-1
Medical offices	D	Schools, nonresidential	A-2
Monasteries	C		
Motels	C		
Motion picture theaters	A-1		
Museums	A-2		

(continued)

OCCUPANCIES: NATIONAL BUILDING CODE OF CANADA

Building Use	Occupancy	Building Use	Occupancy
Schools, residential	C	Television studios, admitting a viewing audience	A-1
Service stations	F-2	Television studios, with viewing audience	D
Shops	E	Television studios, without a viewing audience	F-2
Spray-painting operations	F-1	Theaters, performance	A-1
Stadiums, open air	A-4	Tool rental and service establishments, small	D
Storage, baled combustible fibers	F-2	Warehouses	F-1, F-2, or F-3, depending on hazard
Storage, bulk, flammable liquids	F-1	Wholesale rooms	F-2
Storage, bulk, hazardous chemicals	F-1	Woodworking shops	F-2
Storage, other	F-1, F-2, or F-3, depending on hazard	Workshops	F-2 or F-3, depending on hazard
Stores	E		
Supermarkets	E		
Swimming pools, indoor, with or without spectator seating	A-3		

