

# ***G. Glossary***

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**ACCA**

is the Air-Conditioning Contractors of America.

**ACCESSIBLE**

is having access thereto, but which first may require removal or opening of access panels, doors, or similar obstructions.

**ADDITION**

is any change to a building that increases conditioned floor area and conditioned volume. See also, NEWLY CONDITIONED SPACE.

**AIR-TO-AIR HEAT EXCHANGER**

is a device which will reduce the heat losses or gains which occur when a building is mechanically ventilated, by transferring heat between the conditioned air being exhausted and the unconditioned air being supplied.

**ALTERATION**

is any change to a building's water heating system, space conditioning system, lighting system, or envelope that is not an addition.

**ALTERNATIVE CALCULATION METHODS (ACMs)**

are the Commission's Public Domain Computer Programs, one of the Commission's Simplified Calculation Methods, or any other calculation method approved by the Commission.

**ANNUAL FUEL UTILIZATION EFFICIENCY (AFUE)**

is a measure of the percentage of heat from the combustion of gas or oil which is transferred to the space being heated during a year, as determined using the applicable test method in the Appliance Efficiency Regulations or Section 112.

**ANNUNCIATED**

is a visual signaling device that indicates the on, off, or other status of a load.

**ANSI**

is the American National Standards Institute.

**APPLIANCE EFFICIENCY REGULATIONS**

are the regulations in Title 20, Sections 1601 et. seq. of the California Code of Regulations.

**APPROVED BY THE COMMISSION**

means approval under Section 25402.1 of the Public Resources Code.

**APPROVED CALCULATION METHOD  
(See ALTERNATIVE CALCULATION METHODS).****ARI**

is the Air-conditioning and Refrigeration Institute.

**ASHRAE**

is the American Society of Heating, Refrigerating, and Air-conditioning Engineers.

**ASME**

is the American Society of Mechanical Engineers.

**ASTM**

is the American Society for Testing and Materials.

**ATRIUM**

is an opening through two or more floor levels other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air-conditioning, or other equipment which is enclosed space and not defined as a mall.

**AUDITORIUM**

is the part of a public building where an audience sits in fixed seating, or a room, area, or building with fixed seats used for public meetings or gatherings not specifically for the viewing of dramatic performances.

**AUTO REPAIR**

is the portion of a building used to repair automotive equipment and/or vehicles, exchange parts, and may include work using an open flame or welding equipment.

**AUTOMATIC**

is capable of operating without human intervention.

**AUTOMATIC TIME SWITCH CONTROL DEVICES**

are devices capable of automatically turning loads off and on based on time schedules.

**BANK/FINANCIAL INSTITUTION**

is an area in a public establishment used for conducting financial transactions including the custody, loan, exchange, or issue of money, for the extension of credit, and for facilitating the transmission of funds.

**BUILDING**

is any structure or space for which a permit is sought.

**BUILDING ENVELOPE**

is the ensemble of exterior and demising partitions of a building that enclose conditioned space.

**CAPTIVE-KEY OVERRIDE**

is a type of lighting control in which the key that activates the override cannot be [removed] released when the lights are in the on position.

**CERTIFYING ORGANIZATION**

is an independent organization recognized by the Commission to certify manufactured devices for performance values in accordance with procedures adopted by the Commission.

**CHANDELIERS**

(see ORNAMENTAL CHANDELIERS).

**CHAPTER 1**

means the California Code of Regulations, Title 24, Part 2, Chapter 1.

**CLASSROOM, LECTURE, OR TRAINING**

is a room or area where an audience or class receives instruction.

**CLIMATE CONTROL SYSTEM**

(See SPACE CONDITIONING SYSTEM).

**CLIMATE ZONES**

are the 16 geographic areas of California for which the Commission has established typical weather data, prescriptive packages and energy budgets. Climate zone boundary descriptions are in the document "California Climate Zone Descriptions (July 1995, incorporated herein by reference)." Figure 1-A is an approximate map of the 16 climate zones.

**COEFFICIENT OF PERFORMANCE (COP), COOLING,**

is the ratio of the rate of net heat removal to the rate of total energy input, calculated under designated operating conditions and expressed in consistent units, as determined using the applicable test method in the Appliance Efficiency Regulations or Section 112.

**COEFFICIENT OF PERFORMANCE (COP), HEATING,**

is the ratio of the rate of net heat output to the rate of total energy input, calculated under designated operating conditions and expressed in consistent units, as determined using the applicable test method in the Appliance Efficiency Regulations or Section 112.

**COMMERCIAL AND INDUSTRIAL STORAGE**

is a room, area, or building used for storing items.

**COMMISSION**

is the California State Energy Resources Conservation and Development Commission.

**COMPLETE BUILDING**

is an entire building with one occupancy making up 90 percent of the conditioned floor area (see also ENTIRE BUILDING).

**CONDITIONED FLOOR AREA (CFA)**

is the floor area (in square feet) of enclosed conditioned space on all floors of a building, as measured at the floor level of the exterior surfaces of exterior walls enclosing the conditioned space.

**CONDITIONED SPACE**

is space in a building that is either directly conditioned, indirectly conditioned, or semi-conditioned.

**CONDITIONED VOLUME**

is the total volume (in cubic feet) of the conditioned space within a building.

**CONVENTION, CONFERENCE, MULTIPURPOSE AND MEETING CENTERS**

is an assembly room, area, or building that is used for meetings, conventions and multiple purposes including, but not limited to, dramatic performances, and that has neither fixed seating nor fixed staging.

**COOLING EQUIPMENT**

is equipment used to provide mechanical cooling for a room or rooms in a building.

**CORRIDOR**

is a passageway or route into which compartments or rooms open.

**COVERED PRODUCT**

is an appliance regulated by the efficiency standards established under the National Appliance Energy Conservation Act, 42 U.S.C. Section 6291 et seq.

**CRAWL SPACE**

is a space immediately under the first floor of a building adjacent to grade.

**CTI**

is the Cooling Tower Institute.

**C-VALUE (also known as C-FACTOR)**

is the time rate of heat flow through unit area of a body induced by a unit temperature difference between the body surfaces, in Btu (hr. x ft.<sup>2</sup> x °F). It is not the same as K-value or K-factor.

**DAYLIT AREA**

is the space on the floor that is the larger of (a) plus (b), or (c);

- (a) For areas daylit by vertical glazing, the daylit area has a length of 15 feet, or the distance on the floor, perpendicular to the glazing, to the nearest 60-inch or higher opaque partition, whichever is less; and a width of the window plus either 2 feet on each side, the distance to an opaque partition, or one-half the distance to the closest skylight or vertical glazing, whichever is least.

- (b) For areas daylit by horizontal glazing, the daylit area is the footprint of the skylight plus, in each of the lateral and longitudinal dimensions of the skylight, the lesser of the floor-to-ceiling height, the distance to the nearest 60-inch or higher opaque partition, or one-half the horizontal distance to the edge of the closest skylight or vertical glazing.
- (c) The daylit area calculated using a method approved by the Commission.

#### **DECORATIVE GAS APPLIANCE**

is a gas appliance that is designed or installed for visual effect only, cannot burn solid wood, and simulates a fire in a fireplace.

#### **DEGREE DAY, HEATING**

is a unit, based upon temperature difference and time, used in estimating fuel consumption and specifying nominal annual heating load of a building. For any one day, when the mean temperature is less than 65°F, there exist as many degree days as there are Fahrenheit degrees difference in temperature between the mean temperature for the day and 65°F. The number of degree days for specific geographical locations are those listed in the Residential Manual. For those localities not listed in the Residential Manual the number of degree days is as determined by the applicable enforcing agency.

#### **DEMISING PARTITIONS**

are barriers that separate conditioned space from enclosed unconditioned space.

#### **DEMISING WALL**

is a wall that is a demising partition.

#### **DESIGN CONDITIONS**

are the parameters and conditions used to determine the performance requirements of space conditioning systems. Design conditions for determining design heating and cooling loads are specified in Section 144(b) for nonresidential, high-rise residential, and hotel/motel buildings and in Section 150(h) for low-rise residential buildings.

#### **DESIGN HEAT GAIN RATE**

is the total calculated heat gain through the building envelope under design conditions.

#### **DESIGN HEAT LOSS RATE**

is the total calculated heat loss through the building envelope under design conditions.

#### **DINING**

is a room or rooms in a restaurant or hotel/motel (other than guest rooms) where meals that are served to the customers will be consumed.

**DIRECTLY CONDITIONED SPACE**

is an enclosed space that is provided with wood heating, is provided with mechanical heating that has a capacity exceeding 10 Btu/(hr ft<sup>2</sup>), or is provided with mechanical cooling that has a capacity exceeding 5 Btu/(hr ft<sup>2</sup>), unless the space conditioning system is designed and thermostatically controlled to maintain a process environment temperature less than 55 F or to maintain a process environment temperature greater than 90 F for the whole space that the system serves, or unless the space conditioning system is designed and controlled to be incapable of operating at temperatures above 55 F or incapable of operating at temperatures below 90 F at design conditions.

**DISPLAY LIGHTING**

is lighting confined to the area of a display that provides a higher level of illuminance than the level of surrounding ambient illuminance.

**DISPLAY PERIMETER**

is the length of an exterior wall in a B, F-1 or M occupancy that immediately abuts a public sidewalk, measured at the sidewalk level for each story that abuts a public sidewalk.

**DISPLAY, PUBLIC AREA**

are areas for the display of artwork, theme displays, and architectural surfaces in dining and other areas of public access, excluding restrooms and separate banquet rooms.

**DISPLAY, SALES FEATURE**

is an item or items that requires special highlighting to visually attract attention and that is visually set apart from the surrounding area.

**DISPLAY, SALES FEATURE FLOOR**

is a feature display in a retail store, wholesale store, or showroom that requires display lighting.

**DISPLAY, SALES FEATURE WALL**

are the wall display areas, in a retail or wholesale space, that are in the vertical plane of permanent walls or partitions, and that are open shelving feature displays or faces of internally illuminated transparent feature display cases within the Gross Sales Wall Area.

**DUAL-GLAZED GREENHOUSE WINDOWS**

are a type of dual-glazed fenestration product which adds conditioned volume but not conditioned floor area to a building.

**EAST-FACING**

is oriented to within 45 degrees of true east, including 45°00'00" south of east (SE), but excluding 45°00'00" north of east (NE).

**ECONOMIZER, AIR**

is a ducting arrangement and automatic control system that allows a cooling supply fan system to supply outside air to reduce or eliminate the need for mechanical cooling.

**ECONOMIZER, WATER**

is a system by which the supply air of a cooling system is cooled directly or indirectly by evaporation of water, or other appropriate fluid, in order to reduce or eliminate the need for mechanical cooling.

**EFFECTIVE APERTURE (EA)**

is (1) for windows, the visible light transmittance (VLT) times the window wall ratio; and (2) for skylights, the well index times the VLT times the skylight area times 0.85 divided by the gross exterior roof area.

**EFFICACY**

is the ratio of light from a lamp to the electrical power consumed (including ballast losses), expressed in lumens per watt.

**ELECTRICAL/MECHANICAL ROOM**

is a room in which the building's electrical switchbox or control panels, and/or HVAC controls or equipment is located.

**ENCLOSED SPACE**

is space that is substantially surrounded by solid surfaces.

**ENERGY BUDGET**

is the maximum amount of source energy that a proposed building, or portion of a building, can be designed to consume, calculated with the approved procedures specified in Part 6.

**ENERGY EFFICIENCY RATIO (EER)**

is the ratio of net cooling capacity (in Btu/hr) to total rate of electrical energy (in watts), of a cooling system under designated operating conditions, as determined using the applicable test method in the Appliance Efficiency Regulations or Section 112.

**ENERGY FACTOR (EF)**

is the ratio of energy output to energy consumption of a water heater, expressed in equivalent units, under designated operating conditions over a 24-hour use cycle, as determined using the applicable test method in the Appliance Efficiency Regulations.

**ENERGY OBTAINED FROM DEPLETABLE SOURCES**

is electricity purchased from a public utility, or any energy obtained from coal, oil, natural gas, or liquefied petroleum gases.

**ENERGY OBTAINED FROM NONDEPLETABLE SOURCES**

is energy that is not energy obtained from depletable sources.

**ENFORCING AGENCY**

is the city, county, or state agency responsible for issuing a building permit.

**ENTIRE BUILDING**

is the ensemble of all enclosed space in a building, including the space for which a permit is sought, plus all existing conditioned and unconditioned space within the structure.

**ENVELOPE means BUILDING ENVELOPE.****EXERCISE CENTER/GYMNASIUM**

is a room or building equipped for gymnastics, exercise equipment, or indoor athletic activities.

**EXFILTRATION**

is uncontrolled outward air leakage from inside a building, including leakage through cracks and interstices, around windows and doors, and through any other exterior partition or duct penetration.

**EXHIBIT**

is a room or area that is used for exhibitions that has neither fixed seating nor fixed staging.

**EXPOSED THERMAL MASS**

is mass that is directly exposed (uncovered) to the conditioned space of the building.

**EXTERIOR DOOR**

is a door through an exterior partition that is opaque or has a glazed area that is less than or equal to one-half of the door area. Doors with a glazed area of more than one-half of the door area are treated as a fenestration product.

**EXTERIOR FLOOR/SOFFIT**

is a horizontal exterior partition, or a horizontal demising partition, under conditioned space. For low-rise residential occupancies, exterior floors also include those on grade.

**EXTERIOR PARTITION**

is an opaque, translucent, or transparent solid barrier that separates conditioned space from ambient air or space that is not enclosed. For low-rise residential occupancies, exterior partitions also include barriers that separate conditioned space from unconditioned space, or the ground.

**EXTERIOR ROOF/CEILING**

is an exterior partition, or a demising partition, that has a slope less than 60 degrees from horizontal, that has conditioned space below, and that is not an exterior door or skylight.

**EXTERIOR ROOF/CEILING AREA**

is the area of the exterior surface of exterior roof/ceilings.

**EXTERIOR WALL**

is any wall or element of a wall, or any member or group of members, which defines the exterior boundaries or courts of a building and which has a slope of 60 degrees or greater with the horizontal plane. An exterior wall or partition is not an exterior floor/soffit, exterior door, exterior roof/ceiling, window, skylight, or demising wall.

**EXTERIOR WALL AREA**

is the area of the opaque exterior surface of exterior walls.

**FENESTRATION PRODUCT**

is any transparent or translucent material plus any sash, frame, mullions, and dividers, in the envelope of a building, including, but not limited to: windows, sliding glass doors, french doors, skylights, curtain walls, garden windows, and other doors with a glazed area of more than one-half of the door area.

**FIELD-FABRICATED FENESTRATION PRODUCT OR EXTERIOR DOOR**

is a fenestration product or exterior door whose frame is made at the construction site of standard dimensional lumber or other materials that were not previously cut, or otherwise formed with the specific intention of being used to fabricate a fenestration product or exterior door. Field fabricated does not include site assembled frame components that were manufactured elsewhere with the intention of being assembled on site (such as knocked down products, sunspace kits and curtainwalls).

**FIREPLACE**

is a hearth and fire chamber or similar prepared place in which a solid fuel fire may be burned, as defined in UBC Section 3702 and as further clarified in UBC Section 3707; these include but are not limited to factory-built fireplaces, masonry fireplaces, and masonry heaters.

**FLOOR/SOFFIT TYPE**

is a floor/soffit assembly having a specific heat capacity, framing type, and U-Factor.

**FRAMED PARTITION or ASSEMBLY**

is a partition or assembly constructed using separate structural members spaced not more than 32 inches on center.

**GAS HEATING SYSTEM**

is a natural gas or liquefied petroleum gas heating system.

**GAS LOG**

is a self-contained, free-standing, open-flame, gas-burning appliance consisting of a metal frame or base supporting simulated logs, and designed for installation only in a vented fireplace.

## **GENERAL COMMERCIAL AND INDUSTRIAL WORK**

is a room, area, or building in which an art, craft, assembly or manufacturing operation is performed.

## **GENERAL LIGHTING**

is lighting designed to provide a substantially uniform level of illumination throughout an area, exclusive of any provision for special visual tasks or decorative effect. When designed for lower-than-task illuminance used in conjunction with other specific task lighting systems, it is also called "ambient" lighting.

## **GLAZING**

(See FENESTRATION PRODUCT).

### **Center of Glass U-Factor:**

The U-factor of an IG unit (or single glazing) other than within two and a half inches of dividers or edge of glass.

### **Dividers:**

Muntins; wood, aluminum or vinyl glazing dividers; may be true divided lights, between the panes, or applied to the exterior or interior of the glazing.

### **Edge of Glass:**

The area of glazing within two and a half inches of the spacer.

### **Frame Types:**

- **Thermal Break**

Metal frames that are not solid metal from the inside to the outside, but are separated in the middle by a material, usually vinyl, with a lower conductivity.

- **Vinyl**

A PVC compound used for frame and mount elements, with a lower conductivity than metal and a similar conductivity to wood.

- **Gap Width**

The distance between glazings in multi-glazed systems. This is typically measured from inside surface to inside surface, though some manufacturers may report "overall" IG width which is measured from outside surface to outside surface.

- **Gas In fills**

Air, argon, krypton, CO<sub>2</sub>, SF<sub>6</sub>, or a mixture of these gasses. Gas in fills are between the panes of dual or triple glazing.

- **Grilles**

see Dividers

- **IG Unit**

Insulating glass unit; includes the glazings, spacer(s), films (if any), gas in fills, and edge caulking.

- **Low-e Coatings**

Low emissivity metallic coatings

- **Soft Coat**

“Sputter” applied coating; sprayed on at a high temperature; usually susceptible to degradation (oxidation) from contact through handling or storing; generally provides a lower emissivity (and better thermal performance) than hard coatings.

- **Hard Coat**

Low emissivity metallic coatings applied pyrolytically (at or near the melting point of the glass so that it bonds with the surface layer of glass); hard coatings are not subject to oxidation and scratching as the soft coats are. The first generation of hard coatings performed only about one fourth as well as the soft coats (emissivities around 0.40 as compared to emissivities around 0.10), but new hard coat technologies provide performance very close to that of the soft coatings.

Note: Low-e coatings will lower the shading coefficient in addition to reducing heat loss, but there is no direct relationship between emissivity and shading coefficient (e.g., a dual glazed unit with an emissivity of 0.22 may have a shading coefficient of 0.86 - nearly identical to clear dual glazing - or it may have a shading coefficient of 0.40).

- **Mullion**

Vertical framing members separating adjoining window or door sections.

- **Muntins**

see Dividers

- **NFRC**

National Fenestration Rating Council. This is a national organization of fenestration product manufacturers, glazing manufacturers, manufacturers of related materials, utilities, state energy offices, laboratories, home builders, specifiers (architects), and public interest groups.

**Spacers:**

- **Aluminum**

Metal channel that is used either against the glass (sealed along the outside edge of the insulated glass unit), or separated from the glass by one or more beads of caulk.

- **Squiggle**

A flexible material, usually butyl, formed around a thin corrugated aluminum strip

- **“Insulating”**

Non-metallic, fairly non-conductive materials, usually of rubber compounds

- **Others**

Wood, fiberglass, composites

**Suspended Films:**

Low-e coated plastic films stretched between the elements of the spacers between panes of glazing; acts as a reflector to slow the loss of heat from the interior to the exterior.

**GOVERNMENTAL AGENCY**

is any public agency or subdivision thereof, including, but not limited to, any agency of the state, a county, a city, a district, an association of governments, or a joint power agency.

**GROCERY STORE**

is a room, area, or building that has as its primary purpose the sale of foodstuffs requiring additional preparation prior to consumption.

**GROSS EXTERIOR ROOF AREA**

is the sum of the skylight area and the exterior roof/ceiling area.

**GROSS EXTERIOR WALL AREA**

is the sum of the window area, door area, and exterior wall area.

**GROSS SALES FLOOR AREA**

is the total area (in square feet) of retail store floor space that is (1) used for the display and sale of merchandise; or (2) associated with that function, including, but not limited to, sales transactions areas, fitting rooms, and circulation areas and entry areas within the space used for display and sale.

**GROSS SALES WALL AREA**

is the area (in square feet) of the inside of exterior walls and permanent full height interior partitions within the gross sales floor area of a retail store that is used for the presentation of merchandise for sale, less the area of openings, doors, windows, baseboards, wainscots, mechanical or structural elements, and other obstructions preventing the use of the area for the presentation of merchandise.

**HABITABLE STORY**

is a story that contains space in which humans may work or live in reasonable comfort, and that has at least 50 percent of its volume above grade.

**HEAT CAPACITY (HC)**

of an assembly is the amount of heat necessary to raise the temperature of all the components of a unit area in the assembly one degree F. It is calculated as the sum of the average thickness times the density times the

specific heat for each component, and is expressed in Btu per square foot per degree F.

#### **HEAT PUMP**

is a device that is capable of heating by refrigeration, and that may include a capability for cooling.

#### **HEATING EQUIPMENT**

is equipment used to provide mechanical heating for a room or rooms in a building.

#### **HEATING SEASONAL PERFORMANCE FACTOR (HSPF)**

is the total heating output of a heat pump (in British thermal units) during its normal use period for heating divided by the total electrical energy input (in watt-hours) during the same period, as determined using the applicable test method in the Appliance Efficiency Regulations.

#### **HI**

is the Hydronics Institute.

#### **HIGH BAY**

is a space with luminaires 25 feet or more above the floor.

#### **HIGH-RISE RESIDENTIAL BUILDING**

is a building, other than a hotel/motel, of occupancy group R-1 with four or more habitable stories.

#### **HORIZONTAL GLAZING**

(See SKYLIGHT).

#### **HOTEL FUNCTION AREA**

is a hotel room or area such as a hotel ballroom, meeting room, exhibit hall, or conference room, together with prefunction areas and other spaces ancillary to its function.

#### **HOTEL LOBBY**

is the contiguous spaces in a hotel/motel between the main entrance and the front desk, including waiting and seating areas, and other spaces encompassing the activities normal to a hotel lobby function.

#### **HOTEL/MOTEL**

is a building or buildings incorporating six or more guest rooms or a lobby serving six or more guest rooms, where the guest rooms are intended or designed to be used, or which are used, rented, or hired out to be occupied, or which are occupied for sleeping purposes by guests, and all conditioned spaces within the same building envelope. Hotel/motel also includes all conditioned spaces which are (1) on the same property as the hotel/motel, (2) served by the same central HVAC system as the hotel/motel, and (3) integrally related to the functioning of the hotel/motel

as such, including, but not limited to, exhibition facilities, meeting and conference facilities, food service facilities, lobbies, and laundries.

### **HVAC SYSTEM**

(see SPACE CONDITIONING SYSTEM).

### **INDIRECTLY CONDITIONED SPACE**

is enclosed space including, but not limited to, unconditioned volume in atria, that (1) is not directly conditioned space; and (2) either (a) has an area-weighted heat transfer coefficient to directly conditioned space exceeding that to the outdoors or to unconditioned space, or (b) is a space through which air from directly conditioned spaces is transferred at a rate exceeding 3 air changes per hour.

### **INFILTRATION**

is uncontrolled inward air leakage from outside a building, or unconditioned space, including leakage through cracks and interstices, around windows and doors, and through any other exterior or demising partition or pipe or duct penetration.

### **INTEGRATED PART LOAD VALUE (IPLV)**

is a single number figure of merit based on part load EER or COP expressing part load efficiency for air-conditioning and heat pump equipment on the basis of weighted operation at various load capacities for the equipment as determined using the applicable test method in the Appliance Efficiency Regulations or Section 112.

### **ISOLATION DEVICE**

is a device that prevents the conditioning of a zone or group of zones in a building while other zones of the building are being conditioned.

### **KITCHEN/FOOD PREPARATION**

is a room or area with cooking facilities and/or an area where food is prepared.

### **LAUNDRY**

is a place where laundering activities occur.

### **LIBRARY**

is a repository for literary materials, such as books, periodicals, newspapers, pamphlets and prints, kept for reading or reference.

### **LOCKER/DRESSING ROOM**

is a room or area for changing clothing, sometimes equipped with lockers.

### **LOUNGE/RECREATION**

is a room used for leisure activities which may be associated with a restaurant or bar.

**LOW BAY**

is a space with luminaires less than 25 feet above the floor.

**LOW-RISE RESIDENTIAL BUILDING**

is a building, other than a hotel/motel, that is of occupancy group R-1 and is three stories or less, or that is of occupancy group R-3.

**LPG**

is Liquefied Petroleum Gas.

**LUMEN MAINTENANCE DEVICE**

is a device capable of automatically adjusting the light output of a lighting system throughout a continuous range to provide a preset level of illumination.

**LUMINAIRE**

is a complete lighting unit consisting of a lamp and the parts designed to distribute the light, to position and protect the lamp, and to connect the lamp to the power supply; commonly referred to as "lighting fixtures" or "instruments."

**MAIN ENTRY LOBBY/RECEPTION/WAITING**

is the lobby of a building that is directly located by the main entrance of the building and includes the reception area, sitting areas, and public areas.

**MALLS, ARCADES AND ATRIA**

is a public passageway or concourse that provides access to rows of stores or shops.

**MANUAL**

is capable of being operated by personal intervention.

**MANUFACTURED DEVICE**

is any heating, cooling, ventilation, lighting, water heating, refrigeration, cooking, plumbing fitting, insulation, door, fenestration product, or any other appliance, device, equipment, or system subject to Sections 110 through 119 of Part 6.

**MANUFACTURED FENESTRATION PRODUCT**

is a fenestration product typically assembled before delivery to a job site. Knocked down or partially assembled products sold as a fenestration product must be considered a manufactured fenestration product and meet the rating and labeling requirements for manufactured fenestration products.

**MECHANICAL COOLING**

is lowering the temperature within a space using refrigerant compressors or absorbers, desiccant dehumidifiers, or other systems that require energy from depletable sources to directly condition the space. In nonresidential, high-rise residential, and hotel/motel buildings cooling of a space by direct

or indirect evaporation of water alone is not considered mechanical cooling.

### **MECHANICAL HEATING**

is raising the temperature within a space using electric resistance heaters, fossil fuel burners, heat pumps, or other systems that require energy from depletable sources to directly condition the space.

### **MEDICAL AND CLINICAL CARE**

is a room, area, or building that does not provide overnight patient care and that is used to promote the condition of being sound in body or mind through medical, dental, or psychological examination and treatment, including, but not limited to, laboratories and treatment facilities.

### **MODELING ASSUMPTIONS**

are the conditions (such as weather conditions, thermostat settings and schedules, internal gain schedules, etc.) that are used for calculating a building's annual energy consumption and that are in the Alternative Calculation Methods Manuals.

### **MOVABLE SHADING DEVICE**

(See OPERABLE SHADING DEVICE).

### **MULTI-SCENE DIMMING SYSTEM**

is a lighting control device that has the capability of setting light levels throughout a continuous range, and that has pre-established settings within the range.

### **MUSEUM**

is a space in which works of artistic, historical, or scientific value are cared for and exhibited.

### **NEWLY CONDITIONED SPACE**

is any space being converted from unconditioned to directly conditioned or indirectly conditioned space, or any space being converted from semi-conditioned to directly conditioned or indirectly conditioned space. Newly conditioned space must comply with the requirements for an addition. See Section 149 for nonresidential occupancies and Section 152 for residential occupancies.

### **NONRESIDENTIAL BUILDING**

is any building which is of occupancy group A, B, E, F, H, M or S.

NOTE: Requirements for high-rise residential buildings and hotels/motels are included in the nonresidential sections of Part 6.

### **NONRESIDENTIAL MANUAL**

is the manual developed by the Commission, under Section 25402.1(c) of the Public Resources Code, to aid designers, builders and contractors in meeting the energy efficiency requirements for nonresidential, high-rise residential, and hotel/motel buildings.

## **NORTH-FACING**

is oriented to within 45 degrees of true north, including 45<sup>00</sup>'00" east of north (NE), but excluding 45<sup>00</sup>'00' west of north (NW).

## **OCCUPANCY SENSOR, LIGHTING**

is a device that automatically turns lights off soon after an area is vacated.

## **OCCUPANCY TYPE**

is one of the following:

- **Auditorium:**

The part of a public building where an audience sits in fixed seating, or a room, area, or building with fixed seats used for public meetings or gatherings not specifically for the viewing of dramatic performances.

- **Auto Repair:**

The portion of a building used to repair automotive equipment and/or vehicles, exchange parts, and may include work using an open flame or welding equipment.

- **Bank/Financial Institution:**

A public establishment for conducting financial transactions including the custody, loan, exchange, or issue of money, for the extension of credit, and for facilitating the transmission of funds.

- **Classroom, Lecture, Or Training:**

A room or area where an audience or class receives instruction.

- **Commercial and Industrial Storage:**

A room, area, or building used for storing items.

- **Convention, Conference, or Meeting Center:**

An assembly room, area, or building that is used for meetings, conventions and multiple purposes including, but not limited to, dramatic performances, and that has neither fixed seating nor fixed staging.

- **Corridor:**

A passageway or route into which compartments or rooms open.

- **Dining:**

A room or rooms in a restaurant or hotel/motel (other than guest rooms) where meals that are served to the customers will be consumed.

- **Exhibit:**

A room or area that is used for exhibitions that has neither fixed seating nor fixed staging.

- **General Commercial and Industrial Work:**

A room, area, or building in which art, craft, assembly or manufacturing operation is performed.

- **Grocery Store**

A room, area, or building that has as its primary purpose the sale of foodstuffs requiring additional preparation prior to consumption.

- **Hotel Function Area:**

A hotel room or area such as a hotel ballroom, meeting room, exhibit hall, or conference room, together with prefunction areas and other spaces ancillary to its function.

- **Hotel Lobby:**

The contiguous spaces in a hotel/motel between the main entrance and the front desk, including waiting and seating areas, and other spaces encompassing the activities normal to a hotel lobby function.

- **Kitchen:**

A room or area with cooking facilities in it.

- **Main Entry Lobby:**

The lobby of a building that is directly located by the main entrance of the building and includes the reception area, sitting areas, and public areas.

- **Malls and Arcades:**

A public passageway or concourse that provides access to rows of stores or shops.

- **Medical and Clinical Care:**

A room, area, or building that does not provide overnight patient care and that is used to promote the condition of being sound in body or mind through medical, dental, or psychological examination and treatment, including, but not limited to, laboratories and treatment facilities.

- **Office:**

A room, area, or building of UBC group B occupancy other than restaurants.

- **Precision Commercial or Industrial Work:**

A room, area, or building in which an art, craft, assembly or manufacturing operation is performed involving visual tasks of small size or fine detail such as electronic assembly, fine working, metal lathe operations, fine hand painting and finishing, egg processing operations, or tasks of similar visual difficulty.

- **Reception/Waiting Area:**

An area where customers or clients are greeted prior to conducting business.

- **Religious Worship:**

A room, area, or building for worship.

- **Restaurant:**

A room, area, or building that is a food establishment as defined in Section 27520 of the Health and Safety Code.

- **Restroom:**

A room or suite of rooms providing personal facilities such as toilets and washbasins.

- **Retail and Sales:**

A room, area, or building in which the primary activity is the sale of merchandise.

- **School:**

A building or group of buildings that is predominately classrooms and that is used by an organization that provides instruction to students.

- **Stairs, Active/Inactive:**

A series of steps providing passage from one level of a building to another.

**Support Area:**

A room or area used as a passageway, utility room, storage space, or other type of space associated with or secondary to the function of an occupancy that is listed in these regulations.

- **Support Space:**

A room or area used as a passageway, utility room, storage space, or other type of space associated with or ancillary to the function of an occupancy that is listed in these regulations.

- **Theater, Motion Picture:**

An assembly room, hall, or building with tiers of rising seats or steps for the showing of motion pictures.

- **Theater, Performance:**

An assembly room, hall, or building with tiers of rising seats or steps for the viewing of dramatic performances, lectures, musical events and similar live performances.

- **Vocational Room:**

A room used to provide training in a special skill to be pursued as a trade.

- **Wholesale Showroom:**

A room where samples of merchandise are displayed.

**OFFICE**

is a room, area, or building of UBC group B occupancy other than restaurants.

**OPERABLE SHADING DEVICE**

is a device at the interior or exterior of a building or integral with a fenestration product, which is capable of being operated, either manually or

automatically, to adjust the amount of solar radiation admitted to the interior of the building.

**OPTIMAL OVERHANG**

is an overhang that completely shades the glazing at solar noon on August 21 and substantially exposes the glass at solar noon on December 21.

**ORNAMENTAL CHANDELIERS**

are ceiling-mounted, close-to-ceiling, or suspended decorative luminaires that use glass, crystal, ornamental metals, or other decorative material and that typically are used in hotel/motels, restaurants, or churches as a significant element in the interior architecture.

**OUTDOOR AIR (Outside air)**

is air taken from outdoors and not previously circulated in the building.

**OVERALL HEAT GAIN**

is the value obtained in Section 143(b)2 for determining compliance with the component envelope approach.

**OVERALL HEAT LOSS**

is the value obtained in Section 143(b)1 for determining compliance with the component envelope approach.

**POOR QUALITY LIGHTING TASKS**

are visual tasks that require illuminance category *\_E\_* or greater, because of the choice of a writing or printing method that produces characters that are of small size or lower contrast than good quality alternatives that are regularly used in offices.

**PRECISION COMMERCIAL OR INDUSTRIAL WORK**

is a room, area, or building in which an art, craft, assembly or manufacturing operation is performed involving visual tasks of small size or fine detail such as electronic assembly, fine woodworking, metal lathe operation, fine hand painting and finishing, egg processing operations, or tasks of similar visual difficulty.

**PRIVATE OFFICE or WORK AREA**

is an office bounded by 30-inch or higher partitions and is no more than 200 square feet.

**PROCESS**

is an activity or treatment that is not related to the space conditioning, lighting, service water heating, or ventilating of a building as it relates to human occupancy.

**PROCESS LOAD**

is a load resulting from a process.

**PUBLIC AREAS**

are spaces generally open to the public at large, customers, congregation members, or similar spaces, where occupants need to be prevented from controlling lights for safety, security, or business reasons.

**PUBLIC FACILITY RESTROOM**

is a restroom designed for use by the public.

**RAISED FLOOR**

is a floor (partition) over a crawl space, or an unconditioned space, or ambient air.

**READILY ACCESSIBLE**

is capable of being reached quickly for operation, repair, or inspection, without requiring climbing or removing obstacles, or resorting to access equipment.

**RECEPTION/WAITING AREA**

is an area where customers or clients are greeted prior to conducting business.

**RECOOL**

is the cooling of air that has been previously heated by space conditioning equipment or systems serving the same building.

**RECOVERED ENERGY**

is energy used in a building that (1) is mechanically recovered from space conditioning, service water heating, lighting, or process equipment after the energy has performed its original function; (2) provides space conditioning, service water heating, or lighting; and (3) would otherwise be wasted.

**REDUCED FLICKER OPERATION**

is the operation of a light, in which the light has a visual flicker less than 30% for frequency and modulation.

**REHEAT**

is the heating of air that has been previously cooled by cooling equipment or systems or an economizer.

**RELATIVE SOLAR HEAT GAIN**

is the ratio of solar heat gain through a fenestration product (corrected for external shading) to the incident solar radiation. Solar heat gain includes directly transmitted solar heat and absorbed solar radiation, which is then reradiated, conducted, or convected into the space.

**RELIGIOUS WORSHIP**

is a room, area, or building for worship.

**REPAIR**

is the reconstruction or renewal of any part of an existing building for the purpose of its maintenance.

**RESIDENTIAL BUILDING**

(See HIGH-RISE RESIDENTIAL BUILDING and LOW-RISE RESIDENTIAL BUILDING).

**RESIDENTIAL MANUAL**

is the manual developed by the Commission, under Section 25402.1(c) of the Public Resources Code, to aid designers, builders, and contractors in meeting energy efficiency standards for low-rise residential buildings.

**RESTAURANT**

is a room, area, or building that is a food establishment as defined in Section 27520 of the Health and Safety Code.

**RESTROOM**

is a room or suite of rooms providing personal facilities such as toilets and washbasins.

**RETAIL AND SALES**

is a room, area, or building in which the primary activity is the sale of merchandise.

**ROOF/CEILING TYPE**

is a roof/ceiling assembly having a specific framing type and U-factor.

**ROOM CAVITY RATIO (RCR) is:**

$$(a) \text{ for rectangular rooms} \quad \frac{5H (L + W)}{LW}$$

;or

$$(b) \text{ for irregular shaped rooms} \quad \frac{2.5 H \times P}{A}$$

Where:

L = Length of room

W = Width of room

H = Vertical distance from the work plane to the center line of the lighting fixture

P = Perimeter of room

A = Area of room

**RUNOUT**

is piping that is no more than 12 feet long and that is connected to a fixture or an individual terminal unit.

**SCHOOL**

is a building or group of buildings that is predominately classrooms and that is used by an organization that provides instruction to students.

**SCONCE**

is a wall mounted decorative light fixture.

**SEASONAL ENERGY EFFICIENCY RATIO (SEER)**

means the total cooling output of a central air conditioner in British thermal units during its normal usage period for cooling divided by the total electrical energy input in watt-hours during the same period, as determined using the applicable test method in the Appliance Efficiency Regulations.

**SEMI-CONDITIONED SPACE**

is an enclosed nonresidential space that is provided with wood heating, cooling by direct or indirect evaporation of water, mechanical heating that has a capacity of 10 Btu/(hr ft<sup>2</sup>) or less, mechanical cooling that has a capacity of 5 Btu/(hr ft<sup>2</sup>) or less, or is maintained for a process environment as set forth in the definition of DIRECTLY CONDITIONED SPACE.

**SERVICE WATER HEATING**

is heating of water for sanitary purposes for human occupancy, other than for comfort heating.

**SHADING**

is the protection from heat gains because of direct solar radiation by permanently attached exterior devices or building elements, interior shading devices, glazing material, or adherent materials. Permanently attached means (a) attached with fasteners that require additional tools to remove (as opposed to clips, hooks, latches, snaps, or ties); or (b) required by the UBC for emergency egress to be removable from the interior without the use of tools.

**SHADING COEFFICIENT (SC)**

is the ratio of the solar heat gain through a fenestration product to the solar heat gain through an unshaded 1/8 inch thick clear double strength glass under the same set of conditions. For nonresidential, high-rise residential, and hotel/motel buildings, this shall exclude the effects of mullions, frames, sashes, and interior and exterior shading devices.

**SITE SOLAR ENERGY**

is natural daylighting, or thermal, chemical, or electrical energy derived from direct conversion of incident solar radiation at the building site.

**SKYLIGHT**

is glazing having a slope less than 60 degrees from the horizontal with conditioned space below, except for purposes of complying with Section 151(f), where a skylight is glazing having a slope not exceeding 4.76 degrees (1:12) from the horizontal.

**SKYLIGHT AREA**

is the area of the surface of a skylight, plus the area of the frame, sash, and mullions.

**SKYLIGHT TYPE**

is a skylight assembly having a specific solar heat gain coefficient, whether translucent or transparent, and U-factor.

**SOLAR HEAT GAIN COEFFICIENT (SHGC)**

is the ratio of the solar heat gain entering the space through the fenestration area to the incident solar radiation. Solar heat gain includes directly transmitted solar heat and absorbed solar radiation, which is then reradiated, conducted, or convected into the space.

**SOURCE ENERGY**

is the energy that is used at a site and consumed in producing and in delivering energy to a site, including, but not limited to, power generation, transmission, and distribution losses, and that is used to perform a specific function, such as space conditioning, lighting or water heating. Table 1-B contains the conversion factors for converting site to source energy.

**SOUTH-FACING**

is oriented to within 45 degrees of true south including 45<sup>00</sup>'00" west of south (SW), but excluding 45<sup>00</sup>'00" east of south (SE).

**SPA**

is a vessel that contains heated water, in which humans can immerse themselves, is not a pool, and is not a bathtub.

**SPACE CONDITIONING SYSTEM**

is a system that provides either collectively or individually heating, ventilating, or cooling within or associated with conditioned spaces in a building.

**SMACNA**

is the Sheet Metal and Air-conditioning Contractors National Association.

**STAIRS, ACTIVE/INACTIVE**

is a series of steps providing passage from one level of a building to another.

**SUPPORT AREA**

is a room or area used as a passageway, utility room, storage space, or other type of space associated with or secondary to the function of an occupancy that is listed in these regulations.

**SYSTEM**

is a combination of equipment, controls, accessories, interconnecting means, or terminal elements, by which energy is transformed to perform a specific function, such as space conditioning, service water heating, or lighting.

**TASK-ORIENTED LIGHTING**

is lighting that is designed specifically to illuminate a task location, and that is generally confined to the task location.

**THEATER, MOTION PICTURE**

is an assembly room, hall, or building with tiers of rising seats or steps for the showing of motion pictures.

**THEATER, PERFORMANCE**

is an assembly room, hall, or building with tiers of rising seats or steps for the viewing of dramatic performances, lectures, musical events and similar live performances.

**THERMAL MASS**

is solid or liquid material used to store heat for later heating use or for reducing cooling requirements.

**THERMAL RESISTANCE (R)**

is the resistance of a material or building component to the passage of heat in  $(\text{hr} \times \text{ft}^2 \times ^\circ\text{F})/\text{Btu}$ .

**THROW DISTANCE**

is the distance between the luminaire and the center of the plane lit by the luminaire on a display.

**TUNING**

is a lighting control device that allows authorized personnel only to select a single light level within a continuous range.

**UBC**

is the 1994 edition of the state-adopted Uniform Building Code.

**UL**

is the Underwriters Laboratory.

**UMC**

is the 1997 edition of the state adopted Uniform Mechanical Code.

**UNCONDITIONED SPACE**

is enclosed space within a building that is not directly conditioned, indirectly conditioned or semi-conditioned space.

**UNIT INTERIOR MASS CAPACITY (UIMC)**

is the amount of effective heat capacity per unit of thermal mass, taking into account the type of mass material, thickness, specific heat, density and surface area.

**U-FACTOR**

is the overall coefficient of thermal transmittance of a construction assembly, in  $\text{Btu}/(\text{hr} \times \text{ft}^2 \times ^\circ\text{F})$ , including air film resistance at both surfaces.

**VAPOR BARRIER**

is a material that has a permeance of one perm or less and that provides resistance to the transmission of water vapor.

**VARIABLE AIR VOLUME (VAV) SYSTEM**

is a space conditioning system that maintains comfort levels by varying the volume of conditioned air to the zones served.

**VERY VALUABLE MERCHANDISE**

is rare or precious objects, including, but not limited to, jewelry, coins, small art objects, crystal, china, ceramics, or silver, the selling of which involves customer inspection of very fine detail from outside of a locked case.

**VISIBLE LIGHT TRANSMITTANCE (VLT)**

is the ratio (expressed as a decimal) of visible light that is transmitted through a glazing material to the light that strikes the material.

**VOCATIONAL ROOM**

is a room used to provide training in a special skill to be pursued as a trade.

**WALL TYPE**

is a wall assembly having a specific heat capacity, framing type, and U-factor.

**WELL INDEX**

is the ratio of the amount of visible light leaving a skylight well to the amount of visible light entering the skylight well and is calculated as follows:

(a) for rectangular wells:

$$\left( \frac{\text{Well height (well length + well width)}}{2 \times \text{well length} \times \text{well width}} \right)$$

; or

(b) for irregular shaped wells:

$$\left( \frac{\text{Well height} \times \text{well perimeter}}{4 \times \text{well area}} \right)$$

### **WEST-FACING**

is oriented to within 45 degrees of true west, including 45°00'00" north of due west (NW), but excluding 45°00'00" south of west (SW).

### **WINDOW**

is glazing that is not a skylight.

### **WINDOW AREA**

is the area of the surface of a window, plus the area of the frame, sash, and mullions.

### **WINDOW TYPE**

is a window assembly having a specific solar heat gain coefficient, relative solar heat gain, and U-factor.

### **WINDOW WALL RATIO**

is the ratio of the window area to the gross exterior wall area.

### **WOOD HEATER**

is an enclosed wood burning appliance used for space heating and/or domestic water heating, and which meets the definition in Federal Register, Volume 52, Number 32, February 18, 1987.

### **WOOD STOVE**

(See WOOD HEATER).

### **ZONE, LIGHTING**

is a space or group of spaces within a building that has sufficiently similar requirements so that lighting can be automatically controlled in unison throughout the zone by an illumination controlling device or devices, and does not exceed one floor.

### **ZONE, SPACE CONDITIONING**

is a space or group of spaces within a building with sufficiently similar comfort conditioning requirements so that comfort conditions, as specified in 144(b)3 or 150(h), as applicable, can be maintained throughout the zone by a single controlling device.