CHAPTER 2 [CE]
DEFINITIONS

SECTION C201
GENERAL

C201.1 Scope. Unless stated otherwise, the following words and terms in this code shall have the meanings indicated in this chapter and this code.

C201.2 Interchangeability. Words used in the present tense include the future; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural includes the singular.

C201.3 Terms defined in other codes. Terms that are not defined in this code but are defined in the International Building Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, Uniform Plumbing Code or the International Residential Code shall have the meanings ascribed to them in those codes.

C201.4 Terms not defined. Terms not defined by this chapter or this code shall have ordinarily accepted meanings such as the context implies.

SECTION C202
GENERAL DEFINITIONS

ABOVE-GRADE WALL. A wall enclosing conditioned space that is not a below-grade wall. This includes between-floor spandrels, peripheral edges of floors, roof and basement knee walls, dormer walls, gable end walls, walls enclosing a mansard roof and skylight shafts.

ACCESSIBLE. Admitting close approach as a result of not being guarded by locked doors, elevation or other effective means (see “Readily accessible”).

ADDITION. An extension or increase in the conditioned space floor area or height of a building or structure.

AIR BARRIER. Material(s) assembled and joined together to provide a barrier to air leakage through the building envelope. An air barrier may be a single material or a combination of materials.

ALTERATION. Any construction or renovation to an existing structure other than repair or addition that requires a permit. Also, a change in a mechanical system that involves an extension, addition or change to the arrangement, type or purpose of the original installation that requires a permit.

APPROVED. Approval by the code official as a result of investigation and tests conducted by him or her, or by reason of accepted principles or tests by nationally recognized organizations.

ATTIC AND OTHER ROOFS. All other roofs, including roofs with insulation entirely below (inside of) the roof structure (i.e., attics, cathedral ceilings, and single-rafter ceilings), roofs with insulation both above and below the roof structure, and roofs without insulation but excluding roofs with insulation entirely above deck and metal building roofs.

AUTOMATIC. Self-acting, operating by its own mechanism when actuated by some impersonal influence, as, for example, a change in current strength, pressure, temperature or mechanical configuration (see “Manual”).

AUTOMATIC CONTROL DEVICE. A device capable of automatically turning loads off and on without manual intervention.

BELOW-GRADE WALL. That portion of a wall in the building envelope that is entirely below the finish grade and in contact with the ground.

BUILDING. Any structure used or intended for supporting or sheltering any use or occupancy, including any mechanical systems, service water heating systems and electric power and lighting systems located on the building site and supporting the building.

BUILDING COMMISSIONING. A process that verifies and documents that the selected building systems have been designed, installed, and function according to the owner’s project requirements and construction documents, and to minimum code requirements.

BUILDING ENTRANCE. Any door, set of doors, doorway, or other form of portal (including elevator doors such as in parking garages) that is used to gain access to the building from the outside by the public. Where buildings have separate one-way doors to enter and leave, this also includes any doors ordinarily used to leave the building.

BUILDING SITE. A contiguous area of land that is under the ownership or control of one entity.

BUILDING THERMAL ENVELOPE. The below-grade walls, above-grade walls, floor, roof, and any other building elements that enclose conditioned space or provide a boundary between conditioned space, semi-heated space and exempt or unconditioned space.

C-FACTOR (THERMAL CONDUCTANCE). The coefficient of heat transmission (surface to surface) through a building component or assembly, equal to the time rate of heat flow per unit area and the unit temperature difference between the warm side and cold side surfaces (Btu/h ft² × °F) [W/(m² × K)].

CODE OFFICIAL. The ((officer or other designated author- ity)) Director of the Seattle Department of Planning and Development charged with the administration and enforcement of this code, or a duly authorized representative.

COEFFICIENT OF PERFORMANCE (COP) – COOLING. The ratio of the rate of heat removal to the rate of energy input, in consistent units, for a complete refrigeration system or some specific portion of that system under designated operating conditions.

COEFFICIENT OF PERFORMANCE (COP) – HEATING. The ratio of the rate of heat delivered to the rate of energy input, in consistent units, for a complete heat pump...
system, including the compressor and, if applicable, auxiliary heat, under designated operating conditions.

COMMERCIAL BUILDING. For this code, all buildings that are not included in the definition of “Residential buildings.”

COMPUTER ROOM. A room whose primary function is to house electronic equipment for the processing and storage of electronic data and that has a design electronic data equipment power density exceeding 20 watts/ft² of conditioned floor area (215 watts/m²).

CONDITIONED FLOOR AREA. The horizontal projection of the floors associated with the conditioned space.

CONDITIONED SPACE. An area or room within a building being heated or cooled, containing uninsulated ducts, or with a fixed opening directly into an adjacent conditioned space. Elevator shafts, stair enclosures, enclosed corridors connecting conditioned spaces, and enclosed spaces through which conditioned air is transferred at a rate exceeding three air changes per hour are considered conditioned spaces for the purposes of the building thermal envelope requirements.

CONTINUOUS AIR BARRIER. A combination of materials and assemblies that restrict or prevent the passage of air through the building thermal envelope.

CONTINUOUS INSULATION (CI). Insulation that is continuous across all structural members without thermal bridges other than service openings and penetrations by metal fasteners with a cross-sectional area, as measured in the plane of the surface, of less than 0.04 percent of the opaque surface area of the assembly. It is installed on the interior or exterior or is integral to any opaque surface of the building envelope.

CONTROLLED RECEPTACLE. An electrical receptacle that is controlled by an automatic control device.

CURTAIN WALL. Fenestration products used to create an external non-load-bearing wall that is designed to separate the exterior and interior environments.

DATA ACQUISITION SYSTEM. An electronic system managed by the building owner to collect, tabulate and display metering information.

DAYLIGHT ZONE. (See also Figure C202.1).

1. Under skylights. The area under skylights whose horizontal dimension, in each direction, is equal to the skylight dimension in that direction plus either 70 percent of the floor-to-ceiling height or the dimension to a ceiling height opaque partition, or to a partition that is more than 50 percent opaque, or one-half the distance to adjacent skylights or vertical fenestration, whichever is least.

2. Adjacent to vertical fenestration. The area adjacent to vertical fenestration which receives daylight through the fenestration. For purposes of this definition and unless more detailed analysis is provided, the primary daylight zone depth is assumed to extend into the space a distance equal to the window head height and the secondary daylighted zone extends from the edge of the primary zone to a distance equal to two times the window head height or to the nearest ceiling height opaque partition, or to a partition that is more than 50 percent opaque, whichever is less. The daylight zone width is assumed to be the width of the window plus 2 feet (610 mm) on each side, or the window width plus the distance to an opaque partition, or the window width plus one-half the distance to adjacent skylight or vertical fenestration, whichever is least.

3. In parking garages. The area within 20 feet (6096 mm) of any portion of a perimeter wall that has a net opening to wall ratio of at least 40 percent and no exterior obstructions within 20 feet (6096 mm).

4. Under atrium glazing. The area at the floor directly beneath the atrium and the top floor under the atrium whose horizontal dimension, in each direction, is equal to the distance between the floor and ceiling height. Levels below the top floor that are not directly beneath the atrium are unaffected.

DEMAND CONTROL VENTILATION (DCV). A ventilation system capability that provides for the automatic reduction of outdoor air intake below design rates when the actual occupancy of spaces served by the system is less than design occupancy.

DEMAND RECIRCULATION WATER SYSTEM. A water distribution system where pump(s) prime the service hot water piping with heated water upon demand for hot water.

DPD. The Seattle Department of Planning and Development.

DUCT. A tube or conduit utilized for conveying air. The air passages of self-contained systems are not to be construed as air ducts.

DUCT SYSTEM. A continuous passageway for the transmission of air that, in addition to ducts, includes duct fittings, dampers, plenums, fans and accessory air-handling equipment and appliances.

[B] DWELLING UNIT. A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

DYNAMIC GLAZING. Any fenestration product that has the fully reversible ability to change its performance properties, including U-factor, SHGC, or VT.

ECONOMIZER, AIR. A duct and damper arrangement and automatic control system that allows a cooling system to supply outside air to reduce or eliminate the need for mechanical cooling during mild or cold weather.

ECONOMIZER, WATER. A system where the supply air of a cooling system is cooled indirectly with water that is itself cooled by heat or mass transfer to the environment without the use of mechanical cooling.

ENCLOSED SPACE. A volume surrounded by solid surfaces such as walls, floors, roofs, and openable devices such as doors and operable windows.

END USE CATEGORY. A load or group of loads that consume energy in a common or similar manner.

ENERGY ANALYSIS. A method for estimating the annual energy use of the proposed design and standard reference design based on estimates of energy use.
DEFINITIONS

FIGURE C202.1
DAYLIGHT ZONE
ENERGY COST. The total estimated annual cost for purchased energy for the building functions regulated by this code, including applicable demand charges.

[M] ENERGY RECOVERY VENTILATION SYSTEM. Systems that employ air-to-air heat exchangers to recover energy from exhaust air for the purpose of preheating, precooling, humidifying or dehumidifying outdoor ventilation air prior to supplying the air to a space, either directly or as part of an HVAC system.

ENERGY SIMULATION TOOL. An approved software program or calculation-based methodology that projects the annual energy use of a building.

ENERGY SOURCE METER. A meter placed at the source of the incoming energy that measures the energy delivered to the whole building or metered space.

ENTRANCE DOOR. Fenestration products used for ingress, egress and access in nonresidential buildings including, but not limited to, exterior entrances that utilize latching hardware and automatic closers and contain over 50 percent glass specifically designed to withstand heavy use and possibly abuse.

EQUIPMENT ROOM. A space that contains either electrical equipment, mechanical equipment, machinery, water pumps or hydraulic pumps that are a function of the building’s services.

EXTERIOR WALL. Walls including both above-grade walls and below-grade walls.

FAN BRAKE HORSEPOWER (BHP). The horsepower delivered to the fan’s shaft. Brake horsepower does not include the mechanical drive losses (belts, gears, etc.).

FAN SYSTEM BHP. The sum of the fan brake horsepower of all fans that are required to operate at fan system design conditions to supply air from the heating or cooling source to the conditioned space(s) and return it to the source or exhaust it to the outdoors.

FAN SYSTEM DESIGN CONDITIONS. Operating conditions that can be expected to occur during normal system operation that result in the highest supply fan airflow rate to conditioned spaces served by the system.

FAN SYSTEM MOTOR NAMEPLATE HP. The sum of the motor nameplate horsepower of all fans that are required to operate at design conditions to supply air from the heating or cooling source to the conditioned space(s) and return it to the source or exhaust it to the outdoors.

FENESTRATION. Skylights, roof windows, vertical windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors. Fenestration includes products with glass and nonglass glazing materials.

FENESTRATION AREA. Total area of the fenestration measured using the rough opening, and including the glazing, sash and frame.

FENESTRATION PRODUCT, FIELD-FABRICATED. A fenestration product 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-built fenestration.

FENESTRATION PRODUCT, SITE-BUILT. A fenestration designed to be made up of field-glazed or field-assembled units using specific factory cut or otherwise factory-formed framing and glazing units. Examples of site-built fenestration include storefront systems, curtain walls, and atrium roof systems.

F-FACTOR. The perimeter heat loss factor for slab-on-grade floors (Btu/h × ft × °F) [W/(m × K)].

FURNACE ELECTRICITY RATIO. The ratio of furnace electricity use to total furnace energy computed as ratio = \( \frac{3.412 \times E_{AE}}{1000 \times E_{P} + 3.412 \times E_{AE}} \) where \( E_{AE} \) (average annual auxiliary electrical consumption) and \( E_{P} \) (average annual fuel energy consumption) are defined in Appendix N to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations and \( E_{P} \) is expressed in millions of Btu’s per year.

GENERAL LIGHTING. Lighting that provides a substantially uniform level of illumination throughout an area. General lighting shall not include decorative lighting or lighting that provides a dissimilar level of illumination to serve a specialized application or feature within such area.

HEAT TRAP. An arrangement of piping and fittings, such as elbows, or a commercially available heat trap that prevents thermosyphoning of hot water during standby periods.

HEATED SLAB-ON-GRADE FLOOR. Slab-on-grade floor construction in which the heating elements, hydronic tubing, or hot air distribution system is in contact with, or placed within or under, the slab.

HIGH-EFFICACY LUMINAIRES. Luminaires with compact fluorescent lamps, T-8 or smaller diameter linear fluorescent lamps, or lamps with a minimum efficacy of:

1. 60 lumens per watt for lamps over 40 watts;
2. 50 lumens per watt for lamps over 15 watts to 40 watts; and
3. 40 lumens per watt for lamps 15 watts or less.

HUMIDISTAT. A regulatory device, actuated by changes in humidity, used for automatic control of relative humidity.

INfiltration. The uncontrolled inward air leakage into a building caused by the pressure effects of wind or the effect of differences in the indoor and outdoor air density or both.

INSULATING SHEATHING. An insulating board with a core material having a minimum R-value of R-2.

INSULATION ENTIRELY ABOVE DECK. A roof with all insulation:

1. Installed above (outside of) the roof structure; and
2. Continuous (i.e., uninterrupted by framing members).

INTEGRATED ENERGY EFFICIENCY RATIO (IEER). A single number figure of merit expressing cooling part-load EER efficiency for unitary air-conditioning and heat pump equipment on the basis of weighted operation at various load capacities for the equipment.

INTEGRATED PART LOAD VALUE (IPLV). A single-number figure of merit based on part-load EER, COP, or kW/ton.
expressing part-load efficiency for air-conditioning and heat pump equipment on the basis of weighted operation at various load capacities for equipment.

**IT (INFORMATION TECHNOLOGY) ENERGY.** Electrical energy consumed by UPS (Uninterruptible Power Supply) units, servers, and associated electronic data storage and data processing equipment, but not by lighting or HVAC equipment.

**LABELED.** Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.

**LANDMARK.** A building or structure that is subject to a requirement to obtain a certificate of approval from the City Landmarks Preservation Board before altering or making significant changes to specific features or characteristics, that has been nominated for designation or has been designated for preservation by the City Landmarks Preservation Board, that has been designated for preservation by the State of Washington, has been listed or determined eligible to be listed in the National Register of Historic Places, or is located in a landmark or special review district subject to a requirement to obtain a certificate of approval before making a change to the external appearance of the structure.

**LISTED.** Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

**LOW-VOLTAGE LIGHTING.** A lighting system consisting of an isolating power supply, the low voltage luminaires, and associated equipment that are all identified for the use. The output circuits of the power supply operate at 30 volts (42.4 volts peak) or less under all load conditions.

**LUMINAIRE.** A complete lighting unit consisting of a lamp or lamps together with the housing designed to distribute the light, position and protect the lamps, and connect the lamps to the power supply.

**MANUAL.** Capable of being operated by personal intervention (see "Automatic").

**METAL BUILDING ROOF.** A roof that:

1. Is constructed with a metal, structural, weathering surface;
2. Has no ventilated cavity; and
3. Has the insulation entirely below deck (i.e., does not include composite concrete and metal deck construction nor a roof framing system that is separated from the superstructure by a wood substrate) and whose structure consists of one or more of the following configurations:

   3.1. Metal roofing in direct contact with the steel framing members;
   3.2. Metal roofing separated from the steel framing members by insulation;
   3.3. Insulated metal roofing panels installed as described in Item 3.1 or 3.2.

**METAL BUILDING WALL.** A wall whose structure consists of metal spanning members supported by steel structural members (i.e., does not include spandrel glass or metal panels in curtain wall systems).

**METER.** A device that measures the flow of energy.

**MICROCELL.** A wireless communication facility consisting of an antenna that is either:

1. Four feet (1219 mm) in height and with an area of not more than 580 square inches (0.3742 m²); or
2. If a tubular antenna, no more than 4 inches (102 mm) in diameter and no more than 6 feet (1829 mm) in length; and the associated equipment cabinet that is 6 feet (1829 mm) or less in height and no more than 48 square feet (4.4594 m²) in floor area.

**NAMEPLATE HORSEPOWER.** The nominal motor horsepower rating stamped on the motor nameplate.

**NONSTANDARD PART LOAD VALUE (NPLV).** A single-number part-load efficiency figure of merit calculated and referenced to conditions other than IPLV conditions, for units that are not designed to operate at AHRI standard rating conditions.

**ON-SITE RENEWABLE ENERGY.** Energy derived from solar radiation, wind, waves, tides, landfill gas, biomass, or the internal heat of the earth. The energy system providing on-site renewable energy shall be located on the project site.

**PERSONAL WIRELESS SERVICE FACILITY.** A wireless communication facility (WCF), including a microcell, which is a facility for the transmission and/or reception of radio frequency signals and which may include antennas, equipment shelter or cabinet, transmission cables, a support structure to achieve the necessary elevation, and reception and/or transmission devices or antennas.

**PROPOSED DESIGN.** A description of the proposed building used to estimate annual energy use for determining compliance based on total building performance.

**QUALIFIED COMMISSIONING AUTHORITY.** A person qualified by formal training and at least two years’ experience commissioning projects of similar scale and complexity, and who is a registered design professional, an ASHRAE Commissioning Process Management Professional, a Building Commissioning Association (BCA) Certified Commissioning Professional, or an AABC Commissioning Group (ACG) Certified Commissioning Authority.

**READILY ACCESSIBLE.** Capable of being reached quickly for operation, renewal or inspection without requiring those to whom ready access is requisite to climb over or remove obstacles or to resort to portable ladders or access equipment (see “Accessible”).
REFRIGERATED WAREHOUSE COOLER. An enclosed storage space capable of being refrigerated to temperatures above 32°F (0°C) that can be walked into and has a total chilled storage area of 3,000 square feet (278.7 m²) or greater.

REFRIGERATED WAREHOUSE FREEZER. An enclosed storage space capable of being refrigerated to temperatures at or below 32°F (0°C) that can be walked into and has a total chilled storage area of 3,000 square feet (278.7 m²) or greater.

REPAIR. The reconstruction or renewal of any part of an existing building.

RESIDENTIAL BUILDING. For this code, includes detached one- and two-family dwellings and multiple single-family dwellings (townhouses) as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane.

ROOF ASSEMBLY. A system designed to provide weather protection and resistance to design loads. The system consists of a roof covering and roof deck or a single component serving as both the roof covering and the roof deck. A roof assembly includes the roof covering, underlayment, roof deck, insulation, vapor retarder and interior finish.

R-VALUE (THERMAL RESISTANCE). The inverse of the time rate of heat flow through a body from one of its bounding surfaces to the other surface for a unit temperature difference between the two surfaces, under steady state conditions, per unit area (h · ft² · °F/Btu) [(m² · K)/W].

SCREW LAMP HOLDERS. A lamp base that requires a screw-in-type lamp, such as a compact-fluorescent, incandescent, or tungsten-halogen bulb.

SEMI-HEATED SPACE. An enclosed space within a building, including adjacent connected spaces separated by an uninsulated component (e.g., basements, utility rooms, garages, corridors), which:

1. Is heated but not cooled, and has a maximum heating system output capacity ((of)) equal to or greater than 3.4 Btu/(h × ft²) but not greater than 8 Btu/(h × ft²);
2. Is not a cold storage space or frozen storage space.

SERVICE WATER HEATING. Heating water for domestic or commercial purposes other than space heating and process requirements.

SKYLIGHT. Glass or other transparent or translucent glazing material installed at a slope of less than 60 degrees (1.05 rad) from horizontal. Glazing material in skylights, including unit skylights, sunrooms, sunrooms, roofs and sloped walls is included in this definition.

SLAB BELOW GRADE. Any portion of a slab floor in contact with the ground which is more than 24 inches (610 mm) below the final elevation of the nearest exterior grade.

SLAB-ON-GRADE FLOOR. That portion of a slab floor of the building envelope that is in contact with the ground and that is either above grade or is less than or equal to 24 inches (610 mm) below the final elevation of the nearest exterior grade.

[S] SLEEPING UNIT. A room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units.

SMALL BUSINESS. Any business entity (including a sole proprietorship, corporation, partnership or other legal entity) which is owned and operated independently from all other businesses, which has the purpose of making a profit, and which has 50 or fewer employees.

SOLAR HEAT GAIN COEFFICIENT (SHGC). The ratio of the solar heat gain entering the space through the fenestration assembly 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.

SOLAR ZONE. A clear area or areas reserved solely for current and future installation of photovoltaic or solar hot water systems.

STANDARD REFERENCE DESIGN. A version of the proposed design that meets the minimum requirements of this code and is used to determine the maximum annual energy use requirement for compliance based on total building performance.

STEEL-FRAMED WALL. A wall with a cavity (insulated or otherwise) whose exterior surfaces are separated by steel framing members (i.e., typical steel stud walls and curtain wall systems).

STOREFRONT. A nonresidential system of doors and windows mulled as a composite fenestration structure that has been designed to resist heavy use. Storefront systems include, but are not limited to, exterior fenestration systems that span from the floor level or above to the ceiling of the same story on commercial buildings, with or without mulled windows and doors.

SUBSYSTEM METER. A meter placed downstream of the energy supply meter that measures the energy delivered to a load or a group of loads.

SUNROOM. A one-story structure attached to a dwelling with a glazing area in excess of 40 percent of the gross area of the structure’s exterior walls and roof.

THERMAL ISOLATION. Physical and space conditioning separation from conditioned space(s). The conditioned space(s) shall be controlled as separate zones for heating and cooling or conditioned by separate equipment.

THERMOSTAT. An automatic control device used to maintain temperature at a fixed or adjustable set point.

U-FACTOR (THERMAL TRANSMITTANCE). The coefficient of heat transmission (air to air) through a building component or assembly, equal to the time rate of heat flow per unit area and unit temperature difference between the warm side and cold side air films (Btu/h · ft² · °F) [W/(m² · K)].

UNHEATED SLAB-ON-GRADE FLOOR. A slab-on-grade floor that is not a heated slab-on-grade floor.

[M] VENTILATION. The natural or mechanical process of supplying conditioned or unconditioned air to, or removing such air from, any space.
[M] VENTILATION AIR. That portion of supply air that comes from outside (outdoors) plus any recirculated air that has been treated to maintain the desired quality of air within a designated space.

VERTICAL FENESTRATION. All fenestration other than skylights.

VISIBLE TRANSMITTANCE [VT]. The ratio of visible light entering the space through the fenestration product assembly to the incident visible light, Visible Transmittance, includes the effects of glazing material and frame and is expressed as a number between 0 and 1.

WALK-IN COOLER. An enclosed storage space capable of being refrigerated to temperatures above 32°F (0°C) that can be walked into and has a total chilled storage area of less than 3,000 square feet (278.7 m²).

WALK-IN FREEZER. An enclosed storage space capable of being refrigerated to temperatures at or below 32°F (0°C) that can be walked into and has a total chilled storage area of less than 3,000 square feet (278.7 m²).

WALL. That portion of the building envelope, including opaque area and fenestration, that is vertical or tilted at an angle of 60 degrees (1.05 rad) from horizontal or greater. This includes above-grade walls and below-grade walls, between floor spandrels, peripheral edges of floors, and foundation walls.

WOOD-FRAMED AND OTHER WALLS. All other wall types, including wood stud walls.

ZONE. A space or group of spaces within a building with heating or cooling requirements that are sufficiently similar so that desired conditions can be maintained throughout using a single controlling device.