Residential Demolition and Redevelopment Standards

Purpose: The City of Aspen has various sustainability, affordable housing, and construction policies and goals to address the impacts of construction and development. The *Residential Demolition and Redevelopment Standards* supplement existing policies in the Aspen Municipal Code, stated goals of the City of Aspen City Council, and community goals as stated in the Aspen Area Community Plan to ensure residential construction activity for single family and duplex residential development is meeting regulatory requirements, community expectations, and resulting in high quality design.

Intent: The intent of the *Residential Demolition and Redevelopment Standards* is to ensure complex projects with significant community, construction, and environmental impacts are designed in a manner that mitigates those impacts. The standards seek to ensure that projects reduce environmental impacts, energy consumption, and carbon footprint. Single-family and duplex residential structures should be designed in a way that exceeds industry standards in building performance. The design and ongoing operations of these structures should:

- Reduce reliance on sources of energy that rely on fossil fuels,
- Source sustainable materials,
- Implement smart technology to reduce operational energy demands,
- Support the implementation of fully electric heating and cooling systems,
- Reduce the demands of luxury loads (including audio visual systems, lighting, security systems, snowmelt, etc.),
- Offset carbon or energy demands through onsite energy production,
- Reduce water consumption, and
- Divert waste from the landfill by reusing and recycling materials.

Where no specific or applicable rules, regulations or standards appear to be set forth in the *Residential Demolition and Redevelopment Standards*, other rules, regulations, standards, guidelines, and recommended practices, as published by professional associates, technical organizations, model code groups, and similar entities, may be used by the City for guidance.

Adoption of Residential Demolition and Redevelopment Standards: Pursuant to the powers and authority conferred by the Charter of the City, the City Council hereby adopts and incorporates by reference redevelopment standards, hereinafter referred to as the *Residential Demolition and Redevelopment Performance Standards*, which are incorporated by reference into the City of Aspen Land Use Code. The *Residential Demolition and Redevelopment Standards* set forth the design parameters to ensure residential redevelopment improves solid waste diversion, increases the energy efficiency of structures, and reduces negative impacts of construction. The *Residential Demolition and Redevelopment Standards* may be amended, updated, and expanded from time to time by City Council Resolution. The *Residential Demolition and Redevelopment Standards* shall be available for public inspection on the Community Development Department's web page. Projects that are pursuing a Demolition Allotment as described in Section 26.470.090.C will be reviewed according to these standards.
(Ord. 13, Series of 2022).

Applicability: These *Residential Demolition and Redevelopment Standards* shall be used to evaluate projects that trigger Demolition as defined by Section 26.104.100 and Section 26.580 of the Land Use Code. These *Residential Demolition and Redevelopment Standards* shall be the basis for determining a project's compliance with the review criteria for projects requesting a Demolition allotment pursuant to Land Use Code Section 26.470.090.C. A project must meet the *Residential Demolition and Redevelopment Standards* in effect at the time the land use application is deemed complete.

Review Authority: The Community Development and Engineering Departments, or designee, is authorized to enforce the rules and regulations contained in the *Residential Demolition and Redevelopment Standards* in order to carry out the intent of the standards and requirements of the Municipal Code.

Exemptions: The Community Development Director may exempt the following development activities from a portion or all of the requirements below:

1. The property is a Historically Designated landmark and compliance with some, or all, of the requirement of these standard is not practical. If this is the case, at the discretion of the Community Development Director, with a recommendation from the Historic Preservation Officer, some or all requirements may be exempted from a project. The applicant must provide a report and summary of what requirements cannot be met, identify the specific constraint, and alternative design elements that are proposed to offset the lack of compliance. Alternatives could include improved thermal envelopes, energy efficient equipment, additional renewable energy offsets, etc.
2. Projects where 100% of the units are currently, or proposed to be, deed restricted with the Aspen Pitkin County Housing Authority.
3. When a project proposes to demolish and revegetate a site, with no new development proposed, the demolition of the structure is subject to waste diversion requirements, but any requirements applicable to the new structure may be waived. An approved demolition and revegetation permit is required. Upon redevelopment of the site with a new structure, the new structure will be subject to the requirements of Section 26.580 and Section 26.470.090.C, as amended and subject to vesting requirements of the code. All timing and code requirements will be memorialized as a condition of approval.

Requirements: Projects that trigger Demolition and are seeking a Demolition allotment pursuant to Section 26.470.090.C must satisfy the following required Performance Elements prior to building permit issuance and will be included as a condition of approval:

1. ***Waste Diversion:*** All projects are required to source separate non-hazardous waste materials and divert a minimum of 35%, by weight, from the landfill. Materials may be salvaged or recycled to meet the waste diversion requirements. This will be included as a condition of approval to be met prior to building permit issuance and prior to final inspection, and shall be documented in the Construction Management Plan.

    A. Recyclable/diverted materials may include:

i. Asphalt,
ii. Clean concrete,
iii. Metals,
iv. Wood,
v. Single stream recyclables,
vi. Gypsum board, and/or
vii. Carpet.

A final determination of actual recyclable materials will be based on the local recycling facility capability.

B. A construction waste management plan may include salvage for resale, salvage and reuse (on or off site), recycling, and/or disposal.
C. The project must track all waste materials by type through the Green Halo System. All waste must be quantified by weight or volume, but the same units of measure must be used through the project.
D. All waste generated by the project that is to be included as diverted waste to meet the minimum diversion requirements shall be recycled at the Pitkin County Landfill, or another approved recycling facility as approved by the Construction Mitigation Officer.
E. A Waste Management Plan shall be included as part of the Construction Management Plan to be approved prior to building permit issuance.
    i. Waste reduction calculations, including anticipated rates for salvage, recycling, and disposal as a percentage of total waste generated by the work, using the Green Halo system. The waste management plan must indicate anticipated types and quantities of demolition and construction waste generated by the work, including estimated quantities and assumptions.
    ii. Plan implementation: The project must maintain logs of each load including:
        1. Type of load,
        2. Load weight,
        3. Name of hauling service,
        4. Landfill or recycling center, and
        5. Date accepted by the recycling center or landfill.
    iii. A final waste diversion report shall be submitted as part of the Final Inspections for the project prior to issuance of a Certificate of Occupancy.
        1. The final waste diversion report shall include recycling and processing facility records that indicate acceptance of recyclable waste by recycling and processing facilities, and other records including sales and donations as applicable and required to substantiate conformance with waste diversion requirements.

2. ***Embodied Carbon:*** *Environmental Product Declaration (EPD) Disclosure.* Product-specific Type III EPDs shall be submitted for 50% of steel and concrete. EPDs used for

compliance with this section shall be certified as complying with the goal and scope for the cradle-to-gate requirements in accordance with ISO Standards 14025 and 21930 and be available in a publicly accessible database.

3. ***Energy Reporting:*** All projects that trigger Demolition are subject to Section 8.60 – Building IQ of the Aspen Municipal Code and shall follow the requirements for a "Non-City Covered Property." The Single-Family and Duplex structures subject to these Redevelopment Requirements shall comply with the requirements of the Multi-Family Residential structures over 15,000 square feet. This will be included as a condition of approval. This requirement shall supersede the applicability statements in Section 8.60.030 and the exceptions listed in Section 8.60.020.M, as amended.

4. ***Building Energy Performance:*** Projects shall comply with the requirements of the Supplemental Building Code requirements attached as Appendix A to the *Residential Demolition and Redevelopment Standards*.

5. ***Engineering:*** In addition to compliance with all applicable requirements of the URMP, CMP, and the Engineering Design Standards, the project shall meet the following requirement:

    A. Runoff from 50% of the site impervious area shall be treated in above grade sustainable Best Management Practices (BMPs) such as bioretention areas, pervious pavers, tree canopy, grass buffer or other approved above grade BMPs as outlined in the URMP. 50% of the site's impervious area is permitted to be treated in subsurface BMPs.

Alternative Compliance: A project may request variations from these standards if the Planning and Zoning Commission makes a determination the project meets the review criteria for Special Review (Section 26.430.040.J).

Amendments: Any future amendments to the *Residential Demolition and Redevelopment Standards* shall be made by City Council via Resolution.

Violations and Penalties: Any person violating any provision of these standards may be punished by a fine, imprisonment or both a fine and imprisonment, as set forth in Section 1.04.080 of the City of Aspen Municipal Code. Each day any violation of this Chapter shall continue shall constitute a separate offense.

Appendix A:

RESIDENTIAL DEMOLITION ALLOTMENT
MIXED FUEL LOW CARBON APPENDIX

Residential demolition allotment new one- and two-family dwellings shall comply with the 2015 Building Codes as adopted by the City of Aspen with the following amendments. These amendments shall not apply to additions or renovations. This document will be replaced by the 2021 Building Codes when and as adopted by the City of Aspen.

INTERNATIONAL ENERGY CONSERVATION CODE

SECTION C408

SYSTEM COMMISSIONING

C408.1 General. This section covers the commissioning of the building mechanical systems such as heating, cooling, ventilation, and snowmelt ~~in Section C403 and electrical power and lighting systems in Section C405~~.

C408.2 Mechanical systems and service water-heating systems commissioning and completion requirements.

Prior to the final mechanical and plumbing inspections, the *registered design professional* or *approved agency* shall provide evidence of mechanical systems *commissioning* and completion in accordance with the provisions of this section.

Construction document notes shall clearly indicate provisions for *commissioning* and completion requirements in accordance with this section and are permitted to refer to specifications for further requirements. Copies of all documentation shall be given to the owner or owner's authorized agent and made available to the *code official* upon request in accordance with Sections C408.2.4 and C408.2.5.

~~**Exceptions:** The following systems are exempt:~~

~~1. Mechanical systems and service water heater systems in buildings where the total mechanical equipment~~

~~capacity is less than 480,000 Btu/h (140.7 kW) cooling capacity and 600,000 Btu/h (175.8 kW) combined service water-heating and space-heating capacity.~~

~~2. Systems included in Section C403.3 that serve individual *dwelling units* and *sleeping units*.~~

R202 Definitions

APPLIANCE. A device or apparatus that is manufactured and designed to utilize energy and for which this code provides specific requirements.

COMBUSTION EQUIPMENT. Any *equipment* or *appliance* used for space heating, service water heating, cooking, clothes drying, or lighting that uses fuel gas or fuel oil.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current. Plug-in hybrid electric vehicles are electric vehicles having a second source of motive power. Off-road, self propelled electric mobile equipment, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not considered electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

EQUIPMENT. Piping, ducts, vents, control devices and other components of systems other than appliances that are permanently installed and integrated to provide control of environmental conditions for buildings. This definition shall also include other systems specifically regulated in this code.

EV-READY SPACE. A parking space that is provided with an electrical circuit capable of supporting an installed EVSE.

SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

R401.2 Compliance. New projects shall comply with R401 through R404.

TABLE R402.1.2

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

CLIMATE ZONE	FENESTRATION *U*-FACTOR[b, i]	SKYLIGHT[b] *U*-FACTOR	GLAZED FENESTRATION SHGC[b, e]	CEILING *R*-VALUE	WOOD FRAME WALL *R*-VALUE[g]	MASS WALL *R*-VALUE[h]	FLOOR *R*-VALUE	BASEMENT[c,g] WALL *R*-VALUE	SLAB[d] *R*-VALUE & DEPTH	CRAWL SPACE[c,g] WALL *R*-VALUE
7	~~0.28~~ 0.22	~~0.55~~ 0.44	NR	~~49~~ 60	~~20 + 5ci or 13 + 10ci~~ 34+12ci or 20 + 20ci or 13 + 25ci or 0+35ci	~~19/21~~ 25ci	38	~~15ci or 19 or 13 + 5ci~~ 20ci or 5 + 15ci or 13 + 10ci	10ci, 4 ft	~~15ci or 19 or 13 + 5ci~~ 20ci or 5 + 15ci or 13 + 10ci

d. ~~R-5 shall be added to the required slab edge *R*-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Climate Zones 1 through 3 for heated slabs.~~ R-10 insulation shall be provided under the full slab area of a heated slab in addition to the required slab edge insulation *R*-value for slabs. as indicated in the table. Slab edge insulation shall be installed to separate conditioned from unconditioned spaces including adjacent garages, entries, and porches.The slab-edge insulation for heated slabs shall not be required to extend below the slab.

TABLE R402.1.4

EQUIVALENT *U*-FACTORS[a]

CLIMATE ZONE	FENESTRATION *U*-FACTOR[f]	SKYLIGHT *U*-FACTOR	CEILING *U*-FACTOR	WOOD FRAME WALL *U*-FACTOR	MASS WALL *U*-FACTOR[b]	FLOOR *U*-FACTOR	BASEMENT WALL *U*-FACTOR	CRAWL SPACE WALL *U*-FACTOR
7	~~0.28~~ 0.22	~~0.55~~ 0.44	~~0.026~~ 0.018[d]	~~0.045~~ 0.026	~~0.057~~ 0.036	0.028	~~0.050~~ 0.044	~~0.055~~ 0.044

d. Ceilings with attics may use an equivalent U-factor of 0.024.

R402.1.5 "**Total UA Alternative**"

a. If the total building thermal envelope UA (sum of U-factor times assembly area) is less than or equal to the total UA resulting from using the U-factors in Table R402.1.4, as amended, (multiplied by the same assembly area as in the proposed building), the building shall be considered in compliance with amended Table R402.1.2. The UA calculation shall be done using a method consistent with the ASHRAE Handbook of Fundamentals and shall include the thermal bridging effects of framing materials. The SHGC requirements shall be met in addition to UA compliance.

b. If using REScheck software to show compliance with this alternative path for the 2015 edition of the code, the proposed design must be a minimum of ~~2%~~ 30% more efficient than the standard reference design in order to accommodate the amended prescriptive Fenestration U-factor.

R402.3.6 Maximum area. The vertical fenestration area, not including opaque doors and opaque spandrel panels,

shall be not greater than 30 percent of the gross above grade wall area. The skylight area shall be not greater than 3 percent of the gross roof area.

R402.4.1.2 Testing. The *building* or *dwelling unit* shall be tested for air leakage. The maximum air leakage rate for any *building* or *dwelling unit* shall not exceed 1.5 air changes per hour. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380, ASTM E779 or ASTM E1827 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Where required by the *code official*, testing shall be conducted by an *approved* third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope* have been sealed.

R403.5 Service hot water systems. Energy conservation measures for service hot water systems shall be in accordance with Sections R403.5.1 ~~and R403.5.4~~ through R403.5.5.

R403.5.5 Combustion service hot water heating. *Combustion equipment* may not be used for service hot water heating unless the following conditions are met.

1. The service hot water system shall comply with the provisions of C408, and
2. Each piece of equipment shall be provided with the following:
    a. A condensate drain that is no more than 2 inches higher than the base of the installed water heater and allows natural draining without pump assistance shall be installed within 3 feet of the water heater.
    b. A dedicated, appropriately phased branch circuit(s) that shall have a minimum amperage requirement for comparable heat pump(s) and , if specified in the design, supplemental electric resistance heat service water heating capacity and recovery, terminating within 3 feet of the water heater with no obstructions. Both ends of the branch circuit(s) shall be labeled with the words "For Future Electric Service Water Heating" and be electrically isolated.
    c. The equipment shall be installed in a space sized to fit future equivalent electric heat pump(s) and, if specified in the design, supplemental electric resistance heat water heating equipment or a minimum 3 feet by 3 feet by 7 feet high (per heat pump), whichever is larger.
    d. Water heaters shall be installed in a space with a minimum volume of 700 cubic feet or with the equivalent of one 16-inch by 24-inch grill to a heated space and one 8-inch duct of no more than 10 feet in length for cool exhaust air.

R403.6.2 Heat or energy recovery ventilation. *Dwelling units* shall be provided with a heat recovery (HRV) or energy recovery (ERV) ventilation system. The system shall be balanced to within 10% of the average supply and exhaust rates. Minimum HRV and ERV requirements, measured at the lowest tested net supply airflow, shall be greater than or equal to 65 percent Sensible Recovery Efficiency (SRE), a minimum 1.2 cubic feet per minute per watt determined at a static pressure of not less than 0.2 inch w.c. (49.85 Pa), and shall not use recirculation as a defrost strategy.

R403.9 Snow and ice melt systems Snow- and ice- melting systems shall comply with R403.9.1 through R403.9.3.

R403.9.1 Efficiency. Combustion equipment may not be used for snow and ice melt systems unless the following conditions are met.

1. The snowmelt system shall comply with the provisions of C408, and
2. Each piece of equipment shall be provided with the following:
    a. A condensate drain located within 3 feet, and
    b. A dedicated, appropriately phased branch circuit(s) that shall have a minimum amperage requirement for a comparable electric hydronic snowmelt system sized in accordance with NEC 440.4(B) and 440.35, and terminating within 3 feet of the heating equipment with no obstructions. Both ends of the branch circuit shall be labeled “For Future Electric Snowmelting” and be electrically isolated.

R403.9.2 Controls. Systems shall include automatic controls ~~capable of shutting~~ configured to shut off the system when the ~~pavement~~ temperature of the snowmelted surface is greater than ~~50~~40°F (10°C) and precipitation is not falling, and an automatic or manual control that will allow shutoff when the outdoor temperature is greater than 40°F (4.8°C).

R403.9.3 Snow Melt Slab Insulation. R-10 insulation shall be installed under the snow melted surface.

R403.9.4 Maximum area. The snow melted area shall not be greater than 2,500 square feet per parcel.

R403.10 Pools and permanent spa energy consumption (Mandatory). The energy consumption of pools and permanent spas shall be in accordance with Sections R403.10.1 through R403.10.3.

R403.10.1 Heaters. The electric power to heaters shall be controlled by an on-off switch that is an integral part of the heater mounted on the exterior of the heater in a location with *ready access*, or external to and within 3 feet (914 mm) of the heater. Operation of such switch shall not change the setting of the heater thermostat. Such switches shall be in addition to a circuit breaker for the power to the heater. ~~Gas-fired heaters shall not be equipped with continuously burning ignition pilots~~. Combustion equipment may not be used for pool or spa heating unless the following conditions are met:

1. Heaters shall not be equipped with continuously burning ignition pilots,
2. Each piece of combustion equipment shall be provided with the following:
    a. A condensate drain located within 3 feet, and
    b. A dedicated, appropriately phased branch circuit that shall have a minimum amperage requirement for a comparable electric heater, sized in accordance with NEC 440.4(B) and 440.35, terminating within 3 feet of the heating equipment with no obstructions. Both ends of the branch circuit shall be labeled "For Future Electric Pool Heating" and be electrically isolated.

R403.13 Heating outside a building. Systems installed to provide heat outside a building shall be electric radiant systems. Such heating systems shall be controlled by an occupancy sensing device or a timer switch, so that the system is automatically de-energized when occupants are not present.

R403.14 Combustion space heating. *Combustion equipment* may not be used for primary space heating unless the following conditions are met:.

1. The space heating system(s) shall comply with the provisions of C408, and
2. Each piece of equipment shall be provided with the following:
    a. A condensate drain located within 3 feet, and
    b. A dedicated, appropriately phased branch circuit(s) that shall have a minimum amperage requirement for a comparable electric heat pump and, if specified in the design, electric resistance supplemental heat sized in accordance with NEC 440.4(B) and 440.35, and terminating within 3 feet of the heating equipment with no obstructions. Both ends of the branch circuit(s) shall be labeled "For Future Electric Space Heating" and be electrically isolated.

Exception:

1. Where an electrical circuit in compliance with NEC 440.4(B) and 440.35 exists for space cooling equipment.

R404.1 Lighting equipment. ~~Not less than 75 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps or not less than 75 percent of the permanently installed lighting fixtures shall contain only high-efficacy lamps.~~ All permanently installed lighting fixtures, excluding kitchen appliance lighting fixtures, shall contain only high-efficacy lighting sources.

R404.1.1 Lighting equipment (Mandatory). Fuel gas lighting systems shall not ~~have continuously burning pilot lights~~ be permitted.

R404.2 Renewable energy infrastructure. Buildings shall comply with Sections R404.4.1 through R404.4.7.

Exceptions:

1. A building with a permanently installed on-site renewable energy system.

2. A building with less than 600 square feet (55 m2) of roof area oriented between 110 degrees and 270 degrees of true north.
3. A building where all areas of the roof that would otherwise meet the requirements for a *solar-ready zone* are in full or partial shade for more than 70 percent of daylight hours annually.

R404.2.1 Solar-ready zone area. The total area of the *solar-ready zone* shall not be less than 300 square feet and shall be composed of areas not less than 5.5 feet in width and not less than 80 square feet exclusive of access or set back areas as required by the International Fire Code.

R404.2.2 Obstructions. *Solar-ready zones* shall be free from obstructions, including but not limited to vents, chimneys, and roof-mounted equipment.

R404.2.3 Shading. The solar-ready zone shall be set back from any existing or new permanently affixed object on the building or site that is located south, east or west of the solar zone a distance not less than two times the object's height above the nearest point on the roof surface. Such objects include, but are not limited to, taller portions of the building itself, parapets, chimneys, antennas, signage, rooftop equipment, trees and roof plantings.

R404.2.4 Roof load documentation. The structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents.

R404.2.5 Electrical service reserved space. The main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

R404.2.6 Electrical interconnection. An electrical junction box shall be installed within 24 inches of the main electrical service panel and shall be connected to a capped roof penetration sleeve or a location in the attic that is within 3 feet (914 mm) of the *solar ready zone* by one of the following:

1. Installed conduit with pull string sized to accommodate future renewable energy infrastructure requirements.
2. Minimum #10 Metal copper 3-wire

Where the interconnection terminates in the attic, location shall be no less than 12" (35 mm) above ceiling insulation. Both ends of the interconnection shall be labeled "For Future Solar Electric".

R404.2.7 Construction documentation certificate. A permanent certificate, indicating the solar-ready zone and other requirements of this section, shall be posted near the electrical distribution panel, water heater or other conspicuous location by the builder or registered design professional.

R404.3 Electric vehicle charging infrastructure. Buildings with a dedicated attached or detached garage or with on-site parking spaces shall be provided with one EV-ready space dwelling unit. The branch circuit shall meet the following requirements:

1. A minimum capacity of 9.6 kVA
2. Terminates at a junction box or receptacle located within 3 feet (914 mm) of the parking space and labelled "For electric vehicle charging", and
3. The electrical panel directory shall designate the branch circuit as "For electric vehicle charging".

R404.4 Energy storage infrastructure. Each building site shall have a dedicated location for the installation of future on-site energy storage in accordance with the following:

1. Dedicated floor area not less than 2 feet in one dimension and 4 feet in another dimension and located in accordance with Section 1207 of the 2021 International Fire Code and Section 110.26 of the NFPA 70.
2. The main electrical service panel shall have a reserved space to allow installation of a two-pole circuit breaker for future electrical energy storage system installation. This space shall be labeled "For Future Electric Storage." The reserved spaces shall be positioned at the end of the panel that is opposite from the panel supply conductor connection.

3. Installed conduit with pull string sized to accommodate future energy storage electrical requirements.

Exception: Where an onsite electrical energy system storage system is installed.

R404.5 Additional electric ready infrastructure. *Combustion equipment* shall be installed in accordance with this section.

R404.5.1 Combustion clothes drying. A dedicated 240-volt branch circuit with a minimum capacity of 30 amps shall terminate within 6 feet (1829 mm) of natural gas clothes dryers and shall be accessible with no obstructions. Both ends of the branch circuit shall be labeled with the words "For Future Electric Clothes Drying" and be electrically isolated.

R404.5.2 Combustion cooking. A dedicated 240-Volt, 40A branch circuit shall terminate within 6 feet (1829 mm) of natural gas cooking equipment and appliances and be accessible with no obstructions. Both ends of the branch circuit shall be labeled with the words "For Future Electric Range" and be electrically isolated.

R404.5.3 Other combustion equipment. *Combustion equipment* and end-uses not covered by Sections R404.6.2-5 shall be provided with a branch circuit sized for an electric *appliance*, *equipment* or end use with an equivalent capacity that terminates within 6 feet (1829 mm) of the *appliance* or *equipment*. Both ends of the branch circuit shall be labeled with the words "For Future Electrification" and be electrically isolated.

INTERNATIONAL FUEL GAS CODE

Section 301.2.1 Appliance Controls. Fuel burning appliances, such as fireplaces and firepits, used for purposes other than space conditioning, water heating, snow melting, and cooking shall be controlled by an occupancy sensing device or a timer switch, so that the appliance shuts off when occupants are not present or within an hour of being turned on.

Exception: A manual override switch may be provided that, when initiated, shall permit the controlled appliance to remain on for not more than 2 hours.

INTERNATIONAL RESIDENTIAL CODE

Section R313 Automatic fire sprinkler systems. (reference Chapter 9 of the Fire Code with the exception of R313.2 as amended herein:)

R313.2 One- and two-family dwellings automatic fire systems. An automatic residential fire sprinkler system shall be installed in one- and two-family *dwellings*.

R313.2.1 Design and installation. Automatic residential fire sprinkler systems shall be designed and installed in accordance with ~~Section P2904 or~~ NFPA 13D.

Chapter 8.49

INTERNATIONAL WILDLAND-URBAN INTERFACE CODE

Sec. 8.49.010. Adoption of the 2021 Edition of the International Wildland-Urban Interface Code.

Pursuant to the powers and authority conferred by the laws of the State and the Charter of the City, there is hereby adopted and incorporated herein by reference as if fully set forth those regulations contained in the International Wildland-Urban Interface Code, 2021 Edition, and all errata as published by the International Code Council, 4051 West Flossmoor Road, Country Club Hills, Illinois, 60478-5795, except as otherwise provided by amendment or deletion as contained in Section 8.49.020 of this Chapter. At least one (1) copy of the International Wildland-Urban Interface Code shall be available for inspection during regular business hours.

Sec. 8.49.020. Amendments.
The International Wildland-Urban Interface Code, 2021 Edition, as adopted by the City at Section 8.49.010, is hereby amended to provide and read as follows:
(a) Section [A]101.1 Title. These regulations shall be known as the International Wildland-Urban Interface Code of City of Aspen hereinafter referred to as "this code."

(Delete in entirety with the exception of Section 505 as amended below and associated references.)

SECTION 505
CLASS 2 IGNITION-RESISTANT CONSTRUCTION

503.2 Ignition-resistant building material. Ignition-resistant building materials shall comply with any one of the following:

1. Material shall be tested on all sides with the extended ASTM E84 (UL 723) test or ASTM E2768, except panel products shall be permitted to test only the front and back faces. Panel products shall be tested with a ripped or cut longitudinal gap of 1/8 inch (3.2 mm). Materials that, when tested in accordance with the test procedures set forth in ASTM E84 or UL 723 for a test period of 30 minutes, or with ASTM E2768, comply with the following: 1.1. Flame spread. Material shall exhibit a *flame spread index* not exceeding 25 and shall not show evidence of progressive combustion following the extended 30-minute test.

   1.2 Flame front. Material shall exhibit a flame front that does not progress more than 10 1/2 feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test.

   1.3. Weathering. Ignition-resistant building materials shall maintain their performance in accordance with this section under conditions of use. Materials shall meet the performance requirements for weathering (including exposure to temperature, moisture and ultraviolet radiation) contained in the following standards, as applicable to the materials and the conditions of use:

      1.3.1. Method A "Test Method for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing" in ASTM D2898, for fire-retardant treated wood, wood-plastic composite and plastic lumber materials.

      1.3.2. ASTM D7032 for wood-plastic composite materials.

      1.3.3. ASTM D6662 for plastic lumber materials.

   1.4 Identification. Materials shall bear identification showing the fire test results.

   Exception: Materials composed of a combustible core and a noncombustible exterior covering made from either aluminum at a minimum 0.019 inch (0.48 mm) thickness or corrosion-resistant steel at a minimum 0.0149 inch (0.38 mm) thickness shall not be required to be tested with a ripped or cut longitudinal gap.

2. Noncombustible material. Material that complies with the requirements for *noncombustible* materials in Section 202.
3. Fire-retardant-treated wood. Fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the *International Building Code*.
4. Fire-retardant-treated wood *roof coverings*. *Roof assemblies* containing fire-retardant-treated wood shingles and shakes that comply with the requirements of Section 1505.6 of the *International Building Code* and classified as Class A *roof assemblies* as required in Section 1505.2 of the *International Building Code*.

505.1 General. Buildings shall be of Class 2 ignition-resistant construction ~~shall be~~ in accordance with Sections 505.2 through 505.11.

505.2 Roof assembly. Roofs shall have a *roof assembly* that complies with not less than a Class A rating when tested in accordance with ASTM E108 or UL 790, or an *approved noncombustible roof covering*. For *roof assemblies* where the profile allows a space between the roof covering and roof deck, the space at the eave ends shall be firestopped to preclude entry of flames or embers, or have one layer of cap sheet complying with ASTM D3909 installed over the combustible roof deck.

505.2.1 Roof valleys. Where provided, valley flashings shall be not less than 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide (914 mm) underlayment consisting of one layer of 72-pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 running the full length of the valley.

505.3 Protection of eaves. Combustible eaves, fascias and soffits shall be enclosed with solid materials with a minimum thickness of 3/4 inch (19 mm). Exposed rafter tails shall not be permitted unless constructed of heavy timber materials.

505.4 Gutters and downspouts. Gutters and downspouts shall be constructed of noncombustible material. Gutters shall be provided with an approved means to prevent the accumulation of leaves and debris in the gutter.

505.5 Exterior walls. Exterior walls of buildings or structures shall be constructed with one of the following methods:

1. Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side.
2. Approved noncombustible materials.
3. Heavy timber or log wall construction.
4. Fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the International Building Code.
5. Ignition-resistant materials on the exterior side.

Such material shall extend from the top of the foundation to the underside of the roof sheathing.

505.6 Underfloor enclosure. Buildings or structures shall have underfloor areas enclosed to the ground, with exterior walls in accordance with Section 505.5.

Exception: Complete enclosure shall not be required where the underside of exposed floors and exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction or fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the International Building Code.

505.7 Appendages and projections. Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be not less than 1-hour fire-resistance-rated construction, heavy timber construction or constructed of one of the following:

1. Approved noncombustible materials.
2. Fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.
3. Ignition-resistant building materials in accordance with Section 503.2.

Exception: Coated materials shall not be used as the walking surface of decks.

~~**505.7.1 Underfloor areas.** Where the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 505.5.~~

505.8 Exterior glazing. Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall be tempered glass, multilayered glazed panels, glass block or have a fire protection rating of not less than 20 minutes.

505.9 Exterior doors. Exterior doors shall be approved non-combustible construction, solid core wood not less than 1 3/4 inches thick (45 mm), or have a fire protection rating of not less than 20 minutes. Windows within doors and glazed doors shall be in accordance with Section 505.8.

Exception: Vehicle access doors.

505.10 Vents. Attic ventilation openings, foundation or underfloor vents or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches (0.0929 m2) each. Such vents shall be covered with noncombustible corrosion-resistant mesh with openings not to exceed 1/4 inch (6.4 mm) or shall be designed and approved to prevent flame or ember penetration into the structure.

505.10.1 Vent locations. Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves, or in other overhang areas. Gable end and dormer vents shall be located not less than 10 feet (3048 mm) from lot lines. Underfloor ventilation openings shall be located as close to

505.11 Detached accessory structures. Detached accessory structures located less than 50 feet (15 240 mm) from a building containing habitable space shall have exterior walls constructed with materials approved for not less than 1-hour fire-resistance-rated construction, heavy timber, log wall construction, or constructed with approved noncombustible materials or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the International Building Code.

505.11.1 Underfloor areas. Where the detached accessory structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 505.5 or underfloor protection in accordance with Section 505.6.

Exception: The enclosure shall not be required where the underside of exposed floors and exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the International Building Code.