Washington State Register

WSR 22-17-150 PROPOSED RULES BUILDING CODE COUNCIL

[Filed August 23, 2022, 4:03 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 21-12-099.

Title of Rule and Other Identifying Information: Adoption and amendment of the 2021 Edition of the International Wildland-Urban Interface Code, as required by RCW 19.27.031 and 19.27.560.

Hearing Location(s): On September 30, 2022, at 10:00 a.m., at 129 North 2nd Street, Yakima, WA 98901; or on October 14, 2022, at 10:00 a.m., at 1500 Jefferson Street S.E., Olympia, WA 98504. Please access the meetings in-person, or via Zoom or conference call. The Zoom link and phone are provided in the agenda at sbcc.wa.gov.

Date of Intended Adoption: November 4, 2022.

Submit Written Comments to: State Building Code Council (SBCC), P.O. Box 41449, Olympia, WA 98504-1449, email sbcc@des.wa.gov, by October 14, 2022.

Assistance for Persons with Disabilities: Contact Annette Haworth, phone 360-407-9255, email sbcc@des.wa.gov, by September 16, 2022.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rule adopts the 2021 edition of the International Urban Wildland Interface Code, published by the International Code Council (ICC), with state amendments to incorporate proposed changes as adopted by SBCC. The proposed rule will also take the International Urban Wildland Urban Interface Code out of chapter 51-54A WAC and produce a new chapter 51-55 WAC. This will in turn make the International Urban Wildland Urban Interface Code a standalone code under chapter 51-55 WAC.

Reasons Supporting Proposal: RCW 19.27.031, 19.27.074, and 19.27.560.

Statutory Authority for Adoption: RCW 19.27.031, 19.27.074, and 19.27.560.

Statute Being Implemented: RCW 19.27.031, 19.27.074, and 19.27.560.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: SBCC, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Stoyan Bumbalov, 1500 Jefferson Street S.E., Olympia, WA 98504, 360-407-9277; Enforcement: Local jurisdictions.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. The content of the proposed rule is explicitly and specifically dictated by statute (RCW 19.27.560).

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules are adopting or incorporating by reference without material change federal statutes or regulations, Washington state statutes, rules of other Washington state agencies, shoreline master programs other than those programs governing shorelines of statewide significance, or, as referenced by Washington state law, national consensus codes that generally establish industry

standards, if the material adopted or incorporated regulates the same subject matter and conduct as the adopting or incorporating rule; and rule content is explicitly and specifically dictated by statute.

Scope of exemption for rule proposal: Is fully exempt.

August 23, 2022 Tony Doan Council Chair

OTS-4050.1

Chapter 51-55 WAC STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE 2021 EDITION OF THE WILDLAND-URBAN INTERFACE CODE

NEW SECTION

WAC 51-55-001 Authority. These rules are adopted under the authority of chapter 19.27 RCW.

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NEW SECTION

WAC 51-55-002 Purpose. The purpose of these rules is to implement the provisions of chapter 19.27 RCW, which provides that the state building code council shall maintain the state building code in a status which is consistent with the purpose as set forth in RCW 19.27.020. In maintaining the codes the council shall regularly review updated versions of the codes adopted under the act, and other pertinent information, and shall amend the codes as deemed appropriate by the council.

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NEW SECTION

WAC 51-55-003 International Wildland-Urban Interface Code. The 2021 edition of the *International Urban-Interface Code*, published by the International Code Council, is hereby adopted by reference with the following additions, deletions, and exceptions.

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NEW SECTION

WAC 51-55-008 Implementation. The International Wildland-Urban Interface Code adopted by this chapter shall become effective in all counties and cities of this state on July 1, 2023.

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NEW SECTION

WAC 51-55-0100 Scope and administration.

101 Scope and general requirements.

101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, repair, maintenance and use of any building, structure, or premises within the wildland-urban interface areas in this jurisdiction.

Buildings or conditions in existence at the time of the adoption of this code are allowed to have their use or occupancy continued, if such condition, use or occupancy was legal at the time of the adoption of this code, provided that such continued use does not constitute an egregious danger to life or property.

Buildings or structures moved into or within the jurisdiction shall comply with the provisions of this code for new buildings or structures.

101.4 Retroactivity. The provisions of the code shall apply to conditions arising after the adoption thereof, conditions not legally in existence at the adoption of this code and conditions that, as determined by the code official, constitute an egregious hazard to life or property.

EXCEPTION: Provisions of this code that specifically apply to existing conditions are retroactive.

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NEW SECTION

WAC 51-55-0200 Chapter 2—Definitions.

202 Definitions.

ACCESSORY STRUCTURE. A building or structure used to shelter or support any material, equipment, chattel or occupancy other than a habitable building, or a habitable building or structure that is accessory to and incidental to that of the dwelling(s) and that is located on the same lot.

BUILDING OFFICIAL. Not adopted.

EGREGIOUS DANGER. A danger that if left unmitigated, places the occupants or property in immediate danger.

FUEL, HEAVY. Vegetation consisting of round wood 3 to 8 inches (76 to 203 mm) in diameter. See Fuel Models G, I, J, K, and U described in Chapter 9.

FUEL, LIGHT. Vegetation consisting of herbaceous plants and round wood less than 1/4-inch (6.4 mm) in diameter. See Fuel Models A, C, E, L, N, P, R, and S described in Chapter 9.

FUEL, MEDIUM. Vegetation consisting of round wood 1/4 to 3 inches (6.4 mm to 76 mm) in diameter. See Fuel Models B, D, F, H, O, Q, and T described in Chapter 9.

wildland-urban interface/intermix area. That geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels.

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NEW SECTION

WAC 51-55-0300 Wildland-urban interface areas.

- 302 Wildland-urban interface area designations.
- **302.1 Declaration.** The wildland-urban interface areas shall be based on the findings of fact. The wildland-urban interface area boundary shall correspond to natural or man-made features.
- **302.2 Findings of fact.** The wildland-urban interface areas findings of fact are permitted to follow table/worksheet 302.2.
- **302.2.1 Department of natural resources mapping.** The wildland-urban interface area is divided into several hazard zones for the purpose of determining construction requirements. The different zones correlate with the zones on the department of natural resources (DNR) map per RCW 19.27.560.

Table 302.2.1
Hazard Determination and Construction Correlation Table

DNR Map Zone	Red	Yellow	Green
Structure density per 40ac	120 + structures	8-120 structures	0-8 structures
Vegetative density (%)	<50%	50-75%	75% +
Distance from 75% vegetative area	<=1.5 mi (2.414 km)	NA	NA

Where all items in a column apply the required construction shall be based on the corresponding hazard in Table 503.1. Where not all items in a column apply the required construction shall be based on the next lower hazard in Table 503.1. If you do not meet the table criteria-not in the WUI.

Table 302.2.1(b)

Required Construction

	RED	YELLOW	GREEN
Ignition Resistant Construction	Class 3	Class 2	Class 1

Option 2 TABLE/WORKSHEET 302.2

1. Determine structure density.

STRUCTURE DENSITY	UNINHABITED	VERY LOW	LOW	MEDIUM	HIGH
within ≤ 40 acres =	0	> 0 - ≤ 1	≥1 -<8	> 8 - < 120	> 120

2. Determine vegetation density.

PARCEL VEGETATION		
DENSITY	NONVEGETATED	VEGETATED
≤ 40 acres	< 50% vegetated and \geq 1.5 mi (2.414 km) that is \geq 75% vegetated and not overlap water	≥ 50% vegetated and have structure density of uninhabited or very low

3. Use structure density and vegetation density from above to determine if WUIC applies.

WUIC APPLIES	YES	NO
≤ 40 acres	Structure density of very low – high and ≥ 50% vegetated	Structure density of uninhabited and not within an identified WUI area
Structure density of very low – high and ≥ 50 vegetated and ≤ 1.5 mi (2.414 km) that is \geq 75% vegetated and not overlap water		Structure density of uninhabited and < 50% vegetated and not overlap water
	Structure density of very low – high and ≤ 1.5 mi (2.414 km) that is $\geq 75\%$ vegetated and not overlap water	Structure density of uninhabited – high and < 50% vegetated and > 1.5 mi (2.414 km) that is ≥ 75% vegetated and not overlap water

4. When WIUC applies, the area shall be designated as Intermix or Interface.

INTERMIX DESIGNATION ≤ 40 acres	STRUCTURE DENSITY Very low - High	PARCEL VEGETATION DENSITY ≥ 50% vegetated
INTERFACE DESIGNATION ≤ 40 acres	STRUCTURE DENSITY Very low - High	PARCEL VEGETATION DENSITY ≤ 1.5 mi (2.414 km) that is ≥ 75% vegetated and not overlap water

- **302.3 Mapping.** Washington wildland-urban interface areas shall be recorded on maps developed by Washington department of natural resources (WADNR), be located online at https://wadnr.maps, and be available for inspection by the public.
- **302.4 Review of wildland-urban interface areas.** The *code official* shall review for approval evaluated areas for new or modified findings of fact. Where a new or modified findings of fact are *approved*, the *code official* shall recommend to WADNR a modification to the *wildland-urban interface areas* mapping.

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NEW SECTION

WAC 51-55-0400 Wildland-urban interface area requirements.

- 401 General.
- **401.1 Scope.** Wildland-urban interface areas shall be provided with emergency vehicle access and water supply in accordance with this chapter.
- 401.2 Objective. This section is not adopted.
- 401.3 General safety precautions. This section is not adopted.
- 402 Applicability.

- **402.1 Subdivisions.** Subdivisions shall comply with locally adopted standards.
- 402.1.1 Access. This section is not adopted.
- 402.1.2 Water supply. This section is not adopted.
- **402.2 Individual structures.** Individual structures shall comply with Sections 402.2.1 and 402.2.2.
- **402.2.1 Access.** Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with driveways in accordance with Section 403.2 and locally adopted standards. Marking of fire protection equipment shall be provided in accordance with Section 403.5 and address markers shall be provided in accordance with Section 403.6.
- **402.2.2 Water supply.** Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with a conforming water supply in accordance with locally adopted standards.

EXCEPTION: Not adopted.

- **402.3 Existing conditions.** This section is not adopted.
- 403 Access.
- 403.2.1 Dimensions. This section is not adopted.
- 403.2.2 Length. This section is not adopted.
- 403.2.3 Service limitations. This section is not adopted.
- **403.2.4 Turnarounds and turnouts.** Driveways in excess of three hundred feet in length shall be provided with turnarounds. Driveways in excess of five hundred feet in length and less than twenty feet in width shall be provided with turnouts and turnarounds. Turnarounds and turnouts shall be designed as required by locally adopted standards.
- 403.2.5 Turnouts. This section is not adopted.
- **403.3 Fire apparatus access road.** Where required, fire apparatus access roads shall be provided and maintained as required by locally adopted street, road, and access standards.
- 403.4 Marking of roads. This section is not adopted.
- 403.4.1 Sign construction. This section is not adopted.
- 404 Water supply.
- **404.1 General.** Water supply shall be provided and maintained as required by locally adopted standards.
- 404.2 Water sources. This section is not adopted.
- 404.3 Draft sites. This section is not adopted.
- 404.3.1 Access. This section is not adopted.
- 404.3.2 Pumper access points. This section is not adopted.
- 404.4 Hydrants. This section is not adopted.
- 404.5 Adequate water supply. This section is not adopted.
- 404.6 Fire department. This section is not adopted.

- 404.7 Obstructions. This section is not adopted.
- 404.8 Identification. This section is not adopted.
- 404.9 Testing and maintenance. This section is not adopted.
- 404.10 Reliability. This section is not adopted.
- 404.10.1 Objective. This section is not adopted.
- 404.10.2 Clearance of fuel. This section is not adopted.
- 404.10.3 Standby power. This section is not adopted.

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NEW SECTION

WAC 51-55-0500 Special building construction regulations. Section 501 General.

501.1 General. Buildings and structures hereafter constructed, modified, or relocated into or within the wildland-urban interface area shall meet the construction requirements of Sections 501.4 through 501.8.

EXCEPTIONS:

- 1. Buildings and structures with fire hazard severity determined in Section 502 and with ignition-resistant construction classification determined in Section 503.
- 2. Accessory structures not exceeding 200 square feet (11 m²) in floor area and where located not less than 50 feet (15,240 mm) from buildings or structures containing habitable spaces.

 3. Agricultural buildings located not less than 50 feet (15,240 mm) from buildings or structures containing habitable spaces.
- 501.2 Objective. This section is not adopted.
- 501.4 Roof covering. Roofs shall have a roof assembly that complies with a Class A rating when tested in accordance with ASTM E108 or UL 790. 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 72-pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 installed over the combustible roof deck.

EXCEPTIONS:

- 1. Class A roof assemblies including those with coverings of brick, masonry, or an exposed concrete roof deck.
 2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile or slate installed on noncombustible decks or ferrous, copper or metal sheets installed without a roof deck on noncombustible framing. 3. Class A roof assemblies include minimum 16 oz/sq. ft. (0.0416 kg/m²) copper sheets installed over combustible roof decks.
- 501.4.1 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) mineralsurfaced, nonperforated cap sheet complying with ASTM D3909 running the full length of the valley.
- 501.5 Exterior walls and projections other than decks. Exterior walls and projections other than decks, of buildings, or structures, or accessory structures attached to buildings or structures with habitable spaces, shall be constructed with one of the following methods, with materials extending from the top of the foundation to the underside of the roof sheathing:
- 1. Materials approved for not less than one 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; or
- 5. Ignition-resistant materials, complying with Section 503.2 on the exterior side.

EXCEPTION:

Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, attached to the first floor of a building, if when the structure is built with building materials at least two inches nominal depth and the area below the unenclosed accessory structure is screened with material with openings no greater than 1/4-inch maximum to prevent accumulation of combustibles and to prevent embers from coming in underneath.

- **501.6 Decks and appendages.** The material of decks, porches, balconies, and stairs shall be constructed with any of the following materials:
- 1. Ignition-resistant material that complies with the minimum performance requirement of Section 503.2.
 - 2. Exterior fire-retardant-treated wood.
 - 3. Noncombustible material.
- 4. Any material that complies with the minimum performance requirements of Section 503.2 when attached exterior wall covering is also either noncombustible or ignition-resistant material.
 - 5. Heavy timber construction consisting of the following:
- 5.1. Posts shall be a minimum of 6 inches x 6 inches nominal dimension.
- 5.2. Beams shall be a minimum of 6 inches \times 8 inches nominal dimension.
- 5.3. Joists shall be a minimum of 4 inches x 8 inches nominal dimension spaced at no greater than 24 inches on center.
- **501.6.1 Clearance.** Decks with less than 48 inches of clearance from finished grade to deck joists shall be enclosed with screen material with openings no greater than 1/4-inch maximum to prevent accumulation of combustibles and to prevent embers from coming in underneath.
- **501.6.2 Walking surfaces.** The walking surface material of decks, porches, balconies, and stairs shall be constructed with one of the following materials:
- 1. Ignition-resistant material that complies with the performance requirements of Section 503.2.
 - 2. Exterior fire-retardant-treated wood.
 - 3. Noncombustible material.
- 4. Where the deck, porch, balcony, or stairs are constructed of heavy timber in accordance with Section 501.6, natural wood decking products shall be:
 - 4.1. 2-inch nominal dimension lumber; or
- 4.2. 5/4-inch nominal hardwood (i.e., teak, mahogany, or other approved hardwood).
- 5. Material that complies with the performance requirements of Section 501.6.2.1 when tested in accordance with ASTM E2632 and when attached exterior wall covering is also composed of only noncombustible or ignition-resistant materials.

EXCEPTION: Wall material shall be permitted to be of any material that otherwise complies with Section 501.5 when the decking surface material complies with the performance requirements of ASTM E84 with a Class B flame spread index.

501.6.2.1 Material in Section 501.6.2, Item 5. The walking surface material shall be tested in accordance with ASTM E2632 and shall comply with the following condition of acceptance. The ASTM E2632 test shall be conducted on a minimum of three test specimens and the peak heat release rate shall be less than or equal to 25 kW/ft² (269 kW/m²). If

any one of the three tests does not meet the conditions of acceptance, three additional tests shall be run. All the additional tests shall meet the condition of acceptance.

- **501.7 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.
- **501.8 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 m^2) 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.
- 1. Attic ventilation openings shall not be located in soffits, in eave overhands, 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 grade as possible.

502 Fire hazard severity.

- **502.1 General.** The fire hazard severity of building sites for buildings hereafter constructed, modified, or relocated into *wildland-urban interface areas* shall be established in accordance with Table 502.1. See also Chapter 8.
- **502.2 Fire hazard severity reduction.** The fire hazard severity identified in Table 502.1 is allowed to be reduced by implementing a vegetation management plan in accordance with Chapter 7.

TABLE 502.1 FIRE HAZARD SEVERITY

(No change to the table)

- 504 Class 1 ignition-resistant construction.
- **504.7 Appendages and projections.** Accessory structures attached to buildings with habitable spaces and projections other than decks, porches, balconies, or stairs, 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: Not adopted.

- **504.8 Decks and appendages.** The material of decks, porches, balconies, and stairs shall be constructed with any of the following materials:
- 1. Ignition-resistant material that complies with the minimum performance requirement of Section 503.2.
 - 2. Exterior fire-retardant-treated wood.
 - 3. Noncombustible material.
- 4. Any material that complies with the minimum performance requirements of Section 503.2 when attached exterior wall covering is also either noncombustible or ignition-resistant material.

- 5. Heavy timber construction consisting of the following:
- 5.1. Posts shall be a minimum of 6 inches \times 6 inches nominal dimension.
- 5.2. Beams shall be a minimum of 6 inches \times 8 inches nominal dimension.
- 5.3. Joists shall be a minimum of 4 inches x 8 inches nominal dimension spaced at no greater than 24 inches on center.
- **504.8.1 Clearance.** Decks with less than 48 inches of clearance from finished grade to deck joists shall be enclosed with screen material with openings no greater than 1/4-inch maximum to prevent accumulation of combustibles and to prevent embers from coming in underneath.
- **504.8.2 Walking surfaces.** The walking surface material of decks, porches, balconies, and stairs shall be constructed with one of the following materials:
- 1. Ignition-resistant material that complies with the performance requirements of Section 503.2.
 - 2. Exterior fire-retardant-treated wood.
 - 3. Noncombustible material.
- 4. Where the deck, porch, balcony, or stairs are constructed of heavy timber in accordance with Section 501.6, natural wood decking products shall be:
 - 4.1. 2-inch nominal dimension lumber; or
- 4.2. 5/4-inch nominal hardwood (i.e., teak, mahogany, or other approved hardwood).
- 5. Material that complies with the performance requirements of Section 504.8.2.1 when tested in accordance with ASTM E2632 and when attached exterior wall covering is also composed of only noncombustible or ignition-resistant materials.

EXCEPTION: Wall material shall be permitted to be of any material that otherwise complies with Section 501.5 when the decking surface material complies with the performance requirements of ASTM E84 with a Class B flame spread index.

- **504.8.2.1 Material in Section 504.8.1, Item 5.** The walking surface material shall be tested in accordance with ASTM E2632 and shall comply with the following condition of acceptance. The ASTM E2632 test shall be conducted on a minimum of three test specimens and the peak heat release rate shall be less than or equal to $25~\text{kW/ft}^2$ (269 kW/m²). If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be run. All the additional tests shall meet the condition of acceptance.
- **504.9 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.
- **504.10 Exterior doors.** Exterior doors shall be approved noncombustible construction, solid core wood not less than $1\ 3/4$ inches thick (44 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 504.8.

EXCEPTION: Vehicle access doors.

504.11 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 m^2) 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.

- **504.11.1 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 grade as practical.
- 504.12 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 non-combustible 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.
- **504.12.1 Underfloor areas.** Where the detached 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 504.5 or underfloor protection in accordance with Section 504.6.

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*.

- 505 Class 2 ignition-resistant construction.
- **505.7 Appendages and projections.** Accessory structures attached to buildings with habitable spaces and projections, other than decks, porches, balconies, or stairs, 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: Not adopted.

- **505.8 Decks and appendages.** The material of decks, porches, balconies, and stairs shall be constructed with any of the following materials:
- 1. Ignition-resistant material that complies with the minimum performance requirement of Section 503.2.
 - 2. Exterior fire-retardant-treated wood.
 - 3. Noncombustible material.
- 4. Any material that complies with the minimum performance requirements of Section 503.2 when attached exterior wall covering is also either noncombustible or ignition-resistant material.
 - 5. Heavy timber construction consisting of the following:
- 5.1. Posts shall be a minimum of 6 inches x 6 inches nominal dimension.
- 5.2. Beams shall be a minimum of 6 inches \times 8 inches nominal dimension.

- 5.3. Joists shall be a minimum of 4 inches x 8 inches nominal dimension spaced at no greater than 24 inches on center.
- **505.8.1 Clearance.** Decks with less than 48 inches of clearance from finished grade to deck joists shall be enclosed with screen material with openings no greater than 1/4-inch maximum to prevent accumulation of combustibles and to prevent embers from coming in underneath.
- **505.8.2 Walking surfaces.** The walking surface material of decks, porches, balconies, and stairs shall be constructed with one of the following materials:
- 1. Ignition-resistant material that complies with the performance requirements of Section 503.2.
 - 2. Exterior fire-retardant-treated wood.
 - 3. Noncombustible material.
- 4. Where the deck, porch, balcony, or stairs are constructed of heavy timber in accordance with Section 501.6, natural wood decking products shall be:
 - 4.1. 2-inch nominal dimension lumber; or
- 4.2. 5/4-inch nominal hardwood (i.e., teak, mahogany, or other approved hardwood).
- 5. Material that complies with the performance requirements of Section 505.8.1.1 when tested in accordance with ASTM E2632 and when attached exterior wall covering is also composed of only noncombustible or ignition-resistant materials.

EXCEPTION: Wall material shall be permitted to be of any material that otherwise complies with Section 501.5 when the decking surface material complies with the performance requirements of ASTM E84 with a Class B flame spread index.

- **505.8.2.1 Material in Section 505.8.1, Item 5.** The walking surface material shall be tested in accordance with ASTM E2632 and shall comply with the following condition of acceptance. The ASTM E2632 test shall be conducted on a minimum of three test specimens and the peak heat release rate shall be less than or equal to 25 kW/ft² (269 kW/m²). If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be run. All the additional tests shall meet the condition of acceptance.
- **505.9 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.
- **505.10 Exterior doors.** Exterior doors shall be approved noncombustible 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.

- **505.11 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 m^2) 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.
- 505.11.1 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 grade as practical.

- 505.12 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 non-combustible 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.
- **505.12.1 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*.

- 507 Replacement or repair of roof coverings.
- **507.1 General.** The *roof covering* on buildings or structures in existence prior to the adoption of this code that are replaced or have 50 percent or more replaced in a 12-month period shall be replaced with a *roof covering* required by Section 501.4 or based on the type of ignition-resistant construction as determined by Section 501.1 Exception 1.

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NEW SECTION

WAC 51-55-0600 Fire protection requirements.

- 602 Automatic sprinkler systems.
- **602.1 General.** An approved automatic sprinkler system shall be installed when required by the authority having jurisdiction.

[]

NEW SECTION

WAC 51-55-0700 Chapter 7—Vegetation management plan.

User note: About this chapter: The purpose of this chapter is to provide criteria for submitting vegetation management plans, specifying their content and establishing a criterion for considering vegetation management as being a fuel modification.

701 General.

- **701.1 Scope.** Vegetation management plans shall be submitted to the code official where required for review and approval as part of the plans required for a permit.
- 701.2 Plan content. Vegetation management plans shall describe all actions that will be taken to prevent a fire from being carried toward or away from the building. A vegetation management plan shall include the following information:
 - 1. A copy of the site plan.
- 2. Methods and timetables for controlling, changing or modifying areas on the property. Elements of the plan shall include removal of slash, snags, vegetation that may grow into overhead electrical lines, other ground fuels, ladder fuels and dead trees, and the thinning of live trees.
 - 3. A plan for maintaining the proposed fuel-reduction measures.
- **701.3 Fuel modification.** To be considered a *fuel modification* for purposes of this code, continuous maintenance of the clearance is required.

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NEW SECTION

WAC 51-55-0800 Chapter 8—Fire hazard severity form.

User note: About this chapter: The purpose of this chapter is to provide an alternative methodology to using Table 502.1 for analyzing the fire hazard severity of building sites using a preassigned value/scoring system for each feature that impacts the hazard level of a building site. Included in the evaluation are site access, types and management of vegetation, percentage of defensible space on the site, site topography, class of roofing and other construction materials used on the building (existing or to be constructed on the site), fire protection water supply, and whether utilities are installed above or below ground.

801 Fire hazard severity form. Where adopted, Table 801.1 is permitted to be used as an alternative to Table 502.1 for analyzing the fire hazard severity of building sites.

TABLE 801.1
FIRE HAZARD SEVERITY FORM
(No change to the table)

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NEW SECTION

WAC 51-55-0900 Chapter 9—Fire danger rating system.

User note: About this chapter: The fuel models included in Chapter 9 are only general descriptions because they represent all wildfire fuels from Florida to Alaska and from the East Coast to California.

The National Fire Danger Rating System (NFDRS) is a set of computer programs and algorithms that allows land management agencies to estimate today's or tomorrow's fire danger for a given rating area. NFDRS characterizes fire danger by evaluating the approximate upper limit of fire behavior in a fire danger rating area during a 24-hour period based on fuels, topography and weather, or what is commonly called the fire triangle. Fire danger ratings are guides for initiating presuppression activities and selecting the appropriate level of initial response to a reported wildfire in lieu of detailed, site- and time-specific information.

Predicting the potential behavior and effects of wildland fire are essential tasks in fire management. Surface fire behavior and fire effects models and prediction systems are driven in part by fuelbed inputs such as load, bulk density, fuel particle size, heat content and moisture content. To facilitate use in models and systems, fuelbed inputs have been formulated into fuel models. A fuel model is a set of fuelbed inputs needed by a particular fire behavior or fire effects model. Different kinds of fuel models are used in fire spread models in a variety of fire behavior modeling systems. The fuel models in this appendix correlate with the light, medium, and heavy fuel definitions found in Chapter 2 of the code.

901 Fuel models.

901.1 General. The Fuel Model Key is provided in Table 901.1. Fuel Models are described in Sections 901.1.1 through 901.1.20.

TABLE 901.1 FUEL MODEL KEY (No change to the table)

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901.1.1 FUEL MODEL A. (No change to the text)
901.1.2 FUEL MODEL B.
                      (No change to the text)
901.1.3 FUEL MODEL C. (No change to the text)
901.1.4 FUEL MODEL D. (No change to the text)
901.1.5 FUEL MODEL E.
                      (No change to the text)
901.1.6 FUEL MODEL F.
                      (No change to the text)
901.1.7 FUEL MODEL G.
                      (No change to the text)
901.1.8 FUEL MODEL H.
                      (No change to the text)
901.1.9 FUEL MODEL I. (No change to the text)
901.1.10 FUEL MODEL J. (No change to the text)
901.1.11 FUEL MODEL K. (No change to the text)
901.1.12 FUEL MODEL L. (No change to the text)
901.1.13 FUEL MODEL N. (No change to the text)
901.1.14 FUEL MODEL O. (No change to the text)
901.1.15 FUEL MODEL P. (No change to the text)
901.1.16 FUEL MODEL Q. (No change to the text)
901.1.17 FUEL MODEL R. (No change to the text)
901.1.18 FUEL MODEL S. (No change to the text)
901.1.19 FUEL MODEL T. (No change to the text)
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901.1.20 FUEL MODEL U. (No change to the text)

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NEW SECTION

WAC 51-55-1000 Chapter 10—Referenced standards.

ASTM

E2632-2020: Standard Test Method for Evaluating the Under-Deck Fire Test Response of Deck Materials

501.6

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