ORDINANCE NO. 17 SERIES OF 2018

AN ORDINANCE REPEALING AND REENACTING TITLE 10, CHAPTER 1 OF THE VAIL TOWN CODE AND ADOPTING BY REFERENCE THE 2018 EDITIONS OF THE INTERNATIONAL BUILDING CODE. INTERNATIONAL RESIDENTIAL CODE. INTERNATIONAL FIRE CODE, INTERNATIONAL ENERGY CONSERVATION CODE, INTERNATIONAL PLUMBING CODE, INTERNATIONAL FUEL GAS CODE, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL EXISTING BUILDING CODE; AND THE 2017 EDITION OF THE NATIONAL ELECTRICAL CODE; AND THE 1997 EDITION OF THE UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS: WITH AMENDMENTS THERETO.

WHEREAS, the 2018 editions of the International Building Code, International Residential Code, International Fire Code, International Energy Conservation Code, International Plumbing Code, International Fuel Gas Code, International Mechanical Code, International Existing Building Code; and the 2017 Edition of the National Electrical Code; and the 1997 Edition of the Uniform Code for the Abatement of Dangerous Buildings have been published;

WHEREAS, the 2015 International Codes currently adopted by the Town of Vail lack the updates contained within in the 2018 International Codes that address modern construction means, methods, safety improvements, and code clarity;

WHEREAS, the adoption and use of the 2017 edition of the National Electrical Code is required by the State of Colorado;

WHEREAS, the Building and Fire Code Appeals Board of the Town of Vail has recommended adoption of the codes set forth in this ordinance; and

WHEREAS, the Vail Town Council finds that the adoption of the codes set forth in this ordinance will promote the health, safety and general welfare of the public and promote the coordinated and harmonious development of the Town in a manner that conserves and enhances its natural environment and its established character as a resort and residential community of the highest quality.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF VAIL, COLORADO, THAT:

SECTION 1. Chapter 1 of Title 10 of the Vail Town Code is hereby repealed in its entirety and reenacted to read as follows:

10-1-1: CODES ADOPTED BY REFERENCE

The following codes are hereby adopted by reference, as amended:

- A. Building Code The International Building Code, 2018 edition, including Appendices
 B, E, G, J and K, published by the International Code Council, 4051 Flossmoor
 Road, Country Club Hills, IL 60478-5975
- B. Residential Code Chapters 1 through 10 of The International Residential Code, 2018 edition, including Appendices F and J, published by the International Code Council, 4051 Flossmoor Road, Country Club Hills, IL 60478-5975
- C. Fire Code The International Fire Code, 2018 edition, including Appendices A, B, C, D, E, G, H, I and J, published by the International Code Council, 4051 Flossmoor Road, Country Club Hills, IL 60478-5975
- D. Energy Code The International Energy Conservation Code, 2018 edition, published by the International Code Council, 4051 Flossmoor Road, Country Club Hills, IL 60478-5975
- E. Plumbing Code The International Plumbing Code, 2018 edition, published by the International Code Council, 4051 Flossmoor Road, Country Club Hills, IL 60478-5975
- F. Fuel Gas Code The International Fuel Gas Code, 2018 edition, published by the International Code Council, 4051 Flossmoor Road, Country Club Hills, IL 60478-5975
- G. Mechanical Code The International Mechanical Code, 2018 edition, published by the International Code Council, 4051 Flossmoor Road, Country Club Hills, IL 60478-5975
- H. Existing Building Code The International Existing Building Code, 2018 edition, published by the International Code Council, 4051 Flossmoor Road, Country Club Hills, IL 60478-5975
- Electrical Code NFPA 70, The National Electrical Code, 2017 Edition, published by the National Fire Protection Association, Inc., 1 Batterymarch Park, Quincy, MA 02269
- J. Abatement Code The Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition, published by the International Conference of Building Officials, 5360 Workman Mill Road, Whittier, CA 90601-2298

10-1-2: AMENDMENTS TO THE INTERNATIONAL BUILDING CODE

The following amendments are hereby made to the International Building Code, 2018 Edition:

Section 101.1 Title: Section 101.1 is amended to read as follows:

"101.1 Title. These regulations shall be known as the Building Code of the Town of Vail, hereinafter referred to as 'this code'".

Section 101.4 Referenced codes: Section 101.4 is amended to read as follows:

"**101.4 Referenced codes.** The other codes listed in Sections 101.4.1 through 101.4.7 and referenced elsewhere in this code shall not be considered a part of this code unless specifically adopted."

Section 105.2 Work exempt from permit: Section 105.2 is amended to read as follows:

"Building:

2. Fences not over 6 feet high. **Note:** Fences required per Section 1510.8.4 and 3109 are not exempt from a permit.

14. Decks that are not over 30 inches above grade at any point and not part of a means of egress or an accessible route."

- Section 109.2 Schedule of permit fees: Section 109.2 is amended to read as follows:
 - "**109.2 Schedule of permit fees.** On buildings, structures, electrical, gas, mechanical and plumbing systems or alterations requiring a permit, a fee for each permit shall be paid as required, in accordance with the following Town of Vail Permit and Inspection Fee Schedule:"

Total Valuation:	Fees:
\$1.00 to \$500.00	\$50.00
\$501.00 to \$2,000.00	\$50.00 for the first \$500 plus \$3.05 for each additional \$100 or fraction thereof, to and including \$2000.
\$2,001.00 to \$25,000.00	\$87.50 for the first \$2000 plus \$14.00 for each additional \$1,000 or fraction thereof, to and including \$25,000.
\$25,001.00 to \$50,000.00	\$409.50 for the first \$25,000 plus \$10.10 for each additional \$1,000 or fraction thereof, to and including \$50,000.
\$50,001.00 to \$100,000.00	\$662.00 for the first \$50,000 plus \$7.00 for each additional \$1,000 or fraction thereof, to and including \$100,000.
\$100,001.00 to \$500,000.00	\$1012.00 for the first \$100,000 plus \$6.50 for each additional \$1,000 or fraction thereof, to and including \$500,000.
\$500,001.00 to \$1,000,000.00	\$3612.00 for the first \$500,000 plus \$5.00 for each additional \$1,000 or fraction thereof, to and including \$1,000,000.
\$1,000,001 and above	\$6112.00 for the first \$1,000,000 plus \$4.00 for each additional \$1,000 or fraction thereof.

Other related fees:

•	Building plan review fees65% of Permit Fee							
•	Plumbing and Mechanical plan review fees25% of Permit Fee							
•	Electrical plan review fees							
•	Plan revision fees\$55.00/hr., min. 2 hours							
•	Inspections outside of regular business hours\$55.00/hr.							
•	Re-inspection fees\$55.00/hr.							
•	Will-Call fee (added to every permit for will-call inspection services)\$5.00							
•	Plumbing and Mechanical permit fees shall be calculated utilizing the fee table above.							
•	Any work commencing prior to issuance of a permit is subject to double-permit fees.							
•	All electrical permit fees will be based on the current State of Colorado Electrical Fee Schedule, plus 15%. This includes TWO inspections. For ANY additional inspections, including re- inspections for corrections assessed by the inspector(s), an additional fee of \$55.00 per inspection will be assessed. This fee shall be paid prior to any further inspections.							

Section 110.3.9 Other inspections: Section 110.3.9 is amended by the <u>addition</u> of the following text:

"The Building Official shall also be authorized to make or require inspections of construction work as required by Titles 11 through 14 of the Town of Vail Municipal Code."

Section 1505.1 General: Section 1505.1 is amended to read as follows:

"**1505.1 General.** In accordance with Town of Vail Municipal Codes, all roof coverings shall be Class A roofing only. Wood shakes and shingles are not permitted except where exempted for replacement or repair as defined below. Where the roof profile allows space between the roof covering and the roof decking at the eave ends, the spaces shall be constructed to prevent intrusion of flames and embers or have one layer of 72-pound (32.4 kg) mineral-surfaced non-perforated cap sheet complying with ASTM D3909 installed over the combustible decking.

Replacement or Repair: Each structure with a nonconforming roof covering or roof assembly shall be allowed one (1) replacement or repair of twenty five percent (25%) or less of the roof area. Replacement or repair in excess of twenty five percent (25%) or a second replacement or repair of the roof covering or roof assembly shall trigger replacement of the nonconforming covering or assembly in its entirety. For purposes of this section, a two-family dwelling shall be considered two separate structures. Emergency repairs of less than 10 square feet shall not be subject to the twenty five percent (25%) rule. **Exception:** Metal and concrete roofing systems."

Table 1505.1 Minimum Roof Covering Classification for Types of Construction and all associated footnotes are <u>deleted</u>.

Section 1505.3 Class B roof assemblies is deleted.

Section 1505.4 Class C roof assemblies is deleted.

Section 1505.5 Nonclassified roofing is deleted.

Section 1505.6 Fire-retardant-treated wood shingles and shakes is deleted.

Section 1505.7 Special purpose roofs is deleted.

Section 1507.1.2 Ice barriers: Section 1507.1.2 is amended to read as follows:

"**1507.1.2 Ice barriers.** Ice barriers shall be installed for asphalt shingles, metal roof panels and shingles, mineral-surfaced roll roofing, slate, slate-type and other shingles. The ice barrier shall consist of not less than two layers of underlayment cemented together, or a self-adhering polymer modified bitumen sheet shall be used in place of normal underlayment. The ice barrier shall completely cover all roof surfaces.

Exception: Detached accessory structures that do not contain conditioned floor area."

Section 1510.8.6 Snow retention devices: Section 1510.8.6 is <u>added</u>, to read as follows:

"1510.8.6 Snow retention devices. New roof assemblies shall be designed to prevent accumulations of snow from shedding onto exterior balconies, decks, stairways, sidewalks, streets, alleys, pedestrian and vehicle exits from buildings, areas directly above or in front of utility meters and/or adjacent properties. The design of snow retention devices shall be provided by a registered design professional or as determined by the Building Official.

Exception: Roof areas with a horizontal projection of less than 48 inches that will not receive snow shedding from a higher roof. The horizontal projection shall be measured perpendicular to the exterior wall line from the edge of the roof or eave to the intersecting wall surface."

Section 1603.1.10 Boulder and rock walls: Section 1603.2 is <u>added</u>, to read as follows:

"**1603.1.10 Boulder and rock walls.** Boulder or rock walls with a height of greater than 48 inches shall be designed by a registered design professional and shall comply with Section 1603.1."

Section 1604.1.1 Hazard areas: Section 1604.1.1 is <u>added</u>, to read as follows:

"**1604.1.1 Hazard areas.** All new construction and additions to existing structures located in mapped debris flow, rock fall, avalanche and flood hazard areas shall be designed in compliance with Title 12, Chapter 21 of the Town of Vail Municipal Code."

Section 1608.1 General is deleted.

Section 1608.2 Ground snow loads: Section 1608.2 is amended to read as follows:

"**1608.2 Ground and roof snow loads.** The ground snow load for the Town of Vail is 142 pounds per square foot. Designs for roof snow loads shall be as follows:

1. Roof pitches of less than 4:12 shall be designed to carry a 100 pound per square foot snow load.

2. Roof pitches of 4:12 and greater shall be designed to carry an 80 pound per square foot snow load.

There is no allowance for pitch reduction nor is there a requirement to increase surcharge loading due to snow drifting or type of roof covering. Snow loads for decks and exterior balconies shall be as required for roofs."

Section 1809.5 Frost protection: Section 1809.5 is amended to read as follows:

"1. Extending to no less than 48 inches below grade."

Section 2111.1 General: Section 2111.1 is amended to read as follows:

"**2111.1 General.** The construction of masonry fireplaces, consisting of concrete or masonry, shall be in accordance with this section and Title 5, Chapter 3 of the Town of Vail Municipal Code."

Section 2902.2 Separate facilities: Section 2902.2 is amended to read as follows:
 "Exception 2: Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 30 or fewer."

Exception 4 is deleted.

Section 3107.1 General: Section 3107.1 is amended to read as follows:

"3107.1 General. Signs shall be designed, constructed and maintained in accordance with this code and Title 11 of the Town of Vail Municipal Codes."

Section 3109 Swimming Pools: Section 3109 is amended to read as follows:
 "SECTION 3109 SWIMMING POOL ENCLOSURES AND SAFETY DEVICES
 3109.1 General. Swimming pools shall comply with the requirements of Sections 3109.2 through 3109.5, other applicable sections of this code, and the Colorado Department of Public Health and Environment Water Quality Control Division standard 5 CCR 1003-5.

3109.2 Definition. The following term is defined in Chapter 2: **SWIMMING POOLS.**

3109.3 Public and semi-public swimming pools. Public and semi-public swimming pools as defined by Colorado Department of Public Health and Environment Water Quality Control Division standard 5 CCR 1003-5 shall be completely enclosed by a fence not less than 60 inches (1524 mm) in height or a screen enclosure. Openings in the fence shall not permit the passage of a 4-inch-diameter (102 mm) sphere. The fence or screen enclosure shall be equipped with self-closing and self-latching gates, with the latch a minimum of 54 inches (1372 mm) high.

3109.4 Private swimming pools. Private swimming pools as defined by Colorado Department of Public Health and Environment Water Quality Control Division standard 5 CCR 1003-5 shall be completely enclosed by a barrier complying with Sections 3109.4.1 through 3109.4.3.

Exception: A swimming pool with a power safety cover or a spa with a safety cover complying with ASTM F 1346 need not comply with this section.

3109.4.1 Barrier height and clearances. The top of the barrier shall be not less than 48 inches (1219 mm) above grade measured on the side of the barrier that faces away from the swimming pool. The vertical clearance between grade and the bottom of the barrier shall be not greater than 2 inches (51 mm) measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool structure is above grade, the barrier is authorized to be at ground level or mounted on top of the pool structure, and the vertical clearance between the top of the pool structure and the bottom of the barrier shall be not greater than 4 inches (102 mm).

3109.4.1.1 Openings. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.

3109.4.1.2 Solid barrier surfaces. Solid barriers which do not have openings shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.

3109.4.1.3 Closely spaced horizontal members. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall be not greater than 1 3/4 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall be not greater than 1 3/4 inches (44 mm) in width.

3109.4.1.4 Widely spaced horizontal members. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall be not greater than 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall be not greater than 1 3/4 inches (44 mm) in width.

3109.4.1.5 Chain link dimensions. Mesh size for chain link fences shall be not greater than a 2 1/4-inch square (57 mm square) unless the fence is provided with slats fastened at the top or the bottom that reduce the openings to not more than 1 3/4 inches (44 mm).

3109.4.1.6 Diagonal members. Where the barrier is composed of diagonal members, the opening formed by the diagonal members shall be not greater than 1 3/4 inches (44 mm).

3109.4.1.7 Gates. Access doors or gates shall comply with the requirements of Sections 3109.4.1.1 through 3109.4.1.6 and shall be equipped to accommodate a locking device. Pedestrian access doors or gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Doors or gates other than pedestrian access doors or gates shall have a self-latching device. Release mechanisms shall be in accordance with Sections 1010.1.9 and 1109.13. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the door or gate, the release mechanism shall be located on the pool side of the door or gate and barrier shall be without openings greater than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

3109.4.1.8 Dwelling wall as a barrier. Where a wall of a dwelling serves as part of the barrier, one of the following shall apply:

1. Doors with direct access to the pool through that wall shall be equipped with an alarm that produces an audible warning when the door or its screen, if present, are opened. The alarm shall be listed and labeled in accordance with UL 2017. In dwellings not required to be Accessible units, Type A units or Type B units, the deactivation switch shall be located 54 inches (1372 mm) or more above the threshold of the door. In dwellings required to be Accessible units, Type A units or Type B units, the deactivation switch shall be located 54 inches (1372 mm) or more above the threshold of the door. In dwellings required to be Accessible units, Type A units or Type B units, the deactivation switch shall be located not higher than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the threshold of the door.

2. The pool shall be equipped with a power safety cover that complies with ASTM F 1346.

3. Other means of protection, such as self-closing doors with self-latching devices, which are approved, shall be accepted so long as the degree of protection afforded is not less than the protection afforded by Item 1 or 2 above.

3109.4.1.9 Pool structure as barrier. Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then the ladder or steps either shall be capable of being secured, locked or removed to prevent access, or the ladder or steps shall be surrounded by a barrier that meets the requirements of Sections 3109.4.1.1 through 3109.4.1.8. Where the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

3109.4.2 Indoor swimming pools. Walls surrounding indoor swimming pools shall not be required to comply with Section 3109.4.1.8.

3109.4.3 Prohibited locations. Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

3109.5 Entrapment avoidance. Suction outlets shall be designed and installed in accordance with ANSI/APSP-7."

10-1-3: AMENDMENTS TO THE INTERNATIONAL RESIDENTIAL CODE

The following amendments are hereby made to the International Residential Code, 2018 Edition:

Section R101.1 Title: Section 101.1 is amended to read as follows:

"**R101.1 Title.** These provisions shall be known as the Residential Code of the Town of Vail, hereinafter referred to as 'this code'".

Section R105.2 Work exempt from permit: Section R105.2 is amended to read as follows:

"Building:

2. Fences not over 6 feet high.

10. Decks that are not over 30 inches above grade at any point and do not serve the exit door required by Section R311.4."

Section R109.1.5 Other inspections: Section R109.1.5 is amended by the <u>addition</u> of the following text:

"The Building Official shall also be authorized to make or require inspections of construction work as required by Chapter 17 of the International Building Code and by Titles 11 through 14 of the Town of Vail Municipal Code."

 Table R301.2(1) Climatic and Geographic Design Criteria:
 Table R301.2(1) is amended to read as follows:

C	Climate Zone	Ground Snow Load	Wind Speed (mph)	Topographic Effects	Seismic Design Category	Weathering	Frost Line	Termite	Winter Design Temp	Ice Barrier Underlayment Required	Air Freezing Index
	6B	142	115	В	В	Severe	48	Slight/Mod.	-5	Yes	2500

Section R301.2.3 Snow loads: Section R301.2.3 is amended to read as follows:

"**R301.2.3 Ground and roof snow loads.** The ground snow load for the Town of Vail is 142 pounds per square foot. Designs for roof snow loads shall be as follows:

1. Roof pitches of less than 4:12 shall be designed to carry a 100 pound per square foot snow load.

2. Roof pitches of 4:12 and greater shall be designed to carry an 80 pound per square foot snow load.

There is no allowance for pitch reduction nor is there a requirement to increase surcharge loading due to snow drifting or type of roof covering. Snow loads for decks and exterior balconies shall be as required for roofs. All buildings and structures shall be designed in accordance with accepted engineering practice."

Table R301.5 Maximum Uniformly Distributed Live Loads: Table R301.5 is amended by <u>deleting</u> "Balconies (exterior) and decks" and "Fire escapes" from the table and adding new footnote (i) to read as follows:

"**Note i.** The minimum uniformly distributed live loads for exterior balconies and decks shall be 100 psf."

Section R302.1 Exterior Walls: Section R302.1 is amended by <u>adding</u> the following text:

"**Exception 6**: Projections, openings or penetrations in shared walls of two-family dwelling units with a lot line separating the units along the shared wall."

Section R311.7.11 Alternating tread devices: Section 311.7.11 is amended to read as follows:

"**Exception:** Alternating tread devices are allowed to be used as an element of a means of egress for lofts, mezzanines and similar areas of 200 gross square feet (18.6 m^2) or less where an emergency escape and rescue opening is provided for the area served and such devices do not provide exclusive access to a kitchen or bathroom."

Section R311.7.12 Ships ladders: Section R311.7.12 is amended to read as follows:

"**Exception:** Ships ladders are allowed to be used as an element of a means of egress for lofts, mezzanines and similar areas of 200 gross square feet (18.6 m²) or less where an emergency escape and rescue opening is provided for the area served and such devices do not provide exclusive access to a kitchen or bathroom."

Section R313.1 Townhouse automatic fire sprinkler systems: Section R313.1 is amended to read as follows:

"**Exception:** An automatic residential fire sprinkler system may be required where additions and alterations are made to existing townhouses depending on scope and size of the project in accordance with Vail Fire and Emergency Services fire sprinkler installation requirements."

Section R313.1.1 Design and installation: Section R313.1.1 is amended to read as follows:

"**R313.1.1 Design and installation.** Automatic residential fire sprinkler systems for townhouses shall be designed and installed in accordance with NFPA 13D and Vail Fire and Emergency Services fire sprinkler installation requirements."

Section R313.2 One- and two-family dwellings automatic fire sprinkler systems: Section R313.2 is amended to read as follows:

"Exception: An automatic residential fire sprinkler system may be required where additions and alterations are made to existing buildings depending on scope and size of the project in accordance with Vail Fire and Emergency Services fire sprinkler installation requirements."

Section R313.2.1 Design and installation: Section R313.2.1 is amended to read as follows:

"R313.2.1 Design and installation. Automatic residential fire sprinkler systems shall be designed and installed in accordance with NFPA 13D and Vail Fire and Emergency Services fire sprinkler installation requirements."

Section R315.2 Where required: Section R315.2 is amended to read as follows:

- "**R315.2 Where required.** Carbon monoxide alarms shall be provided in accordance with NFPA 72, NFPA 720, C.R.S. § 38-45-101 and Vail Fire and Emergency Services alarm installation standards."
- Section R315.2.1 New construction: Section R315.2.1 is amended to read as follows: "R315.2.1 New construction. For new construction, carbon monoxide alarms shall be provided in accordance with NFPA 72, NFPA 720, C.R.S. § 38-45-101 and Vail Fire and Emergency Services alarm installation standards."

Section R315.3 Location: Section R315.3 is amended with the <u>addition</u> of the following text:

"In addition to the above locations, carbon monoxide alarms shall be provided in accordance with NFPA 72, NFPA 720, C.R.S. § 38-45-101 and Vail Fire and Emergency Services alarm installation standards."

Section R315.7 Carbon monoxide detection systems: Section R315.7 is amended to read as follows:

"R315.7 Carbon monoxide detection systems. Carbon monoxide detection systems shall be permitted to be used in lieu of carbon monoxide alarms and shall comply with NFPA 72, NFPA 720, C.R.S. § 38-45-101 and Vail Fire and Emergency Services alarm installation standards."

Section R315.7.2 Locations: Section R315.7.2 is amended to read as follows:

"**R315.7.2 Location.** Carbon monoxide detectors shall be installed in accordance with Section R315.3, as amended."

Section R326.1 General: Section R326.1 is amended to read as follows:

"**R326.1 General.** The design and construction of pools and spas shall comply with Section 3109 of the International Building Code, as amended."

Section R507.2.1 Wood materials: Section R507.2.1 is amended with the <u>addition</u> of the following exception:

"Exception: An approved flashing detail in accordance with Section R507.2.4 that prevents moisture and water accumulation on member surfaces and joints may be utilized in-lieu of preservative-treated materials."

Section R902.1 Roofing covering materials: Section R902.1 is amended to read as follows:

"R902.1 Roofing covering materials. In accordance with Town of Vail Municipal Codes, all roof coverings shall be Class A roofing only. Class A roofing required by this section to be listed shall be tested in accordance with UL 790 and ASTM E108. Wood shakes and shingles are not permitted except where exempted for replacement or repair as defined below. Where the roof profile allows space between the roof covering and the roof decking at the eave ends, the spaces shall be constructed to prevent intrusion of flames and embers, or have one layer of 72-pound (32.4 kg) mineral-surfaced non-perforated cap sheet complying with ASTM D3909 installed over the combustible decking.

Replacement or Repair: Each structure with a nonconforming roof covering or roof assembly shall be allowed one (1) replacement or repair of twenty five percent (25%) or less of the roof area. Replacement or repair in excess of twenty five percent (25%) or a second replacement or repair of the roof covering or roof assembly shall trigger replacement of the nonconforming covering or assembly in its entirety. For purposes of this section, a two-family dwelling shall be considered two separate structures. Emergency repairs of less than 10 square feet shall not be subject to the twenty five percent (25%) rule. **Exception:** Metal and concrete roofing systems."

Section 902.2 Fire-retardant-treated wood shingles and shakes is deleted.

Section R903.5 Snow retention devices: Section R903.5 is <u>added</u>, to read as follows: "903.5 Snow retention devices. New roof assemblies shall be designed to prevent accumulations of snow from shedding onto areas directly above or in front of utility meters and/or adjacent properties. The design of snow retention devices shall be provided by a registered design professional or as determined by the Building Official.

Exception: Roof areas with a horizontal projection of less than 48 inches that will not receive snow shedding from a higher roof. The horizontal projection shall be measured perpendicular to the exterior wall line from the edge of the roof or eave to the intersecting wall surface."

Section R905.1.2 Ice barriers: Section R905.1.2 is amended to read as follows:

"R905.1.2 Ice barriers. Ice barriers shall be installed for asphalt shingles, metal roof panels and shingles, mineral-surfaced roll roofing, slate, slate-type and other

shingles. The ice barrier shall consist of not less than two layers of underlayment cemented together, or a self-adhering polymer modified bitumen sheet shall be used in place of normal underlayment. The ice barrier shall completely cover all roof surfaces.

Exception: Detached accessory structures that do not contain conditioned floor area."

Section R1001.1 General: Section R1001.1 is amended to read as follows:

"**R1001.1 General.** Masonry fireplaces shall be constructed in accordance with this section, the applicable provisions of Chapters 3 and 4 of this code, and with Title 5 of the Town of Vail Municipal Code."

CHAPTERS 11 THROUGH 43 ARE DELETED FROM THE INTERNATIONAL RESIDENTIAL CODE AND REPLACED WITH THE CORRESPONDING INTERNATIONAL CODES AND NATIONAL ELECTRICAL CODE.

10-1-4: AMENDMENTS TO THE INTERNATIONAL FIRE CODE

The following amendments are hereby made to The International Fire Code, 2018 Edition:

Section 101.1 Title: Section 101.1 is amended to read as follows:

"**101.1 Title.** These regulations shall be known as the Fire Code of the Town of Vail, hereinafter referred to as 'this code'".

Section 202 Definitions: The following definitions are amended to read as follows:

"FALSE ALARM: See Title 4, Business and License Regulations, Town of Vail Municipal Code."

"PORTABLE OUTDOOR FIREPLACE: A portable, outdoor, solid-fuel burning fireplace that may be constructed of steel, concrete, clay or other noncombustible material and equipped with a screen or other approved spark arrestor. A portable outdoor fireplace may be open in design, or may be equipped with a small hearth opening and a short chimney or chimney opening in the top."

Section 202 Definitions: The following definition is <u>added</u> to read as follows:

"TAMPERING: Any alteration, damage, misuse, deactivation or other similar action that renders any fire protection, fire detection or other life-safety system inoperable without the express written approval of Vail Fire and Emergency Services."

Section 307.1.1 Prohibited open burning: Section 307.1.1 is amended to read as follows:

"307.1.1 Prohibited open burning. The following burning activities are unlawful in the Town of Vail:

- 1. Open burning.
- 2. Bonfires.
- **3.** Recreational fires.

4. The burning of any materials when a National Weather Service Red Flag Warning is activated.

5. The burning of any materials when Stage 2 or 3 fire restrictions are in place.

6. The use of portable outdoor fireplaces when Stage 2 or 3 fire restrictions are in place.

Exceptions:

Burning conducted for training purposes by Vail Fire and Emergency Services.
 If the burning is a smokeless flare or safety flare used to indicate danger to the public.

3. Open burning conducted pursuant to a permit issued by the Fire Code Official upon written application, if the Fire Code Official determines that such burning will be performed without hazard to the public health, safety or welfare.

4. Prescribed burning for the purpose of reducing the impact of wildland fire when authorized by the Fire Code Official.

5. The use of propane or natural gas appliances equipped with automatic shut-off controls."

Section 307.3 Extinguishment authority: Section 307.3 is amended to read as follows:

"**307.3 Extinguishment authority.** Where any open burning, permitted or otherwise (including the use of a portable outdoor fireplace), creates or adds to a hazardous situation or creates a nuisance or health risk due to smoke or other products of combustion, the fire shall be ordered to be extinguished by Vail Fire and Emergency Services or Vail Police Department."

Section 307.4.1 Bonfires is deleted.

Section 307.4.2 Recreational fires is deleted.

Section 307.4.3 Portable outdoor fireplaces: Section 307.4.3 is amended to read as follows:

"307.4.3 Portable outdoor fireplaces. Use of a portable outdoor fireplace shall be permitted, subject to the following restrictions:

1. Portable outdoor fireplaces shall be equipped with a properly fitting spark screen or arrestor.

2. Portable outdoor fireplaces shall be used in accordance with manufacturer's instructions.

3. Portable outdoor fireplaces shall maintain a minimum clearance of fifteen (15) feet from any structure or other combustible materials.

4. Smoke created from a portable outdoor fireplace shall be maintained in such a manner as to avoid causing a nuisance or hazardous condition.

5. Use of a portable outdoor fireplace shall be in accordance with Section 307.5, as amended.

6. Use of a portable outdoor fireplace on short-term rental property is strictly prohibited.

7. Use of a portable outdoor fireplace is prohibited when Stage 2 or 3 fire restrictions are in place."

Section 307.5 Attendance: Section 307.5 is amended to read as follows:

"**307.5 Attendance.** Permitted open burning, including the use of portable outdoor fireplaces, shall be constantly attended until the fire is extinguished. Not fewer than one portable fire extinguisher complying with Section 906 with a minimum 3A:60B:C rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization."

Section 308.1.6.3 Sky lanterns: Section 308.3.6.3 is amended to read as follows: "308.1.6.3 Sky lanterns. The use of sky lanterns is prohibited.

Section 308.3.1 Open-flame decorative devices: Section 308.3.1 is amended with the <u>addition</u> of the following text:

"11. Candles may only be used in constantly attended locations."

Section 503.6 Security gates: Section 503.6 is amended to read as follows:

"503.6 Security gates. The installation of security gates across a fire apparatus access road or driveway shall be approved by the fire code official. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200."

Section 901.6 Inspection, testing and maintenance: Section 901.6 is amended to read as follows:

"901.6 Inspection, testing and maintenance. Fire detection and alarm systems, emergency alarm systems, gas-detection systems, fire-extinguishing systems, mechanical smoke exhaust systems and smoke and heat vents shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. Existing systems, including signaling and notification devices that are no longer listed by UL or supported by the manufacturer shall be replaced per current NFPA and Vail Fire and Emergency Services standards.

Non-required fire protection systems and equipment shall be inspected, tested and maintained or removed."

Section 903.2.10 Group S-2 enclosed parking garages: The Exception listed under Section 903.2.10 is <u>deleted</u>.

Section 903.3.1.3 NFPA 13D sprinkler systems: Section 903.3.1.3 is amended to read as follows:

"903.3.1.3 NFPA 13D sprinkler systems. Automatic sprinkler systems that are installed in one- and two-family dwellings and townhouses shall be installed in accordance with NFPA 13D and Vail Fire and Emergency Services installation standards."

Section 903.4 Sprinkler system supervision and alarms: All **Exceptions** listed under Section 903.4 are <u>deleted</u>.

Section 907.2 Where required – new buildings and structures: Section 907.2 is amended to read as follows:

"907.2 Where required – new buildings, structures, one- and two-family dwellings and townhouses. An approved fire alarm system installed in accordance with the provisions of this code, NFPA 72 and Vail Fire and Emergency Services installation standards shall be provided in new buildings, structures, one- and two-family dwellings and townhouses in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.5, unless other requirements are provided by another section of this code.

Not fewer than one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or waterflow detection devices. Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, a single fire alarm box shall be installed.

Exceptions:

1. The manual fire alarm box is not required for fire alarm systems dedicated to elevator recall control and supervisory service.

The manual fire alarm box is not required for Group R-2 occupancies unless required by the Fire Code Official to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is open to the public.
 The manual fire alarm box is not required for fire alarm systems dedicated to one- and two-family dwellings and townhouses."

Section 907.2.10.2 Groups R-2, R-3, R-4 and I-2: Section 907.2.10.2 is amended to read as follows:

"907.2.10.2 Groups R-2, R-3, R-4, I-2, and all residential properties that are available for rent or lease. Single or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4, I-2, and all residential properties that are available for rent or lease, regardless of occupant load, at all of the following locations:

- **1.** On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
- 2. In each room used for sleeping purposes.
- 3. In each story within a dwelling unit, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level."

Section 907.4.1 Protection of fire alarm control unit: The following **Exception** is <u>added</u> to Section 907.4.1:

"2. In residential installations where the control panel is located in a closet or room with no mechanical equipment."

Section 907.6.3 Initiating device identification: Exceptions 1, 2 and 4 are <u>deleted</u> from the section and a new Exception is added as follows:

"2. Fire alarm systems in one- and two family dwellings and townhouses."

Section 907.6.6 Monitoring: All Exceptions are <u>deleted</u> from this section.

Section 915.1.1 Where required: Section 915.1.1 is amended to read as follows:

"915.1.1 Where required. Carbon monoxide detection shall be provided in Group I-1, I-2, I-4, R, one- and two family dwellings and townhouse occupancies, and in classrooms in E occupancies in the locations specified in Section 915.2 where any of the conditions in Sections 915.1.2 through 915.1.6 exist."

Section 1103.8 Single- and multiple-station smoke alarms: Section 1103.8 is amended to read as follows:

"**1103.8 Single- and multiple-station smoke alarms.** Single- and multiplestation smoke alarms shall be installed in existing I-1, R, one- and two-family dwellings and townhouse occupancies in accordance with Sections 1103.8.1 through 1103.8.3."

Section 1103.8.1 Where required: Exception 2 in this section is deleted.

Appendix B – Fire-flow Requirements For Buildings: The following statement is <u>added</u> to **Appendix B:**

"The maximum flow reduction for sprinklered buildings shall not be greater than 50%."

Appendix D – Fire Apparatus Access Roads: The following statement is <u>added</u> to **Appendix D:**

"This appendix is for reference only but may be used to assist in performance based design. Refer to Title 14, Development Standards, Town of Vail Municipal Code."

10-1-5: AMENDMENTS TO THE INTERNATIONAL ENERGY CONSERVATION CODE

The following amendments are hereby made to The International Energy Conservation Code, 2018 Edition:

Section C101.1 Title: Section C101.1 is amended to read as follows:

"**C101.1 Title.** These regulations shall be known as the Commercial Energy Code of the Town of Vail, hereinafter referred to as 'this code'".

Table C402.1.3 Opaque Thermal Envelope Insulation Component MinimumRequirements, R-Value Method:Table C402.1.3 is amended by adding the followingnote:

"**Note j.:** Wood framed and other may use R-21 within wall cavities in lieu of continuous insulation."

Section C403.3.2.3 Efficiency rating (mandatory): Section C403.3.2.3 is <u>added</u> to read as follows:

"C403.3.2.3 Efficiency rating (mandatory). All heating equipment shall have a minimum efficiency rating of 92% AFUE.

Exception: This requirement does not apply to the addition, alteration or repair of an existing building."

Section R101.1 Title: Section R101.1 is amended to read as follows:

"**R101.1 Title.** These regulations shall be known as the Residential Energy Code of the Town of Vail, hereinafter referred to as 'this code'".

Table R402.1.2 Insulation and Fenestration Requirements by Component:TableR402.1.2 is amended by the addition of the following note:Table

"Note j.: Wood frame R-value may use R-21 within wall cavities in lieu of continuous insulation."

Section R403.7.1 Efficiency rating (mandatory): Section R403.7.1 is <u>added</u> to read as follows:

"**R403.7.1 Efficiency rating (mandatory).** All heating equipment shall have a minimum efficiency rating of 92% AFUE.

Exception: This requirement does not apply to the addition, alteration or repair of an existing building."

Section R403.13 Fire pits: Section R403.13 is added to read as follows:

"**R403.13 Fire pits.** Fire pits and outdoor fireplaces serving residential units require automatic shut-off controls with a maximum 60-minute timer."

10-1-6: AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE

The Town of Vail hereby adopts, by reference, all amendments to the International Plumbing Code, 2018 Edition, as adopted by the State of Colorado and referred to as the "Colorado Plumbing Code", as well as the following amendment:

Section 903.1 Roof extension: Section 903.1 is amended to read as follows:

"**903.1 Roof extensions.** Open vent pipes that extend through a roof shall be a minimum of 3 inches (76 mm) in diameter and shall be terminated not less than 16 inches (406 mm) above the roof.

Note: Where a roof is to be used for any purpose other than weather protection, open vent pipes shall terminate not less than 7 feet (2134 mm) above the roof."

10-1-7: AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE

The Town of Vail hereby adopts, by reference, all amendments to the International Fuel Gas Code, 2018 Edition, as adopted by the State of Colorado and referred to as the "Colorado Fuel Gas Code".

10-1-8: AMENDMENTS TO THE INTERNATIONAL MECHANICAL CODE

The following amendments are hereby made to The International Mechanical Code, 2018 Edition:

Section 101.1 Title: Section 101.1 is amended to read as follows:

"101.1 Title. These regulations shall be known as the Mechanical Code of the Town of Vail, hereinafter referred to as 'this code'".

Section 101.2 Scope: Section 101.2 is amended by the <u>deletion</u> of the Exception.

Section 103 Department of Mechanical Inspection: Section 103 is <u>deleted</u> and replaced with Section 103 of the International Building Code, as adopted.

Section 104 Duties and Powers of the Code Official and Section 105 Approval: Sections 104 and 105 are <u>deleted</u> and replaced with Section 104 of the International Building Code, as adopted. **Section 106.5.2 Fee schedule:** Section 106.5.2 is <u>deleted</u> and replaced with Section 109.2 of the International Building Code, as amended and adopted.

Section 701.3 Combustion air ducts: Section 701.3 is added, to read as follows:

"701.3 Combustion air ducts. Combustion air ducts shall terminate to the outside a minimum of 36 inches above finished grade."

Section 804.3.4 Horizontal terminations: Section 804.3.4 is amended to read as follows:

"6. The bottom of the vent termination shall be located not less than 36 inches above finished grade."

10-1-9: AMENDMENTS TO THE INTERNATIONAL EXISTING BUILDING CODE

Section 101.1 Title: Section 101.1 is amended to read as follows:

"101.1 Title. These regulations shall be known as the Existing Building Code of the Town of Vail, hereinafter referred to as 'this code'".

Section 101.4.2 Buildings previously occupied: Section 101.4.2 is amended to read as follows:

"**101.4.2 Buildings previously occupied.** The legal occupancy of any building existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the International Fire Code, or as deemed necessary by the code official for the general safety and welfare of the occupants and the public."

10-1-10: AMENDMENTS TO THE NATIONAL ELECTRICAL CODE, NFPA 70

The Town of Vail hereby adopts, by reference, all amendments to the National Electrical Code, NFPA 70, 2017 Edition, as adopted by the State of Colorado and referred to as the "Colorado Electrical Code".

10-1-11: AMENDMENTS TO THE UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS

The following amendment is hereby made to the Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition:

Section 301 General: Section 301 is amended to reads as follows:

"Section 301 General. For the purpose of this code, certain terms, phrases, words, and their derivatives shall be construed as specified in this section or as specified in the Building Code.

BUILDING CODE is the International Building Code, as adopted and amended by the Town of Vail.

DANGEROUS BUILDING is any building or structure deemed to be dangerous under the provisions of Section 302 of this code."

10-1-12: COPIES OF CODES AVAILABLE

Copies of all codes adopted by this Chapter and all amendments thereto shall be available for inspection at the Office of the Town Clerk during regular business hours and are available to be viewed online at <u>www.iccsafe.org</u> and <u>www.vailgov.com</u>.

10-1-13: PENALTIES

- A. A person, company, corporation or other entity who violates any provision of the Codes adopted by this Chapter; or fails to comply with any order made thereunder; or who builds in violation of any detailed statements, specifications or plans submitted and approved thereunder; or any certificate or permit issued thereunder; shall be subject to the penalties provided in Title 1, Chapter 4, Section 1 of this Code. Each day the violation continues shall constitute a separate offense.
- B. The Town of Vail may maintain an action for damages, declatory relief, specific performance, injunction, or any other appropriate relief for a violation of any provision of this Chapter.

SECTION 2. The Codes adopted and amended by this Ordinance shall be effective for all Building Permit Applications received by the Town of Vail's Community Development Department on or after January 1, 2019.

SECTION 3. If any part, section, subsection, sentence, clause or phrase of this ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this ordinance; and the Town Council hereby declares it would have passed this ordinance, and each part, section, subsection, sentence, clause or phrase thereof, regardless of the fact that any one or more parts, sections, subsections, sentences, clauses or phrases be declared invalid.

SECTION 4: The amendment of any provision of the Vail Town Code in this ordinance shall not affect any right which has accrued, any duty imposed, any violation that occurred prior to the effective date hereof, any prosecution commenced, nor any other action or proceeding as commenced under or by virtue of the provision amended. The amendment of any provision hereby shall not revive any provision or ordinance previously repealed or superseded unless expressly stated herein.

SECTION 5. All bylaws, orders, resolutions and ordinances, or parts thereof, inconsistent herewith are repealed to the extent only of such inconsistency. This repealer shall

not be construed to revise any bylaw, order, resolution or ordinance, or part thereof, theretofore repealed.

INTRODUCED, READ ON FIRST READING, APPROVED, AND ORDERED PUBLISHED ONCE IN FULL ON FIRST READING this __ day of _____, 2018 and a public hearing and second reading of this Ordinance set for the __ day of _____, 2018 in the Council Chambers of the Vail Municipal Building, Vail, Colorado.

ATTEST:

David Chapin, Mayor

Patty McKenny, Town Clerk

INTRODUCED, READ, ADOPTED AND ENACTED ON THE SECOND READING AND ORDERED PUBLISHED IN FULL this __ day of _____, 2018.

ATTEST:

David Chapin, Mayor

Patty McKenny, Town Clerk