ORDINANCE NO. 1126

AN ORDINANCE OF THE CITY OF KETCHUM, IDAHO,
REPEALING ORDINANCE NO. 1079 AND
REPLACING CHAPTER 15.04, BUILDING CODES, OF THE KETCHUM MUNICIPAL CODE, ITS ENTIRETY AND
ADOPTING THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE, INCLUDING APPENDICES A, B, C, E, G, I AND J, AND REVISED SECTION 903 AS MODIFIED HEREIN, AND EXCLUDING SECTION 101.4.3 (PLUMBING); ADOPTING THE 2012 INTERNATIONAL RESIDENTIAL CODE, PARTS I THROUGH IV AND PART IX INCLUDING APPENDIX D, E, F, G, H, J, K, M; THE 2012 INTERNATIONAL ENERGY CONSERVATION CODE; THE 2012 INTERNATIONAL EXISTING BUILDING CODE; AND THE 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE; PUBLISHED BY THE INTERNATIONAL CODE COUNCIL, AS AMENDED HEREIN, AS THE OFFICIAL CODES FOR SAID CITY, REGULATING ALL BUILDING AND ENERGY CONSERVATION AS DEFINED IN THE SCOPE OF THE CODES; PROVIDING FOR ENFORCEMENT AND PENALTIES; PROVIDING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING A CODIFICATION CLAUSE; PROVIDING A REPEALER CLAUSE; PROVIDING FOR PUBLICATION BY SUMMARY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Ketchum has adopted the International series of codes, including the International Building, Residential, Energy Conservation, Existing Building, Property Maintenance and Fire Codes;

WHEREAS, the Idaho Building Code Act requires the City adopt the 2012 versions of the International Building Code as determined by the Idaho Building Code Board and the City desires to adopt such Code;

WHEREAS, pursuant to Idaho Code 39-4116, the City is empowered to amend the 2012 International series of codes to reflect local concerns;

WHEREAS, the City has determined that good cause exists to amend the 2012 International Building (IBC), Residential (IRC), Energy Conservation (IECC), Existing Building (IEBC), Property Maintenance (IPMC) and Fire (IFC) Codes and such amendment is reasonably necessary;

WHEREAS, the City of Ketchum has made a commitment to preserving the environmental quality of the region through participation in energy initiatives, resource conservation in City buildings, encouraging water conservation by its citizens and educational outreach to the community;

WHEREAS, codes have evolved in recent years to regulate not only immediate life safety hazards, but also a larger set of hazards created by the cumulative impacts of buildings on human and environmental health;

WHEREAS, buildings use the most energy (40%) of any sector in the United States, therefore it makes sense to curtail impact where it is greatest;

WHEREAS, Ketchum's climate results in high heating load and large energy consumption, which provides an opportunity to conserve large amounts of energy and to save resources and money;

WHEREAS, in the United States, buildings use 14% of potable water consumption, and in Ketchum's dry, high desert climate, it is prudent to strive to conserve water for a better environment;

WHEREAS, exterior energy consumption has to date been largely unregulated, and exterior energy conservation represents a great opportunity to begin to reduce/mitigate that energy use;

WHEREAS, a 2010 McGraw Hill study found that the return on investment of energy efficient buildings, mainly from avoided electricity or heating costs, is nearly 10% higher than for conventional new buildings and 19% higher for retrofits;

WHEREAS, the Idaho Residential Cost Analysis form 2009 IECC to 2012 study shows that 2012 IECC compliance results in about a 25% reduction in energy costs, which has a conservative simple payback period of six years;

WHEREAS, the 2013 Idaho Homeowner Survey on Energy Efficiency showed that 65% of Idahoans support energy codes to promote energy efficiency; and

WHEREAS, the Fire Chief recommends enhanced fire separation in two- and multi-family dwellings to increase life safety for the occupants and fire fighters;

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Council of the City of Ketchum, Idaho that Ordinance No. 1079 is hereby repealed in its entirety and that Chapter 15.04, International and Uniform Codes Adopted, of the Ketchum Municipal Code, is hereby replaced in its entirety with the following:

Section 1. Section 15.04.010 of the Ketchum Municipal Code is hereby replaced in its entirety with the following:

15.04.10 International and Uniform Codes Adopted.

The following International Codes as amended herein are adopted by reference by the City of Ketchum, Idaho:

(a) The International Building Code, 2012 Edition, including appendices A, B, C, E, G, I and J, excluding Section 101.4.3;

(b) The International Residential Code, 2012 Edition, Parts I through IV and Part IX including appendices D, E, F, G, H, J, K and M;

(c) The International Energy Conservation Code, 2012 Edition, including the appendix;

(d) The International Existing Building Code, 2012 Edition; and,

(e) The International Property Maintenance Code, 2012 Edition.

Copies of the five International Codes listed above are on file and are open to public inspection in the office of the building official of the City of Ketchum, Idaho. Amendments to the International Codes are noted below with deleted language stricken and added language underlined.

Section 2. Section 15.04.020, Amendments, of the Ketchum Municipal Code, is hereby replaced with the following:

15.04.020 Amendments

15.04.020(A) Amendments to the International Building Code

(a) Section 101.1 Insert: [City of Ketchum, Idaho]

(b) Section 1612.3 Insert: [City of Ketchum, Idaho] [June 5, 1978]

(c) Section 3412.2 Insert: [January 1, 1975]

(d) Section 104.10.1 of said Code is amended to read as follows:

104.10.1 Flood hazard areas.
The building official shall not grant modifications to any provision required in *flood hazard areas* as established by Section 1612.3 unless a ~~determination has been made that:~~
~~1. A showing of good and sufficient cause that the unique characteristics of the size, configuration or topography of the site render the elevation standards of Section 1612 inappropriate.~~
~~2. A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.~~
~~3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, cause fraud on or victimization of the public, or conflict with existing laws or ordinances.~~
~~4. A determination that the variance is the minimum necessary to afford relief, considering the flood hazard.~~
~~5. Submission to the applicant of written notice specifying the difference between the *design flood elevation* and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation, and stating that construction below the *design flood elevation* increases risks to life and property.~~variance has been approved by the planning and zoning commission.

(e) Section 109.2 of said Code is amended to read as follows:

109.2 Schedule of permit fees.
On buildings~~,~~ and 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 schedule as set forth in Table 1-A as established by resolution of the City of Ketchum.

(f) Said Code is amended by adding new Sections 117, 118, and 119 as follows:

SECTION 117 - INDEMNITY. Every person, firm or corporation to whom permission has been granted under the terms of this Code and the general ordinances to utilize public property for the demolition work or the moving of any building, structure or utility, shall at all times assume full responsibility for such demolition or moving. Such permission shall be further conditioned for the use of public property to at all times release, hold harmless and indemnify the City of Ketchum and all of its agents and employees from any and all responsibility, liability, loss or damage resulting to any persons or property or caused by or incidental to the demolition or moving work.

SECTION 118 - INSURANCE. Any person, firm or corporation, demolishing or moving any building, structure or utility, shall deposit with the Building Official a certificate of insurance showing the City of Ketchum as a named insured on the insurance policy. The certificate of insurance shall evidence that the liability insurance policy covers the policy holder and the City of Ketchum as a named insured. Such insurance shall be valid at all times during demolition or moving operations. Said liability insurance coverage shall be in the amount of at least $1,000,000 for bodily or personal injury, death, or property damage or loss as the result of any one (1) occurrence or accident, regardless of the number of persons injured or the number of claimants. The purpose of the insurance required herein is specified in Section 3601 of this Chapter.

SECTION 119 - DAMAGE TO PUBLIC PROPERTY. As a condition of obtaining a permit to wreck, remove or move any building, structure or utility, the permittee assumes liability for any damage to public property occasioned by such moving, demolition or removal operations.

(g) Section 202 of said Code is amended by adding the following definition:

COMMENCEMENT OF WORK - Any excavation including the removal of top soil or any removal of trees or brush prepatory to excavation shall be defined as the commencement of work authorized by a permit.

(h) Section 305.2.3 is amended to read as follows:

~~Five~~ Twelve (12) or fewer children in a dwelling unit.
A facility such as the above within a *dwelling unit* and having ~~five~~ twelve (12) or fewer children receiving such day care shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

(i) Section 308.6.4 is amended to read as follows:

~~Five or fewer p~~Persons receiving care in a dwelling unit.
A facility such as the above within a *dwelling unit* and having ~~five~~ twelve (12) or fewer children receiving day care or having five (5) or fewer persons receiving custodial care shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

(j) Section 310.5 is amended to read as follows:

Residential Group R-3.
Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4, E or I, including:

i. Buildings that do not contain more than two (2) *dwelling units*;

ii. *Boarding houses* (nontransient) with sixteen (16) or fewer occupants;

iii. *Boarding houses (transient)* with ten (10) or fewer occupants;

iv. Care facilities that provide accommodations for five (5) or fewer persons receiving care;

v. *Congregate living facilities* (nontransient) with sixteen (16) or fewer occupants;

vi. *Congregate living facilities (transient)* with ten (10) or fewer occupants; or

vii. Dwelling units providing day care for twelve (12) or fewer children.

(k) Section 310.5.1 is amended to read as follows:

Care facilities within a dwelling.
Care facilities for twelve (12) or fewer children receiving day care or for five (5) or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the International Residential Code ~~provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *International Residential Code*~~.

(l) Sections 416.6 and 416.6.1 are added to read:

416.6 Finish application during construction.
Proper ventilation must be provided and an automatic sprinkler system installed and operational in the area where volatile finishes are to be applied prior to application of combustible finishes unless an alternative protection system is approved by the Fire Chief.

416.6.1 Application of finishes in occupied buildings.
Application of combustible or toxic finishes in any space in an occupied building shall require prior approval of the Building Official and the Fire Chief. Proper ventilation must be provided to prevent vapors from accumulating in the occupied space.

(m) Section 505.2.2.1 is added to read as follows:

505.2.2.1 Egress Group R.
Where a mezzanine is contained completely within a dwelling unit it shall be provided with at least one emergency escape and rescue opening complying with Section 1026.

(n) Section 506.3 is revised to read:

Section 506.3 Automatic sprinkler system increase.
Where a building is equipped throughout with an *approved automatic sprinkler system* in accordance with Section 903.3.1.1, the ~~building~~ area limitation in Table 503 is permitted to be increased by ~~an additional 200 percent (I_s = 2) for buildings with more than one *story above grade plane* and an additional 300 percent (I_s = 3) for buildings with no more than one *story above grade plane*. These increases are permitted in addition to the height and *story* increases in accordance with Section 504.2.~~ the following additional amounts:

1. Type I and Type II construction: an additional 200 percent (I_s= 2) for buildings with more than one story above grade plane and an additional 300 percent (I_s = 3) for buildings with no more than one story above grade plane.

2. For Type III, Type IV, and Type V construction: an additional 100 percent (I_s=1) for buildings with more than one story above grade plane and an additional 200 percent (I_s= 2) for buildings with no more than one story above grade plane.

These increases are permitted in addition to the height and story increases in accordance with Section 504.2.

~~**Exception:** The use of an *automatic sprinkler system* to increase the building area limitation shall not be permitted for the following conditions:~~

~~1. Buildings classified as a Group H-1 occupancy.~~

~~2. Buildings, or portions of buildings, classified as either a Group H-2 or H-3 occupancy. For buildings containing such occupancies, the allowable area shall be determined in accordance with Section 508.4.2, with the sprinkler system increase applicable only to the portions of the building not classified as Group H-2 or H-3.~~

~~3. Buildings where an *automatic sprinkler system* is substituted for fire-resistance-rated construction in accordance with Table 601, Note d.~~

Exceptions: The *building area* limitation increases shall not be permitted for the following conditions:

1. The automatic sprinkler system increase shall not apply to buildings with occupancy in Group H-1.

2. The automatic sprinkler system increase shall not apply to the floor area of occupancy in Use Group H-2 or H-3. For mixed use buildings containing such occupancies, the allowable area shall be calculated in accordance with Section 508.3.3.2, with the sprinkler increase applicable only to the portions of the building not classified as Use Group H-2 or H-3.

3. Fire-resistance rating substitution in accordance with Table 601, Note d.

(o) Section 508.2.4 of said Code is amended by adding Exception 3 as follows:

4. Boilers, central heating plants or mechanical rooms containing fuel fired appliances shall be completely protected on the mechanical side by a minimum of 5/8 inch Type X gypsum wallboard or equivalent and the walls shall be effectively draft stopped.

(p) Section 903 is deleted in its entirety and a new Section 903 is adopted as follows:

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

903 An approved fire sprinkler system shall be installed throughout all new buildings with 6,000 or more square feet of floor area or as contained in the following chapter. Partially fire sprinklered buildings are not allowed in the City of Ketchum. For purposes of this Chapter, Fire Walls shall not define separate buildings.

903.1 General.
Automatic sprinkler systems shall comply with this section.

903.1.1 Alternative protection.
Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in lieu of automatic sprinkler protection where recognized by the applicable standard and approved by the fire code official.

903.2 Where required.
Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

Exception: Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout

with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 2-hour horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both.

903.2.1 Group A.
An automatic sprinkler system shall be provided throughout buildings and portions thereof used as Group A occupancies as provided in this section. For Group A-1, A-2, A-3 and A-4 occupancies, the automatic sprinkler system shall be provided throughout the floor area where the Group A-1, A-2, A-3 or A-4 occupancy is located, and in all floors from the Group A occupancy to, and including, the nearest level of exit discharge serving the Group A occupancy. For Group A-5 occupancies, the automatic sprinkler system shall be provided in the spaces indicated in Section 903.2.1.5.

903.2.1.1 Group A-1.
An automatic sprinkler system shall be provided for Group A-1 occupancies where one of the following conditions exists:

1. The fire area exceeds 6,000 square feet (557 m2).

2. The fire area has an occupant load of 300 or more.

3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

4. The fire area contains a multitheater complex.

903.2.1.2 Group A-2.
An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464 m2).

2. The fire area has an occupant load of 100 or more.

3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

903.2.1.3 Group A-3.
An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 6,000 square feet (557 m2).

2. The fire area has an occupant load of 300 or more.

3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

903.2.1.4 Group A-4.
An automatic sprinkler system shall be provided for Group A-4 occupancies where one of the following conditions exists:

1. The fire area exceeds 6,000 square feet (557 m2).

2. The fire area has an occupant load of 300 or more.

3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

903.2.1.5 Group A-5.
An automatic sprinkler system shall be provided for Group A-5 occupancies in the following areas: concession stands, retail areas, press boxes and other accessory use areas in excess of 1,000 square feet (93 m2).

903.2.2 Ambulatory care facilities.
An automatic sprinkler system shall be installed throughout the entire floor containing an ambulatory care facility where either of the following conditions exist at any time:

1. Four or more care recipients are incapable of self-preservation, whether rendered incapable by staff or staff has accepted responsibility for care recipients already incapable.

2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility.

In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor where such care is provided as well as all floors below, and all floors between the level of ambulatory care and the nearest level of exit discharge, including the level of exit discharge.

903.2.3 Group E.
An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 6,000 square feet (557 m2) in area.

2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

903.2.4 Group F-1.
An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 6,000 square feet (557 m2).

2. A Group F-1 fire area is located more than three stories above grade plane.

3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 6,000 square feet (557 m2).

4. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m2).

903.2.4.1 Woodworking operations.
An automatic sprinkler system shall be provided throughout all Group F-1 occupancy fire areas that contain woodworking operations in excess of 2,500 square feet in area (232 m2) which generate finely divided combustible waste or which use finely divided combustible materials.

903.2.5 Group H.
Automatic sprinkler systems shall be provided in high-hazard occupancies as required in Sections 903.2.5.1 through 903.2.5.3.

903.2.5.1 General.
An automatic sprinkler system shall be installed in Group H occupancies.

903.2.5.2 Group H-5 occupancies.
An automatic sprinkler system shall be installed throughout buildings containing Group H-5 occupancies. The design of the sprinkler system shall not be less than that required under the International Building Code for the occupancy hazard classifications in accordance with Table 903.2.5.2.

Where the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers required to be calculated is 13.

TABLE 903.2.5.2
GROUP H-5 SPRINKLER DESIGN CRITERIA

LOCATION	OCCUPANCY HAZARD CLASSIFICATION
Fabrication areas	Ordinary Hazard Group 2
Service corridors	Ordinary Hazard Group 2
Storage rooms without dispensing	Ordinary Hazard Group 2
Storage rooms with dispensing	Extra Hazard Group 2
Corridors	Ordinary Hazard Group 2

903.2.5.3 Pyroxylin plastics.
An automatic sprinkler system shall be provided in buildings, or portions thereof, where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45 kg).

903.2.6 Group I.
An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

Exceptions:

1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 facilities.

2. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be allowed in Group I-1 facilities when in compliance with all of the following:

   2.1. A hydraulic design information sign is located on the system riser;

   2.2. Exception 1 of Section 903.4 is not applied; and

   2.3. Systems shall be maintained in accordance with the requirements of Section 903.3.1.2.

3. An automatic sprinkler system is not required where day care facilities are at the level of exit discharge and where every room where care is provided has at least one exterior exit door.

4. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided and all floors between the level of care and the level of exit discharge, all floors below the level of exit discharge, other than areas classified as an open parking garage.

903.2.7 Group M.
An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 6,000 square feet (557 m2).

2. A Group M fire area is located more than three stories above grade plane.

3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 6,000 square feet (557 m2).

4. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m2).

903.2.7.1 High-piled storage.
An automatic sprinkler system shall be provided as required in Chapter 32 in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

903.2.8 Group R.
An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area. Notwithstanding other provisions of this section, all single family homes designated R-3 by the International Fire Code are hereby exempted from the fire sprinkler requirement provided the minimum fire flows specified in the 2012 International Fire Code Appendix B are met. Nothing in this chapter shall prevent any person from voluntarily installing an automatic fire sprinkler system.

903.2.8.1 Group R-3 or R-4 congregate residences.
An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R-3 or R-4 congregate living facilities with 16 or fewer residents.

903.2.8.2 Care facilities.
An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in care facilities with 5 or fewer individuals in a single-family dwelling.

903.2.9 Group S-1.
An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 fire area exceeds 6,000 square feet (557 m2).

2. A Group S-1 fire area is located more than three stories above grade plane.

3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 6,000 square feet (557 m2).

4. A Group S-1 fire area used for the storage of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m2).

5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m2).

903.2.9.1 Repair garages.
An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406.8 of the International Building Code, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 6,000 square feet (557 m2).

2. Buildings no more than one story above grade plane, with a fire area containing a repair garage exceeding 6,000 square feet (557 m2).

3. Buildings with repair garages servicing vehicles parked in basements.

4. A Group S-1 fire area used for the repair of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m2).

903.2.9.2 Bulk storage of tires.
Buildings and structures where the area for the storage of tires exceeds 10,000 cubic feet (276 m2) shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

903.2.10 Group S-2 enclosed parking garages.
An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.6 of the International Building Code as follows:

1. Where the fire area of the enclosed parking garage exceeds 6,000 square feet (557 m2); or

2. Where the enclosed parking garage is located beneath other groups.

903.2.10.1 Commercial parking garages.
An automatic sprinkler system shall be provided throughout buildings used for storage of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m2).

903.2.11 Specific buildings areas and hazards.
In all occupancies other than Group U, an automatic sprinkler system shall be installed for building design or hazards in the locations set forth in Sections 903.2.11.1 through 903.2.11.6.

903.2.11.1 Stories without openings.
An automatic sprinkler system shall be installed throughout all stories, including basements, of all buildings where the floor area exceeds 1,500 square feet (139.4 m2) and where there is not provided at least one of the following types of exterior wall openings:

1. Openings below grade that lead directly to ground level by an exterior stairway complying with Section 1009 or an outside ramp complying with Section 1010. Openings shall be located in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on at least one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm).

2. Openings entirely above the adjoining ground level totaling at least 20 square feet (1.86 m2) in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on at least one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm). The height of the bottom of the clear opening shall not exceed 44 inches (1118 mm) measured from the floor.

903.2.11.1.1 Opening dimensions and access.
Openings shall have a minimum dimension of not less than 30 inches (762 mm). Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that firefighting or rescue cannot be accomplished from the exterior.

903.2.11.1.2 Openings on one side only.
Where openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22 860 mm) from such openings, the story shall be equipped throughout with an approved automatic sprinkler system or openings as specified above shall be provided on at least two sides of the story.

903.2.11.1.3 Basements.
Where any portion of a basement is located more than 75 feet (22 860 mm) from openings required by Section 903.2.11.1, or where walls, partitions or other obstructions are installed that restrict the application of water from hose streams, the basement shall be equipped throughout with an approved automatic sprinkler system.

903.2.11.2 Rubbish and linen chutes.
An automatic sprinkler system shall be installed at the top of rubbish and linen chutes and in their terminal rooms. Chutes shall have additional sprinkler heads installed at alternate floors and at the lowest intake. Where a rubbish chute extends through a building more than one floor below the lowest intake, the extension shall have sprinklers installed that are recessed from the drop area of the chute and protected from freezing in accordance with Section 903.3.1.1. Such sprinklers shall be installed at alternate floors beginning with the second level below the last intake and ending with the floor above the discharge. Chute sprinklers shall be accessible for servicing.

903.2.11.3 Buildings 55 feet or more in height.
An automatic sprinkler system shall be installed throughout buildings with a floor level having an occupant load of 30 or more that is located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access.

Exceptions:

1. Airport control towers.

2. Open parking structures.

3. Occupancies in Group F-2.

903.2.11.4 Ducts conveying hazardous exhausts.
Where required by the International Mechanical Code, automatic sprinklers shall be provided in ducts conveying hazardous exhaust, flammable or combustible materials.

Exception: Ducts where the largest cross-sectional diameter of the duct is less than 10 inches (254 mm).

903.2.11.5 Commercial cooking operations.
An automatic sprinkler system shall be installed in a commercial kitchen exhaust hood and duct system where an automatic sprinkler system is used to comply with Section 904.

903.2.11.6 Other required suppression systems.
In addition to the requirements of Section 903.2, the provisions indicated in Table 903.2.11.6 also require the installation of a fire suppression system for certain buildings and areas.

TABLE 903.2.11.6

ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS

SECTION	SUBJECT
914.2.1	Covered and open mall buildings
914.3.1	High rise buildings
914.4.1	Atriums
914.5.1	Underground structures
914.6.1	Stages
914.7.1	Special amusement buildings
914.8.2, 914.8.5	Aircraft hangars
914.9	Flammable finishes
914.10	Drying rooms
914.11.1	Ambulatory care facilities

(continued)

TABLE 903.2.11.6—continued

ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS

SECTION	SUBJECT
1028.6.2.3	Smoke-protected assembly seating
1103.4.1	Pyroxylin plastic storage in existing buildings
1103.4.2	Existing Group I-2 occupancies
2108.2	Dry cleaning plants
2108.3	Dry cleaning machines
2309.3.2.6.2	Hydrogen motor fuel-dispensing area canopies
2404.2	Spray finishing in Group A, E, I or R
2404.4	Spray booths and spray rooms
2405.2	Dip-tank rooms in Group A, I or R
2405.4.1	Dip tanks
2405.9.4	Hardening and tempering tanks
2703.10	HPM facilities
2703.10.1.1	HPM work station exhaust
2703.10.2	HPM gas cabinets and exhausted enclosures
2703.10.3	HPM exit access corridor
2703.10.4	HPM exhaust ducts
2703.10.4.1	HPM noncombustible ducts
2703.10.4.2	HPM combustible ducts
2807.3	Lumber production conveyor enclosures
2808.7	Recycling facility conveyor enclosures
3006.1	Class A and B ovens
3006.2	Class C and D ovens
Table 3206.2	Storage fire protection
3206.4	Storage
5003.8.4.1	Gas rooms
5003.8.5.3	Exhausted enclosures
5004.5	Indoor storage of hazardous materials
5005.1.8	Indoor dispensing of hazardous materials
5104.4.1	Aerosol warehouses
5106.3.2	Aerosol display and merchandising areas
5204.5	Storage of more than 1,000 cubic feet of loose combustible fibers

(continued)

TABLE 903.2.11.6—continued

ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS

SECTION	SUBJECT
5306.2.1	Exterior medical gas storage room
5306.2.2	Interior medical gas storage room
5306.2.3	Medical gas storage cabinet
5606.5.2.1	Storage of smokeless propellant
5606.5.2.3	Storage of small arms primers
5704.3.7.5.1	Flammable and combustible liquid storage rooms
5704.3.8.4	Flammable and combustible liquid storage warehouses
5705.3.7.3	Flammable and combustible liquid Group H-2 or H-3 areas
6004.1.2	Gas cabinets for highly toxic and toxic gas
6004.1.3	Exhausted enclosures for highly toxic and toxic gas
6004.2.2.6	Gas rooms for highly toxic and toxic gas
6004.3.3	Outdoor storage for highly toxic and toxic gas
6504.1.1	Pyroxylin plastic storage cabinets
6504.1.3	Pyroxylin plastic storage vaults
6504.2	Pyroxylin plastic storage and manufacturing

For SI: 1 cubic foot = 0.023 m3.

903.2.12 During construction.
Automatic sprinkler systems required during construction, alteration and demolition operations shall be provided in accordance with Section 3313.

903.3 Installation requirements.
Automatic sprinkler systems shall be designed and installed in accordance with Sections 903.3.1 through 903.3.7.

903.3.1 Standards.
Sprinkler systems shall be designed and installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3 and other chapters of this code, as applicable.

903.3.1.1 NFPA 13 sprinkler systems.
Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 except as provided in Section

903.3.1.1.1.

903.3.1.1.1 Exempt locations.
Automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from any room merely because it is damp, of fire-resistance rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.

2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.

3. Generator and transformer rooms separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.

4. Rooms or areas that are of noncombustible construction with wholly noncombustible contents.

5. Fire service access elevator machine rooms and machinery spaces.

6. Machine rooms and machinery spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the International Building Code.

903.3.1.2 NFPA 13R sprinkler systems.
Automatic sprinkler systems in Group R occupancies up to and including four stories in height shall be permitted to be installed throughout in accordance with NFPA 13R.

903.3.1.2.1 Balconies and decks.
Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of dwelling units where the building is of Type V construction, provided there is a roof or deck above. Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch (25 mm) to 6 inches (152 mm) below the structural members and a maximum distance of 14 inches (356 mm) below the deck of the exterior balconies and decks that are constructed of open wood joist construction.

903.3.1.3 NFPA 13D sprinkler systems.
Automatic sprinkler systems installed in one and two-family dwellings, Group R-3 and R-4 congregate living facilities and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D.

903.3.2 Quick-response and residential sprinklers.
Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in the following areas in accordance with Section 903.3.1 and their listings:

1. Throughout all spaces within a smoke compartment containing care recipient sleeping units in Group I-2 in accordance with the International Building Code.

2. Throughout all spaces within a smoke compartment containing treatment rooms in ambulatory care facilities.

3. Dwelling units and sleeping units in Group I-1 and R occupancies.

4. Light-hazard occupancies as defined in NFPA 13.

903.3.3 Obstructed locations.
Automatic sprinklers shall be installed with due regard to obstructions that will delay activation or obstruct the water distribution pattern. Automatic sprinklers shall be installed in or under covered kiosks, displays, booths, concession stands or equipment that exceeds 4 feet (1219 mm) in width. Not less than a 3-foot (914 mm) clearance shall be maintained between automatic sprinklers and the top of piles of combustible fibers.

Exception: Kitchen equipment under exhaust hoods protected with a fire-extinguishing system in accordance with Section 904.

903.3.4 Actuation.
Automatic sprinkler systems shall be automatically actuated unless specifically provided for in this code.

903.3.5 Water supplies.
Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section and the International Plumbing Code.

903.3.5.1 Domestic services.
Where the domestic service provides the water supply for the automatic sprinkler system, the supply shall be in accordance with this section.

903.3.5.1.1 Limited area sprinkler systems.
Limited area sprinkler systems serving fewer than 20 sprinklers on any single connection are permitted to be connected to the domestic service where a wet automatic standpipe is not available. Limited area sprinkler systems connected to domestic water supplies shall comply with each of the following requirements:

1. Valves shall not be installed between the domestic water riser control valve and

the sprinklers.

Exception: An approved indicating control valve supervised in the open position in accordance with Section 903.4.

2. The domestic service shall be capable of supplying the simultaneous domestic demand and the sprinkler demand required to be hydraulically calculated by NFPA 13, NFPA 13D or NFPA 13R.

903.3.5.1.2 Residential combination services.
A single combination water supply shall be allowed provided that the domestic demand is added to the sprinkler demand as required by NFPA 13R.

903.3.5.2 Secondary water supply.
An automatic secondary on-site water supply having a capacity not less than the hydraulically calculated sprinkler demand, including the hose stream requirement, shall be provided for high-rise buildings in Seismic Design Category C, D, E or F as determined by the International Building Code. An additional fire pump shall not be required for the secondary water supply unless needed to provide the minimum design intake pressure at the suction side of the fire pump supplying the automatic sprinkler system. The secondary water supply shall have a duration of not less than 30 minutes as determined by the occupancy hazard classification in accordance with NFPA 13.

Exception: Existing buildings.

903.3.6 Hose threads.
Fire hose threads and fittings used in connection with automatic sprinkler systems shall be as prescribed by the fire code official.

903.3.7 Fire department connections.
The location of fire department connections shall be approved by the fire code official.

903.4 Sprinkler system supervision and alarms.
All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

Exceptions:

1. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.

2. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.

3. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems

that are sealed or locked in the open position.

903.4.1 Monitoring.
Alarm, supervisory and trouble signals shall be distinctly different and shall be automatically transmitted to an approved supervising station or, when approved by the fire code official, shall sound an audible signal at a constantly attended location.

Exceptions:

1. Underground key or hub valves in roadway boxes provided by the municipality or public utility are not required to be monitored.

2. Backflow prevention device test valves located in limited area sprinkler system supply piping shall be locked in the open position. In occupancies required to be equipped with a fire alarm system, the backflow preventer valves shall be electrically supervised by a tamper switch installed in accordance with NFPA 72 and separately annunciated.

903.4.2 Alarms.
An approved audible device, located on the exterior of the building in an approved location, shall be connected to each automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

903.4.3 Floor control valves.
Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor in high-rise buildings.

903.5 Testing and maintenance.
Sprinkler systems shall be tested and maintained in accordance with Section 901.

903.6 Where required in existing buildings and structures.
An automatic sprinkler system shall be provided in existing buildings and structures where required in Chapter 11.

903.7 Construction documents. One (1) electronic copy and two (2) paper copies of construction documents, including hydraulic calculations and device specifications, along with a Ketchum Fire Department Fire Sprinkler Plan Review form for all fire sprinkler systems shall be submitted for review and approval prior to system installation. Fire Department review and approval shall normally be completed within fifteen (15) calendar days. Exceptions to the fifteen (15) calendar day review may be made where in the opinion of the Fire Chief, the plans submitted are too complex and additional time for review is required. Construction shall not commence until approval and a permit from the Fire Department is obtained.

(q) That said International Building Code is hereby amended by deleting Section 907.1.1 in its entirety and adopting a new Section 907.1.1, further amended by adopting a new Section 907.2.24, a new Section 907.10 and adopting a new Section 907.11 as follows:

907.1.1 Construction documents. A Ketchum Fire Department Fire Alarm Installation Permit Application, one (1) electronic copy and two (2) paper copies of construction documents and fire alarm shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation. Fire Department review and approval shall normally be completed within fifteen (15) calendar days. Exceptions to the fifteen (15) calendar day review may be made where in the opinion of the Fire Code Official, the plans submitted are too complex and additional time for review is required. Construction shall not commence until approval and a permit from the Fire Department is obtained. Construction documents for fire alarm systems shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code, the International Building Code, and relevant laws, ordinances, rules and regulations, as determined by the fire code official.

907.2.24 City of Ketchum Required Installations

Notwithstanding the previous installation requirements, an approved monitored automatic fire alarm system shall be installed in the following locations;

(a) In Zoning Districts CC, LI-1, LI-2, LI-3, T, T-3000, and T-4000 every new building constructed for nonresidential occupancy, including buildings with sleeping quarters as a secondary use.

(b) In Zoning Districts CC, GR-H, STO-H, T-3000 and T-4000 every new building constructed for any residential use, and over 4,000 square feet in floor area, and every newly constructed hotel, motel, apartment house or lodge of any size.

(c) In Zoning districts CC, GR-H, STO-H, LI-1, LI-2, LI-3, T, T-3000 and T-4000 every existing dwelling or commercial unit within a building that is altered or changed, when such modifications exceed Fifteen Thousand Dollars ($15,000.00) in value. (Cosmetic modifications such as painting, decorative window and floor coverings and furniture shall not be considered as contributing to the Fifteen Thousand Dollar ($15,000.00) value limit). Said systems must provide fire detection for the entire building, including the existing and new construction area, when the alteration or change affects more than fifty (50) percent of the units in that building.

Exception: A separate fire alarm system need not be installed in buildings which are protected throughout by an approved supervised fire sprinkler system conforming to NFPA standards 13, 13D or 13R and having a local alarm to notify all occupants.
Note: Group E, Group I, Group R-1 and Group R-2 occupancies are excluded from this exception.

907.10 Definitions.

Alarm Signal is an audible or visual signal, or both, indicating the existence of an emergency fire condition. Audible devices may be bells, horns, chimes, speakers or similar devices. Voice alarms and their messages shall be approved by the Fire Code Official.

Alarm System is a combination of approved compatible devices with the necessary electrical interconnection and energy to produce an alarm signal in the event of fire or system activation.

Annunciator is equipment which indicates the zone or area of a building from which an alarm has been initiated, the location of an alarm initiating device or the operational condition of the circuits of the system.

Compatible means tested by a nationally recognized testing agency to function properly with the control unit monitoring system.

Control Unit is a unit comprising the controls, relays, switches and associated circuits necessary to (1) distribute power to a fire alarm system, (2) receive signals from alarm initiating devices and transmit them to alarm signaling devices and accessory equipment and, (3) electrically supervise the system circuitry.

False Alarms - An alarm signal necessitating response by the Ketchum Fire Department where an emergency does not exist. False alarms shall be classified as follows:

1. **Nuisance Alarms** - Alarms caused by factors which the alarm system is not intended to be activated by. This category shall include, but is not limited to, alarms caused by cooking smoke, inadequate housekeeping, construction dusts, and related building operations causing alarms.

2. **Intentional Alarms** - Alarm system activation or alarm signal transmission by any person knowingly, willingly, or recklessly when no emergency exists. This category shall include, but is not limited to, the activation of manual fire alarm pull stations; discharge of fire-extinguishing equipment or appliances; or activation of an alarm system in violation of orders issued under Section 109.3 of this ordinance.

3. **Equipment Malfunction** - An alarm caused by the failure of an alarm system or failure of peripheral equipment, causing or allowing an alarm signal transmission.

4. **Undetermined Cause** - An alarm system activation or transmission of an alarm signal for which the cause cannot or has not been determined by responding personnel and for which there is no apparent cause and alarms due to failure to maintain alarm systems in violation of orders issued under provisions of this ordinance.

5. **Good Intent** - This category shall include, but is not limited to, alarms transmitted by an individual believing an emergency condition exists. Such alarms under this category shall not be held to constitute a violation of this ordinance.

Initiating Device is any manually or automatically operated equipment which, when activated, initiates an alarm through an alarm signaling device.

Inspection Contract - An agreement in writing with an alarm company to perform testing and inspection of a required fire alarm system for a certain contractual period of time. Such contract may include repair, installation and/or relocation of equipment, as necessary.

Maintenance Contract - An agreement in writing with an alarm company to perform repair, service and maintenance. Maintenance contracts may be required at the discretion of the Fire Code Official for alarm systems shown to be subject to repeated false alarms. Such contract may include inspection, testing, installation and/or relocation of equipment, as necessary.

Required Fire Alarm - A monitored fire or smoke detection system required by this ordinance.

Signaling Device is equipment that produces an approved alarm signal.

Smoke Detector is an approved device which senses visible or invisible particles of combustion. The detector shall bear a label or other identification issued by an approved testing agency having a service for inspection of materials and workmanship at the factory during fabrication and assembly.

Voice Over IP (VOIP) is a methodology and group of technologies for the delivery of voice communications and multimedia sessions over Internet Protocol (IP) networks, such as the Internet. VOIP networks are not approved methods for transmitting alarm signals to a monitoring station.

Zone is a building or defined area of a building as approved by the Fire Code Official for purposes of identifying locations.

907.11 Performance Standards

1. All required supervised alarm systems shall be afforded a thirty (30) day adjustment period commencing with the date of activation or issuance of a Certificate of Occupancy in order that the system may be brought to maximum efficiency. During that period of time, no penalty shall be assessed against the owner of the alarm system for system malfunctions. Intentionally caused false alarms, unauthorized service and tampering are not subject to the thirty (30) day grace period.

2. Alarm systems shall be allowed no more than:

2.1. Three (3) false alarms in a thirty (30) day period.

2.2. Six (6) false alarms in a one hundred eighty (180) day period.

2.3. Nine (9) false alarms in a three hundred sixty (360) day period.

The owner of any alarm system found to have a false alarm rate in excess of the foregoing number of allowable alarms per specified time period, shall receive written notice of violation and the Fire Code Official may require compliance with Section 201 of the International Fire Code, FIRE WATCH.

3. After the adjustment period, the owner of an alarm system transmitting a false alarm, upon the issuance of a written order by the responding officer or his agent, shall be required to do one and/or more of the following:

3.1. Show a material change in employee training. Such training may be conducted by a representative of the owner or by or in conjunction with a representative of an alarm company.

3.2. Show written proof that the alarm system has been inspected and tested by an alarm company and detected faults have been repaired.

3.3. Show written proof that peripheral equipment has been relocated in accordance with applicable design standards and applicable codes by an alarm company. It is understood, however, that none of the aforementioned requirements shall pertain to a situation where a person reported or transmitted an alarm with good intent as set forth in Section 907.2 of this ordinance, the definition of false alarms.

4. Any alarm system owner having complied with orders issued as required by this section, and whose alarm system is still subject to repeated false alarms may be required to participate in a discussion with a representative from the Fire Department, the owner of the alarm system or his agent, and the alarm company responsible for the installation and/or service and/or the maintenance of the alarm system, for the purpose of determining the cause(s) of and solutions(s) to the problem(s). Orders may be issued to their alarm system owner to facilitate the resolution of the false alarm problem under the foregoing section of this ordinance.

(r) Section 1505.2.1 is added to read:

1505.2.1 Class A Roof Assemblies Required.
Class A roof assemblies with no wood products in the roof covering are required on all new buildings. Class A roof assemblies with no wood products in roof covering are required for all re-roofs over 3,000 square feet of roof area. Class A is not required when less than twenty-five (25) percent of the roof area is being. repaired and additional areas

are not subsequently repaired within five (5) years. Additions to buildings over 1,000 square feet of roof area require that the roof of the entire building be upgraded to a Class A roof assembly with no wood products in the roof covering.

(s) Section 1605 of said Code is amended to read as follows:

In 1605.2 Load combinations using strength design or load and resistance factor design. Coefficient f_2 is amended to read as follows:

$f_2 = 0.7$ for roof configurations (such as saw tooth) that do not shed snow off the structure, and ~~0.2~~ 0.35 for other roof configurations.

In 1605.3.2 Exception 2 is amended to read as follows:

2. Flat roof snow loads of 30 psf (1.44 kN/m^2) or less and roof live loads of 30 psf or less need not be combined with seismic loads. Where flat roof snow loads exceed 30 psf (1.44 kN/m^2), ~~20~~ 35 percent of the flat roof snow load shall be combined with seismic loads.

(t) Section 1608 of said Code is amended by deleting Section 1608.2 in its entirety and adding a new Section 1608.2 to read as follows:

1608.2 Ground snow loads.
The ground snow loads to be used in determining the design snow loads for roofs p_g, for Ketchum is determined to be site specific (CS) and shall be taken as 120 psf.

(u) Section 1608.4 is added:

1608.4 Flat roof snow loads.
The snow load, p_f in lb/ft^2, on a roof with a slope equal to or less than 5° shall be the greater of 100 psf or the value calculated using the following formula:

$p_f = 0.7\ C_e C_t I p_g$

(v) **Section 1612 FLOOD LOADS** shall have to following sections modified to read as follows:

1612.4 Design and construction.
The design and construction of building and structures located in *flood hazard areas*, including flood hazard areas subject to high-velocity wave action, shall be in accordance with Chapter 5 of ASCE7, ASCE 24 and Ketchum Municipal Code Chapter 17.88, Floodplain Management Overlay Zoning District.

1612.5 Flood hazard documentation.
The following documentation shall be prepared and sealed by a ~~*registered design professional*~~ licensed surveyor or civil engineer and submitted to the *building official*:

1. For construction in *flood hazard areas* not subject to high-velocity wave action:

1.1 The elevation of the lowest floor, including basement, as required by the lowest floor elevation inspection in Section 110.3.3.

1.2. For fully enclosed areas below the design flood elevation where provisions to allow for the automatic entry and exit of floodwaters do not meet the minimum requirements in Section 2.6..2.1 of ASCE 24, construction documents shall include a statement that the design will provide for equalization of hydrostatic flood forces in accordance with Section 2.6.2.2 of ASCE 24 and Ketchum Municipal Code Chapter 17.88, Floodplain Management Overlay Zoning District.

1.3. For dry floodproofed nonresidential buildings, construction documents shall include a statement that the dry floodproofing is designed in accordance with ASCE 24 and Ketchum Municipal Code Chapter 17.88, Floodplain Management Overlay Zoning District.

(w) Section 1613.5 is added to read:

1613.5 Effective seismic weight.
The effective seismic weight in Section 12.7.2 and Section 12.14.8.1 of ASCE7-10 shall be amended as follows:

4. For all roofs regardless of roof slope 35% of the uniform design snow load shall be included in the effective seismic weight (W).

(x) Amend footnote (f) contained under Table 2902.1 Minimum Number of Required Plumbing Fixtures to read as follows:

(f) Drinking fountains are not required for an occupant load of ~~15~~ thirty (30) or fewer.

(y) Amend footnote (g) contained under Table 2902.1 Minimum Number of Required Plumbing Fixtures to read as follows:

(g) For business occupancies, excluding restaurants, and mercantile occupancies with an occupant load of ~~15~~ thirty (30) or fewer, service sinks shall not be required.

(z) Amend Section 1804.4 to read as follows:

1804.4 Grading and fill in flood hazard areas.
In *flood hazard areas* established in Section 1612.3, grading and/or fill shall not be approved~~:~~

~~1. Unless such fill is placed, compacted and sloped to minimize shifting, slumping and erosion during the rise and fall of flood water and, as applicable, wave action.~~

~~2. In floodways, unless it has been demonstrated through hydrologic and hydraulic analyses performed by a *registered design professional* in accordance with standard engineering practice that the proposed grading or fill, or both, will not result in any increase in flood levels during the occurrence of the *design flood*.~~

~~3. In flood hazard areas subject to high-velocity wave action, unless such fill is conducted and/or placed to avoid diversion of water and waves toward any building or structure.~~

~~4. Where design flood elevations are specified but floodways have not been designated, unless it has been demonstrated that the cumulative effect of the proposed *flood hazard area* encroachment, when combined with all other existing and anticipated *flood hazard area* encroachment, will not increase the design flood elevation more than 1 foot (305 mm) at any point.~~

until a floodplain development permit, meeting the requirements of Ketchum Municipal Code, Section 17.88 Floodplain Management Overlay Zoning District, has been obtained.

(aa) Amend Section 1805.1.2.1 to read as follows:

1805.1.2.1 Flood hazard areas.
For building and structures in flood hazard areas as established in Section 1612.3, the finished ground level of an under-floor space such as a crawl space shall be equal to or higher than the outside finished ground level on at least one side.

Exceptions:

1. Under-floor spaces of Group R-3 building that meet the requirements of ~~FEMA/FIA-TB-11~~ Ketchum Municipal Code, Section 17.88 Floodplain Management Overlay Zoning District.

2. Flood-proofed under-floor spaces that meet the requirements of Ketchum Municipal Code, Section 17.88 Floodplain Management Overlay Zoning District.

(bb) Amend Section B101.2.2 to read as follows:

Section B101.2.2 Qualifications. The board of appeals shall consist of five individuals, plus alternates, ~~one~~ from ~~each of~~ the following professions or disciplines:

1. Registered design professional with architectural experience ~~or a builder or superintendent of building construction with at least ten years' experience, five of which shall have been in responsible charge of work~~.

2. Registered design professional with structural engineering experience.

3. Registered design professional with mechanical and plumbing engineering experience or a mechanical contractor with at least ten years experience, five of which shall have been in responsible charge of work.

4. Registered design professional with ~~electrical engineering experience or an~~

~~electrical contractor with at least ten years' experience, five of which shall have been in responsible charge of work.~~architectural experience or a builder or superintendent of building with at least ten years' experience, five of which shall have been in responsible charge of work.

5. Registered design professional with fire protection engineering experience or fire protection contractor with ten years' experience, five of which shall have been in responsible charge of work.

(cc) Section J103.2 Exemption number 8 is added to read as follows:

8. Grading, excavation, earthwork, fills or embankments less than fifty (50) cubic yards, and that do not create an increased elevation for buildings or building sites above natural existing grade and do not adversely affect adjoining properties.

(dd) Appendix G - FLOOD-RESISTANT CONSTRUCTION shall have to following sections modified to read as follows:

Section G102.1 General.
This appendix, in conjunction with the *International Building Code* and Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District, provides minimum requirements for development located in flood hazard areas, including the subdivision of land; installation of utilities; placement and replacement of manufactured homes; new construction and repair, reconstruction, rehabilitation or additions to new construction; substantial improvement of existing buildings and structures, including restoration after damage, temporary structures, and temporary or permanent storage, utility ad miscellaneous Group U buildings and structures, and certain building work exempt from permit under Section 105.2.

Section 102.2 Establishment of flood hazard areas. Insert [June 5, 1978]

Section G103.1 Permit applications.
No building permit for development on a lot that contains regulatory floodplain shall be accepted or issued without prior approval of a Floodplain Development Permit per the terms of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District. The *building official* shall review all permit applications to determine whether proposed development sites will be reasonably safe from flooding. If a proposed development site is in a flood hazard area, all site development activities (including grading, filling, utility installation and drainage modification), all new construction and substantial improvement (including placement of prefabricated buildings and manufactured homes) and certain guiding work exempt for permit under Section 105.2 shall be design and constructed with methods, practices and material that minimize flood damage and that are in accordance with this code, ADCE24 and Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

Section G104.1 Required.

Any person, owner or authorized agent who intends to conduct any development in a flood hazard area shall first make application to the ~~*building official* and shall obtain the required *permit*~~ Planning and Building Department per the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

Section G104.2 Application for permit.
Prior to submittal of an application for a building permit, any person, owner or authorized agent who intends to conduct any development in a flood hazard area shall first make application to the Planning and Building Department per the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District. Upon approval of a Floodplain Development Permit, t~~T~~he applicant shall file a building permit application in writing on a form furnished by the building official. Such application shall:

1. Identify and describe the development to be covered by the permit.

2. Describe the land on which the proposed development is to be conducted by legal description, street address or similar description that will readily identify and definitely locate the site.

3. Include a site plan showing the delineation of flood hazard areas, floodway boundaries, flood zones, design flood elevations, ground elevations, proposed fill and excavation and drainage patterns and facilities.

4. Indicate the use and occupancy for which the proposed development is intended.

5. Be accompanied by construction documents, grading and filling plans and other information deemed appropriate by the *building official.*

6. State the valuation of the proposed work.

7. Be signed by the applicant or the applicant's authorized agent.

SECTION G105 VARIANCES

Section G105.1 General.
~~The *board of appeals* established pursuant to Section 112 shall hear and decide requests for variances. The *board of appeals* shall base its determination on technical justifications, and has the right to attach such conditions to variances as it deems necessary to further the purposes and objectives of this appendix and Section 1612.~~ The Planning and Zoning Commission shall, per the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District, hear and decide requests for variances.

Sections G105.2 – 105.7 shall be deleted in their entireties.

SECTION G301 SUBDIVISIONS

Section G301.1 General.

Any subdivision proposal, including proposals for manufactured home parks and subdivisions, or other proposed new development in a flood hazard area shall be reviewed ~~to assure that:~~

~~1. All such proposals are consistent with the need to minimize flood damage;~~

~~2. All public utilities and facilities, such as sewer, gas, electric and water systems are located and constructed to minimize or eliminate flood damage; and~~

~~3. Adequate drainage is provided to reduce exposure to flood hazards.~~
pursuant to the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

SECTION G401 SITE IMPROVEMENT

Section G401.1 Development in floodways.
Development or land disturbing activity shall not be authorized in the *floodway* unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment will not result in any increase in the level of the base *flood* per the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

G401.3 Sewer facilities.
All new or replaced sanitary sewer facilities, private sewage treatment plants (including all pumping stations and collector systems) and on-site waste disposal systems shall be designed in accordance with Chapter 7, ASCE 24 and the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District, to minimize or eliminate infiltration of floodwaters into the facilities and discharge from the facilities into floodwaters, or impairment of the facilities and systems.

G401.4 Water facilities.
All new or replacement water facilities shall be designed in accordance with the provisions of Chapter 7, ASCE 24 and the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District, to minimize or eliminate infiltration of floodwaters into the systems.

SECTION G501 MANUFACTURED HOMES

G501.1 Elevation.
All new and replacement manufactured homes to be placed or substantially improved in a *flood hazard area* shall be elevated such that the lowest floor of the manufactured home is elevated to ~~or~~ a minimum of two feet above the design flood elevation.

SECTION G801 OTHER BUILDING WORK

G801.1 Detached accessory structures.
Detached accessory structures shall be anchored to prevent flotation, collapse or lateral

movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the design *flood*. Fully enclosed accessory structures shall have flood openings to allow for the automatic entry and exit of *flood* waters and shall meet the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

G801.2 Fences.
Fences in floodways that may block the passage of floodwaters, such as stockade fences and wire mesh fences, shall meet the requirement of Section G103.5 and the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

SECTION G1001 UTILITY AND MISCELLANEOUS GROUP U

G1001.1 Utility and miscellaneous Group U.
Utility and miscellaneous Group U includes buildings that are accessory in character and miscellaneous structures not classified in any specific occupancy in the *International Building Code*, including, but not limited to, agricultural buildings, aircraft hangars (accessory to a one- or two-family residence), barns, carports, fences more than 6 feet (1829 mm) high, grain silos (accessory to a residential occupancy), greenhouses, livestock shelters, private garages, retaining walls, sheds, stables and towers.

G1001.2 Flood loads.
Utility and miscellaneous Group U buildings and structures, including substantial improvement of such buildings and structures, shall be anchored to prevent flotation, collapse or lateral movement resulting from flood loads, including the effects of buoyancy, during conditions of the design *flood*.

G1001.3 Elevation.
Utility and miscellaneous Group U buildings and structures, including substantial improvement of such buildings and structures, shall be elevated such that the lowest floor, including basement, is elevated to or above the design *flood* elevation in accordance with Section 1612 of the *International Building Code* and the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

G1001.4 Enclosures below design flood elevation.
Fully enclosed areas below the design flood elevation shall ~~be at or above grade on all sides~~ meet the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District and conform to the following:

1. In *flood hazard areas* not subject to high-velocity wave action, enclosed areas shall have flood openings to allow for the automatic inflow and outflow of floodwaters.

2. In *flood hazard areas* subject to high-velocity wave action, enclosed areas shall have walls below the design flood elevation that are designed to break away or collapse from a water load less than that which would occur during

the design flood, without causing collapse, displacement or other structural damage to the building or structure.

G1001.5 Flood-damage-resistant materials.
Flood-damage-resistant materials shall be used below the design *flood* elevation.

G1001.6 Protection of mechanical, plumbing and electrical systems.
Mechanical, plumbing and electrical systems, including plumbing fixtures, shall be elevated to or above the design *flood* elevation.

Exception: Electrical systems, equipment and components, and heating, ventilating, air conditioning, and plumbing appliances, plumbing fixtures, duct systems and other service equipment shall be permitted to be located below the design *flood* elevation provided that they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the design flood elevation in compliance with the flood-resistant construction requirements of this code. Electrical wiring systems shall be permitted to be located below the design flood elevation provided they conform to the provisions of NFPA 70.

(ee) Appendix L is added as follows:

APPENDIX L
RADON CONTROL METHODS

SECTION AL101 SCOPE

AL101.1 General.
This appendix contains requirements for new construction for all residential and institutional occupancies (R1, R2, R3, R4, II, I2, I3 and I4). Inclusion of this appendix is based on the use of locally available data and a determination of Zone 1 designation in Figure AL101 for all of Ketchum.

Exception: In mixed use buildings containing residential or institutional occupancies Radon mitigation measures are not required if the owner can demonstrate that the proposed design is not likely to produce unacceptable levels of Radon in sleeping areas. The owner, or the owner's authorized representative, shall have an approved Radon test conducted in a representative sleeping area on the lowest residential level and shall submit the test results to the building department prior to a Certificate of Occupancy being issued for the project.

SECTION AL102 DEFINITIONS

AL102.1 General.
For the purpose of these requirements, the terms used shall be defined as follows:

SUBSLAB DEPRESSURIZATION SYSTEM (Passive). A system designed to achieve lower sub-slab air pressure relative to indoor air pressure by use of a vent pipe routed through the *conditioned space of* a building and connecting the sub-slab area with outdoor air, thereby relying on the convective flow of air upward in the vent to draw air from beneath the slab.

SUBSLAB DEPRESSURIZATION SYSTEM (Active). A system designed to achieve lower sub-slab air pressure relative to indoor air pressure by use of a fan-powered vent drawing air from beneath the slab.

DRAIN TILE LOOP. A continuous length of drain tile or perforated pipe extending around all or part of the internal or external perimeter of a *basement or* crawl space footing.

RADON GAS. A naturally-occurring, chemically inert, radioactive gas that is not detectable by human senses. As a gas it can move readily through particles of soil and rock and can accumulate under the slabs and foundations of homes where it can easily enter into the living space through construction cracks and openings.

SOIL-GAS-RETARDER. A continuous membrane of 6-mil (0.15 mm) polyethylene or other equivalent material used to retard the flow of soil gases into a building.

SUBMEMBRANE DEPRESSURIZATION SYSTEM. A system designed to achieve lower sub-membrane air pressure relative to crawl space air pressure by use of a vent drawing air from beneath the soil-gas-retarder membrane.

SECTION AL103 REQUIREMENTS

AL103.1 General.

The following construction techniques are intended to resist radon entry and prepare the building for post-construction radon mitigation if necessary (see Figure AF102). These techniques are required in areas where designated by the *jurisdiction.*

AL103.2 Subfloor preparation.
A layer of gas-permeable material shall be placed under all concrete slabs and other floor systems that directly contact the ground and are within the walls of the living spaces of the building, to facilitate future installation of a sub-slab depressurization system, if needed. The gas-permeable layer shall consist of one of the following_

1. A uniform layer of clean aggregate, a minimum of 4 inches (102mm) thick. The aggregate shall consist of material that will pass through a 2-inch (51mm) sieve and be retained by a 1/4-inch (6.4 mm) sieve.

2. A uniform layer of sand (native or fill), a minimum of 4 inches (102 mm) thick, overlain by a layer or strips of geo-textile drainage matting designed to allow the lateral flow of soil gases.

3. Other materials, systems or floor designs with demonstrated capability to permit depressurization across the entire sub-floor area.

AL103.3 Soil-gas-retarder.
A minimum 6-mil (0.15 mm) [or 3-mil (0.075 mm) cross-laminated] polyethylene or equivalent flexible sheeting material shall be placed on top of the gas-permeable layer prior to casting the slab or placing the floor assembly to serve as a soil-gas-retarder by bridging any cracks that develop in the slab or floor assembly and to prevent concrete from entering the void spaces in the aggregate base material. The sheeting shall cover the entire floor area with separate sections of sheeting lapped at least 12 inches (305 mm). The sheeting shall fit closely around any pipe, wire or other penetrations of the material. All punctures or tears in the material shall be sealed or covered with additional sheeting.

AL103.4 Entry routes.
Potential radon entry routes shall be closed in accordance with Sections AF103.4.1 through AF103.4.10.

AL103.4.1 Floor openings.
Openings around bathtubs, showers, water closets, pipes wires or other objects that penetrate concrete slabs or other floor assemblies shall be filled with a polyurethane caulk or equivalent sealant applied in accordance with the manufacturer's recommendations.

AL103.4.2 Concrete joints.
All control joints, isolation joints, construction joints and any other joints in concrete slabs or between slabs and foundation walls shall be sealed with a caulk or sealant. Gaps and joints shall be cleared of loose material and filled with polyurethane caulk or other elastomeric sealant applied in accordance with the manufacturer's recommendations.

AL103.4.3 Condensate drains.
Condensate drains shall be trapped or routed through non-perforated pipe to daylight.

AL103.4.4 Sumps.
Sump pits open to soil or serving as the termination point for sub-slab or exterior drain tile loops shall be covered with a gasketed or otherwise sealed lid. Sumps used as the suction point in a sub-slab depressurization system shall have a lid designed to accommodate the vent pipe. Sumps used as a floor drain shall have a lid equipped with a trapped inlet.

AL103.4.5 Foundation walls.
Hollow block masonry foundation walls shall be constructed with either a continuous course of *solid masonry*, one course of masonry grouted solid, or a solid concrete beam at or above finished ground surface to prevent passage of air from the interior of the wall into the living space. Where a brick veneer or other masonry ledge is installed, the course immediately below that ledge shall be sealed. Joints, cracks or other openings around all penetrations of both exterior and interior surfaces of masonry block or wood foundation walls below the ground surface shall be filled with polyurethane caulk or equivalent sealant. Penetrations of concrete walls shall be filled.

AL103.4.6
Damp proofing. The exterior surfaces of portions of concrete and masonry block walls below the ground surface shall be damp proofed in accordance with Section R406 of this code.

AL103.4.7 Air-handling units.
Air-handling units in crawl spaces shall be sealed to prevent air from being drawn into the unit.

Exception: Units with gasketed seams or units that are otherwise sealed by the manufacturer to prevent leakage.

AL103.4.8 Ducts.
Ductwork passing through or beneath a slab shall be of seamless material unless the air-handling system is designed to maintain continuous positive pressure within such ducting. Joints in such ductwork shall be sealed to prevent air leakage. Ductwork located in crawl spaces shall have all seams and joints sealed by closure systems in accordance with Section M1601.4.1.

AL103.4.9 Crawl space floors.
Openings around all penetrations through floors above crawl spaces shall be caulked or otherwise filled to prevent air leakage.

AL103.4.10 Crawl space access.
Access doors and other openings or penetrations between *basements* and adjoining crawl spaces shall be closed, gasketed or otherwise filled to prevent air leakage.

AL103.5 Passive sub-membrane depressurization system.
In buildings with crawl space foundations the following components of as passive sub-membrane depressurization system shall be installed during construction.

Exception: Buildings in which an *approved* mechanical crawl space ventilation system or other equivalent system is installed.

AL103.5.1 Ventilation.
Crawl spaces shall be provided with vents to the exterior of the building. The minimum net area of ventilation openings shall comply with Section R408.1 of this code.

AL103.5.2 Soil-gas-retarder.
The soil in crawl spaces shall be covered with a continuous layer of minimum 6-mil (0.15 mm) polyethylene soil-gas-retarder. The ground cover shall be lapped a minimum of 12 inches (305 mm) at joints and shall extend to all foundation walls enclosing the crawl space area.

AL103.5.3 Vent pipe.
A plumbing tee or other *approved* connection shall be inserted horizontally beneath the sheeting and connected to a 3- or 4-inch-diameter (76 mm or 102 mm) fitting with a vertical vent pipe installed through the sheeting. The vent pipe shall be extended up through the building floors, terminate at least 12 inches (305 mm) above the roof in a location at least 10 feet (3048 mm) away from any window or other opening into the *conditioned spaces* of the building that is less than 2 feet (610 mm) below the exhaust point, and 10 feet (3048 mm) from any window or other opening in adjoining or adjacent buildings.

AL103.6 Passive sub-slab depressurization system.
In *basement* or slab-on-grade buildings, the following components of a passive sub-slab depressurization system shall be installed during construction.

AL103.6.1 Vent pipe.
A minimum3-inch-diameter (76 mm) ABS, PVC or equivalent gastight pipe shall be embedded vertically into the sub-slab aggregate or other permeable material before the slab is cast. A "T" fitting or equivalent method shall be used to ensure that the pipe opening remains within the sub-slab permeable material. Alternatively, the 3-inch (76 mm) pipe shall be inserted directly into an interior perimeter drain tile loop or through a sealed sump cover where the sump is exposed to the sub-slab aggregate or connected to it through a drainage system.

The pipe shall be extended up through the building floors, terminate at least 12 inches (305 mm) above the surface of the roof in a location at least 10 feet (3048 mm) away from any window or other opening into the *conditioned spaces* of the building that is less than 2 feet (610 mm) below the exhaust point, and 10 feet (3048 mm) from any window or other opening in adjoining or adjacent buildings.

AL103.6.2 Multiple vent pipes.
In buildings where interior footings or other barriers separate the sub-slab aggregate or other gas-permeable material, each area shall be fitted with an individual vent pipe. Vent pipes shall connect to a single vent that terminates above the roof or each individual vent pipe shall terminate separately above the roof

AL103.7 Vent pipe drainage.
All components of the radon vent pipe system shall be installed to provide positive drainage to the ground beneath the slab or soil-gas-retarder.

AL103.8 Vent pipe accessibility.
Radon vent pipes shall be accessible for future fan installation through an *attic* or other area outside the *habitable space.*

Exception: The radon vent pipe need not be accessible in an *attic* space where an *approved* roof top electrical supply is provided for future use.

AL103.9 Vent pipe identification.
All exposed and visible interior radon vent pipes shall be identified with at least one *label* on each floor and in accessible *attics.* The *label* shall read:"Radon Reduction System."

AL103.10 Combination foundations.
Combination *basement/* crawl space or slab-on-grade/crawl space foundations shall have separate radon vent pipes installed in each type of foundation area. Each radon vent pipe shall terminate above the roof or shall be connected to a single vent that terminates above the roof.

AL103.11 Building depressurization.
Joints in air ducts and plenums in *unconditioned spaces* shall meet the requirements of Section M1601. Thermal envelope air infiltration requirements shall comply with the energy conservation provisions in Chapter 11. Fire stopping shall meet the requirements contained in Section R602.8.

AL103.12 Power source.
To provide for future installation of an active sub-membrane or sub-slab depressurization system, an electrical circuit terminated in an *approved* box shall be installed during construction in the *attic* or other anticipated location of vent pipe fans. An electrical supply shall also be accessible in anticipated locations of system failure alarms.

(ff) Appendix M is added as follows:

APPENDIX M
WATER RESOURCE CONSERVATION MEASURES

This appendix adopts the International Green Construction Code, Sections 701 and Section 702.1 – 702.6.

SECTION 701 GENERAL

701.1 Scope.
The provisions of this chapter shall establish the means of conserving water, protecting water quality and providing for safe water consumption.

SECTION 702 FIXTURES, FITTINGS, EQUIPMENT AND APPLIANCES

702.1 Fitting and fixture consumption.
Fixtures shall comply with Table 702.1 and the following:

1. For dwelling unit and guestroom shower compartments with a floor area of not greater than 2600 in^2 (1.7 m^2), the combined flow rate from shower water outlets that are capable of operating simultaneously including rain systems, waterfalls, body sprays and jets shall not exceed 2.0 gallons per minute (gpm) (7.6 L/min). Where the floor area of such shower compartments is greater than 2600 in^2 (1.7 m^2), the combined flow rate from simultaneously operating shower water outlets shall not exceed 2.0 gpm (7.6 L/min) for each additional 2600 in^2 (1.7 m^2) of floor area or portion thereof.

2. In gang shower rooms, the combined flow rate from shower water outlets that are capable of operating simultaneously including rain systems, waterfalls, body sprays and jets shall not exceed 2.0 gpm (7.6 L/min) for every 1600 in^2 (1.01 m^2) or portion thereof of room floor area.

3. In shower compartments required to comply with the requirements of Chapter 11 of the *International Building Code*, the combined flow rate from shower water outlets that are capable of operating simultaneously including rain systems, waterfalls, body sprays and jets shall not exceed 4.0 gpm (15.1 L/min) for every 2600 in^2 (1.7 m^2) or portion thereof of room floor area.

TABLE 702.1 MAXIMUM FIXTURE AND FITTING FLOW RATES FOR REDUCED WATER CONSUMPTION

FIXTURE OR FIXTURE FITTING TYPE	MAXIMUM FLOW RATE
Showerhead[a]	2.0 gpm and WaterSense labeled
Lavatory faucet and bar sink—private	1.5 gpm
Lavatory faucet—public (metered)	0.25 gpc[b]
Lavatory faucet—public (nonmetered)	0.5 gpm

Kitchen faucet—private	2.2 gpm
Kitchen and bar sink faucets in other than dwelling units and guestrooms	2.2 gpm
Urinal	0.5 gpf and WaterSense labeled or nonwater urinal
Water closet—public and remote[c]	1.6 gpf
Water closet—public and nonremote	1.28 gpf average[d, e]
Water closet-tank type, private	1.28 gpf and WaterSense labeled[d]
Water closet—flushometer type, private	1.28 gpf[e]
Prerinse spray valves	1.3 gpm
Drinking fountains (manual)	0.7 gpm
Drinking fountains (metered)	0.25 gpc[b]

For SI: 1 foot = 304.8 mm, 1 gallon per cycle (gpc) = 3.8 Lpc, 1 gallon per flush (gpf) = 3.8 Lpf, 1 gallon per minute (gpm) = 3.8 Lpm.

a. Includes hand showers, body sprays, rainfall panels and jets. Showerheads shall be supplied by automatic compensating valves that comply with ASSE 1016 or ASME A112.18.1/CSA B125.1 and that are specifically designed to function at the flow rate of the showerheads being used.

b. Gallons per cycle of water volume discharged from each activation of a metered faucet.

c. A remote water closet is a water closet located not less than 30 feet upstream of other drain line connections or fixtures and is located where less than 1.5 drainage fixture units are upstream of the drain line connection.

d. The effective flush volume for a dual-flush water closet is defined as the composite, average flush volume of two reduced flushes and one full flush.

e. In public settings, the maximum water use of a dual flush water closet is based solely on its full flush operation; not an average of full and reduced volume flushes.

702.2 Combination tub and shower valves.
Tub spout leakage from combination tub and shower valves that occurs when the outlet flow is diverted to the shower shall not exceed 0.1 gpm, measured in accordance with the requirements of ASME A112.18.1/CSA B125.1.

702.3 Food establishment prerinse spray valves.
Food establishment prerinse spray valves shall have a maximum flow rate in accordance with Table 702.1 and shall shut off automatically when released.

702.4 Drinking fountain controls.
Drinking fountains equipped with manually controlled valves shall shut off automatically upon the release of the valve. Metered drinking fountains shall comply with the flow volume specified in Table 702.1.

702.5 Nonwater urinal connection.
The fixture drain for nonwater urinals shall connect to a branch drain that serves one or more lavatories, water closets or water-using urinals that discharge upstream of such urinals.

702.6 Appliances.
Sections 702.6.1 through 702.6.4 shall regulate appliances that are not related to space conditioning.

702.6.1 Clothes washers.
Clothes washers of the type in the ENERGY STAR program as defined in "ENERGY STAR® Program Requirements, Product Specification for Clothes Washers, Eligibility Criteria," shall have a water factor (WF) not exceeding 6.0 and a *modified energy factor* (MEF) of not less than 2.0.

702.6.2 Ice makers.
Ice makers shall not be water cooled. Ice makers producing cubed-type ice shall be ENERGY STAR qualified as commercial ice machines. Ice makers of a type not currently ENERGY STAR qualified, such as flake, nugget or continuous-type ice makers, shall not exceed the total water use of 25 gallons per 100 pounds (208 L per 100 kg) of ice produced.

702.6.3 Steam cookers.
Steam cookers shall consume not more than the amounts indicated in Table 610.2.3.

702.6.4 Dishwashers.
Dishwashers shall be ENERGY STAR qualified where an ENERGY STAR category exists for the specific dishwasher type. Where an ENERGY STAR category does not exist, the dishwasher shall be in accordance with Table 702.6.4.

TABLE 702.6.4 MAXIMUM WATER CONSUMPTION FOR COMMERCIAL DISHWASHERS

DISHWASHER TYPE	MAXIMUM WATER CONSUMPTION
Rackless conveyor	2.2 gallons per minute
Utensil washer	2.2 gallons per rack

For SI: 1 gallon per minute = 3.785 Lpm.

702.7 Municipal reclaimed water.
Delete this section in its entirety.

702.8 Efficient hot and tempered water distribution.
Hot and tempered water distribution shall comply with either the maximum pipe length or maximum pipe volume limits in this section. Hot and tempered water shall be delivered to the outlets of individual showers, combination tub-showers, sinks, lavatories, dishwashers,

washing machines and hot water hose bibbs in accordance with Section 702.8.1 or Section 702.8.2. For purposes of this section, references to pipe shall include tubing. For purposes of this section, the source of hot or tempered water shall be considered to be a water heater, boiler, circulation loop piping or electrically heat-traced piping.

702.8.1 Maximum allowable pipe length method.
The maximum allowable pipe length from the source of hot or tempered water to the termination of the fixture supply pipe shall be in accordance with the maximum pipe length columns in Table 702.8.2. Where the length contains more than one size of pipe, the largest size shall be used for determining the maximum allowable length of the pipe in Table 702.8.2.

702.8.2 Maximum allowable pipe volume method.
The water volume in the piping shall be calculated in accordance with Section 702.8.2.1. The maximum volume of hot or tempered water in the piping to public lavatory faucets, metering or nonmetering, shall be 2 ounces (0.06 L). For fixtures other than public lavatory faucets, the maximum volume shall be 64 ounces (1.89 L) for hot or tempered water from a water heater or boiler; and 24 ounces (0.7 L) for hot or tempered water from a circulation loop pipe or an electrically heat-traced pipe.

TABLE 702.8.2 MAXIMUM LENGTH OF PIPE OR TUBE

NOMINAL PIPE OR TUBE SIZE(inch)	LIQUID OUNCES PER FOOT OF LENGTH	MAXIMUM PIPE OR TUBE LENGTH		
		System without a circulation loop or heat-traced line (feet)	System with a circulation loop or heat-traced line (feet)	Lavatory faucets – public (metering and nonmetering) (feet)
1/4[a]	0.33	50	16	6
5/16[a]	0.5	50	16	4
3/8[a]	0.75	50	16	3
1/2	1.5	43	16	2
5/8	2	32	12	1
3/4	3	21	8	0.5
7/8	4	16	6	0.5
1	5	13	5	0.5
1 1/4	8	8	3	0.5
1 1/2	11	6	2	0.5
2 or larger	18	4	1	0.5

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m, 1 ounce = 29.6 ml.

a. The flow rate for $^{1}/_{4}$-inch size pipe or tube is limited to 0.5 gallons per minute; for $^{5}/_{16}$-inch size, it is limited to 1 gpm; for $^{3}/_{8}$-inch size, it is limited to 1.5 gpm.

702.8.2.1 Water volume determination.
The volume shall be the sum of the internal volumes of pipe, fittings, valves, meters and manifolds between the source of hot water and the termination of the fixture supply pipe. The volume shall be determined from the liquid ounces per foot column of Table 702.8.2. The volume contained within fixture shutoff valves, flexible water supply connectors to a fixture fitting, or within a fixture fitting shall not be included in the water volume determination. Where hot or tempered water is supplied by a circulation loop pipe or an electrically heat-traced pipe, the volume shall include the portion of the fitting on the source pipe that supplies water to the fixture.

702.9 Trap priming water. Delete this section in its entirety.

702.10 Water-powered pumps.
Water-powered pumps shall not be used as the primary means of removing ground water from sumps. Where used as an emergency backup pump for the primary pump, the primary pump shall be an electrically powered pump and the water-powered pump shall be equipped with an auditory alarm that indicates when the water-powered pump is operating. The alarm shall have a minimum sound pressure level rating of 85 dB measured at a distance of 10 feet (3048 mm). Where water-powered pumps are used, they shall have a water-efficiency factor of pumping not less than 2 gallons (7.6 L) of water to a height of 8 feet (2438 mm) for every 1 gallon (3.8 L) of water used to operate the pump, measured at a water pressure of 60 psi (413.7 kPa). Pumps shall be clearly marked as to the gallons (liters) of water pumped per gallon (liters) of potable water consumed.

702.11 Food service handwashing faucets.
Faucets for handwashing sinks in food service preparation and serving areas shall be of the self-closing type.

702.12 Dipper wells.
The water supply to a dipper well shall have a shutoff valve and flow control valve. Water flow into a dipper well shall not exceed 1 gpm (3.78 Lpm) at a supply pressure of 60 psi (413.7 kPa).

702.13 Automated vehicle wash facilities.
Not less than 50 percent of the water used for the rinsing phase of the wash cycle at automated vehicle wash facilities shall be collected to be reused for the washing phase. Towel and chamois washing machines shall have high-level water cutoffs. Except for water recirculated within the facility, potable and nonpotable water use for automobile washing shall not exceed 40 gallons (151 L) per vehicle for in-bay automatic washing and 35 gallons (132.5 L) per vehicle for conveyor and express-type car washing.

Exception: Bus and large commercial vehicle washing facilities.

702.14 Self-service vehicle wash facilities.
Spray wand nozzles used at self-service vehicle wash facilities shall discharge not more than 3 gpm (11.4 Lpm). Faucets for chamois wringer sinks shall be of the self-closing type.

702.15 Vehicle washing facilities.
Waste water from reverse osmosis water treatment systems installed in vehicle washing facilities shall discharge to the washing phase water holding tank.

702.16 Food waste disposers.
The water flow into a commercial food waste disposer in a food establishment shall be controlled by a load-sensing device such that the water flow does not exceed 1 gpm (3.78 Lpm) under no-load operating conditions and 8 gpm (30.2 Lpm) under full-load operating conditions.

702.17 Combination ovens.
Combination ovens shall consume not more than 3.5 gallons (13.25 L) per hour per steamer pan in any operational mode. Water consumption shall be tested in accordance with the requirements of ASTM F 1639.

702.18 Autoclaves and sterilizers.
Autoclaves and sterilizers requiring condensate tempering systems shall be of the type that does not require potable water to be blended with the discharge water to reduce the temperature of discharge.

702.18.1 Vacuum autoclaves and sterilizers.
Vacuum sterilizers shall be prohibited from utilizing venturi-type vacuum mechanisms using water.

702.19 Liquid ring vacuum pumps.
Except where the discharge is contaminated with hazardous materials or pathogens, the discharge water from liquid ring vacuum pumps shall be recovered for reuse within the pump or for other onsite applications.

702.20 Film processors.
The cooling water discharge from water-cooled film processors shall be recovered and reused within the processor or for other onsite applications.

15.04.020(B) Amendments to the International Residential Code are as follows:

(a) Section R101.1 Insert: [City of Ketchum, Idaho]

(b) Section 101.2 is amended as follows:

R101.2 - Scope.

Delete exception No. 1: ~~Live/work units complying with the requirements of Section 419 of the *International Building Code* shall be permitted to be built as one- and two-family *dwellings* or townhouses. Fire suppression required by Section 419.5 of the *International Building Code* when constructed under the *International Residential Code for One- and Two-family Dwellings* shall conform to Section P2904.~~

Amend exception No. 2 as follows: Owner-occupied lodging houses with five (5) or fewer guestrooms shall be permitted to be constructed in accordance with the International Residential Code for One- and Two-family Dwellings~~when equipped with a fire sprinkler system in accordance with Section P2904~~.

(c) Section R104.10.1 is amended to read as follows:

Section R104.10.1 Flood hazard areas. The *building official* shall not grant modifications to any provision related to flood hazard areas as established by Table R301.2(1) without the granting of a variance to such provisions by the ~~board of appeals~~ planning and zoning commission.

(d) Section 105.2 is amended to read as follows:

R105.2 Work exempt from permit.
Permits shall not be required for the following. Exemption from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this *jurisdiction.*

Building:

1. One-story detached *accessory structures* used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 200 square feet (18.58 m^2).

2. Fences not over ~~7 feet (2134 mm)~~ 6 feet (1829 mm) high.

3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.

4. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.

5. Sidewalks and driveways.

6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.

7. Prefabricated swimming pools that are less than ~~24 inches (610 mm)~~ 48 inches (1219 mm) deep.

8. Swings and other playground equipment.

9. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.

10. Decks not exceeding 200 square feet (18.58 m^2) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a *dwelling* and do not serve the exit door required by Section R311.4.

11. Flag poles.

(e) Section R105.3.1.1 is amended to read as follows:

Section R105.3.1.1 Determination of substantially improved or substantially damaged existing buildings in flood hazard areas.
For applications for reconstruction, rehabilitation, *addition* or other improvement of existing buildings or structures located in a flood hazard area as established by Table R301.2(1), the *building official* shall ~~examine or cause to be examined the *construction documents* and shall prepare a finding with regard to the value of the proposed work~~ require a floodplain development permit per the provisions of Ketchum Municipal Code, Section 17.88, Floodplain Management Overlay Zoning District. For buildings that have sustained damage of any origin, the value of the proposed work shall include the cost to repair the building or structure to its predamaged condition. Applications determined to constitute substantial improvement or substantial damage shall require all existing portions of the entire building or structure to meet the requirements of Section R322.

(f) Section R108.2 is amended to read as follows:

R108.2 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 schedule as ~~established by the applicable governing authority~~ set forth in Table 1-A as established by resolution of the City of Ketchum.

(g) Section R109.1.3 is amended to read as follows:

R109.1.3 Floodplain inspections. For construction in flood hazard areas as established by Table R301.2(1), upon placement of the lowest floor, including *basement,* and prior to further vertical construction, the *building official* shall require submission of documentation, prepared and sealed by a ~~registered *design professional*~~ licensed surveyor or civil engineer, of the elevation of the lowest floor, including *basement,* required in Section R322.

(h) Section R112.2.1 is deleted in its entirety.

(i) Section R112.2.2 is deleted in its entirety.

(j) Table R301.2.(l) Insert:

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY[f]	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP[e]	ICE BARRIER UNDERLAYMENT REQUIRED[h]	FLOOD HAZARDS[g]	AIR FREEZING INDEX[i]	MEAI ANNU TEMI
	Speed[d] (mph)	Topo graphic effects[k]		Weathering[a]	Frost line depth[b]	Termite[c]					
120 psf	90	No	D_1 or per IBC Chap 16	Severe	2 feet	Sight to Modera te	Not Avail-able	Yes, 24" inside wall line	(a) 6/5/1978 (b) 11/26/2010 (c) 433, 434, 441, 442, 453, 461.	2000	40 F

1. This Table also applies to IBC.

(k) Section R301.2.2 is amended to read as follows:

R301.2.2 Seismic provisions.
The seismic provisions of this code shall apply as follows:

1. Townhouses in Seismic Design Categories C, D_0, D_1 and D_2.

2. Detached one- and two-family dwellings in Seismic Design Categories, C, D_0, D_1 and D_2.

(l) Section R301.2.2.2 is amended to read as follows:

R301.2.2.2 Seismic Design Category C. Structures assigned to Seismic Design Category C shall conform to the requirements of this section. All structures including detached one and two family structures in Seismic Design Category C or greater shall have a lateral force resisting system designed in accordance with accepted engineering practice. The effective seismic weight for such buildings shall include 35% of the flat roof uniform design snow load.

(m) Section 301.2.4 is amended to read as follows:

R301.2.4 Floodplain construction.
Buildings and structures constructed in whole or in part in flood hazard areas (including A or V Zones) as established in Table R301.2(1) shall be designed and constructed in accordance with Section R322. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24 and subject to the requirements of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

(n) **Section R301.2.4.1 Alternative provisions.** Delete this section in its entirety.

(o) Section R302.1, Table 302.1. Delete the figures in the last column of the table under the heading Minimum fire Separation Distance for the "Walls" and "Projections" elements and replace as follows:

Minimum Fire Separation Distance
Walls (fire-resistance rated): < ~~5~~ Three (3) feet
Walls (not fire-resistance rated): ≥ ~~5~~ Three (3) feet
Projections (fire-resistance rated): ~~≥ 2 feet to < 5~~ ≤ Three (3) feet
Projections (not fire-resistance rated): ≥ ~~5~~ Three (3) feet

(p) Section R302.2 is amended to read as follows:

R302.2 Townhouses.
Each *townhouse* shall be considered a separate building and shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302.1 for exterior walls.

Exception: A common ~~1 hour~~ 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

(q) Section 302.3 is amended to read as follows:

R302.3 Two-family dwellings.
Dwelling units in two-family dwellings shall be separated from each other by wall and/or floor assemblies having not less than a ~~1 hour~~ 2-hour fire-resistance rating when tested in accordance with ASTM E 119 or UL 263. Fire-resistance-rated floor/ceiling and wall assemblies shall extend to and be tight against the *exterior wall*, and wall assemblies shall extend from the foundation to the underside of the roof sheathing.

Exceptions:

1. A fire-resistance rating of $^1/_2$ hour shall be permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13.

2. Delete Exception 2 in its entirety: ~~Wall assemblies need not extend through *attic* spaces when the ceiling is protected by not less than $^{5}/_{8}$ inch (15.9 mm) Type X gypsum board and an *attic* draft stop constructed as specified in Section R302.12.1 is provided above and along the wall assembly separating the *dwellings*. The structural framing supporting the ceiling shall also be protected by not less than $^{1}/_{2}$ inch (12.7 mm) gypsum board or equivalent.~~

(r) Section R302.5.1 is amended as follows:

R302.5.1 Opening protection.
Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors~~, equipped with a self-closing device~~. Doors shall be self-closing and self-latching.

(s) Section R309.3 shall be amended to read as follows:

R309.3 Flood hazard areas.

For buildings located in flood hazard areas as established by Table R301.2(1), garage floors shall be:

1. Elevated to a minimum of 24 inches measured from the top of the slab above the design flood elevation as determined in Section R322; or

2. Located below the design flood elevation provided they are at or above *grade* on at least one side, are used solely for parking, building access or storage, meet the requirements of Section R324 and are otherwise constructed in accordance with this code and the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

(t) Section R313.2 is deleted in its entirety:

~~**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*.~~

~~**Exception:** An automatic residential fire sprinkler system shall not be required for *additions* or *alterations* to existing buildings that are not already provided with an automatic residential sprinkler system.~~

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

(u) Section 315.3 shall be amended to read as follows:

R315.3 Where required in existing dwellings.
Where work requiring a *permit* occurs in existing *dwellings* that have attached garages or in existing dwellings within which fuel-fired *appliances* exist, carbon monoxide alarms shall be provided in accordance with Section R315.1.:

Exceptions:

1. Work involving the exterior surfaces of dwellings, such as, but not limited to, replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck or electrical permits, are exempt from the requirements of this section.

2. Installation, alteration or repairs of noncombustion plumbing or mechanical systems are exempt from the requirements of this section.

(v) The following sections of **R322 FLOOD RESISTANT CONSTRUCTION** shall be amended to read as follows:

R322.1 General.
Buildings and structures constructed in whole or in part in flood hazard areas (including A or V Zones) as established in Table R301.2(1) shall be designed and constructed in accordance with the provisions contained in this section and the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24 and the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

R322.1.6 Protection of mechanical and electrical systems.

Exception: Delete in its entirety: ~~Locating electrical systems, *equipment* and components; heating, ventilating, air conditioning; plumbing *appliances* and plumbing fixtures; *duct systems*; and other service *equipment* is permitted below the elevation required in Section R322.2 (flood hazard areas including A Zones) or R322.3 (coastal high-hazard areas including V Zones) provided that they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the design flood elevation in accordance with ASCE 24. Electrical wiring systems are permitted to be located below the required elevation provided they conform to the provisions of the electrical part of this code for wet locations.~~

R322.2.1 Elevation requirements.

1. Buildings and structures in flood hazard areas not designated as Coastal A Zones shall have the lowest floors elevated to a minimum of two feet ~~or~~ above the design flood elevation and shall meet the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

2. Buildings and structures in flood hazard areas designated as Coastal A Zones shall meet the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District and have the lowest floors elevated to or above the base flood elevation plus ~~1 foot (305 mm)~~ two feet, or to the design flood elevation, whichever is higher.

3. In areas of shallow flooding (AO Zones), buildings and structures shall have the lowest floor (including *basement*) elevated at least as high as two feet above the highest adjacent *grade* as the depth number specified in feet on the FIRM, or at least 2 feet (610 mm) if a depth number is not specified.

4. Basement floors that are below *grade* on all sides shall be elevated to or above the design flood elevation or meet the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District.

   Exception: Enclosed areas below the design flood elevation, including *basements* whose floors are not below *grade* on all sides, shall meet the requirements of Section R322.2.2.

R322.2.2 Enclosed area below design flood elevation.
Enclosed areas, including crawl spaces, that are below the design flood elevation shall meet the provisions of Ketchum Municipal Code, Chapter 17.88, Floodplain Management Overlay Zoning District and shall:

1. Be used solely for parking of vehicles, building access or storage.
2. Be provided with flood openings that meet the following criteria:
   - 2.1. There shall be a minimum of two openings on different sides of each enclosed area; if a building has more than one enclosed area below the design flood elevation, each area shall have openings on exterior walls.
   - 2.2. The total net area of all openings shall be at least 1 square inch (645 mm^2) for each square foot (0.093 m^2) of enclosed area, or the openings shall be designed and the *construction documents* shall include a statement by a registered *design professional* that the design of the openings will provide for equalization of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwaters as specified in Section 2.6.2.2 of ASCE 24.
   - 2.3. The bottom of each opening shall be 1 foot (305 mm) or less above the adjacent ground level.
   - 2.4. Openings shall be not less than 3 inches (76 mm) in any direction in the plane of the wall.
   - 2.5. Any louvers, screens or other opening covers shall allow the automatic flow of floodwaters into and out of the enclosed area.

2.6. Openings installed in doors and windows, that meet requirements 2.1 through 2.5, are acceptable; however, doors and windows without installed openings do not meet the requirements of this section.

(w) Section R325 is added to read as follows:

R325 Class A Roof Assemblies Required. Class A roof assemblies with no wood products in the roof covering are required on all new buildings. Class A roof assemblies with no wood products in roof covering are required for all re-roofs over 3,000 square feet of roof area. Class A is not required when less than twenty-five (25) percent of the roof area is being repaired and additional areas are not subsequently repaired within five (5) years. Additions to buildings over 1,000 square feet of roof area require that the roof of the entire building be upgraded to a Class A roof assembly with no wood products in the roof covering.

(x) Section R602.10 is amended to read as follows:

R602.10 Wall bracing.
Buildings shall be braced in accordance with this section or, when applicable, Section R602.12, or the most current edition of APA System Report SR-102 as an alternate method. Where a building, or portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with Section R301.1.

15.04.020(C) Amendments to the International Energy Conservation Code

(a) Section IECC101.1 Insert: [City of Ketchum, Idaho]

15.04.020(D) Amendments to the International Existing Building Code

(a) Section IEBC101.1 Insert: [City of Ketchum, Idaho]

(b) Section IEBC 409.1 is amended to read as follows:

~~**409.1 Scope.** Relocated buildings provisions shall apply to relocated or moved buildings.~~
409.1 Conformance. Structures moved into or within the jurisdiction shall be evaluated by a registered engineer and shall comply with the provisions of the *International Building Code* for new structures as amended by the City of Ketchum.

(c) Section IEBC [B] 1302.3 is amended as follows.

1302.3 Wind loads.
Buildings shall be evaluated by a registered engineer and shall comply with the *International Building Code or International Residential Code* wind provisions as applicable and as amended by the City of Ketchum.

Exceptions:

~~1. Detached one- and two-family dwellings and Group U occupancies where wind loads at the new location are not higher than those at the previous location.~~

~~2. Structural elements whose stress is not increased by more than 10 percent.~~

1. Structural elements whose stress is within 10 percent of allowable stresses for new materials designed to current code provisions.

(d) Section IEBC [B] 1302.4 is amended by revising the section to read as follows and deleting Exception 2.

1302.4 Seismic loads.
Buildings shall be evaluated by a registered engineer and shall comply with the *International Building Code* or *International Residential Code* seismic provisions ~~at the new location~~ as applicable and as amended by the City of Ketchum at the new location.

Exceptions:

~~1. Structures in Seismic Design Categories A and B and detached one- and two-family dwellings in Seismic Design Categories A, B and C where the seismic loads at the new location are not higher than those at the previous location.~~

~~2. Structural elements whose stress is not increased by more than 10 percent.~~

1. Structural elements whose stress is within 10 percent of allowable stresses for new materials designed to current code provisions.

(e) Section [B] IEBC 1302.5 is amended to read as follows and the exception to Section [B] IEBC 1302.5 is deleted:

1302.5 Snow Loads.
Structures shall be evaluated by a registered engineer and shall comply with the *International Building Code or International Residential Code* snow loads ~~as applicable where snow loads at the new location are higher than those at the previous location~~ seismic provisions as applicable and as amended by the City of Ketchum.

~~**Exception:** Structural elements whose stress is not increased by more than 5 percent.~~

(f) Section [B] IEBC 1401.2 Insert: [January 1, 1975]

15.04.020(E) Amendments to the International Property Maintenance Code

(a) Section IPMC 101.1 Insert: [City of Ketchum, Idaho]

(b) Section IPMC 103.5 is amended as follows:

103.5 Fees.

The fees for activities and services performed by the department in carrying out its responsibilities under this code shall be ~~as indicated in the following schedule~~ established by resolution of the City of Ketchum.

Section 3. That Section 15.04.030 of the Ketchum Municipal Code, Criminal Violation and Penalty and Civil Enforcement, is hereby replaced in its entirety with the following:

(a) Any person, firm, association, or corporation that fails to comply with or violates any of these regulations or adopted codes shall be guilty of a misdemeanor and upon conviction shall be subject to a fine of not more than One Thousand ($1000.00) or imprisonment for a period not to exceed six (6) months, or both. Each day that said violation continues shall be considered a separate offense.

(b) Appropriate actions and proceedings at law or in equity may be instituted by the City of Ketchum to restrain or abate violations of this Ordinance or adopted codes, or compel compliance herewith, or to prevent illegal construction or occupancy of any buildings, structures, or premises in violation of this Ordinance or adopted codes together with appropriate damages therefore. These remedies shall be cumulative and in addition to all other legal remedies and penalties provided by law.

Section 4. **SAVINGS AND SEVERABILITY CLAUSE.** It is hereby declared to be the legislative intent that the provisions and parts of this Ordinance shall be severable. If any paragraph, part, section, subsection, sentence clause or phrase of this Ordinance is for any reason held to be invalid for any reason by a Court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance.

Section 5. **CODIFICATION CLAUSE.** The City Clerk is instructed to immediately forward this ordinance to the codifier of the official municipal code for proper revision of the code.

Section 6. **REPEALER CLAUSE.** All City of Ketchum Ordinances or resolutions or parts thereof which are in conflict herewith are hereby repealed,

Section 7. **PUBLICATION.** This Ordinance, or a summary thereof in compliance with Section 50-901A, Idaho Code, substantially in the form annexed hereto as Exhibit "A," shall be published once in the official newspaper of the City, and shall take effect immediately upon its passage, approval, and publication.

Section 8. **EFFECTIVE DATE.** This Ordinance shall be in full force and effect upon the date of its publication as provided by law which is January 1, 2015.

PASSED BY THE CITY COUNCIL OF THE CITY OF KETCHUM, IDAHO, and approved by the Mayor this 15th day of December, 2014.

CITY OF KETCHUM, IDAHO

Nina Jonas, Mayor

ATTEST:

Sandra E. Cady, CMC
City Treasurer/Clerk

APPROVED AS TO FORM
AND CONTENT:

Stephanie J. Bonney,
Legal Counsel

SUMMARY
CITY OF KETCHUM ORDINANCE NO. 1126

AN ORDINANCE OF THE CITY OF KETCHUM, IDAHO,
REPEALING ORDINANCE NO. 1079 AND
REPLACING CHAPTER 15.04, BUILDING CODES, OF THE KETCHUM MUNICIPAL CODE, ITS ENTIRETY AND
ADOPTING THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE, INCLUDING APPENDICES A, B, C, E, G, I AND J, AND REVISED SECTION 903 AS MODIFIED HEREIN, AND EXCLUDING SECTION 101.4.3 (PLUMBING); ADOPTING THE 2012 INTERNATIONAL RESIDENTIAL CODE, PARTS I THROUGH IV AND PART IX INCLUDING APPENDIX D, E, F, G, H, J, K, M; THE 2012 INTERNATIONAL ENERGY CONSERVATION CODE; THE 2012 INTERNATIONAL EXISTING BUILDING CODE; AND THE 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE; PUBLISHED BY THE INTERNATIONAL CODE COUNCIL, AS AMENDED HEREIN, AS THE OFFICIAL CODES FOR SAID CITY, REGULATING ALL BUILDING AND ENERGY CONSERVATION AS DEFINED IN THE SCOPE OF THE CODES; PROVIDING FOR ENFORCEMENT AND PENALTIES; PROVIDING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING A CODIFICATION CLAUSE; PROVIDING A REPEALER CLAUSE; PROVIDING FOR PUBLICATION BY SUMMARY; AND PROVIDING FOR AN EFFECTIVE DATE.

A summary of the principal provisions of Ordinance No. 1126 of the City of Ketchum, Blaine County, Idaho, adopted on September 15, 2014, is as follows:

Section 1. Repeals Section 15.04.010, International and Uniform Codes Adopted, of the Ketchum Municipal Code and replaces it with adoption of the 2012 International Codes.

Section 2. Repeals Section 15.04.020, Amendments, of the Ketchum Municipal Code, and replaces it with the following amendments:

A. Amendments to the International Building Code (IBC)

Adopts the 2012 International Building Code, including Appendices A, B, C, E, G, I and J and added Appendices L and M, as amended by the City of Ketchum.

B. Amendments to the International Residential Code (IRC)

Adopts the 2012 International Residential Code, Parts I through IV AND Part IX, including Appendices D, E, F, G, H, J, K and M, as amended by the City of Ketchum.

C. Amendments to the International Energy Conservation Code (IECC)

Adopts the 2012 International Energy Conservation Code, as amended by the City of Ketchum.

D. Amendments to the International Existing Building Code (IEBC)

Adopts the 2012 International Exiting Building Code as amended by the City of Ketchum.

E. Amendments to the International Property Maintenance Code (IPMC)

Adopts the 2012 International Property Maintenance Code as amended by the City of Ketchum.

Section 3. Replaces Section 15.04.030, Criminal Violation and Penalty and Civil Enforcement in its entirety.

Section 4. Provides a Savings and Severability Clause.

Section 5. Provides a Codification Clause.

Section 6. Provides for a Repealer Clause.

Section 7. Provides for publication of this Ordinance by Summary.

Section 8. Establishes an effective date of January 1, 2015.

The full text of this Ordinance is available at the City Clerk's Office, Ketchum City Hall, 480 East Avenue North, Ketchum, Idaho 83340 and will be provided to any citizen upon personal request during normal office hours.

CITY OF KETCHUM, IDAHO

Nina Jonas, Mayor

ATTEST:

Sandra E. Cady, CMC
City Treasurer/Clerk