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CHAPTER 15.01 CODES ADOPTED

15.01.010 Purpose

The following codes are adopted by the Town of Truckee for the purpose of prescribing regulations for erecting, construction, enlargement, alteration, repair, improving, removal, conversion, demolition, occupancy, equipment use, height and area of buildings and structures:

- (a) ADMINISTRATIVE CODE ADOPTED, the 2019 Edition of the California Administrative Code, known as the California Code of Regulations, Title 24 Part 1, published by the International Code Council, is hereby adopted by reference.
- (b) BUILDING CODE ADOPTED, the 2019 Edition of the California Building Code, known as the California Code of Regulations, Title 24 Part 2, incorporating the 2018 Edition of the International Building Code, published by the International Code Council, including Chapter 1, are hereby adopted by reference.
- (c) RESIDENTIAL CODE ADOPTED, the 2019 Edition of the California Residential Code, known as the California Code of Regulations, Title 24 Part 2.5, incorporating the 2018 Edition of the International Residential Code, published by the International Code Council, including Chapter 1, are hereby adopted by reference.
- (d) ELECTRICAL CODE ADOPTED, the 2019 Edition of the California Electrical Code, known as the California Code of Regulations, Title 24 Part 3, incorporating the 2017 Edition of the National Electrical Code, published by the National Fire Protection Association, including Article 89, is hereby adopted by reference.
- (e) MECHANICAL CODE ADOPTED, the 2019 Edition of the California Mechanical Code, known as the California Code of Regulations, Title 24 Part 4, incorporating the 2018 Edition of the Uniform Mechanical Code, including Chapter 1, published by the International Association of Plumbing and Mechanical Officials, are hereby adopted by reference.
- (f) PLUMBING CODE ADOPTED, the 2019 Edition of the California Plumbing Code, known as the California Code of Regulations, Title 24 Part 5, incorporating the 2018 Edition of the Uniform Plumbing Code, published by the International Association of Plumbing and Mechanical Officials, including Chapter 1, are hereby adopted by reference.
- (g) ENERGY CODE ADOPTED, the 2019 California Energy Code, known as the California Code of Regulations, Title 24 Part 6, published by the California Energy Commission, is hereby adopted by reference.
- (h) HISTORICAL BUILDING CODE ADOPTED, the 2019 Edition of the California Historical Building Code, known as the California Code of Regulations, Title 24 Part 8, published by the International Code Council, is hereby adopted by reference.
- (i) FIRE CODE ADOPTED, the 2019 Edition of the California Fire Code known as the California Code of Regulations, Title 24 Part 9, as amended by the Truckee Fire Prevention District of Nevada County Ordinance 05-2019, is hereby adopted by reference.
- (j) EXISTING BUILDING CODE ADOPTED, the 2019 Edition of the California Existing Building code, known as the California Code of Regulations, Title 24 Part 10, incorporating the 2018 International Existing Building Code, published by the International Code Council, including Chapter 1, are hereby adopted by reference.
- (k) GREEN BUILDING STANDARDS CODE ADOPTED, the 2019 Edition of the California Green Building Standards Code (CALGreen), known as the California Code of Regulations, Title 24 Part 11, published by the International Code Council, is hereby adopted by reference.
- (l) REFERENCED STANDARDS CODE ADOPTED, the 2019 Edition of the California Referenced Standards Code, known as the California Code of Regulations, Title 24 Part 12, published by the International Code Council, is hereby adopted by reference.

- (m) HOUSING CODE ADOPTED, the 1997 Edition of the Uniform Housing Code published by the International Conference of Building Officials as referenced by the California Department of Housing and Community Development and pursuant to the provisions of Section 17958, 17958.5, 17958.7, 17958.9 and 17959 of the California Health and Safety code, is hereby adopted by reference.
- (n) ABATEMENT OF DANGEROUS BUILDINGS CODE ADOPTED, the 1997 Edition of the Uniform Code for the Abatement of Dangerous Buildings, published by the International Conference of Building Officials is hereby adopted by reference.
- (o) SWIMMING POOL AND SPA CODE, the 2018 Edition of the International Swimming Pool and Spa Code published by the International Code Council is hereby adopted by reference.
- (p) INTERNATIONAL PROPERTY MAINTENANCE CODE ADOPTED, the 2018 Edition of the International Property Maintenance Code, published by the International Code Council, is hereby adopted by reference.

Where the California Code of Regulations of the State Building Standards Code Regulations differs from any provisions of the Uniform or International Codes, State Building Code Regulations shall prevail.

One copy of the Codes will be on file in the office of the Building Official for use and examination by the Public.

CHAPTER 15.02 GENERAL CONSTRUCTION PROVISIONS

15.02.010 Utility Connections

It is unlawful for any person, including utility companies, to connect electric power lines or liquefied petroleum gas or natural gas sources permanently to any building or structure for which a permit is required by this Title until an inspection has been made of the installation and the approval signed by the Building Inspector. This provision shall not prohibit the erection and use of temporary power poles approved by the power company during the course of construction, when approved by the Building Official.

15.02.020 Final Inspection Enforcement

All work authorized pursuant to any permit issued by the Town of Truckee shall be fully completed before the expiration of the term of the permit. Failure to complete all work within the permit's life shall result in a voiding of the permit issued for the project.

Whenever a parcel of real property is conveyed and a permit has been issued for work on the property which has not been completed as attested by the issuance of a certificate of occupancy or final approval for the project, the new owner of the property shall request a transfer of all permits for the property to his/her name and shall assume full responsibility for the proper completion of the work authorized by the permit. A transfer fee equal to all administrative fees of the permit shall be established by the Building Official and shall be paid by the new owners upon application for a permit transfer.

15.02.030 Mobile Home Ramadas

All mobile homes and commercial coaches will conform to the mobile home snow load requirements of Tables 1608.3 and 1608.4.

Mobile homes and commercial coaches that do not meet the snow load requirements for their location must be protected by a ramada. Such ramadas must be designed by a registered civil or structural engineer or architect.

Exception: Mobile homes located in mobile home parks need not be protected by a ramada provided the operator/owner of the mobile home park enters into a snow removal maintenance agreement with the Town in a format approved by the Building Official.

15.02.040 Severability

If any section or portion thereof of this Title is for any reason held to be invalid by a court of competent jurisdiction, such decision or determination shall not affect the validity of the remaining provisions of any part thereof.

15.02.050 Penalties

Any person who violates any of the provisions of the Title or who violates or fails to comply with any order made hereunder or who builds in violation of any detailed statement of specifications or plans submitted and approved hereunder is severally for each and every such violation and noncompliance guilty of an infraction unless otherwise provided, and punishable by a fine of not more than five hundred dollars (\$500) and/or imprisonment for not more than six (6) months in the Town Jail. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue, and all such persons shall be required to correct or remedy such violations or defects within a reasonable time. When not otherwise specified, each five (5) days that prohibited conditions are maintained shall constitute a separate offense.

The application of the above penalty shall not be the exclusive remedy nor shall the penalty be held to prevent the enforced removal of prohibited conditions. Any violation of this Title shall additionally constitute a public nuisance subject to abatement.

Violation of this Title shall be punishable per offense by a fine set forth in the Town of Truckee Fee schedule. Adjudication of any such violation shall occur using the administrative hearing process established by the Town for Town code violations. In addition, if a violation is found to have taken place the hearing officer may also require payment of the Town's reasonable costs of processing and collection.

15.02.060 Fees

The fees referenced in the Codes shall be those fees adopted by the Town Council of the Town of Truckee.

15.02.070 Board of Appeals

Appeal of any provision of this ordinance shall be made in accordance with this section.

(ORD 2016-14; 11/08/2016)

General

In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business.

Limitations on Authority

An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder has been incorrectly interpreted, the provision of this code does not fully apply or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

Qualifications

The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.

15.02.080 Small Residential Rooftop Solar Energy System Review Process

- (a) The intent of this section is to comply with the requirements of Government Code Section 65850.5 regarding the establishment of an expedited permitting process for small residential rooftop solar energy systems.
- (b) The following words and phrases as used in this section are defined as follows:

“Electronic submittal” means a submittal made by email, the Internet, and/or facsimile.

“Small residential rooftop solar energy system” means a system that meets all of the following criteria:

- 1) A solar energy system that is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal.

- 2) A solar energy system that conforms to all applicable state fire, structural, electrical, and other building codes as adopted or amended by the Town, and paragraph (iii) of subdivision (c) of Section 714 of the Civil Code, as such section or subdivision may be amended, renumbered, or re-designated from time to time.
- 3) A solar energy system that is installed on a single or duplex family dwelling.
- 4) A solar panel or module array that does not exceed the maximum legal building height as defined by the authority having jurisdiction.

“Solar energy system” has the same meaning set forth in paragraphs (1) and (2) of subdivision (a) of Section 801.5 of the Civil Code, as such section or subdivision may be amended, renumbered, or re-designated from time to time.

- (c) The Town’s building official is hereby authorized and directed to develop, adopt, and maintain a checklist of the requirements with which a small residential rooftop solar energy system project must comply in order to be entitled to expedited processing. The checklist shall be published on the Town’s website.
- (d) The applicant may submit the permit application and associated documentation to the Town’s building division by personal, mailed, or electronic submittal together with any required permit processing and inspection fees. In the case of electronic submittal, the electronic signature of the applicant on all forms, applications and other documentation may be used in lieu of a wet signature.
- (e) Prior to submitting an application, the applicant shall:
 - 1) Verify to the applicant’s reasonable satisfaction through the use of standard engineering evaluation techniques that the support structure for the small residential rooftop solar energy system is stable and adequate to transfer all wind, seismic, and dead and live loads associated with the system to the building foundation; and
 - 2) At the applicant’s cost, verify to the applicant’s reasonable satisfaction using standard electrical inspection techniques that the existing electrical system including existing line, load, ground and bonding wiring as well as main panel and subpanel sizes are adequately sized, based on the existing electrical system’s current use, to carry all new photovoltaic electrical loads.
- (f) For a small residential rooftop solar energy system eligible for expedited review, only one inspection shall be required, which shall be done in a timely manner and may include a consolidated inspection by the Town’s building official and a representative of the Truckee Fire Protection District. If a small residential rooftop solar energy system fails inspection, a subsequent inspection is authorized; however, the subsequent inspection need not conform to the requirements of this subsection.
- (g) An application that satisfies the information requirements in the checklist, as determined by the building official, shall be deemed complete. Upon receipt of an incomplete application, the building official shall issue a written correction notice detailing all deficiencies in the application and any additional information required to be eligible for expedited permit issuance.
- (h) Upon confirmation by the building official of the application and supporting documentation being complete and meeting the requirements of the checklist, the building official shall administratively approve the application and issue all required permits or authorizations. Such approval does not authorize an applicant to connect the small residential rooftop energy system to a utility provider’s electricity grid. The applicant is responsible for obtaining such approval or permission from the local utility provider.

(ORD 2017-11, 08/25/2015)

15.02.090 Expedited Permitting Process for Electric Vehicle Charging Systems

- (a) The intent of this section is to comply with the requirements of Government Code Section 65850.7 to promote and encourage the use of electric vehicles by creating an expedited, streamlined permitting process for electric vehicle charging stations while promoting public health and safety and preventing specific adverse impacts in the installation and use of such charging stations.
- (b) The following words and phrases as used in this section are defined as follows:
 - “Electronic submittal” means a submittal made by email, the Internet, and/or facsimile.
 - “Electric vehicle charging station” or “charging station” means any level of electric vehicle supply equipment station that is designed and built in compliance with Article 625 of the California Electrical Code, as it reads on the effective date of the ordinance adopting this section, and delivers electricity from a source outside an electric vehicle into a plug-in electric vehicle.
- (c) The Town’s building official is hereby authorized and directed to develop, adopt, and maintain a checklist of the requirements with which an expedited permitting process for electric vehicle charging systems project must comply in order to be entitled to expedited processing. The checklist shall be published on the Town’s website.
- (d) The applicant may submit the permit application and associated documentation to the Town’s building division by personal, mailed, or electronic submittal together with any required permit processing and inspection fees. In the case of electronic submittal, the electronic signature of the applicant on all forms, applications and other documentation may be used in lieu of a wet signature.
- (e) Prior to submitting an application, the applicant shall:
 - 1) Verify to the applicant’s reasonable satisfaction through the use of standard engineering evaluation techniques that the support structure for the electric vehicle charging system is stable and adequate to transfer all wind, seismic, and dead and live loads associated with the system to the building foundation; and
 - 2) At the applicant’s cost, verify to the applicant’s reasonable satisfaction using standard electrical inspection techniques that the existing electrical system including existing line, load, ground and bonding wiring as well as main panel and subpanel sizes are adequately sized, based on the existing electrical system’s current use, to carry all new electrical loads.
 - 3) Verify that the installation of an electric vehicle charging station will not have specific, adverse impact to public health and safety and building occupants. Verification by the applicant includes but is not limited to: electrical system capacity and loads; electrical system wiring, bonding and overcurrent protection; building infrastructure affected by charging station equipment and associated conduits; areas of charging station equipment and vehicle parking.
- (f) An application that satisfies the information requirements in the checklist, as determined by the building official, shall be deemed complete and be promptly processed. Upon receipt of an incomplete application, the building official shall issue a written correction notice detailing all deficiencies in the application and any additional information required to be eligible for expedited permit issuance.
- (g) Upon confirmation by the Building Official that the permit application and supporting documents meets the requirements of the Town’s adopted checklist, and is consistent with all applicable laws and health and safety standards, the Building Official shall, consistent with Government Code Section 65850.7, approve the application and issue all necessary permits. Such approval does not authorize an applicant to energize or utilize the electric

- vehicle charging station until approval is granted by the Town of Truckee.
- (h) Consistent with Government Code Section 65850.7, the Building Official shall allow for electronic submittal of permit applications covered by this section and associated supporting documentations. In accepting such permit applications, the Building Official shall also accept electronic signatures on all forms, applications, and other documentation in lieu of a wet signature by any applicant.
 - (i) It is the intent of this section to encourage the installation of electric vehicle charging stations by removing obstacles to permitting for charging stations so long as the action does not supersede the Building Official's authority to address higher priority life-safety situations. If the Building Official makes a finding based on substantial evidence that the electric vehicle charging station could have a specific adverse impact upon the public health or safety, as defined in this section, the Town may require the applicant to apply for a use permit.
 - (j) In the technical review of a charging station, consistent with Government Code Section 65850.7, the Building Official shall not condition the approval for any electric vehicle charging station permit on the approval of such a system by an association, as that term is defined by Civil Code Section 4080.
 - (k) Electric vehicle charging station installation requirements:
 - 1) Electric vehicle charging station equipment shall meet the requirements of the California Electrical Code, the Society of Automotive Engineers, the National Electrical Manufacturers Association, and accredited testing laboratories such as Underwriters Laboratories, and rules of the Public Utilities Commission or a Municipal Electric Utility Company regarding safety and reliability.
 - 2) Installation of electric vehicle charging stations and associated wiring, bonding, disconnecting means and overcurrent protective devices shall meet the requirements of Article 625 and all applicable provisions of the California Electrical Code.
 - 3) Installation of electric vehicle charging stations shall be incorporated into the load calculations of all new or existing electrical services and shall meet the requirements of the California Electrical Code. Electric vehicle charging equipment shall be considered a continuous load.
 - 4) Anchorage of either floor-mounted or wall-mounted electric vehicle charging stations shall meet the requirements of the California Building or Residential Code as applicable per occupancy, and the provisions of the manufacturer's installation instructions. Mounting of charging stations shall not adversely affect building elements.

(ORD 2017-13, 11-28-17)

CHAPTER 15.03 REVISIONS AND ADDITIONS TO THE CALIFORNIA BUILDING AND RESIDENTIAL CODES

15.03.010 Permit Expiration

California Building Code Section 105.5 and California Residential Code Section R105.5 are deleted and replaced to read:

Every permit issued shall expire two years from the date of issuance. Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 360 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of more than 360 days. Once a building permit has expired, work can be recommenced only after that permit is renewed or a new permit is issued. The fee therefore shall be one-half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work; and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit expired, suspended or abandoned by over one year, the permittee shall pay a new full permit fee.

15.03.020 Engineering Requirement

The following shall be added to California Building Code Section 107.1 and California Residential Code Section R106.1:

All structures or buildings classified in Occupancy Groups A, B, E, F, H, I, L, M, R, S and U shall be designed by an architect or civil/structural engineer, licensed/registered in the State of California. All plans will be deemed to have complied with the requirements of this Section, provided that they are prepared in accordance with sections 6731, 6737, 6737.1 of the Business and Professions Code.

15.03.030 Topographic Survey and Boundary Survey Requirements

The effective date for this section is January 1, 2000.

The following shall be added to California Building Code Section 107.2.1 and California Residential Code Section R106.1.1:

For new construction, all lots will require a Topographic Survey prepared by a California licensed Land Surveyor, or Civil Engineer licensed to perform such services.

Exception: The Building Official may waive the Topographic Survey requirements for minor additions and alterations. The Building Official may also consider a waiver of this requirement based on a written request and a determination that topographic information is not necessary for the proposed project.

For new construction all lots will require a Boundary Survey prepared by a California licensed Land Surveyor or Civil engineer licensed to perform such services.

Exception: The Building Official may consider a waiver of the Boundary Survey requirements for minor additions or alterations.

15.03.040 Fire Hazard Severity Zone Classification

- (a) For purposes of clarification and enforcement of California Building Code Chapter 7A and California Residential Code Section R337, Materials and Construction Methods for Exterior Wildfire Exposure, the Truckee Fire District adopted Ordinance 1-96 which was mandated by AB 337 in 1992 (Bates Bill); it designates all areas within the Town of Truckee a Very High Fire Severity Zone. The effective date of this code section is modified by the California Building Standards Commission to be July 1, 2008.
- (b) Section 701A.3 Exception 4 of the California Building Code and Section R337.1.3 Exception 4 of the California Residential Code are deleted and replaced to read as follows:
Additions to and remodels of buildings originally constructed prior to the applicable application date, other than the replacement of roofing, siding, and windows as follows:
 - (1) If the entire roof is being replaced within any one-year period, the new roof shall comply with Sections 705A and R337.5.
 - (2) If the entire building is being re-sided within any one-year period, the new siding shall comply with Sections 707A and R337.7 and vents shall comply with Sections 706A and R337.6.
 - (3) If all the windows are being replaced within any one-year period, the new windows shall comply with Sections 708A and R337.8.

15.03.050 Roof Fire Rating

California Building Code Section 1505.1.1 and California Residential Code Section R902.1.1 are written here for emphasis and clarity:

“The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class A.”

15.03.060 Wood Shake and Wood Shingle Roofs

Add new Section 1505.6.1 to the California Building Code and Section R905.1.3 to the California Residential Code as follows:

With the exception of the Historic District, wood shake and wood shingle roofs are prohibited. Where installed in the Historic District, wood roof assemblies shall be Class A fire rated.

15.03.070 Sheet Metal Roofing Underlayment

Add the following to California Building Code Section 1507.4.5 and to California Residential Code Section R905.10.6:

Sheet metal roofing shall be applied over an underlayment of not less than 15 lb. felt. The underlayment shall be applied horizontally. Fasteners and their spacing shall be as specified by the manufacturer.

15.03.080 Declaration as High Snow Area

Add Section 1503.6 to the California Building Code and Section R903.5 to the California Residential Code as follows:

For purposes of shingle, shake and tile roofs, all of the Town of Truckee is classified as a severe climate and "high snow" area.

15.03.090 Metal Valley Flashing Underlayment

Add to Section 1507.2.8.2 to the California Building Code and Section R905.2.8.2 of the California Residential Code as follows:

Metal valley flashing underlayment used in conjunction with shingle, tile and shake roofs, shall be solid cemented to the roofing underlayment for roof slopes under 8 units vertical in 12 units horizontal (58.3% slope).

15.03.100 Ice Barriers

Section 1507.1.2 of the California Building Code and Section R905.1.2 of the California Residential Code are deleted and replaced to read:

An Ice Barrier is required on roofs of heated areas of buildings. Roofs, regardless of covering, shall be protected against leakage (caused by ice and snow) using an approved manufactured membrane installed per the manufacturer's specifications and as approved by the Building Official. This application shall extend from the eave edge of the roof up the roof slope measured 5 feet beyond the wall line separating the conditioned and unconditioned space, up 30 inches along each side of a valley and 12 inches up the vertical wall at roof to wall intersections. This Ice Barrier shall be in addition to any underlayment if required.

15.03.110 Snow Loads

Add Section 1608.4 to the California Building Code and Section R301.2.3.1 to the California Residential Code as follows:

All of the Town of Truckee shall be declared a snow area. This pertains to all structures, mobile homes, modular buildings, factory-built houses and commercial coaches. The following snow load requirements are established for all structures.

- (a) Applicable west of the west section line of Township 17 North, Range 16 East, Sections 5, 8 and 17 and Township 18 North, Range 16 East, Section 32.

TABLE 1608.3 GROUND SNOW LOADS*

<u>Elevation above Sea Level in Feet</u>	<u>Ground Snow Load, Pg. in Pounds Per Square Foot</u>
5500	260
5501-6000	315
6001-6500	375
6501-7000	430
7001-7500	490
7501-8000	545

- (b) Applicable east of the east section line of Township 17 North, Range 16 East, Sections 5, 8 and 17 and Township 18 North, Range 16 East, Section 32.

TABLE 1608.4 GROUND SNOW LOADS*

<u>Elevation above Sea Level in Feet</u>	<u>Ground Snow Load, P_g, in Pounds Per Square Foot</u>
5500	130
5501-6000	190
6001-6500	245
6501-7000	300
7001-7500	360
7501-8000	400

* Intermediate values may be interpolated by proportion.

- (c) The snow loads within Township 17 North, Range 16 East, Sections 5, 8 and 17 and Township 18 North, Range 16 East, Section 32 shall be on a straight line proportion between the values shown in Tables 1608.3 and 1608.4 based on the distance of the site from the boundary of the transition zone.
- (d) Higher snow loading than those shown in Tables 1608.3 and 1608.4 may be required by the Building Official in local areas of known higher snow accumulation.
- (e) Deviations from the above set forth snow loading may be permitted by the Building Official, provided the snow load and conditions in each individual case are derived and certified by a registered civil/structural engineer who can show proper experience in snow load evaluation.
- (f) In the design of buildings and structures, consideration shall be given to the following:
- (1) Unbalanced loading of roofs.
 - (2) Drifting due to adjacent obstructions.
 - (3) Accumulations in valleys and adjacent to parapet walls and chimneys.
 - (4) Ice loads on cornices of at least one and one half times the roof snow load.
 - (5) Possible impact loadings from snow falling on structure from higher roofs.
 - (6) Effect on structure from dynamic loading caused by snow sliding off roof.
 - (7) Snow sliding off roof and dynamically loading sidewalls by being forced against same due to snow embankment adjacent to the structure.
 - (8) Protection of entrances, exits and windows from the danger of falling icicles and snow sliding off pitched roofs.
 - (9) Ice weight where it will refreeze on unheated overhangs after having melted and run off from portions of roofs with heat below same.
 - (10) Projections through the roof, such as ventilation and plumbing vents, which may be torn off or damaged by sliding snow.
 - (11) Gas meter sheds shall be designed to resist 1.4 times the ground snow load, P_g .
 - (12) Decks located above the anticipated snow depth may be designed as flat roofs. The snow load for decks located below the anticipated snow depth may be interpolated between the roof and ground snow load based on the appropriate height. Consider impact, uplift and drift as appropriate.
- (g) Pitch reductions shall not apply to roofs where the eave line extends below the anticipated snow depth. "A-Frame" buildings and other similar types wherein the roof extends below the anticipated depth of the snow on the ground, the tabulated ground snow load values must be used on the roof below the ground snow level. Also, special design consideration must be made for the stress condition wherein the snow from the upper portion of the roof slides down on top of the ground snow and consequently further increases the loading on the lower portion of said roof.

- (h) Use of the “Unobstructed Slippery Surfaces” reduction in ASCE 7-16 Figure 7.4-1 is prohibited unless approved by the Building Official and the property is deed restricted to prevent future reroofing with a non-slippery material and future installations of snow guards (for snow retention).

15.03.120 Snow Load Design

- (a) Add the following to ASCE 7-16, Section 7.6.1 Unbalanced Snow Loads for Hip and Gable Roofs:

- (1) For roof pitches of less than or equal to 7/12 where the ground snow load (P_g) exceeds 100 psf, the unbalanced load (P_{un}) need not exceed:

0 psf at the ridge and

$hr*\gamma$ psf at the eave

Where: hr = Vertical distance between the eave and ridge in feet

γ = Density of the snow in pounds per cubic foot (pcf)

This unbalanced load is determined from the maximum amount of drift snow that can accumulate on the leeward side of the roof.

- (A) Where the ground snow load (P_g) exceeds 100 psf and a pitch reduction is taken for the roof snow load, a valley load of $0.25*P_s$ shall be added to the sloped roof snow load (P_s) in the influence area of all valleys created by intersecting roofs where the roof intersection angle is between 45 degrees and 90 degrees. For roof intersection angles less than 45 degrees design shall be in accordance with ASCE 7-16 section 7.6.3.
- (B) Valley and drift loads need not be applied concurrently.
- (C) Amend ASCE 7-16 table 7.3-2 Thermal Factor, C_t as follows:
For open air structures C_t shall be 1.1.
Exception: For decks C_t may be 1.0.
- (D) Add the following to ASCE 7-16 section 7.4.5 Ice Dams and Icicles Along Eaves:
(1) For roofs with a roof snow load (P_f or P_s) greater than 100 psf the eave load need not exceed $1.5*P_f$ or $1.5*P_s$ on the eave end that drains water. In addition, a minimum of 50% of the roof snow load shall be considered on the roof up slope of the eave when this uniformly distributed load is applied.
- (E) Add the following to ASCE 7-16 section 7.9 Sliding Snow:
(1) As an alternative, Appendix Chapter 16, Section 1644 of the 1997 UBC may be used to determine sliding snow.
- (F) Impact Load on Lower Structure. The load caused by snow sliding off a sloped upper roof onto a lower structure shall be determined for slippery upper roofs with slopes greater than 1/4 on 12, and for other (i.e. non-slippery) upper roofs with slopes greater than 2 on 12. The total impact load per unit length of the eave shall be:
Upper roof (P_f or P_s) * li + Lower structure (P_f , P_s or P_g)

See table below for Impact Factor li .

The impact load shall be placed on the lower structure over a distance of 10 ft from the upper roof eave.

Impact Factor Table

Vertical Difference Between Upper Roof and Impact Surface of the Lower Structure ^{1,2}	Impact Factor I_i
Less than or equal to $0.5 h_b$ on lower structure	0.0
Greater than $0.5 h_b$ on lower structure but less than or equal to $10' - 0''$	0.4
Greater than $10' - 0''$ but less than or equal to $18' - 0''$	1.0
Greater than $18' - 0''$	Special Analysis Required

¹ The Impact Surface may be taken as the top of the snow on the lower structure.

² Rebound loads shall be considered.

- (b) ASCE 7-16 equation 7.7-1 (density):
Density need not exceed 25 pcf.
- (c) ASCE 7-16 section 12.14.8.1 Seismic Base Shear:
ASCE 12.14.8.1 – Note 4, use 20% of the actual (not flat) roof snow load that is used for the roof design.

15.03.130 Earthquake Design

Add Section 1613.1.4 to the California Building Code as follows:

1613.1.4 Earthquake Design. Modify ASCE 7-16, Table 12.2-1 as follows:

Add a new line item under A. Bearing Wall Systems in Table 12.2-1 as follows:

- 19. Heavy timber braced frames where the bracing carries gravity loads
ASCE 7-16 section where detailing requirements are specified - 14.5
Response modification coefficient, $R - 3.0$
System over strength factor, $\omega - 2.5$
Deflection amplification factor, $C_d - 3.5$
Structural system limitations and building height (ft) limit
Seismic design category
B – NL C – NL D – 65 E – 65 F - 65

Add a new line item under B. Building Frame Systems in Table 12.2-1 as follows:

- 27. Heavy timber ordinary braced frames
ASCE 7-16 section where detailing requirements are specified - 14.5
Response modification coefficient, $R - 5.6$
System over strength factor, $\omega - 2.2$
Deflection amplification factor, $C_d - 1.0$ for knee braced frames, $C_d - 3.5$ for all others
Structural system limitations and building height (ft) limit
Seismic design category
B – NL C – NL D – 65 E – 65 F – 65

Use limitations for Heavy Timber Braced Frames braced with knee braces:

Heavy timber knee braced frames are allowed as a seismic force resisting system only in light open one (1) story structures (e.g. covered porches, porte cocheres, outdoor pavilions & carports) without hard finishes (e.g. gypsum wall board, stucco, stone) where larger deflections can be accommodated. P-delta effects shall be considered per section 12.8.7

15.03.140 Chimneys, Protection from Sliding Snow

Add new California Building Code Section 1608.5 and California Residential Code Section R1007 as follows:

Chimneys, chimney chases, flues and heating appliance vents projecting through the roof shall be protected from damage by sliding snow or ice as follows:

- (a) When roof pitch is 0 in 12 through 2 in 12, inclusive, no snow is splitter required.
- (b) When roof pitch is steeper than 2 in 12 provide metal-formed snow splitter with a minimum vertical height (at the apex) at least one-half of the required vertical height of the vent extension above the roof. In no case shall a snow splitter measuring less than 8 inches at the apex be used.
- (c) When framed chimney chases or masonry chimneys project above the roof, they shall be engineered and protected by a snow splitter with a minimum height equal to one-half of the required height of the flue or chimney. The width, at the base of the snow splitter, shall be equal to or greater than the width of the chimney or chase.
- (d) All snow splitters shall be secured to the roof frame and sheathing to withstand the shear loads anticipated. All heating appliance vents, flues and chimneys shall be strapped to the snow splitter near its apex with a galvanized steel strap. Minimum thickness of the steel strap shall be 16 gauge.

Exception to the above: Flues, appliance vents and chimneys greater than four (4) inches in diameter which penetrate the roof within 36 inches of the ridge shall be permitted without snow splitters.

15.03.150 Foundation Depth

Delete and replace California Building Code Section 1809.5 and California Residential Code Section R403.1.4.1 as follows:

Unless erected on solid rock, to protect against frost and freezing, the minimum foundation depth is 18 inches below grade if below 7000-foot elevation and 24 inches below grade for 7000-foot elevation and above.

Exception: Interior footings shall be a minimum of 12 inches below grade.

15.03.160 Grading Permit Exceptions

Delete and replace California Building Code Appendix Chapter J, Section J103.2 as follows:

J103.2 Exempted Work. A grading permit is not required for the following:

- (a) Clearing, grubbing, and excavation or fills less than 20 cubic yards that disturb less than 500 square feet.
- (b) Excavation for construction of a structure permitted under this code.
- (c) Cemetery graves.
- (d) Refuse disposal sites controlled by other regulations.
- (e) Excavations for wells or trenches for utilities.

- (f) Mining, quarrying, excavating, processing or stockpiling of rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase the stresses in, soil on adjoining property.
- (g) Exploratory excavations under the direction of a registered design professional.
- (h) Existing nursery and agricultural operations conducted as a permitted main or accessory use.
- (i) Tree cutting without ground disturbance.

Exemption from the permit requirements of this chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of this jurisdiction.

15.03.170 Erosion Prevention Standard for One and Two Family Dwelling Construction Projects

Add a new Section J110.3 to California Building Code Appendix Chapter J as follows:

J110.3 Standard for One and Two Family Dwelling Construction Projects. The Town of Truckee Minimum Standards for Erosion Prevention on One and Two Family Dwelling Construction Projects is adopted by reference to be enforced as part of this code.

15.03.180 Solar Panels for Residential Buildings for One and Two Family Dwellings

Add the following to Section R324.6.2 of the California Residential Code and Section 1204.2.1.2 of the California Fire Code as follows:

The Building Division may permit solar panels to be mounted no higher than the ridge of the roof so long as the opposite side of the roof is accessible for fire ground activities. In addition, the Building Division may require that the design of the panel mounting assembly discourage the accumulation of flammable materials (such as pine needles).

15.03.190 Protection of Exterior Wood Members against Decay

Add Section 2304.12.10 to the California Building Code and Section R317.1.7 to the California Residential Code as follows:

Exterior beam splices shall be flashed or otherwise protected from exposure to moisture. Exterior built-up members such as beams and posts shall be flashed or otherwise protected to prevent the collection of moisture between the members.

15.03.200 Storage Areas

Add Section R303.11 to the California Residential Code as follows:

Storage areas within or adjacent to R occupancies shall be restricted to one electrical receptacle and one electrical light and switch unless otherwise approved by the Building Official.

CHAPTER 15.04 REVISIONS AND ADDITIONS TO THE CALIFORNIA PLUMBING CODE

15.04.010 Protection of Piping from Freezing

The following Sub-section 312.13 is added to Section 312:

312.13 All water supply piping shall be protected from freezing by a minimum of 36 inches of earth covering. When structural conditions necessitate installation of water piping in exterior walls or above ceilings, the pipes shall be installed to the inside surface of the wall or ceiling framing and insulated, on the unheated side of the pipes, with insulation equivalent to the R value required for the wall or ceiling. Water piping shall not be installed or concealed in unheated walls, ceilings and attics.

15.04.020 Valves

The following Sub-section 606.9 is added to Section 606:

606.9 The water supply system, including hot and cold, shall be designed and installed for winterization and freeze protection, such as allowing for routine drainage of the system to prevent freezing. The water supply shall be equipped with a readily accessible shut off valve. Valve(s) and/or drain port(s) when used shall be readily accessible, insulated for protection from freezing, and shall be protected from the potential for back flow.

15.04.030 Liquefied Petroleum Gas Facilities and Piping

The following Sub-section 1212.12 is added to Section 1212:

1212.12 Liquefied Petroleum Gas Installation Policy Procedures

This subsection shall apply to all new liquefied petroleum gas (LPG) installations and to existing installations when LPG service is reconnected after service is interrupted.

- (a) Two stage regulator/systems shall be installed on all LPG installations with approval steel, or PE piping, installed in accordance with the California Plumbing Code and manufacturing specification.
- (b) The first stage regulator shall be installed under the hinged gauge cover supplied with the tank. The atmospheric pressure aperture of the regulator shall be pointed downward. The first stage regulator shall be plumbed to the riser of the yard piping with soft copper tubing or schedule 40 steel pipe with two 90-degree elbow swing joints (one at the top and one below grade) to allow flexibility should tank shifting occur. The riser from the yard piping shall be located not more than three inches (horizontally) from the walls of the tank. The propane tank shall be placed on reinforced concrete supports.
- (c) The second stage regulator and riser pipe shall be installed on the gable end of the building at least 20 feet from or out of the direct line of discharge of adjacent shedding roofs. The riser shall have swing joints below grade and be 1 ½ to 3 ½ inches from the wall surface and securely supported/braced to the wall approximately ten inches below the regulator so as to prevent bending of the pipe by lateral snow/ice loads. Second stage regulators installed on the front of a garage shall be protected by a three-inch bollard.

Exception #1: On round, octagon and similarly-shaped structures (without gable ends) the riser may be located under the eaves when approved by the Building Official.

Exception #2: On existing services that are reconnected after service is interrupted, where relocation of the riser is not possible due to structural or topographical constraints the riser may be located under the eave with the approval of the Building Official.

Exception #3: When approved by the Building Official, the second stage regulator and riser may be located under the eaves if protected by a deck which is designed for 1.4 times the snow load for the area approved by the Building Official.

- (d) A protective cover, engineered for two times the snow load of the area, shall be installed over the second stage regulator and securely supported to the ground or diagonally to the building wall. When supported to the ground, the footing for the supports shall be founded 18 inches below finish grade and the supporting posts shall be securely fastened to the footing and the cover to prevent dislocation of the supports. When supported diagonally to the wall, the supports shall extend from the drip edge of the cover back to the wall. The angle formed by the supports and the wall shall not exceed 45 degrees from vertical. Existing decks that are used to cover the second stage regulator shall be designed for the snow load.
- (e) The riser pipes for the yard piping shall not be imbedded in concrete. Concrete placed around such risers shall be held back at least one inch from all sides of the pipe.
- (f) At the time of application for any building permit which involved the installation of the LPG system, the applicant shall submit two copies of LPG system plot plan prepared to scale. Both copies must carry the stamp of approval of the prospective LPG supplier and Fire Marshall. The LPG plot plan shall include, but not be limited to, the tank location, proposed tank capacity (in US gallons), route of yard piping, location of the riser pipe at the building, property boundaries, an outline of all existing/proposed buildings on the lot and a depiction of the ridge line and slope of roofs of any building to be supplied with LPG. The LPG plot plan may be included on the normal site plan but must contain the stamp of approval of the gas supplier and Fire Marshall at the time of the submission to the Building Department.
- (g) Location of the shutoff valve at the LPG tank shall be permanently marked by the use of a color-coded snow stake identifying the gas supplier. This stake shall be placed directly adjacent to the tank at the center line of the valve cover and on the side opposite the yard piping riser. Such stake shall be of sufficient height to be visible through anticipated maximum snow depth at the respective location. Installation and maintenance of this snow stake is the responsibility of the LPG user. An LPG shutoff valve shall also be installed at the house under the regulator cover. This valve shall be identified by a placard on the wall directly over the regulator cover and above the anticipated depth of snow.

CHAPTER 15.05 REVISIONS AND ADDITIONS TO THE CALIFORNIA MECHANICAL CODE

15.05.010 Exit Terminals

The following Sub-section 802.3.3.6 is added to Section 802.3.3 of the California Mechanical Code:

802.3.3.6 Exit terminals and combustion air intakes shall not be located under decks which could be sealed off around the perimeter with snow accumulation.

15.05.020 Sidewall Venting

The following Sub-section 802.8.6 is added to Section 802.8 of the California Mechanical Code:

802.8.6 Sidewall venting of direct vent heaters and room heaters shall terminate above the anticipated snow depth. Snow depth is determined by dividing the ground snow load by snow density (see section 15.03.120(b)).

(ORD 2013-03 11-26-2014; 2016-14 11-08-2016; 2019-09 11-26-2019)