

2024 CENTRAL LYON FIRE AMENDMENTS TO THE 2024 INTERNATIONAL FIRE CODE

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Central Lyon County Fire Protection District

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Preface

This document comprises proposed amendments to the 2024 Edition of the *International Fire Code* as published by the International Code Council, Inc, amended by the Participating Agencies of the Northern Nevada Region, with the support of the Northern Nevada Chapter of the International Code Council. This document is hereafter referenced as the 2024 Central Lyon Fire Code Amendments and is prepared to be adopted by reference by the local authority having jurisdiction. These provisions are not considered to be or enacted as the code unless the provisions are adopted and codified by the local Authority Having Jurisdiction.

The purpose of the document is to provide a consistent application to the enforcement of the fire and life safety code sections noted in the International Fire Code, while still acknowledging necessary modifications to the nationally recognized fire and life safety document based upon the local needs of the community.

Notes:

The following amendments were a collaborative effort between the Northen Nevada Fire agencies; Each jurisdiction has added small changes that are specific to the characteristics of their district/department. Each jurisdiction has adopted the amendments independently. Some of the references to other jurisdictions in this amendment package were maintained to provide comparison and context. This document does not replace Nevada Revised Statute, nor is it implied to, small differences in this code will only allow more restriction from state statues, never less. NRS 477 shall be enforced along with this code and the fully adopted code set.

The Referenced Standards in Chapter 80 are adopted and will be used for the duration of the code adoption period. Please see exceptions in Section 102.7.3.

Deleted language in the base code has been stricken through.

Added language to the code section has been underlined.

The entire section amended has been shown for context.

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2024 Central Lyon Fire Code Amendments

Section 101.1 Title.

These regulations shall be known as the Central Lyon Fire Code Amendments, hereinafter referred to as "this code". Section 101.2.1 Appendices

Appendix B As Amended

Appendix C In its entirety

Appendix D In its entirety

Appendix E In its entirety

Appendix F In its entirety

Appendix H In its entirety

Appendix I in its entirety

Appendix L In its entirety

Appendix M In its entirety

Appendix N In its entirety

Section 102.5 Application of residential code.

Where structures are designed and constructed in accordance with the *International Residential Code*, the provisions of this code shall apply as follows:

- 1. Construction and design provisions of this code (IRC) and the International Wildland Urban Interface Code pertaining to the exterior of the structure shall apply including, but not limited to, premises identification, fire apparatus access and water supplies. The water supply shall be approved by the fire code official. Where interior or exterior systems or devices are installed, construction permits required by Section 105.7 shall apply, to include residential solar photovoltaic systems and energy storage systems.
- 2. Administrative, operational and maintenance provisions of this code shall apply.

Section 102.7.3 Local Codes.

The revised locally adopted codes listed below may be utilized in place of the listed referenced documents. References contained herein shall refer to the locally adopted codes.

IMC-24 International Mechanical Code Chapters 1 – 15

UMC 24 Uniform Mechanical Code Chapters 1 – 18

<u>UPC-24</u> Uniform Plumbing Code Chapters 1 – 17 and Appendices A, B, D, E, I, and L

Section 103.1 Creation of agency.

<u>The Central Lyon County Fire Protection District – Fire Prevention Division</u> is hereby created and the official in charge thereof shall be known as the *fire code official*, The function of the agency shall be the implementation, administration, enforcement, and interpretation of the provisions of this code.

Section 103.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the fire code official shall have the authority to appoint a deputy fire code official, other related technical officers, inspectors and other employees. Such employees shall have powers as delegated by the fire code official. The chief and members of the department of fire prevention have the ability to perform their duties pursuant to this code including the authority to issue citations for the violation of any and all provisions of the International Fire Code and NAC 477.

Section 104.1.2 Authority to Inspect.

The Fire Prevention Division and/or the Fire District shall inspect, as often as necessary, buildings and premises, including such other hazards or appliances designated by the chief for the purpose of ascertaining and causing to

be corrected any conditions which would reasonably tend to cause fire or contribute to its spread, or any violation of the purpose or provisions of the Fire Code and of any other law or standard affecting fire safety.

Section 104.2.2.5 Fire Protection Reports.

Where the *fire code official* requests a technical report per section 104.2.2. Fire protection reports shall be prepared by an architect or professional engineer working in their area of expertise and shall include a description of the building uses, construction and life safety features of the entire building.

Section 105.1.7 Certificate of Insurance.

A valid Certificate of Insurance shall be submitted to, or be on file with, the *fire code official* when applying for a permit to conduct specific operations, as determined by the *fire code official*.

Section 105.5.22 Hazardous materials.

An operational permit is required to store, transport on site, dispense, use or handle, hazardous materials in excess of the amounts listed in Table 105.5.22 with the local jurisdiction. In addition, when a permit is required to be obtained for hazardous materials, the Nevada Combined Agency Hazardous Material Facility Report must be completed through the Nevada State Fire Marshal website and the appropriate fees paid. (www.fire.nv.gov)

Section 105.5.58 Fire-fighter Air Replenishment System.

An operational permit is required to maintain a Fire-fighter- Replenishment System.

Section 105.5.59 Emergency responder radio coverage system.

An operational permit is required for the operation and maintenance of an emergency ratio coverage system and related equipment, as specified in Section 510.

Section 105.5.60 Rural Water Supplies.

An operational permit is required for all rural water supplies, stored water tanks and water supplies for fire suppression operations. Inspection, testing and maintenance shall be in accordance with Section 507.5.3.

Section 108.3 Permit valuations.

The applicant for a permit shall provide an estimated value of the work for which the permit is being issued at the time of application. Such estimated valuations shall include the total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems. Where, in the opinion of the *fire code official*, the valuation is underestimated, the permit shall be denied unless the applicant can show detailed estimates acceptable to the *fire code official*. The *fire code official* shall have the authority to adjust the final valuation for permit fees. <u>Building permit valuation shall be set by the International Code Council's Building Valuation Data Table for the current code cycle, 2024.</u>

Section 109.5 Inspection agencies.

The fire code official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

Section 112.1 General.

In order to hear and decide appeals of orders, decisions or determinations made by the code 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 applicable governing authority and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant, with a duplicate copy to the code official. The Central Lyon Fire Board of Directors shall be known as the Board of Appeals in accordance with this section and shall have authority to interpret the administrative provisions of this code, but shall not have authority to waive the requirements of this code. The Central Lyon Fire Board of Directors is prohibited from granting waivers, variances, or approvals of alternate methods, or materials differing from the

regulations or adopted codes and standards of the State Fire Marshal. All requests for variances must be reviewed and approved by the State Fire Marshal through the use of the State Fire Marshal's Variance Request procedure in accordance with NAC 477.287. Variances shall be approved only if the State Fire Marshal concurs that the request provides an acceptable alternate means to achieve a comparable level of safety. The State Fire Marshal may, within its discretion, seek input from Central Lyon Fire in the review of variance requests related, but not limited to, fire apparatus access and water supply, however, the final decision to approve, approve with conditions or reject the variance request remains solely with the State Fire Marshal. The fee for review by the State Fire Marshal shall be paid by the applicant seeking appeal.

Section 113.4 Violation penalties.

Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under the provisions of this code, shall be guilty of a <u>misdemeanor</u>, punishable by a fine of not more than <u>one thousand dollars (\$1,000.00)</u> or by imprisonment not exceeding six (6) <u>months</u>, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 113.4.2 Citations.

The fire code official and their designees may prepare, sign and serve written citations on persons accused of violating any provision of this code. Any designated employee issuing a citation pursuant to this section shall comply with the provisions of NRS 171.1773.

Section 113.4.3 Unwanted (false) alarms.

Any property or address that has an excessive number of unwanted (false) alarms within a calendar year, constitutes a public nuisance or safety issue, and shall be subject to fines in accordance with the Permit and Fee Schedule of the District. With the discretion of the *Fire Code Official*.

202 General Definitions:

HIGH-RISE BUILDING.

A building with an occupied floor located more than 75 55 feet (22,806 <u>16,764 mm)</u> above the lowest level of fire department vehicle access.

SPECIAL FIRE PROTECTION PROBLEM FACILITIES.

Special Fire Protection Problem Facilities are those facilities that consist of uses similar to the which may result in large size fires or fires with high heat release such as bulk flammable liquid storage, bulk flammable gas storage, large varnish and paint factories, some plastics manufacturing and storage, aircraft hangers, distilleries, refineries, lumberyards, and lumber treatment facilities, grain elevators, chemical plants, coal mines, tunnels, subterranean structures, storage facilities, and warehouses using high rack/piled storage for flammable or pressurized aerosols.

TOWNHOUSE.

Per NRS 278.586 (6) b.: a unit that shares a common wall with two or more units. Therefore, a townhouse is not a "Residential dwelling unit". All townhouses shall be constructed under the International Building Code.

UNWANTED ALARM.

Any alarm that occurs that is not the result of a potentially hazardous condition.

Section 203 - Occupancy Classification and Use

203.7.2 Institutional Group I-2. Institutional Group I-2 occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than five six persons who are incapable of self-preservation. All portions of a care facility which houses patients or residents which are classified by the State Board of Health as a 'Category 2

resident' and which has an occupant load of more than 10 residents, is classified as an 'I-2' occupancy classification.

This group shall include, but not limited to, the following:

Foster care facilities Detoxification facilities Hospitals Nursing homes Psychiatric hospitals

(Five replaced with Six in both NNFCA and NAC)

Section 203.7.4 Occupational Classification Group I-4, day care facilities.

Institutional Group I-4 shall include buildings and structures occupied by more than five-six persons of any age who receive custodial care for less than 24 hours by persons other than parents or guardians, relatives by blood, marriage, or adoption, and in a place other than the home of the person cared for. This group shall include, but not be limited to, the following: [NAC 477.283]

Adult day care Child day care

Section 203.7.4.1 Classification as Group E.

A child day care facility that provides care for more than five six, but no more than 100 children 2 ½ years or less of age, where the rooms in which the children cared for are located on a *level of exit discharge* serving such rooms and each of these child care rooms has an *exit* door directly to the exterior, shall be classified as Group E.

Section 203.7.4.2 Within a place of religious worship.

Rooms and spaces within places of religious worship providing such care during religious functions shall be classified as part of the primary occupancy.

Section 203.7.4.3 Five <u>Six</u> or fewer occupants receiving care. A facility having six or fewer persons receiving custodial care shall be classified as part of the primary occupancy.

Section 203.7.4.4 Five <u>Six</u> or fewer occupants receiving care in a dwelling unit. A facility such as the above within a dwelling unit and having six or fewer persons receiving custodial care shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

(Five replaced with Six in both NNFCA and NAC)

Section 203.9.1 Occupancy Classification Residential Group R-1.

Residential Group R-1 occupancies containing *sleeping units* where the occupants are primarily transient in nature, including:

Boarding houses (transient) with more than 10 occupants

Brothels

Congregate living facilities (transient) with more than 10 occupants

Hotels (transient)

Motels (transient

Section 203.9.3 Residential Group R-3.

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

Buildings that do not contain more than two dwelling units

Care facilities that provide accommodations for five three (3) or more persons receiving care

Congregate living facilities (non-transient) with 16 or fewer occupants

Boarding houses (non-transient)

Convents

Dormitories

Emergency services living quarters

Fraternities and sororities

Monasteries

Congregate living facilities (transient) with 10 or fewer occupants

Boarding houses (transient)

Lodging houses (transient) with five or fewer guestrooms and 10 or fewer occupants

Hotels (non-transient) with five or fewer guestrooms

Motels (non-transient) with five or fewer guestrooms

Section 203.9.4 Residential Group R-4.

Residential Group R-4 shall include buildings, structures and portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive custodial care. Buildings of Group R-4 shall be classified as one of the occupancy conditions specified in Section 203.9.4.1 or 203.9.4.2. Group R-4 occupancies shall meet the requirements for construction as defined in Group R-3, except as otherwise provided for in the *International Building Code*. This group shall include, but not be limited to, the following:

Alcohol and drug centers

Assisted living facilities

Congregate care facilities

Group homes

Halfway houses

Residential board and care facilities

Social rehabilitation facilities

<u>Transitional facilities</u>

Reintegration facilities

Section 307.2 Permit required. A permit shall be obtained from Central Lyon Fire in accordance with Section 105.6 prior to kindling a fire for recognized open burn, silvicultural or range or wildlife management practices, prevention or control of disease or pests, or vegetation management. Application for such approval shall be made by the owner or owner's agent of the property where the burning will take place.

Section 307.2.1 Burn barrels prohibited.

The use of burn barrels within the boundary of Central Lyon Fire Protection District is prohibited.

307.2.2 Garbage Burning Prohibited:

Any person who attempts to burn or burns kitchen and table refuse, offal, swill, other parts and accumulation of animals (whether domestic or wild), vegetables, meats, fish, fowl, birds or fruits, waste matter and/or papers is in violation of this Chapter and Code Section.

307.2.3 Rubbish Burning Prohibited:

Any person who attempts to burn or burns waste including, but not limited to, treated wood, construction debris, roofing materials, paper boxes, rags, moist grass clippings, old hay or straw, barn sweepings, railroad ties treated with creosote or other preservatives, latex paints and thinners, brushes, tools, wet storage, alkaline and lithium batteries,

furniture, plastic pipe and fittings, galvanized pipe and fittings, and all other combustible materials deemed by Central Lyon Fire Protection District to be garbage, rubbish, or trash is in violation of this Chapter and Code Section.

307.2.4 Toxic, Dangerous or Hydrocarbon Product Burning Prohibited:

Any person who attempts to burn or burns any combustible liquid, waste oil, gasoline, diesel fuel, alcohol or liquid byproducts of any commercial process is in violation of this Chapter and Code Section.

307.2.5 Plastic or Rubber Products:

Any person who attempts to burn or burns any plastic or rubber product, no matter what the chemical compound, unless cellulose base is over 95% by weight, is in violation of this Chapter and Code Section.

307.2.6 Water Supply and Tools:

All Open Burns shall have a ready water supply and proper hand tools, or farm or heavy equipment available at the burn site that is sufficient to halt the spread of a fire that escapes control by the attendant.

Section 307.6 Outdoor fireplaces, fire pits and decorative appliances.

Outdoor fireplaces, fire pits and decorative appliances fueled by LP-gas or natural gas, used in assembly occupancies for the public display shall be equipped with an automatic timer shut off valve with a maximum time limit of 3 hours. The timing valve shall be installed a minimum of 2 feet and a maximum of 30 feet from the appliance or as approved by the fire code official.

Section 308.1.7 Sky lanterns.

A person shall not release or cause to be released an untethered sky lantern. Sky lanterns are prohibited.

Section 320.5 is added to Chapter 3 to read:

Section 320.5 Battery Recycling and Battery Recycling Storage Facilities

<u>Section 320.5.1 General.</u> Battery Recycling and Battery Recycling Storage Facilities shall be operated and maintained in accordance with this section and Section 320 where applicable.

<u>Section 320.5.1.1 Technical Opinion & Report.</u> A technical opinion and report complying with 104.2.2.5, shall be prepared to evaluate the fire risks associated with all new battery recycling facilities and battery recycling storage facilities. The report shall be provided to the fire code official for review and approval.

<u>Section 320.5.1.1.1 Items required.</u> At a minimum, the following items shall be addressed in the Technical / <u>Fire Protection Report:</u>

- 1. <u>Battery sorting specifications and procedures.</u>
- 2. <u>Protection from hazards involving flying debris during fire incidents igniting adjacent storage</u> areas, buildings, or other exposures, where applicable.
- 3. <u>Protection of areas and equipment where battery recycling occurs, including fire detection</u> and suppression, and protection.
- 4. An evaluation of the suitability of the processing equipment used.
- 5. <u>Combustible dust hazards, including cathode and anode powders; and processes that</u> involve or generate dust or powders, as applicable.
- 6. Firefighting access and water supply.
- 7. <u>Separation distances between materials, incompatible materials, and water reactive materials, as applicable.</u>
- 8. <u>Intake and inspection procedures and segregation of high-risk batteries.</u>
- 9. Storage configuration of batteries or cells, including high piled storage requirements where storage exceeded 6 feet (1.82 m) in height.

- 10. Ventilation requirements
- 11. Other items as required by the fire code official.
- 12. <u>Description of method by which the state of charge will be verified and maintained at or below 30%.</u>

Section 320.5.1.2 Emergency Procedures & Response Plan. Battery Recycling and Battery Recycling Storage Facilities shall develop and maintain emergency procedures and a written safety and emergency response plan for each facility. The plan shall include any emergency conditions unique to that facility including the batteries that it may process or store. The plan shall be submitted to the *fire code official* for review and shall be *approved*.

The safety and emergency response plan shall include (but is not limited to) the following:

- 1. <u>Procedures for employee training related to anticipated emergency scenarios, including fire events, battery off-gassing, thermal runaway, and post-event mitigation.</u>
- 2. Spill prevention and control measures
- 3. <u>Procedures for coordination with emergency responders, including access to hazard communication information, including Safety Data Sheets.</u>
- 4. A facility map detailing the locations of emergency equipment and access routes.
- 5. Isolation procedures for batteries exhibiting signs of thermal runaway

<u>Section 320.5.1.2.1 Abatement.</u> The emergency response plan shall include procedures for the abatement of hazardous conditions following fire events or battery damage. The abatement plan shall be *approved* by the *fire code official*.

Section 320.5.2 Battery Recycling Facilities.

Section 320.5.2.1 Fire Protection

<u>Section 320.5.2.1.1 Fire Suppression Systems.</u> Battery recycling facilities shall be protected by an automatic sprinkler system in accordance with Section 903.3.

Section 320.5.2.1.2 Fire Alarm and Detection Systems. A listed or approved automatic aspirated smoke detection system, radiant energy fire detection system complying with Section 907.2 shall be installed to protect battery recycling and battery recycling storage areas. Alarm signals from detection systems shall be transmitted to a central station and shall be in accordance with NFPA 72.

Section 320.5.2.2 Explosion Control

<u>Section 320.5.2.2.1 Explosion control requirements.</u> Where required by the technical report, explosion control shall be in accordance with Section 911.

<u>Section 320.5.2.2.2 Gas detection requirements</u>. Where required for explosion control, gas detection systems shall be in accordance with Section 916.

Section 320.5.2.3 Ventilation.

Indoor recycling areas shall be provided with a mechanical exhaust ventilation system.

Section 320.5.2.3.1 Contaminant Control.

The mechanical exhaust ventilation system shall be designed by a registered design professional in accordance with the *International Mechanical Code*, unless an alternative design is *approved*.

Section 320.5.2.3.1.1 Flammable liquid or gas producing operations.

Where a flammable liquid and, or gas is generated as a part of the battery recycling process, the mechanical exhaust system shall be designed in accordance with Section 502.9.5.4 of the

International Mechanical Code, unless an alternative design is approved by the fire code official.

Section 320.5.2.4 Sorting.

Sorting of batteries shall be in accordance with the technical opinion report and is subject to AHJ approval.

Section 325.2.5 Weather Protection.

Where outdoor battery recycling areas, and such areas that are enclosed, such areas shall be considered indoor recycling facilities. A technical opinion report, complying with 320.5.1.1 shall be provided to address the fire resistance rating of the structure, fire detection, fire suppression, and explosion control within the weather protected area.

Section 320.5.3 Battery Recycling Storage Facilities

Section 320.5.3.1 Storage Arrangement Plan.

A storage plan, which illustrates the storage arrangement, including the location and dimensions of aisleways, storage piles, storage racks, and any fire protection and detection equipment, and its proximity to the storage, shall be provided to and approved by the fire code official.

Section 320.5.3.2 Fire Extinguishers.

<u>Fire extinguishing equipment suitable for all types of batteries present shall be provided throughout battery recycling loading and unloading areas in accordance with NFPA 10, travel distance to reach fire-extinguishing equipment shall not exceed 75 feet (22.9m).</u>

Section 320.5.3.3 Indoor Recycling Storage:

Section 320.5.3.3.1 Construction Requirements.

Where indoor storage areas are located in a building with other uses, battery storage areas shall be separated from the remainder of the building by 2-hour rated fire barriers or horizontal assemblies. Fire barriers shall be constructed in accordance with Section 707 of the *International Building Code*, and horizontal assemblies shall be constructed in accordance with Section 711 of the *International Building Code*.

Section 320.5.3.4 Outdoor Recycling Storage

Section 320.5.3.4.1 Separation.

Outdoor storage and outdoor storage areas used to store batteries, including storage beneath weather protection shall comply with Section 320.4.3

Section 320.5.3.4.2 Storage area size limits and separation.

Multiple battery storage areas shall be separated from each other by not less than 20 feet (4572 mm) of open space. No storage area shall encroach upon a fire access lane.

Section 320.5.3.4.3 Aisles.

Aisles used for separation of piles shall be configured to allow for firefighting access.

Section 320.5.3.4.5.2 Water Supply.

Outdoor storage areas shall be equipped throughout with an adequate water supply in accordance with section 507. The water supply shall be arranged such that no point on the outdoor storage area exceeds 150 feet from a water supply connection.

Section 320.5.3.5 Packaging.

Batteries for recycling are to be stored in weather appropriate noncombustible containers, or containers

packaged in accordance with DOTn shipping regulations, and shall be deemed acceptable by the *fire code* official. Under no circumstances will cardboard packaging be used for outdoor storage areas.

Section 320.5.3.5.1 Damaged Packaging.

Batteries shall not be stored in damaged packaging, where the damage compromises the container. If packaging is visibly damaged the batteries shall be promptly repackaged in containers complying with 320.5.3.5.

Section 503.3 Marking.

Where required by the *fire code official*, <u>curbs shall be painted red</u> and approved signs or other approved notices or markings that include the words "NO PARKING – FIRE LANE" shall be provided <u>every 100 feet or as required by the *fire code official* for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designed shall be always maintained in a clean and legible condition and be replaced or repaired when necessary to provide adequate visibility.</u>

Section 503.6 Security gates.

The installation of security gates across a fire apparatus access road shall be approved by the fire code official. For residential (Group R-3) security gates, the minimum unobstructed width shall provide a minimum of 12 (3658 mm) feet of apparatus access when fully opened for private residential security gates and 20 (6096 mm) feet for commercial security gates. For both residential and commercial security gates, there shall be an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm) throughout the gate. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200. All electrically controlled gates shall use either the Click 2 Enter System or Opticom sensor and be equipped with a Knox Key system override.

Section 506.2.1 Master key provided.

Central Lyon Fire Protection District requests, wherever possible, a master key be provided for key boxes. A uniform key for access shall be supplied and maintained without causing an excessive number keys to be stored or to make access to building areas. Exceptions to be determined by the *fire code official*.

Section 505.1 Address identification.

New and existing buildings shall be provided with *approved* <u>maintained all-weather</u> address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property during all hours of the day and night. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetic letters. Numbers shall not be spelled out. Each character shall be not less than 4-inches (102 mm) high with a minimum stroke width of ½ inch (12.7 mm) than a nominal height of 6-inches with a minimum ½-inch stroke for residential occupancies and 12-inches with a 1-inch stroke in commercial occupancies, unless otherwise approved by the *fire code official*. On multi-tenant commercial buildings, the suite number or letter shall be not less than a nominal height of 8-inches with a 1-inch stroke, unless otherwise approved by the *fire code official*. Where required by *fire code official*, address identification shall be provided in additional *approved* locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the *public way*, a monument, pole, or other sign or means shall be used to identify the structure. Address identification shall be maintained.

Section 505.3 Directory required.

When multiple R-2 occupancy buildings are contained in a subdivision and where not all buildings have public street frontage, an approved permanent directory shall be provided at each entrance to the development from surrounding public streets.

Section 507.2.3 Sectional control of water supply.

A sectional valve shall be provided at the following locations:

- 1. On each bank on a river, pond, or lake where a main crosses water.
- 2. Outside the building foundation(s) where a main or a section of a main is installed under a building.
- 3. On the underground line, where there are two sources of water or connections to a water main, after every two (2) fire hydrants or building fire sprinkler connections (lead-ins).

Section 507.3 Fire Flow.

Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method. Subject to the approval of the fire authority, if the required fire flow is not available for adequate fire protection, an automatic fire sprinkler system shall be installed throughout the building or buildings. The sprinkler system must meet the requirements of the appropriate NFPA standard. The provisions of this paragraph do not apply if a fire sprinkler system is otherwise required by this chapter or the adopted codes.

Section 507.5.5 Clear space around hydrants.

A 3 foot (914 mm) clear space shall be maintained around the circumference of fire hydrants, except as otherwise required or *approved*. In addition, a minimum clear space of seven and one-half feet (2286 mm) shall be maintained to both sides directly in front of the front pumper connection (15' on center). A minimum of three feet (914 mm) shall also be maintained clear to the rear of any fire hydrant. These clearance requirements shall apply to any public or private property.

Section 508.1.6 Required features.

The fire command center shall comply with NFPA 72 and shall contain the following features: 1-18 adopted as written with the addition of:

- 19. HVAC. The central control station shall be provided with heating, cooling, and ventilation (HVAC) systems that are independent of any other building system or area. HVAC for the central control station shall be connected to the emergency power system.
- 20. Lighting. Lighting shall provide adequate illumination and shall be on emergency service with additional battery backup emergency lighting.
- 21. Inside Telephone Line. A telephone connected to the premises telephone exchange shall be provided. A current premises telephone directory shall be placed next to this telephone.
 - 22.Disconnect. The main switch for disconnecting the utility power and any alternate power sources shall be in the fire command center. Switches shall be covered to prevent utility power deeds and any alternate power sources before entering the building. After the switch is operated, no live electrical panels, conductors, or feeds within the premises shall remain energized excluding the emergency electrical circuits. Each power disconnect switch shall be marked with it's control location and a map showing the location for which it controls.

Section 510.1 is deleted and replaced with:

\$10.1 Emergency responder communications enhancement systems in new buildings. Approved in building emergency responder communications enhancement systems (ERCES) for emergency responders shall be provided in all new buildings. In building ERCES within the building shall be based on the existing coverage levels of the public safety communications systems utilized by the jurisdiction, measured at the exterior of the building. The ERCES, where required, shall be of a type determined by the *fire code official* and the *frequency license holder(s)*. This section shall not require improvements of the existing public safety communications systems.

Exceptions:

- 1. Where approved by the building official and the fire code official, a wired communication system in accordance with Section 907.2.13.2 shall be permitted to be installed or maintained instead of an approved communication coverage system.
- 2. Where it is determined by the *fire code official* that the communications coverage system is not needed.
- 3. In facilities where emergency responder communications coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire code official shall have the authority to accept an automatically activated emergency responder communication coverage system.
- One story building nor exceeding 12,000 square feet (1115 m²) with no below ground area (s).

Section 510.1 Emergency responder communications enhancement systems in new buildings.

Emergency responder radio coverage systems must be provided throughout any building that meets one of the following standards:

- 1. <u>High-rise buildings: Buildings with a floor used for human occupancy that is located more than 55 feet above</u> that lowest level above fire department vehicle access.
- 2. <u>Underground and below-grade buildings: Buildings with a floor level that is below the finished floor of the lowest level of the exit discharge of any level.</u>
- 3. Other buildings: The fire code official is authorized to require a technical opinion and report, in accordance with Section 104.2.2, for buildings whose design, due to location, size, construction type or other factors, could impede radio coverage as required by Section 510.4.1. The report shall make recommendations regarding the need for an emergency responder radio coverage system.

4.

Section 510.2 is deleted and replaced with:

510.2 Emergency responder communications enhancement system in existing buildings. Existing buildings shall be provided with *approved* in building emergency responder communications enhancement system for emergency responders as required in Chapter 11.

Section 510.2 Emergency responder communications enhancement system in existing buildings.

Existing buildings, other than buildings with an occupational classification of Residential Group R-3 which do not have approved radio coverage for emergency responders in the building based on existing coverage levels of the public safety communication systems, must be equipped with such coverage according to one of the following conditions.

- 1. Existing buildings that do not have approved radio coverage, as determined by the Fire Chief, in accordance with Section 510.4.1.
- 2. Where an existing wired communication system cannot be repaired or is being replaced.
- Within a time frame established by the adopting authority.
 Exception: An existing building is not required to be equipped with such coverage where the fire code official determines that the radio coverage for emergency responders is not needed.

Section 510.4.2 System design.

The in-building emergency responder communications enhancement system shall be designed in accordance with Section 510.4.2.1 through 510.4.2.8 and NFPA 1225 except 18.12.3.3.

Section 511.1 Firefighter Equipment Rooms.

In all new high-rise buildings of ten (10) or more stories in height, The Fire District will evaluate the need for firefighter

equipment rooms. If required by the Fire District, the owner/operator shall provide and equip firefighter equipment rooms intended for the sole use of the fire department during emergency operations. The number, location, type, size, inventory, and access of the firefighter equipment rooms shall be approved by the fire district.

Section 901.11 Unwanted fire alarms.

Unwanted fire alarms are a violation of this code. When a fire alarm system is required by this code, it shall be the responsibility of the property owner or owner's authorized agent to maintain the system and properly educate occupants, tenants, and/or employees in accepted behavioral practices that will minimize or eliminate false and/or nuisance alarms. This includes nuisance activations in response to predictable environmental stimuli such as but not limited to cooking fumes, smoking, cosmetic products, steam and construction activities. Where unwanted alarms become repetitive, the fire code official is authorized to charge fees or issue administrative citations to the property owner in accordance with the fee schedule or administrative code as established by the applicable governing authority.

Section 903.2 Where required.

Approved automatic sprinkler systems in new buildings and structures shall be provided throughout all buildings, regardless of occupancy type, including buildings built under the International Residential Code, exceeding 5,000 sq ft (464 m2) in fire area, and/or additionally in locations described in Section 903.2.1 through 903.2.12, the more restrictive requirement being required.

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.

Section 903.2.1.2 Group A-2.

An *automatic sprinkler system* shall be provided for Group A-2 occupancies and throughout all stories from the A-2 occupancy to and including the levels of exit discharge serving that occupancy where one of the follow 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 the floor other than a level of exit discharge serving such occupancies.
- 4. The fire area contains a multiple theatre complex.
- 5. Occupancies containing a casino, regardless of occupancy classification, must be designed and built with a sprinkler system classified as an Ordinary Hazard Group 2.

Section 903.2.1.3 Group A-3.

An *automatic sprinkler system* shall be provided throughout stories containing Group A-3 occupancies and throughout all stories from the Group A-3 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

- 1. The *fire area* exceeds <u>12,000</u> <u>5,000</u> square feet (1115 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 throughout stories containing Group A-4 occupancies and throughout all stories from the Group A-4 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

- 1. The fire area exceeds 12,000 5,000 square feet (1115 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.

Table 903.2.1° Required Automatic Sprinklers by Fire Area, Response Time and Height for Buildings Designed and Constructed with the International Building Code Including A, B, E, F, H, I, M, S, and U Occupancies. Sprinklers are required when any one of the listed conditions are met, or when otherwise required by this Code.

Fire Authority	Fire Area ^{b,c} In square feet (sf)	Height In stories	Response Time In minutes (min)
Carson City Fire Department	≥ 5,000 ^e	>2	NA
Central Lyon County Fire Protection District	<u>> 5000 a,b,c</u>	> 2	-
East Fork Fire Protection District	<u>≥</u> 5,000	>2	NA
Elko City Fire Department	<u>></u> 5,000	> 2	-
North Lake Tahoe Fire Protection District	≥5,000	2 with basement or >2	NA
North Lyon Fire Protection District	<u>≥</u> 5,000	>2	NA
Reno Fire Department	>5,000	>2	NA
Smith Valley Fire Protection District	<u>></u> 5,000	>2	NA
Sparks Fire Department	<u>≥</u> 5,000	>2	>6
Storey County Fire Protection District	≥5,000	2 with basement or >2	NA
Tahoe Douglas Fire Protection District	All	NA	NA
Truckee Meadows Fire Protection District ^d	<u>≥</u> 5,000	>2	NA

This table is in addition to any other automatic sprinkler requirements in this code.

a. Fire areas may be separated according to IBC 707.3.10.

b. Any addition or remodel that increases the fire area will be included in the calculation for the total square footage.

- c. <u>Airport towers and open parking garages complying with IBC 406.5 are exempt from this table.</u>
- d. <u>All S-1 occupancies within the Truckee Meadows Fire Protection District shall have a fire sprinkler system installed, regardless of square footage.</u>

Add Table 903.2.2 to read as follows:

Table 903.2.2° Required Automatic Sprinklers by Fire Area, Response Time and Height For Structures Designed and Constructed with the International Residential Code Sprinklers are required when any one of the listed conditions are met, or when otherwise required by this Code.

ich otherwise required by thi	<u> </u>	I	I
Fire Authority	Fire Area ^b In square feet (sf)	Height In stories	Response Time In minutes (min)
Carson City Fire Department	≥ 5,000 °	-	-
Central Lyon County Fire Protection District	> 5,000 a,b,c,d	>2	-
East Fork Fire Protection District	<u>></u> 5000	>2	-
Elko City Fire Department	<u>></u> 5000	>2	-
North Lake Tahoe Fire Protection District	<u>≥</u> 5,000	2 with basement or ≥3	-
North Lyon Fire Protection District	≥5,000	-	-
Reno Fire Department	>5,000	-	>6
Smith Valley Fire Protection District	≥5,000	>2	-
Sparks Fire Department	≥5000	-	>6
Storey County Fire Protection District	<u>></u> 5000	-	-
Tahoe Douglas Fire Protection District	>3,600	2 with basement or >2	-
Truckee Meadows Fire Protection District	New: ≥ 5,000 sf Existing: > 7,000 sf	-	-

a. This table is in addition to any other automatic sprinkler requirements in this code.

b. Any addition or remodel that increases the fire area will be included in the calculation for the total square footage.

- The use of fire walls and fire barriers shall not be allowed to be used to reduce the size of the fire areas.
- c. A one-time increase in the fire area is permitted provided said increase is <50% of the structure's existing permitted fire area square footage.
- d. Fire Area is defined in chapter 2 of the IFC to calculate total square footage. For Group R-3 fire areas, the total square footage will count towards the requirement, including utility areas, covered porches (horizontal assemblies) and each story of occupiable space, while the area required to have automatic fire sprinklers installed will be limited to the living space or R-3 area not including Utility areas and exterior covered porches.

Section 903.2.3 Group E.

An automatic sprinkler system shall be provided for Group E occupancies as follows where one of the following exists:

- 1. Throughout all Group E *fire areas* greater than $\frac{12,000}{5,000}$ square feet ($\frac{1,115}{464}$ 464 m²) in area.
- 2. The Group E fire area is located on a floor other than a level of exit discharge serving such occupancies.

Exception: In buildings where every classroom has not fewer than one exterior exit door at ground level, an automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area.

- 3. Group E fire area has an occupant load of 300 or more.
- 4. Daycare facilities where there is occupancy from 12:00 am 6:00 am and care for 7 or more children.
- 5. In high schools where automatic fire sprinkler systems are provided, the automatic fire sprinkler systems for automative and woodworking shops must be designed to Ordinary Hazard, Group 1 automatic fire sprinkler systems criteria, or as required by the Authority Having Jurisdiction.

Section 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 12,000 5,000 square feet (1115 464 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

24,000 square feet (2230 m²).

- 4. A Group F-1 occupancy is used to manufacture lithium-ion or lithium metal batteries.
- 5. A Group F-1 occupancy is used to manufacture vehicles, energy storage systems or equipment containing lithium-ion or lithium metal batteries where the batteries are installed as part of the manufacturing process.

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 12,000 5,000 square feet (1115 464 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
- 24,000 square feet (2230 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.

903.2.7.2 Group M upholstered furniture or mattresses.

An automatic sprinkler system shall be provided throughout a Group M fire area where the area used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m²).903.2.7.3 Lithium-ion or lithium metal battery storage. An automatic sprinkler system shall be provided in a room or space within a Group M occupancy where required for the storage of lithium-ion or lithium metal batteries by Section 320 or Chapter 32.

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 12,000 square feet (1115 464 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 24,000 square feet (2230 m²).
- 4. A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m^2) .
- 5. A Group S-1 fire area used for the storage of lithium-ion or lithium metal powered vehicles where the fire area exceeds 500 square feet (46.4 m^2) .

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 10,000 5,000 square feet (929 464 m²).
- 2. Buildings not more than one story above grade plane, with a fire area containing a repair garage exceeding $\frac{12,000}{5,000}$ 5,000 square feet ($\frac{1115}{4}$ 464 m²).
- 3. Buildings with repair garages servicing vehicles parked in basements.
- 4. A Group S-1 fire area used for the repair of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m^2).
- 5. A Group S-1 fire area used for the storage of lithium-ion or lithium metal powered vehicles where the fire area exceeds 500 square feet (46.4 m^2) .

903.2.10 Group S-2 parking garages.

An automatic sprinkler system shall be provided throughout buildings classified as parking garages. where any of the following conditions exist:

- 1. Where the fire area of the enclosed parking garage, in accordance with Section 406.6 of the International Building Code, exceeds 12,000 square feet (1115 m²).
- 2. Where the enclosed parking garage, in accordance with Section 406.6 of the International Building Code, is located beneath other groups.

Exception: Enclosed parking garages located beneath Group R-3 occupancies.

3. Where the fire area of the open parking garage, in accordance with Section 406.5 of the International Building Code, exceeds 48,000 square feet (4460 m²).

903.2.8.5 Required automatic fire sprinkler systems in IBC structures.

All new structures built under the requirements of the International Building Code greater than or equal to 5,000 square feet or greater than 2 stories in height, shall be required to install an automatic fire sprinkler system in accordance with NFPA 13 or NFPA 13R. This requirement applies to all A, B, E, F, H, I, M, S and U Occupancies. This requirement shall be in addition to any other requirements as listed in NRS 278.586 Section 6(6), IFC Section 102.5, NFPA 1142, or as per this Regulation. The system shall be installed by a contractor licensed in the State of Nevada. This requirement shall apply to any addition that increases the square footage to greater than or equal to 5,000 square feet, in accordance with NRS 278.586. Fire areas may be separated in accordance with IBC 707.3.10, or as required. Pursuant to NRS 278.586 Section 6(6). As used in this section:

- (a) "Automatic fire sprinkler system" has the meaning ascribed to it in NRS 202.580.
- (b) "Residential dwelling unit" does not include a condominium unit, an apartment unit or a townhouse unit that shares a common wall with more than one other such unit.
- (c) Any addition or remodel that increases the fire area will be included in the calculation for the total square footage.

Exception:

Airport control towers and open parking garages complying with IBC 406.5 are exempt from this table.

Section 903.2.11.7. Protection of available storage height.

In Group S-1 and all other storage areas where an automatic fire sprinkler is required in this code, the fire sprinkler system

shall be designed to protect storage up to the maximum available storage height. The minimum sprinkler density shall be equivalent to that required for a Class IV commodity pursuant to NFPA 13.

Section 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 and 903.1.1.2.

All Group R-3 occupancies larger than ten thousand (10,000) square feet (3,048 m²) in area or exceeding four (4) stories in height are required to have automatic sprinklers installed throughout in accordance with NFPA 13.

Section 903.4.1. Electronic Supervision.

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. <u>Automatic sprinkler systems</u> protecting one- and two- family <u>dwellings</u> that have not been converted to an R- 4 as defined by 203.9.4.
- 2. <u>Limited area systems in accordance with Section 903.3.8</u>
- 3. <u>Automatic sprinkler systems</u> installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the *automatic sprinkler system*, and a separate shutoff valve for the <u>automatic sprinkler system</u> is not supervised.
- 4. Jocky pump control valves that are sealed or locked in open position.
- 5. Control valves to commercial kitchen hoods, painted spray booths or dip tanks that are sealed or locked in the open position. This exception will not apply to any of the above-mentioned control valves if they are located in a building equipped with any fire alarm or protection system that is required to be monitored by a central station fire alarm company.
- 6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
- 7. <u>Trim valves to pressure switches in dry, pre-action, and deluge sprinkler systems that are sealed or locked in the open position.</u>
- 8. <u>Underground key or hub gate valves in roadway boxes.</u>

Section 903.4.3 Alarms.

Approved audible and visual notification appliances shall be connected to each automatic sprinkler system. Such sprinkler waterflow alarm notification appliances shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Exterior audible and visual notification appliances shall be provided on the exterior of the building near water gong or at exterior side of riser. One interior audible and visual notification appliance shall be provided near the main entrance or in a normally occupied location. In multiple-tenant facilities or multi-family dwelling buildings, one interior audible and visual notification appliance shall be provided near the main entrance or in a normally occupied location for each tenant space or dwelling unit. Automatic sprinkler systems protecting one- and two-family dwellings shall be equipped with water flow activation that shall be interconnected to the single-station smoke alarms in the residence. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

Exception: Intentionally deleted

Section 903.4.4 Floor control valves.

Approved supervised indicating control valves shall be provided at the point of connection to the riser and/or standpipe on each floor <u>in multi-story buildings</u>.

Section 903.6. Where required in additions, alterations, or change of use or occupancy to existing buildings.

Additions, alterations, or change of use or occupancy to any existing building or structure shall comply with Section 903.2 for automatic sprinkler systems.

Section 906.2 General requirements.

Portable fire extinguishers shall be selected, installed, and maintained in accordance with this section, NFPA 10, and NAC 477. **Exceptions:**

- 1. <u>Travel distance to reach an extinguisher shall not apply to the spectator seating portions of Group A-5</u> occupancies.
- 2. Thirty-day inspections shall not be required, and maintenance shall be allowed to be annually for dry-chemical or halogenated agent portable fire extinguishers that are supervised by a listed and approved electronic monitoring device, provided that all of the following conditions are met:
- 2.1 <u>Electronic monitoring shall confirm that extinguishers are properly positioned, properly charged and unobstructed.</u>
- 2.2 Loss of power or circuit continuity to the electronic monitoring device shall initiate a trouble signal.
- 2.3 The extinguishers shall be installed inside of a building or cabinet in a noncorrosive environment.
- 2.4 <u>Electronic monitoring devices and supervisory circuits shall be tested annually when extinguisher maintenance is performed.</u>
- 2.5 A written log of required hydrostatic test dates for extinguishers shall be maintained by the owner to verify that hydrostatic tests are conducted at the frequency required by NFPA 10.
- 3. In Group I-3, portable fire extinguishers shall be permitted to be located at staff locations. Carbon dioxide, wet chemical, halogenated agent, AFFF and FFFP portable fire extinguishers shall be internally examined in accordance with NFPA 10. All other portable fire extinguishers shall be internally examined annually.

Section 907.2.9.4 Automatic smoke detection system in Group R-4.

An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed in *corridors*, waiting areas open to *corridors* and *habitable spaces* other than *sleeping units* and kitchens.

Section 907.2.9.5 Automatic smoke detection system in existing Group R-3 occupancies.

In existing Group R-3 occupancies that already exceed 5,000 square feet in *fire area* and an addition or alteration is proposed to the building that does not exceed 7,000 square feet in *fire area* but does exceed 5,000 square feet, an automatic smoke detection system shall be installed throughout and connected to a central station monitoring company.

Section 907.2.11.8 Alternative to single- and multiple-station smoke alarms.

Fire alarm in place of single and multiple-station smoke alarms may be replaced by an NFPA 72 Household compliant fire alarm system. Plans shall be submitted to the local fire authority and permit obtained prior to installation. All fire alarm installation contractors shall be required to be licensed by both the Nevada State Contractors Board and Nevada State Fire Marshal (F License).

Section 907.5.2.1.1 Average sound pressure.

The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at lease 60 seconds, whichever is greater, in every occupiable space within the building. The minimum sound pressure level shall be 90 dBA in mechanical equipment rooms and 80 dBA in all other occupancies. The level of sound for the alarm signal must not exceed 120 decibels.

Section 907.5.2.3 Visible Alarms.

Visible alarm notification appliances shall be provided in accordance with Sections 907.5.2.3.1 through 907.5.2.3.3.

Exceptions:

- 1. Visible alarm notification appliances are not required in *alterations*, except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.
- 2. Visible alarm notification appliances shall not be required in *exits* as defined in Chapter 2.
- 3. Visible alarm notification appliances shall not be required in elevator cars.
- 4. Visual alarm notification appliances are not required in critical care areas of Group I-2, Condition 2

- occupancies that are in compliance with Section 907.2.6, Exception 2.
- 5. A visible alarm notification appliance installed in a nurses' control station or other continuously attended staff location in a Group I-2, Condition 2 suite shall be an acceptable alternative to the installation of visible alarm notification appliances throughout the suite or unit in Group I-2, Condition 2 occupancies that are in compliance with Section 907.2.63, Exception 2.
- 6. <u>Visible alarm notification appliances are not required in storage rooms, electrical rooms and mechanical rooms that are not normally occupied and are less than 400 square feet.</u>
- 7. <u>Visible alarm notification appliances are not required in janitor closets.</u>

<u>Section 907.9 Where required in additions, alterations, or changes of use or occupancy in existing buildings and structures.</u>

<u>Additions, alterations, or change of use or occupancy to any existing building or structure shall comply with Section 907 for fire alarm and detection systems.</u>

912.1.1 Required sizes.

<u>Fire Department Connections for automatic sprinkler systems shall be installed with a single, thread-less coupling consisting of one 5-inch (130 mm) Storz brand locking connection with a 30-degree downward deflection. Modifications or alternate designs shall be approved by the fire code official.</u>

912.2.3 Remote Fire Department Connections.

For all new construction and tenant improvements where changes or additions to fire sprinkler systems are made, fire department connections shall be placed remote from the building, outside of the building collapse zone. The placement of remote FDCs, modifications or alternate designs shall be approved by the *fire code official*.

Section 913.4 Valve Supervision.

Where provided, the fire pump suction, discharge and bypass valves, and isolation valves on the backflow prevention device or assembly shall be supervised open by one of the following methods.

- 1. Central-station, proprietary or remote-station signaling service.
- 2. Local signaling service that will cause the sounding of an audible signal at a constant attended location.
- 3. Locking valves open. Intentionally deleted.
- 4. Sealing of valves and *approved* weekly recorded inspection where valves are located within fenced enclosures under the control of the *owner*. Intentionally deleted.

Section 914.3.8 Fire fighter air replenishment systems.

A fire fighter air replenishment system shall be provided in all new high-rise buildings of ten (10) or more stories in height. The fire fighter breathing air system installation and maintenance shall comply with Appendix L. Inspection records shall be kept on site and shall be readily available to the *fire code official*.

Section 915.1 General.

Carbon Monoxide detection shall be installed in new buildings in accordance with Section 915.1.1. Carbon Monoxide detection shall be installed in existing buildings in accordance with Section 1103.9.

915.1.1 Where Required.

Carbon monoxide detection shall be provided in Group I-1, I-2, I-4, and R, including, without limitation, Residential Group R-3 occupancies used for transient occupancy of less than 30 days, and in classrooms in Group E occupancies in the locations specified in Section 915.2.

- 1. In buildings that contain a CO source.
- 2. In buildings that contain or are supplied by a CO-producing forced-air furnace.
- 3. In buildings with attached private garages.
- 4. In buildings that have a CO-producing vehicle that is used within the building.

Section 1023.9.1 Signage requirements.

Stairway identification signs shall comply with all of the following requirements: 1.-6. adopted as written with the addition;

7. The background color of the sign shall be green if roof access is available from the signed stairway. The background color of the sign shall be red if roof access is not available from the signed stairway.

Chapter 11 is intentionally deleted

Section 3901.6 Change of Extraction Medium.

Where the medium of extraction or solvent is changed from the material indicated in the technical report or as required by the manufacturer, the technical report shall be revised at the cost of the facility owner and submitted for review and approval by the *fire code official* prior to the use of the equipment with the new medium or solvent.

Section 3903.3 Location.

The extraction equipment and extraction processes utilizing hydrocarbon solvents shall be located in a room or area dedicated to extraction. The extraction equipment and process shall be located in a room of noncombustible construction, dedicated to the extraction process, and the room shall not be used for any other purpose.

Section 5601.1.3 Fireworks.

The possession, manufacture, storage, sale, handling and use of fireworks, to include certain novelty fireworks known as sparklers or similar devices that emit sparks when ignited, are prohibited.

Exceptions:

- 1. Storage and handling of fireworks as allowed in Section 5604.
- 2. Manufacture, assembly and testing of fireworks as allowed in Section 5605.
- 3. The use of fireworks for fireworks displays as allowed in Section 5608.
- 4. Except as otherwise provided in this section, the possession, manufacture, storage, sale, use and handling of Class 1.3 and Class 1.4 pyrotechnics are only allowed in jurisdictions where specifically approved by local ordinance.
- 5. The possession, storage, sale, handling and use of specific types of Division 1.4G fireworks where allowed by applicable laws, ordinances, and regulations, provided such fireworks comply with CPSC 16 CFR Parts 1500 and 1507, and DOTn 49 CFR Parts 100-185, as applicable for consumer fireworks.

5601.1.6 Exploding targets.

The possession, manufacture, sale, and use of exploding targets, including binary exploding targets, are prohibited.

Section 6101.1 Scope.

Storage, handling and transportation of liquefied petroleum gas (LP-gas) and the installation of LP-gas equipment pertinent to systems for such uses shall comply with this chapter and NFPA 58. Properties of LP-gases shall be determined in accordance with Appendix B of NFPA 58. In the event of a conflict between any provision in this chapter and the regulations of the Board for the Regulation of Liquefied Petroleum Gas, the most restrictive shall take precedence.

Appendix B is adopted in whole in accordance with 2024 Edition of the International Fire Code Section 101.2.1

The following definition is added in Section B102 Definitions to read as follows:

Special Fire Protection Problem Facilities. Special Fire Protection Problem Facilities are those facilities that consist of uses similar to that which may result in large size fires or fires with high heat release such as bulk flammable liquid storage, bulk flammable gas storage, large varnish and paint factories, some plastics manufacturing and storage, aircraft hangers, distilleries, refineries, lumberyards and lumber treatment facilities, grain elevators, chemical plants, coal mines, tunnels, subterranean

structures, storage facilities, and warehouses using high rack/piled storage for flammables or pressurized aerosols.

Section B103.3 Areas without water supply systems.

For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire code official is authorized to <u>utilize the International Wildland-urban Interface Code</u> or NFPA 1142 where the site is not considered as a "special fire protection problem" as defined in Section B102.

TABLE B105.2

REQUIRED FIRE FLOW FOR BUILDINGS OTHER THAN ONE-AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS
AND TOWNHOUSES

AUTOMATIC SPRINKLER SYSTEM (DESIGN STANDARD)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
No auto sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the International Fire Code	<u>50</u> % of the value in Table B105.1(2) ^a −_	Duration in Table B105.1(2) at the reduced flow rate
Section 903.3.1.2 of the International Fire Code	<u>50</u> % of the value in Table B105.1(2) ^a	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute = 3.785 L/m

- a. The reduced flow rate shall be not less than 1,000 gallons per minute
- a. The reduced flow rate shall be not less than 1,500 gallons per minute.

Appendix C Fire Hydrant Locations and Distribution

Appendix C is adopted in whole in accordance with 2024 Edition of the International Fire Code Section 101.2.1.

Section C102.2 Distance to a Fire Department Connection (FDC).

The maximum distance from a fire hydrant to a fire department connection (FDC) supplying fire sprinklers and/or standpipes shall not exceed 100 feet, or as determined by the fire code official. This fire hydrant shall be connected to the public water supply and not a private loop. Alterations to this connection may be approved by the *fire code official* based on circumstances within the rural water supply area if NFPA 1142 is used for water supply.

Appendix D Fire Apparatus Access Roads

Appendix D is adopted in whole in accordance with 2024 Edition of the International Fire Code Section 101.2.1.

Appendix E Hazard Categories

Appendix E is adopted in whole in accordance with 2024 Edition of the International Fire Code Section 101.2.1.

Appendix F Hazard Ranking

Appendix F is adopted in whole in accordance with 2024 Edition of the International Fire Code Section 101.2.1.

Appendix H Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory (HMIS) Statement Instructions

Appendix H is adopted in whole in accordance with 2024 Edition of the International Fire Code Section 101.2.1.

Appendix I Fire Protection Systems- Non Compliant Conditions

Appendix I is adopted in whole in accordance with 2024 Edition of the International Fire Code Section 101.2.1.

Appendix L Requirements for Firefighter Air Replenishment Systems

Appendix L is adopted in whole in accordance with 2024 Edition of the International Fire Code Section 101.2.1.

Appendix N Indoor Trade Shows and Exhibitions

Appendix N is adopted in whole in accordance with 2024 Edition of the International Fire Code Section 101.2.1.

PART II

2024 International Wildland-Urban Interface Code

101.1 Title. These regulations shall be known as the *Wildland-Urban Interface Code* of **[NAME OF JURISDICTION]** the Central Lyon Fire Protection District, hereinafter referred to as "this code."

Section 103.1 Creation of agency.

The Central Lyon Fire Protection District – Fire Prevention Division is hereby created and the official in charge thereof shall be known as the *fire code official*, The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

SECTION 112 - MEANS OF APPEALS

Section 112.1 General.

Appeals of this code shall be done in accordance with Section 112 of the International Fire Code and the amendments in this document.

Section 302.3 Review of wildland-urban interface areas.

The code official shall reevaluate and recommend modification to the wildland-urban interface areas in accordance with Section 302.1 on a 3-year basis or more frequently as deemed necessary by the legislative body. The fire code official shall reevaluate and recommend modification to the wildland-urban interface areas in accordance with Section 302.1 as deemed necessary by the fire code official.

Section 402.2.2 Water Supply.

Individual structures hereinafter constructed or relocated into or within wildland-urban interface areas shall be provided with a conforming water supply in accordance with Section 404.

Exceptions:

- 1. Structures constructed to meet the requirements for the class of ignition-resistant construction specified in Table 503.1 for a nonconforming water supply <u>and an automatic fire sprinkler system</u>.
- 2. Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m²).
- 3. <u>Agricultural buildings constructed for storage limited to harvested commodities, without electrical or fuel gas services.</u>

Section 403.8 Security Gates.

The installation of security gates across a fire apparatus access road shall be *approved* by the *fire code official*. For residential (Group R-3) security gates, the minimum unobstructed width shall provide a minimum of 12 (3658 mm) feet of apparatus access when fully opened for private residential security gates and 20 (6096 mm) feet for commercial security gates. For both residential and commercial security gates, there shall be an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm) throughout the gate. Where security gates are installed, they shall have an *approved* means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be *listed* in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200. All electrically controlled gates shall use either the Click 2 Enter System or Opticom sensor and be equipped with a Knox Key system override.

Section 404.1 General.

Where provided in order to qualify as a conforming water supply for the purpose of Table 503.1 or as required for new subdivisions in accordance with Section 402.1.2, an *approved* water source shall have an adequate water supply for the use of the fire protection service to protect buildings and structures from exterior fire sources or to suppress structure fires within the *wildland-urban interface area* of the jurisdiction in accordance with this section.

Exception: Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m²), and agricultural buildings constructed for the storage of harvested crops or agricultural commodities without electrical or fuel gas services.

404.2 Water sources.

The point at which a water source is available for use shall be located not more than 1,000 feet (305 m) from the building and be *approved* by the *official fire code*. The distance shall be measured along an unobstructed line of travel. Water sources shall comply with the following:

- 1. Man-made water sources shall have a minimum usable water volume as determined by the adequate water supply needs in accordance with Section 404.5. This water source shall be equipped with an approved hydrant. The water level of the water source shall be maintained by rainfall, water pumped from a well, water hauled by a tanker or by seasonal high water of a stream or river. The design, construction, location, water level maintenance, access and access maintenance of man-made water sources shall be approved by the code official.
- 2. Natural water sources shall have a minimum annual water level or flow sufficient to meet the adequate water supply needs in accordance with Section 404.5. This water level or flow shall not be rendered unusable because of freezing. This water source shall have an approved draft site with an approved hydrant. Adequate water flow and rights for access to the water source shall be ensured in a form acceptable to the code official.
- 1. Water tanks shall have a minimum usable water volume as determined by the adequate water supply needs in accordance with Section 404.5. Water tanks shall be equipped with an approved hydrant. The water level of the water tanks shall be maintained full by, water pumped from a well or water hauled by a tanker to maintain the required water supply. The design, construction, location, water level maintenance, access and access maintenance of water tanks shall be approved by the fire code official. The water tank shall have a dedicated supply for fire suppression. If the tank is to be used for domestic purposes, the domestic average daily use shall be in addition to the fire suppression gallonage required. Stored water supplies shall be maintained to prevent contamination to fire equipment from bacteria, algae, sediment, rust or corrosion. Stored water shall be maintained in accordance with NFPA 25 and NFPA 1142.

404.3 Draft sites.

Approved draft sites shall be provided at natural water sources intended for use as fire protection for compliance with this code. The design, construction, location, access and access maintenance of draft sites shall be approved by the code official. Approved draft sites shall be equipped with an approved hydrant. The use, design, construction, location, access and access maintenance of draft sites shall be approved by the code official.

Section 404.5 Adequate water supply. Adequate water supply shall be determined for purposes of initial attack and flame front control as follows: 1. As written with the following change;

2. Buildings other than one- and two-family dwellings. The water supply required for buildings other than one- and two-family dwellings shall be as approved by the *fire code official* but shall not be less than 1,500 gallons per minute (95 L/s) for a duration of 2 hours.

Exception: A reduction in required flow rate of up to-75 50 percent, as approved by the *fire code official*, is allowed where the building is provided with an approved automatic sprinkler system. The resulting water supply shall not be less than 1,500 gallons per minute (94.6 L/s).

In areas without water supply, NFPA 1142 may be used to determine adequate water supply. Adequate water supply shall be calculated as required in the most current Edition of NFPA 1142 as adopted by the Nevada State Fire Marshal. Prior to calculating the minimum water supply for any structure, the structure shall be surveyed to obtain the following information:

- (1) Occupancy hazard
- (2) Type of construction
- (3) Structure dimensions (length, width, and height)
- (4) Exposures, if any

For new construction, plans shall be submitted to the District for determination of the minimum water supply required before construction is started. See NFPA 1142 Sections 4.2.2 and 4.3.2 for minimum water supply requirements. A technical report may be requested in accordance with Section 104.2.1 Technical Assistance of the this code and the 2024 IFC, at the *fire code official's* discretion.

Exception: A reduction in required flow rate of 50 percent, as approved by the *fire code official*, is allowed where the building is provided with an approved automatic sprinkler system.

To meet adequate water supply, one of the following options shall be chosen:

- 1. Fire sprinklers shall be installed in accordance with NFPA 13D. A separate plan submittal and permit shall be required.
- Installation of an approved water tank and draft site appurtenances that are in compliance with NFPA 1142 and include a dedicated access and a water use agreement. Smoke alarms installed in the home are required to be monitored by a licensed monitoring company for the life of the home. Activation of smoke alarms shall transmit a signal to provide early notification of any fire. A copy of the monitoring agreement shall be required at final inspection for C of O.

Section 501.2 Objective.

The objective of this chapter is to establish minimum standards to locate, design and construct buildings and structures or portions thereof for the protection of life and property, to resist damage from wildfires, and to mitigate building and structure fires from spreading to wildland fuels. The minimum standards set forth in this chapter vary with the critical *fire weather*, slope and fuel type to provide increased protection, above the requirements set forth in the *International Building Code* and the *International Residential Code*, from the various levels of hazards.

Section 502.1 General.

The fire hazard severity of building sites for all buildings hereafter constructed, modified or relocated into wildland-urban interface areas shall be established in accordance with Table 502.1 or Appendix C or the map developed by the Authority Having Jurisdiction as determined by the code official.

Table 503.1

IGNITION-RESISTANT CONSTRUCTION ^a

DEFENSIBLE	FIRE HAZARD SEVERITY					
SPACE ^C	Moderate Hazard		High Hazard		Extreme Hazard	
	Water supply ^d		Water supply ^b		Water supply ^b	
	Conformingd	Nonconforminge	Conformingd	Nonconforminga	Conformingd	Nonconforming e
Nonconforming	IR 2	IR 1	IR 1	IR 1	IR 1	Not
				N.C.	N.C.	Permitted
Conforming	IR 3	IR 2	IR 2	IR 1	IR 1	IR 1
						N.C.
1.5 x Conforming ^f	Not	IR 3	IR 3	IR 2	IR 2	IR 1
	Required					

- a. Access shall be in accordance with Section 403.
- b. <u>Subdivisions shall have a conforming water supply in accordance with Section 402.1.</u>
 - IR 1= Ignition-resistant construction in accordance with Section 504.
 - IR 2= Ignition-resistant construction in accordance with Section 505.
 - IR 3= Ignition-resistant construction in accordance with Section 506.
 - N.C.= Exterior walls shall have a fire-resistance rating of not less than 1 hour and the exterior surfaces of such walls shall be noncombustible. Usage of log wall construction is allowed.
- c. Conformance based on Section 603.
- d. Conformance based on Section 404.
- e. <u>A nonconforming water supply is any water system or source that does not comply with Section 404, including situations where there is not water supply for structure protection or fire suppression.</u>
- f. Only with the approval of the fire code official

Section 504.2 Roof assembly.

Roofs shall have a Class A rating when tested in accordance with ASTM E108 or UL 790. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends <u>and ridge line</u> shall be fire-stopped to preclude entry of flames or embers, or have one layer of 72-pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D 3909 installed over the combustible decking. Roof coverings consisting of shakes or shingles made of wood are not approved as part of any Class A roof assembly.

Exceptions:

- 1. Class A roof assemblies include those with coverings of brick, masonry or an exposed concrete roof deck.
- 2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile or slate installed on noncombustible decks or ferrous, copper or metal sheets installed without a roof deck on noncombustible framing.
- 3. Class A roof assemblies include a minimum 16 oz/sq. ft. (0.0416 kg/m²) copper sheets installed over combustible decks.

Section 603.2 Fuel modification.

Buildings or structures, constructed in compliance with the conforming *defensible space* category of Table 503.1, shall comply with the *fuel modification* distances contained in Table 603.2 for their respective Wildland-Urban Interface Area classification, For the buildings or structures to be classified as conforming *defensible space*, the distances in Table 603.2 apply to any point of the building or structure to the property line. If these minimum distances cannot be obtained, due to lot size or building placement, the owner shall submit a request for alternate materials, design and methods in accordance with Section 104.2.2 to the *fire code official* for approval. If the owner is unable to meet the distance requirements of the assigned Ignition Resistant Class, then the next restrictive class shall be applied, ie; IR class 3 to IR class 2. Distances specified in Table 603.2 shall be measured on a horizontal plane from the perimeter or projection of the building or structure as shown in Figure 603.2. Distances specified in Table 603.2 are allowed to be increased by the *fire code official* because of site-specific analysis based on local conditions and the fire protection plan.

603.2.1.1 Adjacent land.

Persons owning, leasing, controlling, operating or maintaining buildings or structures that is directly adjacent to property containing buildings or structures requiring *defensible space* are not required to perform any work, modifying or removing vegetation, on land that they do not own.

604.5 Non-combustible area.

In areas of High or Extreme Fire Hazard, the area extending from the base of any structure to 5 feet beyond the base of such structure shall be composed entirely of non-combustible material or fire resistive vegetation.

607.1 General. Firewood and combustible material shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies or other projections or overhangs. When required by the *fire code official*, storage of firewood and combustible material stored in the *defensible space* shall be located a minimum of 20-30 feet (9144 mm) from structures and separated from the crown of trees by a minimum horizontal distance of 15 feet (4572 mm).

Exception. Approved fire-resistance-rated coverings used in accordance with their listing and as approved and allowed by the fire code official.

APPENDIX A – GENERAL REQUIREMENTS

Appendix A is adopted in whole in accordance with 2024 Edition of the International Wildland-Urban Interface Code Section 101.2.1.

APPENDIX B – VEGETATION MANAGEMENT PLAN

Appendix B is adopted in whole in accordance with 2024 Edition of the International Wildland-Urban Interface Code Section 101.2.1 with the following additions and amendments.

B101.2 Plan content.

<u>Vegetation management plans shall describe all actions that will be taken to prevent a fire from being carried toward or away from the building.</u> A vegetation management plan shall include at least the following information:

- 1. A copy of the defensible space plan.
- 2. Methods and timetables for controlling, changing or modifying areas on the property. Elements of the plan shall include removal of slash, snags, vegetation that may grow into overhead electrical lines, other ground fuels, ladder fuels and dead trees, and the thinning of live trees.
- 3. A plan for maintaining the proposed fuel-reduction measures.

B102 Defensible Space Plans.

B102.1 General. Where required, defensible space plans must be submitted to the *fire code official* for review and approval as part of the plans required for a permit.

B102.2 Plan content.

A defensible space plan shall include at least the following information:

- 1. A site plan showing all property boundaries.
- 2. Current and proposed structures and buildings on the property.
- 3. Existing trees and other vegetation including brush fields.
- 4. Roads, driveways, and fire apparatus access.
- 5. Special requirements based on local conditions as requested or required by the fire code official.