



Office of the City Manager

REVISED AGENDA MATERIAL

Meeting Date: November 15, 2022

Item Number: 23

Item Description: Adoption of the 2022 California Fire Code with Local Amendments

Revision Submitted By: David Sprague, Interim Fire Chief, Department of Fire and Emergency Services

“Good of the City” Analysis:

The analysis below must demonstrate how accepting this supplement/revision is for the “good of the City” and outweighs the lack of time for citizen review or evaluation by the Council.

During review of the agenda materials, several significant errors were located in the agenda documents. Without the alteration listed in item 1 (below) the code adoption would have unintended but significant and far reaching impacts that are not intended by the code adoption proposal. Item 2 must be amended in order to allow additional dialog and debate prior to continuing a controversial local fire code amendment from previous code adoptions. The alteration in item 3 is required to accurately convey the Council’s intent and action on the resolution which will be transmitted to the State Building Standards Commission as evidence of local findings-of-fact in modifying State building standards.

1. Revised an error in the proposed fire code ordinance language (Attachment 1, pg. 15) in paragraph ‘DDD’, below Table 4902.1 to correct the final statement in the paragraph to read “Fire Zone Two is declared as a Very-High Fire Hazard Severity Zone and Wildland-Urban Interface fire area”.
2. Within the text of the proposed fire code ordinance (Attachment 1, pg. 8) replaced the text of proposed local amendment Section 903.2.24 with the single word “Reserved” to reserve that code section as a place holder for further action at a later date if needed.
3. Within Attachment 2 (“Resolution – Adopting Findings as to Local Climatic, Geological and Topographical Conditions...”) item 5 of Section “B. REASONABLE NECESSITY” (pg. 6) was modified to correct a reference targeted at local amendment sections. Reference to Section 903.2.21 was deleted from the list of local amendment sections as this section is now used by the printed State fire code and is not a local amendment.
4. Revised language within the staff report to insert an additional item numbered as item 5 (pg. 3), which addresses the changes outlined in Supplement 2, item 2

(above) and explains the intent behind listing the proposed local fire code amendment Section 903.2.24 as “Reserved”. Subsequent items within the staff report were renumbered.

Consideration of supplemental or revised agenda material is subject to approval by a two-thirds roll call vote of the City Council. (BMC 2.06.070)

A minimum of **42 copies** must be submitted to the City Clerk for distribution at the Council meeting. This completed cover page must accompany every copy.

Copies of the supplemental/revised agenda material may be delivered to the City Clerk Department by 12:00 p.m. the day of the meeting. Copies that are ready after 12:00 p.m. must be delivered directly to the City Clerk at Council Chambers prior to the start of the meeting.

Supplements or Revisions submitted pursuant to BMC § 2.06.070 may only be revisions of the original report included in the Agenda Packet.



Office of the City Manager

PUBLIC HEARING
November 15, 2022

To: Honorable Mayor and Members of the City Council
From: Dee Williams-Ridley, City Manager
Submitted by: David Sprague, Interim Fire Chief, Berkeley Fire Department
Subject: Adoption of the 2022 California Fire Code with Local Amendments

RECOMMENDATION

1. Adopt the first reading of an Ordinance (Attachment 1) repealing the Berkeley Fire Code (Berkeley Municipal Chapter 19.48) and reenacting BMC Chapter 19.48;
2. Adopt a Resolution (Attachment 2) setting forth findings of local conditions that require more stringent building standards than those provided by the 2022 California Fire Code (“CFC”) and rescinding Resolution number 69,178–N.S.;
3. Conduct a public hearing and upon conclusion, adopt a Resolution (Attachment 3) establishing annual permit fees, inspection and billing rates for inspection of property sites by the Berkeley Fire Department, and rescinding Resolution number 69,179–N.S. and all Resolutions amendatory thereof.
4. In compliance with state law on adopting such codes by reference, hold a public hearing following the first reading and before the second reading, and schedule the public hearing for December 6, 2022.

SUMMARY

The State of California has adopted a new, 2022 fire code which will go into effect on January 1, 2023. Local jurisdictions may adopt local amendments to the California Fire Code (CFC), but the CFC will go into effect as written throughout the state on January 1, 2023. If Berkeley wishes to continue to apply our local fire code amendments without the Berkeley City Council must act to adopt the CFC with our local amendments before January 1, 2023. Berkeley has local conditions specific to our community that effect our local fire and life safety, and has adopted multiple fire code amendments in the past that are designed to address these concerns. Staff recommends that the City Council adopt local amendments to the California Fire Code as set forth in the attached documents to maintain and improve our current local level of fire safety.

FISCAL IMPACTS

The fiscal impact to the City will be approximately \$15,000 for the purchase of new fire code books, inspection guides, inspection forms, and training. The fire department has allocated the expenditure as part of its FY 2023 budget.

Neither the new State codes overall, or our continuing local amendments, are expected to create significant cost increases for homeowners, builders or developers beyond those costs already mandated by current codes and statutes.

CURRENT STATUS AND EFFECTS

As part of a regular three-year cycle, the California Building and Standards Commission promulgated the 2022 California Fire Code. The California Fire Code (Title 24, Part 9 of the California Code of Regulations) will take effect on January 1, 2023. The California Fire Code provides minimum standards for fire and life safety.

To create the 2022 California Fire Code, the State of California amended and adopted a model fire code published by the International Code Council. The 2022 California Fire Code reflects the 2021 International Fire Code (“IFC”) with State amendments. Local jurisdictions must enforce the California Fire Code, as adopted by the state beginning January 1, 2023.

A city, county, or city and county may establish more restrictive building standards as reasonably necessary because of local climatic, geological or topographical conditions. Findings of the local condition(s) and the adopted local building standard(s) must be filed with the California Building Standards Commission.

Accordingly, in light of the changes to the California code, the City may now adopt local amendments to maintain the local standards previously established, as well as additional recommended local standards.

The majority of amendments to previously established local standards consist primarily of renumbering local amendments to maintain consistency with the structure and organization of the new California Fire Code. Where new or modified code language is being proposed by staff, the recommended changes can generally be divided into two categories- general code provisions and code provisions specifically oriented towards wildfire safety.

Staff’s recommendations on modifications to local amendments in the ‘general’ category, in addition to the previously approved local amendments to adopt in this cycle’s fire code, include:

- 1) Delete the amendment to Section 105.5.33, “Motor fuel dispensing facilities”.
Appropriate regulation of mobile fueling operations now occurs under California and Berkeley Fire Code Section 105.5.18, Items 9 and 10.
- 2) Delete local amendment, Additional Subsection 105.5.60, “Tank Vehicles”.
Appropriate regulation of on-site tank vehicle operations now occurs under California and Berkeley Fire Code section 105.5.18, Item 6.

- 3) Modify the adoption of local amendment, Amended Subsection 112.4, “Violation penalties”. Previous local adoptions of this section have specified that certain violations would only be charged as misdemeanor violations. The new proposed fire code adoption deletes this restriction, as well as the related Additional Subsection which enumerated the violations to be charged as misdemeanors. All violations could now be charged either as misdemeanors, or as infractions if criminal process is determined to be the appropriate avenue for enforcement. The new language also clarifies that in addition to criminal citations, the correction of all violations may be pursued civilly and such violations are subject to the ‘Abatement of Nuisances’ chapter of the B.M.C., as well as the provisions of the administrative citation process. This section is not creating a new mechanism of enforcement, but rather clarifies for all parties that civil action is a valid avenue of enforcement.
- 4) Modify the adoption of local amendment, Amended Subsection 903.2.11.2, “Rubbish, Recycling and linen chutes”. The current California Fire Code language and previous local amendment to this section specifies application only to rubbish and linen chutes. Recycling chutes are now a common feature in structures and involve the same hazards and require the same fire sprinkler mitigation as rubbish chutes. The recommendation expands the section to expressly address recycling chutes, and language has also been added to require independent control and annunciation of chute fire sprinklers to allow firefighters to more rapidly locate and address a fire emergency in a chute.
- 5) Modify the adoption of local amendment, Additional Subsection 903.2.24, “Environmental safety- Residential District” (which has been Section 903.2.23 under the current and previous fire code adoptions). Staff is recommending the replacement of the text of the proposed local amendment with the single word “Reserved”. This section is a local amendment which has been carried forward from previous fire code adoptions. In the past the section has required the retrofit of existing structures within the “Environmental Safety- Residential” Zoning district with fire sprinkler systems when certain triggering events occur, such as additions to an existing structure or the construction of a new structure with a permit valuation above a certain threshold value. Based on feedback from the community the fire department believes that before this local amendment can be carried forward further into this or subsequent fire code adoptions that additional dialog is necessary within the community to vet the provision and its trigger requirements.
- 6) Modify the adoption of local amendment, Additional Subsection 1103.5.6.3, “Supervision of fire sprinkler systems”. Existing Additional Section 1103.5.6 is a local amendment that requires the retrofit of fire sprinklers in certain multi-family structures. This code requirement has been in effect in Berkeley since August, 1996 and was introduced locally to protect vulnerable populations in response to more than one tragic fire.

The section recommended for modification (1103.5.6.3) is an existing subsection that addresses monitoring of water flow alarms from these fire sprinkler systems. The previous language did not require flow alarm monitoring unless the retrofit fire

sprinkler system had 50 or more sprinklers. The 2022 fire code requires that all new fire sprinkler systems be monitored for water flow alarms, with certain exceptions. The recommended modification will ensure that Berkeley's amendments are at least as restrictive as the California Fire Code by simply referring the reader to the main code section for monitoring of fire sprinkler systems for direction on sprinkler system monitoring. This section would not require that buildings previously retrofit with fire sprinklers under section 1103.5.6 add sprinkler monitoring. Those structures complied with the fire code adoption that was in effect when they were retrofit with fire sprinklers, and they would continue to be code complaint without sprinkler system monitoring if they were compliant at the time of installation.

- 7) Modify the adoption of local amendment, Additional Section 105.6.26 by expanding the scope of an existing fire permit by adding language to the permit description of Section 105.6.26, "Window bars, operational constraints and opening control devices". The amendment language in previous code adoptions addressed only window bars applied to Emergency Escape and Rescue Windows. The expanded scope of this permit will regulate various equipment and devices used to impose operational constraints and opening controls on Emergency Escape and Rescue openings. Section 1031.2.1 of the 2022 adoption of the California and Berkeley fire codes now regulates and provides prescriptive and performance standards for such equipment. The California Fire Code does not provide any mechanism for review, approval or field inspection of such equipment by the fire department when it is being installed. This change is required to ensure adequate regulation of the subject matter and enable cost recovery for regulatory services provided to ensure compliance with the 2022 California fire code as adopted.

Some of the most substantial changes in the California Fire Code, and in the proposed amendments in Berkeley's local adoption of that code, have occurred in Chapter 49 ("Requirements for Wildland-Urban Interface Fire Areas"), and address wildfire safety requirements. Specific recommendations for amendments being forwarded by staff in the 'wildfire' safety arena include:

- 8) Adopt the Amended Subsection 4902.1 ("General"), which provides definitions specific to Chapter 49 of the fire code. Staff's proposed local amendments:
 - a. Modify the definition of "Fire Protection Plan" so that it can apply to both proposed and existing properties, projects and developments. The language in the California Fire Code is limited to new proposed projects and developments. Staff believes a Fire Protection Plan can be a useful tool in some circumstances for existing developments.
 - b. Not only defines the terms Berkeley "Fire Zone 1", "Fire Zone 2" and "Fire Zone 3" but also clarifies that Fire Zone 2 and Fire Zone 3 are Very-High Fire Hazard Severity Zones and Wildland-Urban Interface fire areas.
- 9) Adopt Additional Subsection 4903.3, "Submittal, approval and fees". The newly developed Section 4903 ("Plans") in the California Fire code is more comprehensive than the language previously adopted by Berkeley, but it does not

address how such plans are to be reviewed, or if fees for such a review are applicable. This new section establishes that fees may be charged for such review at a rate established by Council.

- 10) Adopt Additional Subsection 4906.5, "Maintenance of existing vegetation". As constructed in the 2022 edition of the California, Section 4906 ("Vegetation Management") applies to proposed or new landscaping. There are no provisions listed for such important vegetation management goals as roadside clearance or clearance around overhead electrical conductors. Berkeley's established management requirements for vegetation which occur outside of structure defensible space have been relocated to this section. These requirements include:
 - a. Section 4906.5.1 for clearance around utility poles and other power line supports
 - b. Section 4906.5.2 for clearance around electrical power distribution and transmission conductors
 - c. Section 4906.5.3 regarding resolution of electrical power line emergencies
 - d. Section 4906.5.4 regarding correction of hazardous conditions
 - e. Section 4906.5.5 regarding clearance of vegetation near roadways.
- 11) Adopt Additional Subsection 4906.6, "Unusual circumstances". This section allows the Fire Code official to accept alternative methods or materials of compliance if circumstances make the management of vegetation in strict compliance with Section 4906 undesirable or impractical.
- 12) Adopt Additional Subsection 4906.7, "Vegetation and combustible material hazards not otherwise regulated". This new amendment prohibits any person in control of property from allowing vegetation or combustible material hazards to exist which constitutes a fire hazard as determined by the fire code official, regardless of the material's proximity to structures.
- 13). Modify the adoption of local amendment, Additional Subsection 4907.4, "Specific requirements". This section lists specific Defensible Space actions that individual property owners are to take around or adjacent to structures. These requirements are a compilation of actions required by other references and include the following provisions:
 - a. Mandates that property owners with structures comply with Defensible Space requirements, and also mandates that owners of properties adjacent to structures also comply with Defensible Space requirements (whether or not those structures are on their property).
 - b. Clarifies throughout subsection 4907.4 that Defensible Space requirements are to be implemented within 100 feet of structures. This dimension is consistent with State law. This subsection also clarifies that the amount and intensity of fuel management is subject to variation within the 100-foot perimeter, which is also consistent with Defensible Space requirements under State law.
 - c. Allows the fire department to extend vegetation management requirements to beyond 100 feet from a structure where a distance of 100 feet would be inadequate to protect the structure from a wildfire burning under average weather conditions.

- d. Mandates traditional, accepted vegetation management practices such as the limbing of trees, clearance from chimneys, debris removal from roofs and property, and the removal of miscellaneous hazards such as hanging bark, light fuels, debris, litter and wood piles.
- 14) Modify the adoption of local amendment, Additional Subsection 4907.2.2, "Corrective actions". This subsection allows the fire department to pursue correction of Chapter 49 violations using the tools and methods already established in the B.M.C. This subsection has historically provided that the City Council is authorized to instruct the fire code official to notice properties of hazards, correct such conditions, and/or for Council to cause the correction of violations and if necessary levy liens against properties. This enforcement approach may have been feasible at some point in the past, but the sheer scope and scale of the problem and program have increased to the point that a much more efficient and streamlined enforcement process be adopted.
- 15) Relocate the adoption of local amendments which regulate the suppression and control of Wildland Urban Interface fire areas from Section 4908 to Section 4911, "Suppression and Control of Wildland-Urban Interface Fire Area". The State adoption of the California Fire Code now uses sections 4908, 4909 and 4910 for other code provisions. There is no analog in the California Fire Code to these provisions.
- 16) Modify the adoption of local amendment, Additional Subsection 4911.18., "Liability for Damage". The previous reference to the Public Resources Code (PRC) section is now obsolete and the original reference only specified liability associated with violation of the PRC. The revised language corrects the reference to the PRC and also includes violations to the Health and Safety, Penal, and Berkeley Municipal codes.

BACKGROUND

The City of Berkeley has unique climatic, geological, and topographical conditions, which require local amendments to mitigate potential hazards, and to reduce loss of life caused by fires or natural disasters.

To address local fire and life safety impacts, the City of Berkeley has adopted local amendments to address sprinkler system and fire alarm requirements for existing hotels, fraternities, sororities, window bars, smoke detectors, and firefighter safety and operations in high-rise construction. Without the adoption of the local amendments, the new and past amendments cannot be enforced.

In addition to the fire code adoptive ordinance itself and the findings-of-fact resolution required by state law for the adoption of local amendments which qualify as building standards, the City of Berkeley creates and adopts by resolution a fee schedule which specifies fees associated with operational and construction permits required by the fire code, and for other general and specific fire inspection services as well as establishing billing and collection procedures and setting forth delinquency charges.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

Unwanted fires have a significant, detrimental effect on the environment, climate, and the sustainability of our society. Air emissions from fires include soot/carbon particulate as well as carbon-dioxide and many un-desirable fire byproducts. The water used to extinguish fires not only becomes runoff and may transport pollutants into waterways and other portions of the environment, but is often treated, potable water that must be processed and transported into the City via a water utility service at some financial expense and expense to the City's overall carbon-footprint. Fires also damage structures and other built-environment infrastructure that ultimately must be removed and replaced, generally with an associated financial and carbon-footprint cost to remove, manufacture, transport and reinstall the infrastructure. The adoption of a strong fire code ultimately serves to reduce the frequency, severity and cost of fires to society, environment, and the climate.

RATIONALE FOR RECOMMENDATION

Local amendments to the California Fire Code must be adopted every three years, or the California Fire Code goes into effect without local amendments. Adoption of local amendments and findings are needed to customize the State code to Berkeley's particular topographic, geologic and climatic conditions. The fire and seismic danger and other local conditions, as described in detail in the attached resolution justify the proposed local amendments that are stricter than the California Fire Code.

The previously-adopted fee ordinance was based on the 2019 Fire Code. The 2022 California Fire Code (and 2021 International Fire Code) have added permits regulating additive manufacturing and energy storage system, renumbered certain code sections mandating permits and made editorial changes to follow changes in the main body of the new code. Without amending the fee schedule to track these changes, it may prove impossible to recover costs associated with permits or inspections for such critical work as the installation of fire alarm and sprinkler systems, standpipe systems, fire pumps, and private fire hydrants.

The 2022 California Fire Code adds new operational permits. Currently, there are no permit fees set forth which would allow the fire department to recover costs associated with permitting, inspection and regulation of these activities. Staff proposes the following additions to the fire permitting and inspection fee schedule, with no adjustment of fee amounts at this time as fee adjustments will be made during the fee adjustment process in Spring 2023:

- a. *A new operational permit be established for the permitting, inspection and regulation of Additive Manufacturing as required in Section 105.5.1.*

This is a new permit which has been added to the State fire code and therefore mandates regulation by the local Berkeley fire agency.

- b. *The operational permit required for permitting, inspection and regulation of aerosol products as required in Section 105.5.2 has been expended to*

include cooking spray and aerosol 3 products.

This is an expansion of an existing permit within the State fire code and therefore mandates regulation by the local Berkeley fire agency. Staff is proposing to expand the definition of the permit within the fee schedule resolution and charge the existing fee authorized for aerosol products to the expanded categories.

- c. *A new operational permit be established for the permitting, inspection and regulation of Energy Storage Systems as required in Section 105.5.14.*

This is a new permit which has been added to the State fire code and therefore mandates regulation by the local Berkeley fire agency.

- d. A new operational permit be established for the accumulation of more than 15 cubic feet of lithium-ion and lithium batteries as required in Section 105.5.53.

This is a new permit which has been added to the State fire code and therefore mandates regulation by the local Berkeley fire agency.

Upon review of the California Fire Code, staff proposed that the Berkeley Fire Code inspection fee schedule shall include changes and clarifications based on the California code language, including the renumbering of permit sections as needed.

ALTERNATIVE ACTIONS CONSIDERED

None

CONTACT PERSON

Steven Riggs, Fire Marshal, Berkeley Fire Department, 981-5585.

Attachments

- 1 Ordinance - Repealing and Re-Enacting BMC 19.48 (Fire Code)
- 2 Resolution - "Adopting Findings as to Local Climatic, Geological And Topographical Conditions Rendering Reasonably Necessary Various Enumerated Local Fire Standards That Are More Stringent Than Those Mandated By The California Fire Code And Rescinding Resolution No. 69,170-N.S."
- 3 Resolution - Establishing Annual Permit Fees, Inspection and Billing Rates for Inspection of Property Sites by the Berkeley Fire Department, and Rescinding Resolution number 69,179–N.S. and all Resolutions Amendatory Thereof".
- 4 "Summary of Proposed Fee Amendments document"
- 5 Public Hearing Notice

**ORDINANCE NO. ##,###-N.S.
REPEALING AND RE-ENACTING BERKELEY MUNICIPAL CODE CHAPTER 19.48
(FIRE CODE)**

BE IT ORDAINED by the Council of the City of Berkeley as follows:

Section 1. That Berkeley Municipal Code Chapter 19.48 is hereby repealed and reenacted as to read as follows:

Section 19.48.010 Adoption of California Fire Code

- A. The California Fire Code, 2022 edition, as adopted in Title 24, Part 9 of the California Code of Regulations, including Chapter 1 (excluding Section 103), Chapter 3, Section 503 of Chapter 5, Sections 1103.5.6 through 1103.5.6.3 (new sections as created by BMC 19.48.020, Amendments to the California Fire Code), Appendix Chapters D, E, F, L (as amended by BMC 19.48.020, Amendments to the California Fire Code) and O published by the International Code Council not included in the California Building Standards Code, are adopted by this reference into this Chapter, and are hereby adopted and made a part of this Chapter as though fully set forth herein, subject to the modifications thereto which are set forth this ordinance. One copy of this Code is on file in the office of the City Clerk of the City of Berkeley.
- B. This chapter shall be known as the "Berkeley Fire Code" and shall be referred to in this chapter as "this code".
- C. This Chapter will become effective on January 1, 2023.

Section 19.48.020 Amendments to the California Fire Code

The following additions, changes and deletions to the 2022 California Fire Code, as detailed below, are adopted as part of the Berkeley Fire Code.

- A. **Section 101.1 Title [Amended subsection].** ~~These regulations shall be known as the Fire Code of [NAME OF JURISDICTION], including the local amendments to the California Fire Code set forth in this ordinance, shall be known as the Berkeley Fire Code, hereinafter referred to as "this code."~~
- B. **Section 107.7. Expense of securing emergencies [Additional subsection]** The expense of securing any emergency that is within the responsibility for enforcement of the fire code official as given in Sections 104.1 or 104.11 is a charge against the person who caused the emergency. Damages and expenses incurred by any public agency having jurisdiction or any public agency assisting the agency having jurisdiction shall constitute a debt of such person and shall be collectible by the fire code official for proper distribution in the same manner as in the case of an obligation under contract expressed or implied. Expenses as stated above shall include, but not be limited to, equipment and personnel committed and any payments required by the public agency to outside business firms requested by the public agency to secure the emergency, monitor remediation, and clean up.

- C. Section 102.6 Historic buildings. [Amended subsection]** The provisions of this code relating to the construction, alteration, repair, enlargement, restoration, relocation or moving of buildings or structures shall not be mandatory for existing buildings or structures identified and classified by the state or local jurisdiction as historic buildings where such buildings or structures do not constitute a distinct hazard to life or property. Fire protection in designated historic buildings shall be provided ~~with an approved fire protection plan as required in Section 1103.1.1.~~ in accordance with the 2022 California Historical Building Code.
- D. Section 104.13. Authority to arrest and issue citations [Additional subsection]** The Fire Chief, Chief Officers, Fire Marshal, Deputy Fire Marshal, and Fire Inspectors shall have authority to arrest or to cite any person who violates any provision of this Chapter involving the International Fire Code or the California Building Standards Code regulations relating to fire and panic safety as adopted by the State Fire Marshal, in the manner provided for the arrest or release on citation and notice to appear with respect to misdemeanors or infractions, as prescribed by Chapters 5, 5c and 5d of Title 3, Part 2 of the California Penal Code, including Section 853.6, or as the same hereafter may be amended. It is the intent of the City Council that the immunities provided in Penal Code Section 836.5 are applicable to aforementioned officers and employees exercising their arrest or citation authority within the course and scope of their employment pursuant to this Chapter.
- E. Section 104.14 Authority to abate fire nuisance [Additional subsection].** The Fire Chief, Chief Officers, Fire Marshal, Deputy Fire Marshal, Fire Inspectors, Fire Officers and Acting Fire Officers shall have the authority to order the abatement of fire nuisances.
- F. 105.5.18 Flammable and combustible liquids. [Amended subsection]** An operational permit is required:
1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the offsite transportation in pipelines regulated by the Department of Transportation (DOTn) nor does it apply to piping systems.
 2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following:
 - 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the fire code official, would cause an unsafe condition.
 - 2.2. The storage or use of paints, oils, varnishes or similar flammable mixtures where such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days.
 3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil-burning equipment.

4. To store, handle or use Class IIIB liquids in excess of 110 gallons in containers, or in tanks or portable tanks for fueling motor vehicles at motor fuel-dispensing facilities or where connected to fuel-burning equipment.
Exception: Fuel oil and used motor oil used for space heating or water heating.
 5. To remove Class I or II liquids from an underground storage tank used for fueling motor vehicles by any means other than the approved, stationary on-site pumps normally used for dispensing purposes.
 6. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.
 7. To place temporarily out of service (for more than 90 days) an underground, protected above-ground or above-ground flammable or combustible liquid tank.
 8. To change the type of contents stored in a flammable or combustible liquid tank to a material that poses a greater hazard than that for which the tank was designed and constructed.
 9. To manufacture, process, blend or refine flammable or combustible liquids.
 10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4 or to engage in on-demand mobile fueling operations in accordance with Section 5707.
 11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles, marine craft and other special equipment at commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4 or, where required by the fire code official, to utilize a site for on-demand mobile fueling operations in accordance with Section 5707.
- G. **Section 105.5.55 Christmas tree sales lot. [Additional subsection]** An operational permit is required to operate a Christmas tree sales lot.
- H. **Section 105.5.56 Escort convoy service [Additional subsection]** Police and/or Fire Department convoy service for vehicle transportation of extremely hazardous materials.
- I. **Section 105.5.57 Fire Fighter Air Replenishment System (FARS). [Additional subsection]** An annual operational permit is required to maintain a FARS system in accordance with Appendix L.
- J. **Section 105.5.58 General use permit. [Additional subsection]** For any activity or operation not specifically described in this code, which the fire code official reasonably determines, may produce conditions hazardous to life or property.
- K. **Section 105.5.59 Parking facility, special events [Additional subsection]** An operational permit is required to use buildings or structures for vehicle parking, including parking for special events (i.e. football games, etc.).

- L. **Section 105.6.25 Fire fighter air replenishment system (FARS). [Additional subsection]** A construction permit is required for installation of or modification to a FARS system in accordance with Appendix L.
- M. **Section 105.6.26 Window bars, operational constraints and opening control devices. [Additional subsection]** A construction permit is required to install window bars or other equipment which imposes operational constraints and opening controls on emergency escape and rescue openings on exterior doors or windows of any sleeping rooms in accordance with fire code Section 1031.2.1 of this code.
- N. **Section 107.2 Schedule of permit fees. [Amended subsection]** Where a permit is required, a fee for each permit shall be paid as required, in accordance with the schedule as established by the applicable governing body. Of fees for permits and inspections as set forth by the City Council by resolution.
- O. **Section 107.4 Work commencing before permit issuance [Amended subsection]**. A person who commences any work, activity or operation regulated by this code before obtaining the necessary permits shall be subject to a fee established by the applicable governing authority, which shall be in addition to the required permit fees. equivalent to three times the amount of the required fees to obtain a permit for that work, activity or operation regulated by this code.
- P. **SECTION 111 MEANS OF APPEALS [Amended Section]**
- Q. **Section 111.1 Board of appeals established. Appeals Procedure [Amended subsection]** In order to hear and decide appeals of orders, decisions or determinations made by the fire 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 fire code official. An appeal therefore may be taken to the City Council by the applicant or permit holder. Notice of the appeal must be filed in triplicate with the City Clerk of the City of Berkeley within ten days from the date of mailing of the fire code official's decision to the applicant or permit holder. The notice of appeal shall contain a statement of the reasons for the appeal. The City Clerk shall forward one copy thereof to the fire code official. Within ten days after the filing of the notice of appeal, the fire code official shall transmit to the City Council all his/her records pertaining to the decision appealed from.
- R. **Section 111.1.1 Stay of Proceedings [Additional subsection]** The filing of the notice of appeal shall stay all proceedings by all parties in connection with the matter upon which the appeal is taken until determination of the appeal as hereinafter provided, unless the fire code official determines that such a stay could result in an imminent threat to public safety.

- S. **Section 111.3 Qualifications.** ~~The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to hazards of fire, explosions, hazardous conditions or fire protection systems, and are not employees of the jurisdiction.~~ **Decisions [Amended subsection]** The City Council shall review the action of the fire code official and shall do any one of the following:
- a. Refer the matter back to the fire code official.
 - b. If the facts stated in or ascertainable from the application, the Notice of Appeal, the written statement of the fire code official setting forth the reason for his/her decision, and the other papers, if any, constituting the record do not, in the opinion of the City Council, warrant further hearing, the City Council may affirm the decision of the fire code official. Such decision shall be final.
 - c. If, in the opinion of the City Council, said facts warrant further hearing, the City Council shall set the matter for hearing and shall give notice of the time and place of said hearing by mailing a copy of such notice by certified mail to the address of the applicant as stated in the Notice of Appeal, at least ten (10) days before the time fixed for the hearing. The City Council may continue the hearing from time to time.
 - d. Following such hearing, the City Council shall reverse, affirm wholly or partly modify any decision of the fire code official, or make any other decisions or determinations or impose such conditions as the facts warrant. Such decision or determination shall be final.
 - e. If none of the above actions have been taken by the City Council within thirty (30) days from the date the appeal first appears on the City Council agenda, then the decision of the fire code official shall be deemed affirmed and the appeal shall be deemed dismissed.
 - f. If the appeal is set for hearing but the disposition of the appeal has not been determined within ninety (90) days from the date the appeal first appears on the City Council agenda, then the decision of the fire code official shall be deemed affirmed and the appeal deemed dismissed.
- T. **Section 112.1 Unlawful acts [Amended subsection].** It shall be unlawful for a person, firm or corporation to erect, construct, alter, repair, remove, demolish or utilize a building, occupancy, premises or system regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code, or to create, maintain or allow to continue any fire hazard.
- U. **Section 112.4 Violation penalties [Amended subsection].** 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 provisions of this code, shall be guilty of a [SPECIFY OFFENSE], ~~punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment~~ misdemeanor, but may be cited or charged, at the election of the enforcing officer or City Attorney, as infractions, subject to an election by the defendant under Penal Code Subsection 17 (d). Each day that a violation continues after due notice has been served shall be deemed a separate offense. In

addition to all other legal remedies, civil or criminal (as set forth above), any violation of this code constitutes a public nuisance in accordance with B.M.C Chapter 1.26, and is subject to all provisions of B.M.C. Chapter 1.26, as well as abatement under B.M.C. Chapter 1.24, "Abatement of Nuisances". All such violations are also subject to the issuance of an administrative citation in accordance with B.M.C Chapter 1.28 at the discretion of the enforcing officer or the City Attorney.

- V. **Section 114.7 Summary abatement [Amended subsection]** Where conditions exist that are deemed hazardous to life and property, the fire code official or fire department official in charge of the incident is authorized to abate summarily such hazardous conditions that are in violation of this code. Where the owner does not comply with an abatement order under Section 114.4 within the period specified, the City of Berkeley may perform or cause to be performed the necessary work. The costs incurred shall be recoverable under the procedures in Section 114.7.1
- W. **Section 114.7.1 Abatement process [Additional subsection]** The abatement process shall be conducted in accordance with the notice and hearing requirements of the nuisance abatement provisions of Berkeley Municipal code chapter 1.24, including summary abatements of structures or premises determined by the City of Berkeley to constitute an imminent hazard or emergency condition.
- X. **Section 202 Definitions – B [Additional definition] BERKELEY MARINA.** The area shall mean all those, parts of the City of Berkeley west of the Interstate 80 Freeway
- Y. **Section 202 (Definitions — F) [Additional definition] FIRE HAZARD.** Anything or act which increases or could cause an increase of the hazard or menace of fire to a greater degree than that customarily recognized as normal by persons in the public service regularly engaged in preventing, suppressing or extinguishing fire or anything or act which could obstruct, delay, hinder or interfere with the operations of the fire department or the egress of occupants in the event of fire. Fire hazards as defined herein are hereby declared to be public nuisances subject to abatement by the City of Berkeley.
- Z. **Section 202 (Definitions — F) [Additional definition] FIRE NUISANCE.** Anything or act, which is annoying, unpleasant, offensive or obnoxious because of fire.
- AA. **Section 202 (Definitions – J [Amended definition]. JURISDICTION.** The City of Berkeley. The governmental unit that has adopted this code.
- BB. **Section 202 (Definitions — W) [Additional definition] WASTE OIL** is a Class III-B waste liquid resulting from the use of Class III-B combustible liquids such as waste motor oil, hydraulic oil, lubricating oil, brake fluids and transmission fluids.
- CC. **Section 504.1.1 Marking of Exterior Building Openings [Additional subsection].** Where exterior doorways are not otherwise marked with identification such as building addresses, room/suite numbers or business names which identify

the area(s) they provide access to, or a functional description for the space, such opening shall be provided with signs or labels indicating the areas they serve. Doorways to be marked shall include but are not limited to doors serving building circulation (such as stairwells/exit passageways), potential hazards (such as trash rooms), and building service and utility spaces (such as electrical, gas, HVAC and elevator machine rooms). Signs/labels shall be permanent, weather and sunlight resistant with lettering not less than 3/4" high with a 1/16" width stroke on a contrasting background. Such signs or labels shall be affixed to the door frame or wall above the door. Such signs and labels shall be maintained.

Exception: Doors associated with private dwellings, the main entrance to normally occupied spaces or when determined to be unnecessary by the fire code official.

DD. Section 705.2.5 Smoke- and heat-activated doors. [Amended subsection]

Smoke-activated doors shall be maintained to self-close or automatically close upon detection of smoke. Existing fusible-link-type automatic-door closing devices are permitted if the fusible-link rating does not exceed 135°F (57°C). Doors required for fire and smoke separation for interior exit stairways and floor separation in R-1 or R-2 occupancies shall not be maintained in an open position with fusible links.

EE. Section 903.2.10.1 Commercial parking garages [Amended subsection]. An automatic sprinkler system shall be provided throughout buildings used for storage of commercial motor vehicles ~~where the fire area exceeds 5,000 square feet (464 m²).~~

FF. Section 903.2.11.1 Stories without openings [Amended subsection]. An automatic sprinkler system shall be installed throughout all buildings having stories, including basements, of all buildings where the floor area exceeds 1,500 square feet (139.4 m²) and where the story does not comply with the following types of exterior wall openings:

1. Openings below grade that lead directly to ground level by an exterior stairway complying with Section 1011 or an outside ramp complying with Section 1012. Openings shall be located in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on not fewer than one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm).
2. Openings entirely above the adjoining ground level totaling not less than 20 square feet (1.86 m²) in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on not fewer than one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm) The height of the bottom of the clear opening shall not exceed 44 inches (1118 mm) measured from the floor.

GG. Section 903.2.11.2.Rubbish, Recycling and linen chutes. [Amended subsection] An automatic sprinkler system shall be installed at the top of rubbish and linen chutes and in their terminal rooms. Chutes shall have additional sprinkler heads installed at alternate floors and at the lowest intake. Where a rubbish chute

extends through a building more than one floor below the lowest intake, the extension shall have sprinklers installed that are recessed from the drop area of the chute and protected from freezing in accordance with Section 903.3.1.1. Such sprinklers shall be installed at alternate floors, beginning with the second level below the last intake and ending with the floor above the discharge. Access to sprinklers in chutes shall be provided for servicing. Activation of any fire sprinkler in a chute shall activate a separate water flow switch to indicate waterflow in the chute. All fire sprinklers in the chute shall be controlled by a separate, electrically supervised control valve with tamper switch.

HH. **Section 903.2.22 Structures in the Berkeley Marina Area [Additional subsection]** An automatic sprinkler system shall be installed in all structures located in the Berkeley Marina Area in accordance with NFPA 13 standards. **Exceptions:** Gear lockers not designed to permit human entry, municipal restrooms unattached to other structures, the existing City of Berkeley Harbor Master's office, and any temporary construction site structures.

II. **Section 903.2.23 Public Self-Storage Buildings [Additional subsection]** An automatic sprinkler system shall be installed in any building erected or existing building that was converted and/or subdivided for public self-storage use on or after August 19, 1982, in accordance with NFPA 13 standards.

JJ. **Section 903.2.24 Environmental Safety - Residential District [Additional subsection]** *Reserved.*

KK. **Section 903.3.1.2 NFPA 13R sprinkler systems. [Amended subsection]** Automatic sprinkler systems in Group R occupancies shall be permitted to be installed throughout in accordance with NFPA 13R *as amended in Chapter 80*.

1. Four stories or less above grade plane.
2. The floor level of the highest story is 30 feet (9144mm) or less above the lowest level of fire department vehicle access.
3. The floor level of the lowest story is 30 feet (9144mm) or less below the lowest level of fire department access.

The number or stores of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 of the *California Building Code* shall be measured from grade plane.

Exception: Sprinkler systems in residential / commercial mix-use buildings are to be in accordance with NFPA 13.

LL. **Section 903.3.9 Floor control valves. [Amended subsection]** Floor control valves and waterflow detection assemblies shall be installed at each floor where any of the following occur:

1. Buildings where the floor level of the highest story is located ~~more than~~ or more above the lowest level of fire department vehicle access.
2. Buildings that are ~~four~~ three or more stories in height.
3. Buildings that are two or more stories below the highest level of fire department vehicle access.

Exception: In Group R-3 and R-3.1 occupancies, floor control valves and waterflow detection assemblies shall not be required.

- MM. **Section 907.2 Where required—new buildings and structures [Amended subsection].** An approved fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.29 and provide occupant notification in accordance with Section 907.5, unless other requirements are provided by another section of this code.

Not fewer than one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or water-flow detection devices. ~~Where an automatic and manual, or a manual fire alarm system is required by this code or Berkeley local ordinance, other sections of this code allow elimination of fire alarm boxes is prohibited. due to sprinklers or automatic fire alarm systems,~~ a single fire alarm box shall be installed at a location approved by the enforcing agency.

Exceptions:

- ~~1. The manual fire alarm box is not required for fire alarm control units dedicated to elevator recall control, supervisory service and fire sprinkler monitoring.~~
- ~~2. The manual fire alarm box is not required for Group R-2 occupancies unless required by the fire code official to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is open to the public.~~
- ~~3. The manual fire alarm box is not required to be installed when approved by the fire code official.~~

- NN. **Section 907.2.1 Group A. [Amended subsection]** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies where the occupant load due to the assembly occupancy is 300 or more, or where the Group A occupant load is more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the *California Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes *with an occupant load of less than 1000* shall be provided with a fire alarm system as required for the Group E occupancy.

~~**Exception:** Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.~~

Every Group A building used for educational purposes shall be provided with a manual or automatic fire alarm system. This provision shall apply to, but shall not necessarily be limited to, every community college and university.

Exception: *Privately owned trade or vocational schools or any firm or company which provides educational facilities and instruction for its employees.*

- OO. **Section 907.2.2 Group B. [Amended subsection]** A manual fire alarm system, which activates the occupant notification system in accordance with Section 907.5,

shall be installed in Group B occupancies where one of the following conditions exists:

1. The combined Group B occupant load of all floors is 500 or more.
2. The Group B occupant load is more than 100 persons above or below the lowest level of exit discharge.
3. The fire area contains an ambulatory care facility.
4. *For Group B occupancies containing educational facilities, see Section 907.2.2.2.*

~~**Exception:** Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.~~

PP. Section 907.2.4 Group F. [Amended subsection] A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group F occupancies where both of the following conditions exist:

1. The Group F occupancy is two or more stories in height.
2. The Group F occupancy has a combined occupant load of 500 or more above or below the lowest level of exit discharge.

~~**Exception:** Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.~~

QQ. Section 907.2.7 Group M. [Amended subsection] A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group M occupancies where one of the following conditions exists:

1. The combined Group M occupant load of all floors is 500 or more persons.
2. The Group M occupant load is more than 100 persons above or below the lowest level of exit discharge.

Exceptions:

1. A manual fire alarm system is not required in covered or open mall buildings complying with Section 402 of the *California Building Code*.
2. ~~Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will automatically activate throughout the notification zones upon sprinkler water flow.~~

RR. Section 907.2.8.1 Manual fire alarm system [Amended subsection]. A manual and automatic fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-1 occupancies.

Exceptions:

1. ~~A manual fire alarm system is not required in buildings not more than two stories in height where all individual sleeping units and contiguous attic and crawl spaces to those units are separated from each other and public or common areas by not less than 1-hour fire partitions and each individual sleeping unit has an exit directly to a public way, egress court or yard.~~

~~2. Manual fire alarm boxes are not required throughout the building where all the following conditions are met:~~

~~2.1. The building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.~~

~~2.2. The notification appliances will activate upon sprinkler water flow.~~

~~2.3. Not fewer than one manual fire alarm box is installed at an approved location.~~

SS. **Section 907.2.8.2 Manual and Automatic fire alarm systems ~~smoke detection system~~ [Amended subsection].** ~~An A manual and automatic smoke detection~~ fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed throughout all interior corridors and common areas of Group R-1 occupancies. The detection device for this purpose shall be a smoke detector (or heat detector as approved), which is system connected and electronically supervised ~~serving sleeping units.~~

Exception: ~~An automatic smoke detection system is not required in buildings that do not have interior corridors serving sleeping units and where each sleeping unit has a means of egress door opening directly to an exit or to an exterior exit access that leads directly to an exit.~~

TT. **Section 907.2.9.1 Automatic and Mmanual fire alarm system [Amended subsection].** An automatic and manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-2 occupancies where any of the following conditions apply:

1. The building is three or more stories in height and Any any dwelling unit or sleeping unit is located ~~three or more stories above~~ the lowest level of exit discharge.
2. Any dwelling unit or sleeping unit is located more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit.
3. The building contains more than 16 dwelling units or sleeping units.
4. *Congregate residences with more than 16 occupants.*

Exceptions:

1. A fire alarm system is not required in buildings not more than two stories in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by not less than 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, egress court or yard.
- ~~2. Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler water flow.~~
- ~~3.~~ 2. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2,

provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1027.6, Exception 3.

UU. **Section 914.3.9 Fire Fighter Air Replenishment Systems [Additional subsection]** New high-rise buildings shall install an approved Fire Fighter Air Replenishment System (FARS) or equivalent equipment or systems as determined by the fire code official to provide a breathing air supply for firefighting self-contained breathing air tanks. Such system or equipment shall provide adequate pressurized breathing air supply through a permanent piping system or other means acceptable to the fire code official for the replenishment of portable life sustaining air equipment carried by fire department, rescue and other personnel in the performance of their duties. Design, installation, testing and maintenance of such air replenishment systems shall be made in accordance with Appendix Chapter F of the California Plumbing Code. Each property owner shall be responsible for maintaining such equipment or systems including annual air sampling and testing.

Exceptions:

1. Buildings equipped with Firefighter Access Elevators as required by Berkeley Building Code section 403.6.1
2. Where an alternate method of supplying breathing air replenishment is approved by the fire code official.

VV. **Section 1103.5 Sprinkler systems. [Amended subsection]** An automatic sprinkler system shall be provided in existing buildings in accordance with Section 1103.5.1 through 1103.5.5-6.3

WW. **Section 1103.5.6 Automatic Sprinkler Requirements for Existing Hotels [Additional subsection]**

XX. **Section 1103.5.6.1 Definitions [Additional subsection]**. For the purposes of this Section, the following terms shall be defined as follows:

1. "Hotel" shall mean any building, including motels, dormitories, rooming houses, fraternity houses and sorority houses, which contain six or more rooms which were intended or designed to be used, or which are used, for the purposes of renting, hiring or letting to residential occupants for sleeping purposes but shall not include apartment buildings as defined in this code.
2. "Story" is as defined in the Berkeley Building Code.
3. "First Story" is as defined in the Berkeley Building Code.
4. "Basement" is as defined in the Berkeley Building Code.
5. "Balcony, Exterior Exit" shall mean a landing or porch projecting from the wall of a building which serves as a required exit. The long side shall be at least 50 percent directly open to the exterior, and the open area above the guardrail shall be so configured as to prevent the accumulation of smoke or toxic gases.

Application: This section shall apply to every hotel in which the rooms used for sleeping are rented or let above the ground floor, if the hotel was built prior to 1992, and also meets one of the following two conditions:

The height of the hotel is three or more stories or two stories plus an inhabited basement, which is used for purposes other than exclusively servicing the maintenance and other needs of the building; or the hotel contains 20 or more rooms, or regularly accommodates 20 or more residential occupants.

Exception: No hotel in which the exits from sleeping rooms lead either to the outside of the building either directly or via approved exit balconies with approved exterior stairways(s) in accordance with the requirements of the Berkeley Building Code is required to comply with this section.

YY. **Section 1103.5.6.2 Types of Fire Sprinklers [Additional subsection].** In the sleeping units of the building, only residential or quick response sprinkler heads shall be used.

ZZ. **Section 1103.5.6.3 Supervision of fire sprinkler systems [Additional subsection].** All automatic sprinkler systems installed under this subsection shall be monitored for supervision and alarms in accordance with Section 903.4.

Section 1103.7 Fire Alarm Systems [Amended subsection]. An approved fire alarm system shall be installed in existing buildings and structures in accordance with Sections 1103.7.1 through 1103.7.6 and provide occupant notification in accordance with Section 907.5 unless other requirements are provided by other sections of this code. Existing high-rise buildings shall comply with Section 1103.7.9. Where an automatic and manual or a manual fire alarm system is required by this code or Berkeley local ordinance, elimination of fire alarm boxes in buildings equipped with an approved sprinkler system is prohibited.

Exception: Occupancies with an existing, previously approved fire alarm system.

AAA. **Section 1103.7.5.1 Group R-1 hotels, and motels, and congregate residences manual and automatic fire alarm system [Amended subsection].** A manual and automatic fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in existing Group R-1 hotels, and motels, and congregate residences ~~more than~~ with three or more stories or ~~with more than 20 or more~~ sleeping units.

Exceptions:

- ~~1. A manual fire alarm system is not required in buildings less than two stories in height where all sleeping units, attics and crawl spaces are separated by 1-hour fire-resistance-rated construction and each sleeping unit has direct access to a public way, egress court or yard.~~
- ~~2. A manual fire alarm system is not required in buildings not more than three stories in height with not more than 20 sleeping units and equipped throughout with an automatic sprinkler system installed in accordance with Sections 903.3.1.1 or 903.3.1.2.~~
- ~~3. Manual fire alarm boxes are not required throughout the building where the following conditions are met:

 - ~~3.1. The building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.~~
 - ~~3.2. The notification appliances will activate upon sprinkler water flow.~~~~

~~3.3. Not less than one manual fire alarm box is installed at an approved location.~~

BBB. Section 1103.7.6 Group R-2 [Amended subsection]. A manual and automatic fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in existing Group R-2 occupancies three or more stories in height or with 16 or more dwelling or sleeping units. Congregate residences shall retrofit existing manual-only fire alarm systems with manual and automatic fire detection. Other types of R-2 occupancies (such as apartment buildings) shall retrofit existing manual-only fire alarm systems with manual and automatic fire detection when the existing fire alarm control unit is replaced for any reason. Automatic detection shall be accomplished by use of a smoke detector (or heat detector as approved), which is system connected and electronically supervised. Detectors shall be installed in all interior corridors and common areas.

Exceptions:

1. Where each living unit is separated from other contiguous living units by fire barriers having a fire-resistance rating of not less than 3/4 hour, and where each living unit has either its own independent exit or its own independent stairway or ramp discharging at grade.
- ~~2. A separate fire alarm system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and having a local alarm to notify all occupants.~~
3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open ended corridors designed in accordance with Section 1027.6, Exception 3.
4. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units, do not exceed three stories in height and comply with both of the following:
 - 4.1. Each dwelling unit is separated from other contiguous dwelling units by fire barriers having a fire-resistance rating of not less than ¾ hour.
 - 4.2. Each dwelling unit is provided with smoke alarms complying with the requirements of Section 907.2.11.

CCC. Section 1103.7.10 Monitoring of Group R Occupancies [Additional subsection] All existing R occupancies that are required to provide both a fire alarm and fire suppression system shall have the system monitored by a central station, remote supervising station, or proprietary supervising station.

DDD. Section 4902.1 General [Amended subsection]. *For the purpose of this chapter, certain terms are defined as follows:*

DIRECTOR. *Director of the California Department of Forestry and Fire Protection (CAL FIRE).*

FIRE PROTECTION PLAN [Amended definition]. A document prepared for a specific premises, project or development, either existing or proposed for a Wildland-Urban Interface (WUI) Fire Area. It describes ways to minimize and mitigate potential for loss from wildfire exposure.

FIRE HAZARD SEVERITY ZONES. Geographical areas designated pursuant to California Public Resources Codes, Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code, Sections 51175 through 51189.

The California Code of Regulations, Title 14, Section 1280 entitles the maps of these geographical areas as "Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California."

FIRE ZONE ONE [Additional definition] shall encompass the entire City of Berkeley except for Fire Zones Two and Three.

FIRE ZONE TWO [Additional definition] encompasses those areas designated as Combined Hillside District in the Official Zoning map of the City of Berkeley and those areas designated as Very High in the official Fire Hazard Severity Zones (FHSZ) map of the California Department of Forestry and Fire Protection (CAL FIRE), as they may be amended from time to time. The following properties, not part of the Combined Hillside District, are included in Fire Zone Two under the Very High designation of the FHSZ map: the eastern section of the University of California, Berkeley main campus, block number 2042 (Alameda County Assessor's parcel numbering (APN) system), to the east city line; all of the Clark-Kerr campus, block number 7690, to the east city line; all of block number 7680 in the City of Berkeley; portions of block number 1702 in the City of Berkeley. These additional parcels and their assigned street address are established in Section 19.28.030 of the Berkeley Municipal Code, Berkeley Building Code and are specified in Table 4902.1.

Table 4902.1

Parcels Added to the Berkeley Combined Hillside District	
Parcel Number (APN)	Address
<u>048-7680-001-02</u>	<u>3 Tanglewood Road</u>
<u>048-7680-002-01</u>	<u>5 Tanglewood Road</u>
<u>048-7680-031-00</u>	<u>7 Tanglewood Road</u>
<u>048-7680-019-00</u>	<u>11 Tanglewood Road</u>
<u>048-7680-014-00</u>	<u>19 Tanglewood Road</u>
<u>048-7680-032-01</u>	<u>25 Tanglewood Road</u>
<u>048-7680-027-00</u>	<u>29 Tanglewood Road</u>
<u>054-1702-067-00</u>	<u>10 Tanglewood Road</u>
<u>054-1702-068-00</u>	<u>18 Tanglewood Road</u>
<u>054-1702-069-00</u>	<u>22 Tanglewood Road</u>
<u>054-1702-070-00</u>	<u>28 Tanglewood Road</u>
<u>054-1702-063-00</u>	<u>2701 Belrose Avenue</u>
<u>054-1702-076-00</u>	<u>2715 Belrose Avenue</u>
<u>054-1702-075-00</u>	<u>2721 Belrose Avenue</u>
<u>054-1702-074-00</u>	<u>2729 Belrose Avenue</u>
<u>054-1702-073-00</u>	<u>2737 Belrose Avenue</u>
<u>054-1702-112-00</u>	<u>2801 Claremont Boulevard</u>

<u>054-1702-123-01</u>	<u>2811 Claremont Boulevard</u>
<u>054-1702-122-00</u>	<u>2815 Claremont Boulevard</u>
<u>054-1702-120-01</u>	<u>2821 Claremont Boulevard</u>
<u>054-1702-114-01</u>	<u>2816 Claremont Avenue</u>
<u>054-1702-115-00</u>	<u>2820 Claremont Avenue</u>
<u>054-1702-072-00</u>	<u>3005 Garber Street</u>
<u>054-1702-071-00</u>	<u>3015 Garber Street</u>
<u>054-1702-113-00</u>	<u>3020 Garber Street</u>
<u>054-1702-116-00</u>	<u>3017 Avalon Avenue</u>

Fire Zone Two is declared as a Very-High Fire Hazard Severity Zone and Wildland-Urban Interface fire area.

FIRE ZONE 3 [Additional definition] encompasses those areas designated as Environmental Safety - Residential Districts on the Official Zoning Map of the City of Berkeley, as it may be amended from time to time. Fire Zone Three is declared as a Very-High Fire Hazard Severity Zone and Wildland-Urban Interface fire area.

FIRE-RESISTANT VEGETATION. *Plants, shrubs, trees and other vegetation that exhibit properties, such as high moisture content, little accumulation of dead vegetation, and low sap or resin content, that make them less likely to ignite or contribute heat or spread flame in a fire than native vegetation typically found in the region.*

[Note: The following sources contain examples of types of vegetation that can be considered fire-resistant vegetation (Fire-resistant Plants for Home Landscapes, A Pacific Northwest Extension publication; Home Landscaping for Fire, University of California Division of Agriculture and Natural Resources; Sunset Western Garden Book)].

IGNITION-RESISTANT MATERIAL. [Amended definition] *A type of building material that complies with the requirements in Section 704A.2 in the California Berkeley Building Code.*

LOCAL RESPONSIBILITY AREAS (LRA). *Areas of the state in which the financial responsibility of preventing and suppressing fires is the primary responsibility of a city, county, city and county, or district.*

STATE RESPONSIBILITY AREA (SRA). *Lands that are classified by the Board of Forestry pursuant to Public Resources Code Section 4125 where the financial responsibility of preventing and suppressing wildfires is primarily the responsibility of the state.*

WILDFIRE. *Any uncontrolled fire spreading through vegetative fuels that threatens to destroy life, property, or resources as defined in Public Resources Code, Sections 4103 and 4104.*

WILDFIRE EXPOSURE. *One or a combination of radiant heat, convective heat, direct flame contact and burning embers being projected by vegetation fire to a structure and its immediate environment.*

WILDLAND-URBAN INTERFACE FIRE AREA (WUI).[Amended definition] *A geographical area identified by the state as a "Fire Hazard Severity Zone" in accordance with the Public Resources Code, Sections 4201 through 4204, and Government Code, Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires. Berkeley Fire Zones*

2 and 3 are designated as Wildland-Urban Interface Fire Areas. See Government Code Chapter 6.8 Very High Fire Hazard Severity Zones and Public Resources Code Article 9 Fire Hazard Severity Area for the applicable referenced sections.

- EEE. **Section 4903.3 Submittal, approval and fees. [Additional subsection]** When required to submit a Fire Protection Plan or Vegetation Management Plan for any reason the responsible party shall prepare or cause to be prepared a Fire Protection Plan in accordance with the latest standards of the Berkeley Fire Department. The Fire Protection Plan shall be submitted to, reviewed and approved by the Berkeley Fire Department and shall be enforced and maintained by the responsible party or their designated agent. The Berkeley Fire Department may charge an appropriate fee for the review, approval and processing of the Fire Protection Plan in accordance with the hourly rate established by City Council resolution.
- FFF. **Section 4904.4 Berkeley Fire Hazard Severity Zones [Additional subsection].**
FIRE ZONE TWO. Berkeley Fire Zone Two is designated a Very-High Fire Hazard Severity Zone and Wildland-Urban Interface Fire Area. All requirements of Berkeley Fire Code Chapter 49 and Berkeley Municipal Code Section 19.28.030 (Berkeley Building Code, Chapter 7A) and shall apply.
FIRE ZONE THREE. Berkeley Fire Zone Three is designated a Very-High Fire Hazard Severity Zone and Wildland-Urban Interface Fire Area. All requirements of Berkeley Fire Code Chapter 49 and Berkeley Municipal Code Section 19.28.030, Berkeley Building Code, Chapter 7A shall apply.
- GGG. ***Section 4905.2 Construction methods and requirements within established limits [Amended subsection].*** *Within the limits established by law, construction methods intended to mitigate wildfire exposure shall comply with the wildfire protection building construction requirements contained in the California Building Standards Code Berkeley Building and Berkeley Residential Codes, including the following:*
 1. ~~*California Building Code, Chapter 7A.*~~ Chapter 7A of the Berkeley Building Code (B.B.C), Berkeley Municipal Code Section 19.28.030.
 2. ~~*California Residential Code Section R337 of the Berkeley Residential Code (B.R.C.), Berkeley Municipal Code Section 19.29.050.*~~
 3. *California Referenced Standards Code, Chapter 12-7A.*
- HHH. **Section 4906.5 Maintenance of existing vegetation [Additional subsection].** Maintenance and management of existing vegetation shall be in accordance with this Section and with Section 4907, "Defensible Space".
- III. **Section 4906.5.1 Electrical Equipment Support Clearance [Additional subsection].** Persons owning, controlling, operating or maintaining electrical transmission or distribution lines shall have an approved program in place that identifies poles or towers with equipment and hardware types that have a history of becoming an ignition source, and provides a combustible free space consisting of a clearing of not less than 10 feet (3048 mm) in each direction from

the outer circumference of such pole or tower during such periods of time as designated by the fire code official.

Exception: Lines used exclusively as telephone, telegraph, messenger call, alarm transmission or other lines classified as communication circuits by a public utility.

JJJ. Section 4906.5.2 Electrical Distribution and Transmission Line Clearances [Additional subsection].

KKK. Section 4906.5.2.1 General [Additional subsection]. Clearances between vegetation and electrical lines shall be in accordance with this section.

LLL. Section 4906.5.2.2 Trimming clearance [Additional subsection]. At the time of trimming, clearances not less than those established by Table 4906.5.2 should be provided. The radial clearances shown below are minimum clearances that should be established, at time of trimming, between the vegetation and the energized conductors and associated live parts.

Exception: The fire code official is authorized to establish minimum clearances different than those specified in Table 4906.5.2.2 when evidence substantiating such other clearances is submitted to the fire code official and approved.

TABLE 4906.5.2.2 – MINIMUM CLEARANCES BETWEEN VEGETATION AND ELECTRICAL LINES AT TIME OF TRIMMING

<u>Line Voltage</u>	<u>MINIMUM RADIAL CLEARANCE FROM CONDUCTOR (feet) [x 304.8 mm]</u>
400 – 71,999	4
72,000 – 109,999	6
110,000 – 299,999	10
300,000 or more	15

MMM. Section 4906.5.2.3 Minimum clearance to be maintained [Additional subsection]. Clearances not less than those established by Table 4906.5.2.3 shall be maintained during such periods of time as designated by the fire code official. The site specific clearance achieved, at time of pruning, shall vary based on species growth rates, the utility company specific trim cycle, the potential line sway due to wind, line sway due to electrical loading and ambient temperature, and the tree’s location in proximity to the high voltage lines.

Exception: The fire code official is authorized to establish minimum clearances different than those specified by Table 4906.5.2.3 when evidence substantiating such other clearances is submitted to the fire code official and approved

TABLE 4906.5.2.3 – MINIMUM CLEARANCES BETWEEN VEGETATION AND ELECTRICAL LINES TO BE MAINTAINED

<u>Line Voltage</u>	<u>MINIMUM CLEARANCE (inches)</u>
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	[x 25.4 mm]
750 – 34,999	6
35,000 – 59,999	12
60,000 – 114,999	19
115,000 – 230,000	30-1/2

NNN. **Section 4906.5.3 Electrical power line emergencies [Additional subsection].** During emergencies, the utility company shall perform the required work to the extent necessary to clear the hazard. An emergency can include situations such as trees falling into power lines, or trees in violation of Table 4906.5.2.3.

OOO. **Section 4906.5.4 Correction of Condition [Additional subsection].** The fire code official is authorized to give notice to the owner of the property on which conditions regulated by Section 4906.5 exist to correct such conditions. If the owner fails to correct such conditions, the City of Berkeley is authorized to cause the same to be done and make the expense of such correction a lien on the property where such condition exists.

PPP. **Section 4906.5.5 Clearance of Brush or Vegetative Growth from Roadways [Additional subsection].** The fire code official is authorized to cause areas within 10 feet (3048 mm) from the edge of the pavement on each side of portions of highways, streets and private roads which are improved, designed or ordinarily used for vehicular traffic to be cleared of flammable vegetation and other combustible growth. The fire code official is authorized to enter upon private property to do so.

Exception: Specimens of trees, ornamental shrubbery, or similar plants which are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure.

QQQ. **Section 4906.6 Unusual Circumstances [Additional subsection].** If the fire code official determines that difficult terrain, danger of erosion or other unusual circumstances make strict compliance with the clearance of vegetation provisions of Section 4906 undesirable or impractical, enforcement thereof may be suspended and reasonable alternative measures shall be provided.

RRR. **Section 4906.7 Vegetation and combustible material hazards not otherwise regulated [Additional subsection].** No person who has any ownership or possessory interest in or control of a parcel of land shall allow to exist thereon any hazardous vegetation or combustible material which constitutes a fire hazard as determined by the Fire Code Official, regardless of the vegetation or material's proximity to structures.

SSS. **Section 4907.4 Specific requirements. [Additional subsection].** Persons owning, leasing, controlling, operating or maintaining buildings or structures in, or upon Wildland-Urban Interface Fire Areas shall at all times comply with the specific requirements set forth within the references listed in Section 4907.3, as well as the following minimum requirements.

Persons owning, leasing or controlling land adjacent to such buildings or structures that are in the Wildland-Urban Interface Fire Area, regardless of the status of their land as developed or undeveloped, shall at all times comply with the specific requirements set forth within the references listed in Section 4907.3, as well as the following minimum requirements. The minimum area(s) of these properties that are required to comply with Section 4907.3 and the following requirements are to be based on a 100-foot distance from structures on all adjacent lands, unless the fire code official determines that compliance with section 4907.4, Item 2 is required.

Property owners are not required or authorized by this code to enter the properties of another person to implement the requirements of this Section. Persons described above shall at all times:

1. Maintain an effective firebreak by removing and clearing away flammable vegetation and combustible growth from areas within 100 feet of such buildings or structures, but not beyond the property line.

In accordance with Government Code Section 51182, the amount and intensity of fuels management may vary within the 100-foot perimeter of the structure as determined by the inspecting fire department personnel, with more intense fuel reduction being used between 5 and 30 feet around the structure, and an ember-resistant zone being required within 5 feet of the structure based on regulations promulgated by the State Board of Forestry and Fire Protection; and

Exception: Specimens of trees, ornamental shrubbery, or similar plants which are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure.

2. Maintain additional fire protection or firebreak by removing brush, flammable vegetation and combustible growth located more than 100 feet from such buildings when the fire department determines that conditions exist which may cause a firebreak of 100 feet to be insufficient to provide reasonable fire safety against a wildfire burning under average weather conditions. This section does not require or authorize property owners to manage vegetation beyond their property lines; and.

Exception: Grass and other vegetation, located more than 30 feet (9144 mm) from buildings or structures, and less than four (4) inches (102 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.

3. Remove portions of trees which extend within 10 feet (3048 mm) of the outlet of a chimney or stovepipe; and
4. Maintain trees, shrubs and other plants free of dead wood where such plants are adjacent to, below or overhanging a building, windows, or attached decks; and

5. Maintain the roof and gutters of a structure free of leaves, needles or other dead vegetative growth and debris; and
6. Brush and debris does not need to be completely removed, but may be chipped into pieces less than three (3) inches in length, provided that the resulting mulch is less than three (3) inches deep; and
7. The trunks of trees are to be maintained so that they are free of hanging bark and debris to a height of at least eight (8) feet. Where understory vegetation is present hanging bark and debris must be removed to a height equivalent to four times the height of the understory vegetation or eight (8) feet, whichever is greater.
8. Limb trees and shrubs by removing branches that are within eight feet (8 ft.) of the ground, or four times the height of the understory vegetation, whichever is greater. Where a tree / shrub is not adaptable to limbing to the height described above, use a combination of limbing and/or modify and remove fuels adjacent to and underneath the plant to provide clearance above grade that is equivalent to four times the height of the tallest understory fuel.
9. Relocate wood piles from within 30 feet of structures, or provide an alternative form of protection which will prevent the ignition of the pile or the transmission of fire to a structure.

TTT. **Section 4907.5 Corrective Actions [Additional subsection]**. The fire department is authorized to take enforcement actions as necessary to achieve compliance with Chapter 49 of this code, including but not limited those actions specified in Sections 104.13 ("Authority to arrest and issue citations"), 112.4 ("Violation penalties") and 114.7 ("Summary abatement") of this code, and as authorized by Berkeley Municipal Code, Chapter 1.24, "Abatement of Nuisances", and in accordance with all other applicable portions of the Berkeley Municipal Code. Corrective actions may also include the use of abatement warrants and the imposition of property liens as appropriate and in accordance with law.

UUU. **Section 4911 SUPPRESSION AND CONTROL OF WILDLAND-URBAN INTERFACE FIRE AREAS [Additional section]**

VVV. **Section 4911.1 Permit [Additional subsection]**. The fire code official is authorized to stipulate conditions for permits. Permits shall not be issued when public safety would be at risk, as determined by the fire code official.

WWW. **Section 4911.2 Restricted Entry [Additional subsection]**. The fire code official shall determine and publicly announce when Wildland-Urban Interface Fire Areas shall be closed to entry and when such areas shall again be opened to entry. Entry on and occupation of Wildland-Urban Interface Fire Areas, except public roadways, inhabited areas or established trails and camp sites which have not been closed during such time when the Wildland-Urban Interface Fire Areas are closed to entry, is prohibited.

Exceptions:

- 1) Residents and owners of private property within Wildland-Urban Interface Fire Areas and their invitees and guests going to or being upon their lands;
- 2) Entry, in the course of duty, by peace officers, and other duly authorized public officers, members of a fire department and members of the United States Forest Service

XXX. Section 4911.3 Trespassing on Posted Property [Additional subsection]

YYY. Section 4911.3.1 General [Additional subsection]. When the fire code official determines that a specific area within a Wildland-Urban Interface Fire Areas presents an exceptional and continuing fire danger because of the density of natural growth, difficulty of terrain, proximity to structures or accessibility to the public, such areas shall be closed until changed conditions warrant termination of closure. Such areas shall be posted as hereinafter provided.

ZZZ. Section 4911.3.2 Signs [Additional subsection]. Approved signs prohibiting entry by unauthorized persons and referring to this section shall be placed on every closed area.

AAAA. Section 4911.3.3 Trespassing [Additional subsection]. Entering and remaining within areas closed and posted is prohibited.

Exception: Owners and occupiers of private or public property within closed and posted areas, their guests or invitees, and local, state and federal public officers and their authorized agents acting in the course of duty.

BBBB. Section 4911.4 Smoking [Additional subsection]. Lighting, igniting or otherwise setting fire to or smoking tobacco, cigarettes, pipes or cigars in Wildland-Urban Interface Fire Areas are prohibited.

Exception: Places of habitation or within the boundaries of established smoking areas or campsites as designated by the fire code official.

CCCC. Section 4911.5 Spark Arresters [Additional subsection]. Chimneys used in conjunction with fireplaces, barbecues, incinerators or heating appliances in which solid or liquid fuel is used, upon buildings, structures or premises located within Wildland-Urban Interface Fire Areas shall be provided with a spark arrester. See Berkeley Building Code Section 705A.5 for specifications.

DDDD. Section 4911.6 Tracer Bullets, Tracer Charges, Rockets and Model Aircraft [Additional subsection]. Tracer bullets and tracer charges shall not be possessed, fired or caused to be fired into or across Wildland-Urban Interface Fire Areas. Rockets, model planes, gliders and balloons powered with an engine, propellant or other feature liable to start or cause fire shall not be fired or projected into or across Wildland-Urban Interface Fire Areas.

EEEE. **Section 4911.7 Explosives and Blasting [Additional subsection].** Explosives shall not be possessed, kept, stored, sold, offered for sale, given away, used, discharged, transported or disposed of within Wildland-Urban Interface Fire Areas except by permit from the fire code official.

FFFF. **Section 4911.8 Fireworks [Additional subsection].** Fireworks shall not be used or possessed in Wildland-Urban Interface Fire Areas. The fire code official is authorized to seize, take, remove or cause to be removed fireworks in violation of this section.

Exception: Fireworks allowed by the fire code official under permit when not prohibited by applicable local or state laws, ordinances and regulations.

GGGG. **Section 4911.9 Apiaries [Additional subsection].** Lighted and smoldering material shall not be used in connection with smoking bees in or upon Wildland-Urban Interface Fire Areas except by permit from the fire code official.

HHHH. **Section 4911.10 Open-Flame Devices [Additional subsection].** See Berkeley Fire Code Sections 308.1.6 Open Flame Devices and 308.1.6.1 Signals and Markers.

IIII. **Section 4911.11 Outdoor Fires [Additional subsection].** Outdoor fires shall not be built, ignited or maintained in or upon Wildland-Urban Interface Fire Areas, except by permit from the fire code official.

Exception: Outdoor fires within habited premises or designated campsites, where such fires are built in a permanent barbecue, portable barbecue, outdoor fireplace, incinerator or grill and are a minimum of 30 feet (9144 mm) from a grass-, grain-, brush or forest-covered area.

Permits shall incorporate such terms and conditions, which will reasonably safeguard public safety and property.

Outdoor fires shall not be built, ignited or maintained in or upon Wildland-Urban Interface Fire Areas under the following conditions:

1. When high winds are blowing,
2. When a person age 17 or over is not present at all times to watch and tend such fire, or
3. When public announcement is made that open burning is prohibited.

Permanent barbecues, portable barbecues, outdoor fireplaces, fire pits or grills shall not be used if solid or liquid fueled.

JJJJ. **Section 4911.12 Incinerators and Fireplaces [Additional subsection].** Incinerators, outdoor fireplaces, fire pits, permanent barbecues and grills shall not be built, installed or maintained in Wildland-Urban Interface Fire Areas without prior approval of the fire code official. Existing incinerators, outdoor fireplaces, fire pits, permanent barbecues and grills shall be maintained in good

repair and in a safe condition at all times. Openings in such appliances shall be provided with an approved spark arrester, screen or door.

Exception: When approved, unprotected openings in barbecues and grills necessary for proper functioning shall be allowed.

KKKK. **Section 4911.13 Dumping [Additional subsection].** Garbage, cans, bottles, papers, ashes, refuse, trash, rubbish or combustible waste material shall not be placed, deposited or dumped in or upon Wildland-Urban Interface Fire Areas or in, upon or along trails, roadways or highways in Wildland-Urban Interface Fire Areas.

Exception: Approved public and private dumping areas.

LLLL. **Section 4911.14 Disposal of Ashes [Additional subsection].** Ashes and coals shall not be placed, deposited or dumped in or upon Wildland-Urban Interface Fire Areas.

Exceptions:

1. In the hearth of an established fire pit, camp stove or fireplace;
2. In a noncombustible container with a tight-fitting lid, which is kept or maintained in a safe location not less than 10 feet (3048mm) from combustible vegetation or structures;
3. Where such ashes or coals are buried and covered with 1 foot (304.8mm) of mineral earth not less than 25 feet (7620 mm) from combustible vegetation or structures.

MMMM. **Section 4911.15 Use of Fire Roads and Firebreaks [Additional subsection].** Motorcycles, motor scooters and motor vehicles shall not be driven or parked upon, and trespassing is prohibited upon, fire roads or firebreaks beyond the point where travel is restricted by a cable, gate or sign, without the permission of the property owner(s). Vehicles shall not be parked in a manner, which obstructs the entrance to a fire road or firebreak.

Exception: Public officers acting within their scope of duty. Radio and television aerials, guy wires thereto, and other obstructions shall not be installed or maintained on fire roads or fire breaks unless located 16 feet (4877 mm) or more above such fire road or firebreak.

NNNN. **Section 4911.16 Use of Motorcycles, Motor Scooters and Motor Vehicles [Additional subsection].** Motorcycles, motor scooters and motor vehicles shall not be operated within Wildland-Urban Interface Fire Areas, without a permit by the fire code official, except upon clearly established public or private roads. Permission from the property owner(s) shall be presented when requesting a permit.

OOOO. **Section 4911.17 Tampering with Fire Department Locks, Barricades and Signs [Additional subsection].** Locks, barricades, seals, cables, signs and markers installed within Wildland-Urban Interface Fire Areas, by or under the control of the fire code official, shall not be tampered with, mutilated, destroyed or removed. Gates, doors, barriers and locks installed by or under the control of the fire code official shall not be unlocked.

PPPP. **Section 4911.18 Liability for Damage [Additional subsection].** The expenses of fighting fires and securing emergencies, which result from a violation of this code, Chapter 6.15.030 of the Berkeley Municipal Code (“Unauthorized barbecues and fire on public property”), Sections 13000-13011 of the California Health and Safety Code, Sections 4421-4446 of the California Public Resources Code, or Sections 451, 451.5, 452 or 455 of the California Penal Code is a charge against the person(s) whose violation of the code section(s) caused the fire. Damages caused by such fires shall constitute a debt of such person(s) and shall be collectable by the fire code official in accordance with Section 107.7 of this code.

QQQQ. **Section 5001.7 Hazardous materials transportation restrictions [Additional subsection]** No vehicle containing hazardous materials, including a hazardous materials transportation tank truck, trailer, semi-trailer or tank wagon containing flammable or combustible liquids, hazardous chemicals, liquefied petroleum gases, poisonous gases, or cryogenic fluids, shall be operated on any city street without a permit from the fire code official. A map showing the proposed route of the vehicle shall accompany applications for such permits. If a permit is granted, the map shall be carried at all times in the vehicle and the vehicle shall not deviate from the approved route as shown on the map. Such a permit may contain conditions, including restrictions on the hours within which certain routes may be used and limitations on the size of the vehicle allowed to travel the approved route. No route shall be approved that includes passage over or adjacent to subway entry or vent structures, through the Northbrae Tunnel, in any area designated an environmental safety residential district by the City of Berkeley's Zoning Ordinance, or in an area which may be designated as a hazardous fire area. Departure from the approved route, travel outside the permitted hours, and violation of any vehicle size limitation imposed, or failure to carry a map showing route approval shall constitute a violation of this Code. The transportation of extremely hazardous materials may, in the discretion of the fire code official, require both a permit and accompaniment by a Fire Department or Police Department convoy. The following streets contain purge chamber openings which lead directly into the subway section of the Bay Area Rapid Transit (BART) System in Berkeley and their use by tank vehicles or trailers for transportation or delivery of flammable or combustible liquids, hazardous chemicals, liquefied petroleum gases, poisonous gases, or cryogenic fluids is prohibited and a violation of this Code:

- a. On Addison Street between Martin Luther King Jr. Way and Oxford Street;
- b. On Shattuck Avenue between University Avenue and Dwight Way;
- c. On Virginia Street between Franklin and Sacramento Streets;
- d. On Sacramento Street between Virginia Street and Hearst Avenue;

- e. On Hearst Avenue between McGee Avenue and Milvia Street;
- f. On Adeline Street between Ward and Stuart Streets; and
- g. On Adeline Street between Ashby Avenue and Woolsey Street

RRRR. **5601.1.3 Fireworks. [Amended subsection]** The possession, manufacture, storage, sale, handling and use of fireworks, including fireworks which are classified as Safe and Sane fireworks by the California State Fire Marshal's Office, are prohibited within the jurisdiction.

Exceptions:

- ~~1. Storage and handling of fireworks as allowed in Section 5604.~~
- ~~2. Manufacture, assembly and testing of fireworks as allowed in Section 5605 and Health and Safety Code Division 11.~~
- ~~3~~1. The use of fireworks for fireworks displays, pyrotechnics before a proximate audience and pyrotechnic special effects in motion pictures, television, theatrical or group entertainment productions as allowed in Title 19, Division 1, Chapter 6 Fireworks reprinted in Section 5608 and Health and Safety Code Division 11 when stored, transported, handled and used under the required fire department permit(s) and in accordance will all applicable requirements of Chapter 56.
- ~~4~~2. The possession, storage, sale, handling and use of specific types of Division 1.4G fireworks where allowed by applicable laws, ordinances and regulations, provided that such fireworks and facilities comply with NFPA 1124, CPSC 16 CFR Parts 1500 and 1507, and DOTn 49 CFR Parts 100–185, as applicable for consumer fireworks and Health and Safety Code Division 11.

SSSS. **Section 5604.1 General. [Amended subsection]** The storage and handling of explosives within City of Berkeley limits is prohibited. Storage of explosives and explosive materials, small arms ammunition, small arms primers, propellant-actuated cartridges and smokeless propellants in magazines shall comply with the provisions of this section

Exception: Where expressly permitted by applicable laws, ordinances or regulations provided such storage and handling of explosives and explosive materials, small arms ammunition, small arms primers, propellant-actuated cartridges and smokeless propellants in magazines is conducted in accordance with Section 5604 and all applicable provisions of Chapter 56.

TTTT. **Section 5701.4.1 Transfer of flammable and combustible liquids. [Additional subsection]** Transfer to or from containers or mobile tanks, above ground or underground tanks of flammable and combustible liquids shall not be made from or on the street or public way except by written approval by the fire code official.

Exceptions:

1. Transfer of not more than 5 gallons flammable or combustible liquids using a listed or approved portable fuel container of not more than 5 gallons capacity.

2. The transfer of combustible liquids to or from approved, fixed mechanical or electrical system equipment such as a Standby or Emergency electric power generator when the transfer is completed by a commercial fuel vendor using approved dispensing equipment via a previously approved, fixed tank filling port which met code requirements at the time of installation.

UUUU. **Section 5704.2.11.1.1 Restrictions on underground storage tanks**

[Additional subsection] The storage of flammable and combustible liquids in underground tanks is prohibited in all areas zoned solely for residential occupancies, closely built commercial properties, and any other area deemed unsafe by the fire code official.

VVVV. **Section 5704.2.13.1.4 Tanks abandoned in place [Amended subsection].**

Tanks may be abandoned only under permit and following City of Berkeley Fire Department procedures. The owner shall demonstrate to the satisfaction of the City of Berkeley Toxics Division that no unauthorized release has occurred. If the soil is contaminated, mitigation must be completed to the satisfaction of the Toxics Division. A notice shall be placed in the deed to the property. This notice shall describe the precise location of the closed underground storage tank, the hazardous substances that it contained, and the closure method. Tanks abandoned in place shall be as follows:

1. Flammable and combustible liquids shall be removed from the tank and connected piping.
2. The suction, inlet, gauge, vapor return and vapor lines shall be disconnected.
3. The tank shall be filled completely with an approved inert solid material.
4. Remaining underground piping shall be capped or plugged.
5. A record of tank size, location and date of abandonment shall be retained.
6. All exterior above-grade fill piping shall be permanently removed when tanks are abandoned or removed.

WWWW. **Section 5704.2.14 Removal and disposal of tanks [Amended subsection].**

Removal and disposal of tanks shall comply with Sections 5704.2.14.1 and 5704.2.14.2. Removal of all tanks shall be authorized under a fire permit, abiding by City of Berkeley Fire Department procedures. The applicant shall submit the following:

1. **A site plan showing the location of the tanks.**
2. **A detailed description of the scope of work.**
3. **A site safety plan.**
4. **A vicinity map to the closest hospital, in an event of an emergency.**
5. **Proof of workers compensation insurance.**

The owner shall demonstrate to the satisfaction of the City of Berkeley Toxics Division that no unauthorized release has occurred. If the soil is contaminated, mitigation must be completed to the satisfaction of the Toxics Division or the California Water Board.

- XXXX. **Section 6104.1.1 Restrictions on storage of LP-gas containers [Additional subsection]** It shall be unlawful to store any liquefied petroleum gas cylinder with a capacity greater than 2-1/2 lbs. water capacity or a portable tank within

any structure or building with an occupancy classification of A, R-1, R-2 or R-4, unless specifically authorized by this Code.

YYYY. Section B105.2 (Appendix B), Table B105.2, “Required Fire-Flow For Buildings Other Than One- And Two-Family Dwellings, Group R-3 And R-4 Buildings And Townhouses” [Amended Table]

**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 automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the <i>California Fire Code</i>	25 50% 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 <i>California Fire Code</i>	25 50% of the value in Table B105.1(2) ^b	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute= 3.785 Lit.

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

ZZZZ. Section L104.5.1 Stored pressure air supply. (Amended subsection) A stored pressure air supply shall be designed based on Appendix Chapter F of the California Plumbing Code Chapter 24 of NFPA 1901 except that the provisions applicable only to mobile apparatus or not applicable to system design shall not apply. A stored pressure air supply shall store not less than 5,000 Standard Cubic Feet (SCF) of air or be capable of refilling not less than 50 empty breathing air cylinders of a size and pressure used by the fire department, whichever is greater.

Section 19.48.030 Validity Should any section, paragraph, sentence or word of this Chapter or of the Code or Standards be declared invalid, all other portions of this Chapter shall remain in effect.

Section 2. Copies of this Ordinance shall be posted for two days prior to adoption in the display case located near the walkway in front of the Maudelle Shirek Building, 2134 Martin Luther King Jr. Way. Within 15 days of adoption, copies of this Ordinance shall be filed at each branch of the Berkeley Public Library and the title shall be published in a newspaper of general circulation.

RESOLUTION NO. ##,#### - N.S.

ADOPTING FINDINGS AS TO LOCAL CLIMATIC, GEOLOGICAL AND TOPOGRAPHICAL CONDITIONS RENDERING REASONABLY NECESSARY VARIOUS ENUMERATED LOCAL FIRE STANDARDS THAT ARE MORE STRINGENT THAN THOSE MANDATED BY THE CALIFORNIA FIRE CODE AND RESCINDING RESOLUTION NO. 69,170-N.S.

BE IT RESOLVED by the Council of the City of Berkeley as follows:

WHEREAS, the City is proposing to adopt various enumerated changes and modifications to the California Fire Code, as set forth below; and

WHEREAS, Health & Safety Code §17958 allows the City to make modifications or changes to the California Fire Code and other regulations adopted pursuant to Health & Safety Code §17921(a) which result in more stringent local requirements; and

WHEREAS, Health & Safety Code §17925, §17958.5 and §17958.7 require that such changes be supported by findings made by the governing body that such more stringent local requirements are necessary because of “local climatic, geological or topographical conditions or factors;” and

WHEREAS, such findings must be made available as a public record and a copy thereof with each such modification or change shall be filed with the California Building Standards Commission:

NOW THEREFORE, BE IT RESOLVED by the City Council that it finds that each of the various proposed changes or modifications to the California Fire Code which are enumerated below are reasonably necessary because of local conditions in the area encompassed by the City of Berkeley, as set forth below:

A. LOCAL CONDITIONS

1. Climatic Conditions.

a. Discussion.

The City of Berkeley is located at the geographic center of the Bay Area. The western limits are defined by the Bay at near sea level and the eastern limits by the abruptly rising Berkeley Hills to 1,200 feet. The eastern limit faces open parklands and open space (covered with vegetative fuel loading) to the east and is exposed to a unique danger from wildland fires during periods of hot, dry weather in the summer months. Many of the Berkeley homes in this area have wood shake and shingle roofs and are surrounded by brush type vegetation. The situation is made even worse by the negative effects of high wind conditions during the fire season. During May to October, critical

climatic fire conditions occur where the temperature is greater than 80°F, wind speed is greater than 15 mph, fuel moisture is less than or equal to 10 percent, wind direction is from north to the east-southeast and the ignition component is 65 or greater. These conditions occur more frequently during the fire season but this does not preclude the possibility that a serious fire could occur during other months of the year. The critical climate fire conditions create a situation conducive to rapidly moving, high intensity fires. Fires starting in the wildland areas along the easterly border are likely to move rapidly westward into Berkeley's urban areas.

In September 1923, critical climatic fire conditions were in effect and Berkeley sustained one of the most devastating fires in California's history. A fire swept over the range of the hills to the northeast of Berkeley and within two hours was attacking houses within the City limits. A total of 130 acres of built-up territory burned. 584 Berkeley buildings were wholly destroyed and about 30 others seriously damaged. By far the greater portion were single-family dwellings, but among the number were 63 apartments, 13 fraternity, sorority and students' house clubs and 6 hotels and boarding houses.

In December of 1980, during critical climatic fire conditions, a small fire started at Berkeley's northeast limits and within minutes five homes were totally destroyed by fire.

On October 20, 1991, a disastrous firestorm swept down from the Oakland hills. Within the first few hours, thousands of people were evacuated. Ultimately over 3,000 dwelling units were destroyed, of which more than 70 were in Berkeley. This fire matched the pattern established by the fires of 1923 and 1980. Additionally, the conditions that led to it were the same as the conditions that led to a 1970 fire that destroyed 37 homes in Berkeley and Oakland.

b. Summary.

Local climatic conditions of limited rainfall, low humidity, high temperatures and high winds along with existing building construction create extremely hazardous fire conditions that adversely affect the acceleration intensity and size of fires in the City. The same climatic conditions may result in the concurrent occurrence of one or more fires, which may spread in the more populated areas of the City without adequate fire department personnel to protect against and control such a situation.

2. Geological Conditions.

a. Discussion.

The City of Berkeley is in a region of high seismic activity and is traversed by the Hayward fault. It has the San Andreas earthquake fault to the west and the Calaveras earthquake fault to the east. All three faults are known to be active as evidenced by the damaging earthquakes they have produced in the last 100 years and can, therefore, be expected to do the same in the future. Of primary concern to Berkeley is the Hayward Fault, which has been estimated to be capable of earthquakes exceeding a magnitude

of 7.0 on the Richter scale. It extends through many residential areas and passes through a small business district and the University of California. A large number of underground utilities cross the fault, including major water supply lines. Intensified damage during an earthquake may be expected in those areas of poorer ground along the Bay, west of Interstate 80 and in known slide areas, as well as hillside areas (occupied mainly by dwellings) located within or near the fault zone; some areas are steep and have been subjected to slides.

The waterfront areas and areas in the Berkeley flatlands immediately adjacent to creeks and water streams present a major potential for soil liquefaction hazard. The Eastshore Freeway may liquefy and fail under heavy shaking or it may be inundated by a tsunami. The north hill area is most susceptible to landslides because of the presence of soft and unconsolidated sediments, extensive water content in the ground and the steepness of slopes.

Great potential damage can be related to the likely collapse of freeway overpasses. In the event of a major earthquake, Berkeley's firefighting capability could be greatly affected by loss of its main water supply. There is also the strong possibility of inundation due to failure of water reservoirs in the hill area. The replacement of Summit Reservoir at the Kensington border in Berkeley was completed in December 2018. Berryman Reservoir North has been demolished and replaced by a steel tank in 2012. Berryman Reservoir South has received a seismic upgrade. Additional potential situations following an earthquake include broken natural gas mains and ensuing fires in the streets; building fires, as the result of broken service connections; trapped occupants in collapsed structures; and rendering of first aid and other medical attention to a large number of people.

b. Summary.

Local geological conditions include high seismic activity and large concentrations of residential type buildings as well as a major freeway. Since the City of Berkeley is located in a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, the modifications cited herein are intended to better limit life safety hazards and property damage as a result of a seismic activity.

3. Topographical Conditions.

a. Discussion.

The City of Berkeley has many homes built throughout the urban portion of the Berkeley Hills that are reached by narrow and often winding paved streets which hamper access for fire apparatus and escape routes for residents. In addition, many of the hillside homes are on the extreme eastern edge of the City and require longer response times for the total required firefighting force. Panoramic Way and other hill

areas with narrow and winding streets may face the problem of isolation from the rest of the City.

In the areas north and south of the University of California, there are large concentrations of apartments, rooming houses, and fraternity and sorority houses. A number of apartments in these areas are of wood frame construction and are up to five stories in height from grade level. The fire potential is moderately high due to building congestion, heights, and wood shingle roof coverings and siding. Fires can be expected to involve large groups of buildings in these areas. It is noted that Berkeley most probably has more physically impaired people per capita than any other community in the United States. It is estimated that 14% of the approximate population of 112,580 per 2010 Census in Berkeley are physically impaired. Emergency egress and rescue for these people are more difficult during a fire or other life safety emergency.

The Eastshore Highway, running along the western edge of Berkeley, is one of the most heavily used and congested freeway sections in the state. Noted impacts have been increased rates of asthma, particularly among children. The proximity of Berkeley to this freeway and its location downwind from prevailing patterns negatively affects air quality, thus increasing the impact of wood smoke in Berkeley.

b. Summary.

Local topographical conditions include hillside housing with many narrow and winding streets with slide potential for blockage in the abruptly rising Berkeley hills. These conditions create an extremely serious problem for the Fire Department when a major fire or earthquake occurs. Many situations will result in limiting or total blockage of fire department emergency vehicular traffic, overtaxed fire department personnel and a total lack of resources for the suppression of fire in buildings and structures in the City of Berkeley. In addition, under these local conditions, the presence of wood smoke can cause increased disease, including asthma, and increased deaths from heart and lung disease.

B. REASONABLE NECESSITY

The proposed changes and modifications to the California Fire Code are reasonably necessary due to the local climatic, geological and topographical conditions set forth above. They are further justified for the reasons set forth below.

In adopting the California Fire Code as the Berkeley Fire Code, the City proposes to make certain substantive modifications whose effect is to impose more stringent requirements locally than are mandated by the California Fire Code. These are specifically listed below, but may be generally characterized as relating to: the preservation of building and roof accessibility and emergency egress; maintenance of building compartmentation using fusible links; amendment of automatic sprinkler requirements; amendment of fire alarm system requirements; amendment of fire flow requirements; requirements for high-

rise air supply and the regulation of hazards including hazardous materials, Wildland-Urban Interface management, temporary assembly attractions, fireworks and explosives. These more stringent local requirements are reasonably necessary to address risks created by local conditions set forth above for the following reasons:

1. Section 105.6.26 (Window bars, operational constraints and opening control devices) is a local amendment which regulates window bars or other opening control devices that impose operational constraints on emergency escape and rescue openings. This amendment does not impose more stringent requirements on the devices or equipment than is set forth in Section 1031.2.1 of this code, but it does impose the requirement that a fire department permit be obtained prior to the installation of such equipment. Section 1031.2.1 of this code contains detailed requirements for the installation conditions of this equipment yet the California Fire Code provides no mechanism to verify that the code requirements are being met. This provision is adopted due to Berkeley's increased local geological risk of earthquakes and the likelihood that exterior escape and rescue openings may be needed by occupants to evacuate buildings.
2. Section 503 (Fire apparatus access roads) and Appendix D (Fire apparatus access roads) are adopted in their entirety as local code amendments. They are adopted due to: local geological conditions of severe earthquake potential which may result in landslides and the collapse of "built-environment" features which may block access roads; local topographical conditions including narrow streets and steep hills which slow and hinder emergency response and evacuation; and local climatic conditions including the need for rapid, unhindered citizen evacuation from and emergency responder access into wildfire prone areas of the City.
3. Section 504.1.1 (Marking of Exterior Building Openings) is added due to local topographical conditions which promote multi-story and on-slope construction to maximize buildable space within the City. The limited space available for development encourages developers and designers to crowd exterior openings into limited available space, often resulting in groups of building openings without any obvious cues for firefighters as to the area(s) served within the building or the purpose of the openings. This amendment is intended to inform firefighters as to the area served and/or purpose of an exterior opening and therefore reduce the amount of time firefighters may spend searching for or forcing entry into otherwise unmarked doorways.
4. Section 705.2.5 (Smoke- and heat-activated doors) is amended due to the increased risks caused by fires resulting from earthquakes and proximity to the wildland-interface. These risks, which are particularly severe in Berkeley due to its high population density, are shown by its past history of above average death and property loss due to fire in these types of occupancies. This amendment will maintain the fire and smoke separation requirements and prevent spread of smoke and fire in apartments, boarding houses, and congregate living spaces.

5. Sections 903.2.10.1, 903.2.11.1, 903.2.11.2, 903.2.22, 903.2.23, 903.3.1.2, 903.3.9 and 1103.5, 1103.5.6, 1103.5.6.1, 1103.5.6.2, 1103.5.6.3 (Fire Sprinkler Systems) are amended due to the increased risks caused by fires resulting from earthquakes and proximity to the wildland-interface. These risks, which are particularly severe in Berkeley due to its high population density, are shown by its past history of above average death and property loss due to fire in these types of occupancies. Automatic fire sprinkler systems significantly reduce the loss of life and fire spread with early suppression and control of a fire. Additionally, these amendments will maintain the standards established in 1992 after the 1990 fraternity fire and 1991 Berkeley Oakland firestorm.
6. Amendments and additions to Sections 907.2, 907.2.1, 907.2.2, 907.2.4, 907.2.7, 907.2.8.1, 907.2.8.2, 907.2.9.1 and 1103.7, 1103.7.5.1, 1103.7.6, and 1103.7.10 (Fire Alarm Systems) are amended due to the increased risks caused by fires resulting from earthquakes and proximity to the wildland-interface. These risks, which are particularly severe in Berkeley due to its high population density, are shown by its past history of above average death and property loss due to fire in these types of occupancies. Automatic fire alarm systems significantly reduce the loss of life and fire spread with early detection and notification of firefighting personnel. Additionally, these amendments will maintain the standards adopted in 1998 as part of the Berkeley Fire Code.
7. Section 914.3.9 ["Fire Fighter Air Replenishment Systems"], Appendix Chapter L ["Requirements for Fire Fighter Air Replenishment Systems" in its entirety as amended), Section L104.5.1 ["Stored pressure air supply" as amended], Section 105.5.57 [operational permit to maintain a "firefighter air replenishment system (FARS)"] and Section 105.6.25 [construction permit to install or modify "Firefighter air replenishment system(FARS)"] are added due to the local geological condition of severe risk of earthquake and ensuing fires. Fire Fighter Air Replenishment Systems are intended to maximize the operational efficiency of available firefighting forces, and to reduce the impacts of high-rise fire incidents on limited firefighting forces that may already be challenged by the aftermath of a major seismic event. Additionally, these amendments will maintain the standards adopted in 2002 as part of the Berkeley Fire Code to require air supply systems for firefighting operations. The proposed code adoption recognizes Appendix Chapter L of the International Fire Code as the standard for the design, installation, testing and maintenance of such a system. It provides potential owners, designers and installers with a standard that they may refer to in order to better understand a type of system that many may not be familiar with.
8. Section 4911.12 (Incinerators and Fireplaces), is created which mandates that certain potential ignition sources within Wildland-Urban Interface (WUI) fire areas such as incinerators, outdoor fireplaces, fire pits, permanent barbecues and grills shall not be constructed without prior approval of the fire code official. Also, continued use of such constructed equipment (termed 'maintained' in the fire code ordinance) is prohibited unless the equipment is maintained in good repair and safe condition at

all times. This section also requires that such equipment be provided with appropriate spark arrestors, similar to the requirements in the Berkeley Building Code for fixed mechanical equipment associated with structures and regulated under the Berkeley Building Code. This added section requires fire department approval, spark arresters and maintenance of this equipment due to steep topography and Mediterranean climatic conditions. These conditions result in a large wildland-interface fire area which has a history of large, catastrophic fires.

9. Section 5704.2.11.1.1 (Restrictions on underground storage tanks), Section 5704.2.13.1.4 (Tanks abandoned in place), Section 5704.2.14 (Removal and disposal of tanks) and section 6104.1.2 (Restrictions on storage of LP-gas containers) of the Berkeley Fire Code are local amendments to the California Fire Code. These subsections are necessitated by local topographical conditions including the dense population of residential dwellings throughout the City; the narrow winding streets of the hazardous hill area; and the presence of a major transportation system underground (BART with its surge chambers and other openings at the street level in various areas of the city). These factors make it very important for purposes of fire safety to regulate hazardous material storage to ensure that it does not intrude in these areas.
10. Section B105.2 (Appendix B, "Fire Flow Requirements for Buildings", Table B105.2, "Required Fire-Flow For Buildings Other Than One- And Two-Family Dwellings, Group R-3 And R-4 Buildings And Townhouses") is amended due to the geological conditions of the City with its proximity to major earthquake faults. Predictions by the local water utility company are that many water mains will break as the result of a magnitude 6.7 earthquake on the Hayward Fault.
11. Appendix O (Temporary haunted houses, ghost walks and similar amusement uses) is adopted as a local amendment to the California Fire Code and is adopted based on local geological conditions (the potential for severe earthquake with accompanying fire and/or structural collapse) and local topographical conditions including the need to ensure adequate separation of structures and uses in densely developed urban areas. Fire alarm systems (as required in this appendix) are shown to significantly reduce the life safety threat to occupants of structures during fire events. Regulation of these structures and activities ensures that adequate safety provisions have been made for limiting occupancy to safe numbers of guests and for the evacuation of attraction guests in crowded urban environments. Adoption of this appendix also allows for the regulation of related features such as the combustibility of decorations and the management of hazards such as temporary electrical wiring and the use of portable generators.

BE IT FURTHER RESOLVED by the Council of the City of Berkeley that certain local amendments to the codes are not building standards more stringent than the provisions of the California Fire Code but rather cover matters not addressed by those codes as building standards, or are administrative in nature, as follows:

1. Chapter 1 (as amended in Sections 101.1, 102.6, 104.13, 104.14, 105.5.18,

105.5.55, 105.5.56, 105.5.58, 105.5.59, 107.2, 107.4, 111, 111.1, 111.1.1, 111.3, 112.1, 112.4, 114.7, and 114.7.1 provides administrative provisions, an appeal process, and additional clarification and non-building standard permit requirements required to implement the fire code.

2. Chapter 2 as amended in section 202 (Definitions) provides additional definitions required to clarify and implement the local adoption of the fire code.
3. Chapter 3 (General Requirements) is adopted in its entirety. The adopted sections of this chapter impose controls on a wide range of hazards that are not building standards. Hazards addressed include asphalt kettles, combustibile waste materials, control of ignition sources, open burning/recreational fires, open flames, powered industrial equipment, smoking, securing of vacant premises, vehicle impact protection, fueled equipment, general storage and hazards to firefighters.
4. Chapter 49 as amended, including Sections 4902.1, Table 4902.1, 4903.3, 4904.4, 4905.2, 4906.5, 4906.5.1, 4906.5.2, 4906.5.2.1, 4906.5.2.2, Table 4906.5.2.2, 4906.5.2.3, Table 4906.5.2.3, 4906.5.3, 4906.5.4, 4906.5.5, 4906.6, 4906.7, 4907.4 provides definitions related to local Wildland-Urban Interface (WUI) fire areas, directs interested parties to appropriate BMC Chapter 19.28 sections (Berkeley Building Code) for building construction requirements in WUI areas, and imposes various non-building standard requirements for the management of vegetation. Added Sections 4911, 4911.1, 4911.2, 4911.3, 4911.3.1, 4911.3.2, 4911.3.3, 4911.4, 4911.5, 4911.6, 4911.7, 4911.8, 4911.9, 4911.10, 4911.11, 4911.13, 4911.14, 4911.15, 4911.16, 4911.17, and 4911.18 impose various non-building standard requirements for the suppression and control of fires in WUI areas.
5. Section 5001.7 (Hazardous Materials Transport Restrictions) is a local amendment to the California Fire Code that restricts the transportation, storage and transfer of hazardous materials but does not create or modify any building standards. It simply imposes additional requirements necessitated by local conditions. This new subsection is necessitated by the dense population of residential dwellings throughout the City; the narrow winding streets of the hazardous hill area; and the presence of a major transportation system underground (BART with its surge chambers and other openings at the street level in various areas of the city). These factors make it very important for purposes of fire safety to regulate hazardous material transportation to ensure that it does not intrude in these areas.
6. Section 5601.1.3 (Fireworks) prohibits (with suitable exceptions) the possession, manufacture, storage, sale, handling and use of fireworks within the jurisdiction (including fireworks classified by the State Fire Marshal as Safe and Sane fireworks). Section 5604.1 ("General" section of 5604, "Explosive and Fireworks") is modified to prohibit the storage and handling of explosives within the jurisdiction. Both sections are intended to preserve the ban on storage, handling and use of these materials within City limits which have historically been deemed unsafe and inappropriate activities within the jurisdiction.

7. Section 5701.4.1 (Transfer of flammable and combustible liquids) prohibits dispensing of flammable liquids on or from a street or public way and provides administrative provisions, additional clarification and non-building standard approval or permit requirements required to implement the fire code.
8. Appendix E (Hazard Categories) and Appendix F (Hazard Ranking) are local amendments to the California Fire Code related to hazardous materials management. These chapters define the hazard categories and rankings associated with the storage, handling and use of hazardous materials, and provide the qualitative and quantitative rankings used on hazardous materials information signs posted for the benefit of firefighters and other first responders. These hazard categories and rankings are administrative in nature and do not constitute building standards.

BE IT FURTHER RESOLVED, that Resolution No. 69,170–N.S is hereby rescinded.