

BUILDING STANDARDS COMMISSION

2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959



January 24, 2014

Ali Fatapour, Chief Building Official
City of Sunnyvale
P.O. Box 3707
Sunnyvale, CA 94088-3707

RE: Ordinance #3006-13, 07-13, 08-13, 09-13, 10-13, 11-13, 12-13, 13-13, 14-13, 15-13,
16-13, 17-13, 21-13

Dear Mr. Fatapour:

This letter is to advise you of our determination regarding the referenced ordinance with express findings received from your agency on December 19, 2013.

Our review finds the submittal to contain thirteen ordinances modifying provisions of the 2013 California Building Standards Code in Title 24, California Code of Regulations (code), and express findings complying with Health and Safety Code §§17958.7 and 18941.5. The code modifications are accepted for filing and are enforceable. This letter attests only to the satisfaction of the cited law for filing of local code amendment supported by an express finding with the Commission. The Commission is not authorized by law to evaluate the merit of the code modification or the express finding.

Local modifications to the code are specific to a particular edition of the code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the code is published.

On a related matter, should your city receive and ratify Fire Protection District ordinances making modifications to the code, be advised that Health and Safety Code §13869.7(c) requires such ratified ordinances and express findings to be filed with the Department of Housing and Community Development, Division of Codes and Standards, State Housing Law Program, rather than this Commission. Also, ordinances making modifications to the energy efficiency standards of the code may require approval from the California Energy Commission pursuant to Public Resources Code §25402.1(h)(2).

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

A handwritten signature in blue ink, appearing to read "Enrique M. Rodriguez".

Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings



2013 DEC 19 P 2 21

CALIFORNIA BUILDING STANDARDS COMMISSION

December 9, 2013

California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833-2936

Dear Commissioners:

Pursuant to the requirements of 2013 California Building Code Section 101.8.1, we are hereby transmitting to you a copy of the City of Sunnyvale's adopted ordinances and resolutions which contains local amendments to the 2013 California Building Codes together with a recitation of the findings upon which the amendments were based.

Sincerely,

A handwritten signature in black ink, appearing to read "Ali Fatapour", is written over a horizontal line.

Ali Fatapour,
Chief Building Official

ADDRESS ALL MAIL TO: P.O. BOX 3707 SUNNYVALE, CALIFORNIA 94088-3707
TDD (408) 730-7501

Printed on Recycled Paper

By 
City Clerk of the City of Sunnyvale

RESOLUTION NO. 619-13

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE FINDING AND DETERMINING THE NEED FOR MODIFICATIONS TO THE 2013 CALIFORNIA BUILDING CODE

WHEREAS, the City of Sunnyvale is adopting the 2013 California Building Codes with numerous changes and modifications;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNNYVALE that it finds and determines there is a need to adopt the changes or modifications because of local climatic, topographic, geological and related geographic conditions.

General Findings

1. Climatic

- a. **Precipitation.** Precipitation ranges from 4.83 to 30.30 inches per year with an average of approximately 13.86 inches per year. Approximately 90% falls during the months of November through April and 10% from May through October. This area experienced a major drought in 1977-78 and a moderate drought the next five years; it is possible that more droughts will occur in the future. The local climate is characterized by markedly delineated rainy and dry seasons, which tend to maximize the expansive characteristics of soil.
- b. **Relative Humidity.** Humidity generally ranges from 60% during daytime to 80% at night. It drops to 20% during the summer months and occasionally drops lower.
- c. **Temperatures.** Temperatures have been recorded as high as 108° F. Average summer highs are in the 78°-82° F. range.
- d. **Winds.** Prevailing winds are from the Northwest or Southeast. However, winds are experienced from virtually every direction at one time or another. Velocities are generally in the 5-mph to 15-mph range, gusting to 7.4 mph to 30 mph, particularly during the summer months. Extreme winds, up to 60 mph, have been known to occur.
- e. **Summary.** These local climatic conditions affect the acceleration, intensity and size of fire in the community. Times of little or no rainfall, of low humidity and high temperatures create extremely hazardous conditions, particularly as they relate to wood shake and shingle roof fires and conflagrations. The winds experienced in this area can have a tremendous impact upon structure fires of buildings in close proximity to one another commonly found in Sunnyvale. During wood shake and shingle roof fires, or exposure fires, winds can carry sparks and burning brands to other structures, thus spreading the fire and causing conflagrations. In building fires, winds can literally force fires back into the building and can create a blowtorch effect, in addition to preventing "natural" ventilation and cross-ventilation efforts.

2. Geological, Geographic and Topographic

- a. **Geographic Location.** Sunnyvale is located in the Santa Clara Valley. It has taken its place as the second largest city in the heart of the "Silicon Valley," the center for an expanding and changing technology industry.

b. Seismic Location. Sunnyvale is situated on alluvial soils between San Francisco Bay and the San Andreas Fault zone. The City's location makes it particularly vulnerable to damage to taller and older structures caused by seismic events. The relatively young geological processes that have created the San Francisco Bay Area are still active today. Seismically, the City sits between two active earthquake faults (San Andreas and the Hayward/Calaveras) and numerous potentially active faults.

c. Seismic and Fire Hazards. Gypsum wallboard and exterior portland cement plaster have performed poorly during recent California seismic events. The shear values for gypsum wallboard and portland cement stucco contained in the code are based on mono-directional testing. It is appropriate to limit the use of these products until cyclic loading testing are performed and evaluated. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself.

Hazardous materials, particularly toxic gases, could pose the greatest threat to the largest number, should a significant seismic event occur. Public safety resources would have to be prioritized to mitigate the greatest threat, and may likely be unavailable for smaller single dwelling or structure fires.

Other variables may tend to intensify the situation:

1. The extent of damage to the water system;
2. The extent of isolation due to bridge and/or freeway overpass collapse;
3. The extent of roadway damage and/or amount of debris blocking the roadways;
4. Climatic conditions (hot, dry weather with high winds);
5. Time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours;
6. The availability of timely mutual aid or military assistance;
7. The large portion of dwellings with wood shingle roof coverings could result in conflagrations.

d. Size and Population. The City has an area over 24 square miles in size and a population estimated to be 145,973.

e. Development. Sunnyvale is a community, which is projected to add 7,500 new residential units within the next twenty-five years, primarily in multi-family configurations; for which building security is a matter of acute importance.

f. Public Safety Department. Sunnyvale utilizes a public safety (joint police/fire) department with personnel who function as both fire suppression and police officers, resulting in fewer personnel than otherwise would be required for a city of its size. A premium is therefore placed on built-in physical techniques and devices as crime preventative measures. It is therefore also imperative that fire detection and suppression occur as quickly as possible to minimize loss of property and life. For these reasons the most stringent provisions are required concerning fire detection, alarm and suppression systems.

g. Roads and Streets. The number of vehicle miles driven in the City is steadily increasing and considerable efforts in traffic and roadway improvements are being made to ease the crush of commuters to and through the City to their homes and places of work. Because of the City's high concentration of jobs, much of the peak traffic is made by nonresidents traveling to or from Sunnyvale. The impact of planned developments and traffic flow will continue to have an effect on the Department of Public Safety and delivery of fire services.

h. Industry. Sunnyvale is the site of many manufacturing and research industries which use toxic, flammable and explosive chemicals and materials in potentially hazardous combinations. Special precautions thus are required to minimize the risk of damage to adjoining persons and properties.

i. Mixed Industrial/Residential Uses. High-density residential uses are located near high-risk industries, necessitating special precautions.

j. Transportation. Sunnyvale is divided by an interstate highway, which potentially could affect response times of fire suppression equipment.

k. Soil Conditions and Topography. Sunnyvale lies at the southern end of San Francisco Bay and is built atop the alluvial deposits that surround the margins of the Bay. The alluvium was created by the flooding of the many streams emptying into the San Francisco Bay depression, and from intermittent seawater inundation that has occurred over the last 2 or 3 million years. The areas closest to the Bay are overlain by unconsolidated fine silty clay, known as "Bay Mud" which varies in thickness from a few feet to as much as 30 feet. Generally, the older, more stable alluvium is to the south and the younger, less stable material is to the north. Bedrock lies beneath the area at depths generally 300' or more. The topography is essentially flat, dropping from an elevation of 300 feet to sea level. The slope across the City is in a northeasterly direction from the high point in the southwest corner to the Bay. The average slope is approximately 0.9%.

The Silicon Valley is within a very active seismic area and local soil conditions can be highly expansive (clay soils). The Northridge earthquake provided hundreds of examples of damage to plain concrete footings. This type of damage is extremely expensive to repair, in contrast to the small expense of providing nominal footing reinforcement. Footing reinforcement is also necessary to prevent damage due to pumping action caused by local expansive soils, which shrink and swell during seasonal drying and wetting conditions.

Most of the surface soils in the Silicon Valley are relatively young and unconsolidated sedimentary materials formed from a wide variety of parent materials. The varying chemical composition, degree of weathering, and the relatively acid environment have created soils of varying types, which are particularly corrosive in nature. Much of the surface soil in the Silicon Valley is highly expansive (i.e., shrink-swell behavior) and has low bearing strength.

l. Water/Sewer. Some parts of the Silicon Valley have hard water, which is corrosive to ferrous pipe. The groundwater table is unusually high in many places. Expansive soils create unstable conditions, which increase the potential of breaks in sewer laterals. To maintain health and sanitary services, it is necessary to gain access, to periodically maintain public sanitary laterals.

m. Buildings, Landscaping and Clearances. Many of the newer large buildings and building complexes are of designs, which greatly limit visibility and approach to and accessibility by Public Safety resources. Many houses and other buildings with wood roofs and/or sidings are so close together that fire may readily spread from one to another by both radiation and convection.

n. Summary. The stated local geological, geographic and topographical conditions increase the magnitude, exposure, accessibility problems and fire hazards presented to the Department of Public Safety. Lying beneath Sunnyvale are thick layers of sand, gravel and clay, known as alluvium, which amplify the effects of earthquakes. Based on the damage caused in Santa Clara Valley by the 1906 earthquake and the poor performance of alluvial deposits during earthquakes, this area could be subject to severe damage.

Findings.

With the exception of changes justified on administrative grounds, the local amendments of the 2013 California Building Codes are justified by all of the aforementioned general findings.

BE IT FURTHER RESOLVED that the City Clerk is hereby directed to cause a copy of this resolution, together with the ordinances making the changes and modifications to the enumerated uniform codes, to be filed with the State Department of Housing and Community Development.

Adopted by the City Council at a regular meeting held on November 19, 2013, by the following vote:

AYES: GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS

NOES:

ABSTAIN:

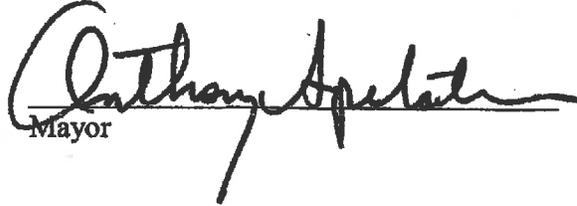
ABSENT: SPITALERI

ATTEST:



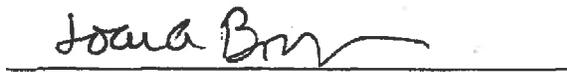
City Clerk
(SEAL)

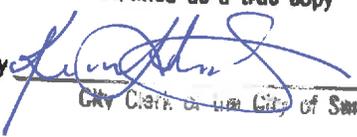
APPROVED:



Mayor

APPROVED AS TO FORM:


Joan A. Borger, City Attorney

By 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3006-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA ADMINISTRATIVE CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE ADMINISTRATIVE CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2930-10, codified as Chapter 16.08 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.08 ADDED. Sunnyvale Municipal Code Chapter 16.08 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

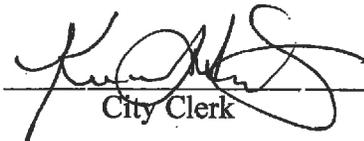
SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

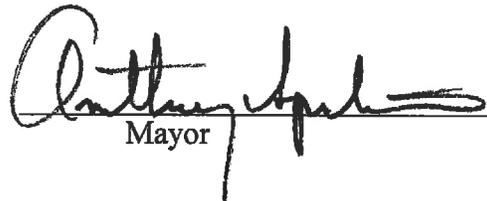
AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS
NOES: NONE
ABSTAIN: NONE
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12/5/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

Chapter 16.08.
ADMINISTRATIVE CODE

16.08.010. Title.

16.08.020. Adoption by reference.

16.08.030. Hours of construction—Time and noise limitations.

16.08.010. Title.

This chapter shall be known and may be cited and referred to as the “Administrative Code for California Codes Adopted by the City of Sunnyvale.”

16.08.020. Adoption by reference.

The “2013 California Administrative Code” adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 1 is hereby adopted by reference as the administrative code for all California codes adopted by the city of Sunnyvale.

16.08.030. Hours of construction—Time and noise limitations.

Construction activity shall be permitted between the hours of seven a.m. and six p.m. daily Monday through Friday. Saturday hours of operation shall be between eight a.m. and five p.m. There shall be no construction activity on Sunday or federal holidays when city offices are closed.

No loud environmentally disruptive noises, such as air compressors without mufflers, continuously running motors or generators, loud playing musical instruments, radios, etc., will be allowed where such noises may be a nuisance to adjacent residential neighborhoods.

Exceptions:

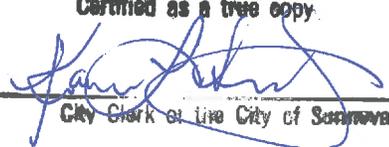
(a) Construction activity is permitted for detached single-family residential properties when the work is being performed by the owner of the property, provided no construction activity is conducted prior to seven a.m. or after seven p.m. Monday through Friday, prior to eight a.m. or after seven p.m. on Saturday and prior to nine a.m. or after six p.m. on Sunday and national holidays when city offices are closed. It is permissible for up to two persons to assist the owner of the property so long as they are not hired by the owner to perform the work. For purposes of this section, “detached single-family residential property” refers only to housing that stands completely alone with no adjoining roof, foundation or sides.

(b) As determined by the chief building official:

(1) No loud environmentally disruptive noises, such as air compressors without mufflers, continuously running motors or generators, loud playing musical instruments, radios, etc., will be allowed where such noises may be a nuisance to adjacent properties.

(2) Where emergency conditions exist, construction activity may be permitted at any hour or day of the week. Such emergencies shall be completed as rapidly as possible to prevent any disruption to other properties.

(3) Where additional construction activity will not be a nuisance to surrounding properties, based on location and type of construction, a waiver may be granted to allow hours of construction other than as stated in this section.

By: 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3007-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA BUILDING CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE BUILDING CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2931-10, codified as Chapter 16.16 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.16 ADDED. Sunnyvale Municipal Code Chapter 16.16 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

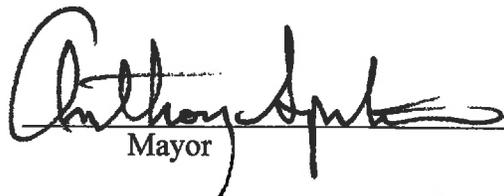
AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS
NOES: NONE
ABSTAIN: NONE
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12/5/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

Chapter 16.16.
BUILDING CODE

- 16.16.010. Title.**
- 16.16.020. Adoption by reference.**
- 16.16.030. Administration.**
- 16.16.040. Definitions.**
- 16.16.050. Standards for high-rise buildings.**
- 16.16.060. Numbering of buildings.**
- 16.16.070. Fire extinguishing systems.**
- 16.16.080. Fire protection systems.**
- 16.16.090. Roof material rating.**
- 16.16.100. Concrete construction.**
- 16.16.110. Modifications to ACI 318.**
- 16.16.120. Moved structures.**

16.16.010. Title.

This chapter shall be known and may be cited and referred to as the “Building Code for the City of Sunnyvale.”

16.16.020. Adoption by reference.

The 2012 International Building Code in its entirety, along with Appendices C, I, and J as published by the International Code Council, Inc. and amendments to sections of the 2012 International Building Code adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 2 known as the California Building Code, is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the building code of the city of Sunnyvale.

16.16.030. Administration.

2013 California Building Code, Chapter 1, Division II, is hereby amended as follows:

101.2. Scope.

(a) The provisions of this chapter shall apply to grading and to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolitions of every building or structure within the city, including all plumbing and drainage systems, mechanical systems, and electrical wiring and fire safety systems, or parts thereof, within and serving such building or structure, excluding therefrom the following:

- (1) Any building or structure located on real property belonging to:
 - (A) United States of America,
 - (B) State of California, or any political subdivision thereof,
 - (C) Any chartered city or non-chartered city, or

- (D) Any school district, except when the proposed use is for non-classroom facilities;
- (2) Work located primarily in a public way;
 - (3) Public utility towers and poles;
 - (4) Mechanical equipment not specifically regulated in any of the codes; and
 - (5) Hydraulic flood control structures.
 - (6) Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the California Residential Code.

105.3.2 Time Limitation of Application.

An application for a permit for any proposed work shall be deemed to have been expired 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued, the plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the building official. The building official is authorized to grant one or more extensions of time for additional period not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated. In order to proceed with a project once an application has expired, a new application is required with new plan reviews fees and plans based on the code in effect at the time of the new application.

105.5 Permit Expiration.

(1) Every permit issued under the provisions of this title shall expire by limitation and become null and void, if the work authorized by the permit is not commenced within 180 days from the date of the permit, or if the work authorized by the permit is suspended or abandoned at any time after the work is commenced for a period of one hundred eighty days.

(2) For purposes of this title, the failure of the permittee to call for an inspection within one hundred eighty days of the date the permit was originally issued, or within one hundred eighty days of the last inspection, shall create a rebuttable presumption that the work authorized by the permit has been suspended or abandoned, and the chief building official may make a determination that the permit has expired.

(3) Upon a determination by the chief building official that a permit has expired, the permittee shall be notified in writing that such a determination has been made.

(4) If a permit has expired, no work may be recommenced until a new permit is obtained. The fee for a new permit shall be one-half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work, and provided further that the period of suspension or abandonment was not in excess of one year, in which case the permittee shall pay a new, full permit fee and plan review fee.

(5) Any permittee holding an unexpired permit may apply for an extension of the time within which to commence or complete work under the permit. Such requests must be submitted in writing. The building official is authorized to grant one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

105.7 Placement of Permit. The building permit, along with all plans and documentation approved by the building official, shall be kept on the site of the work until final approval has been granted by the building official.

107.5 Retention of Construction Documents. One set of approved construction documents shall be retained by the building official for a period of not less than 90 days from the date of completion of the permitted work, or as required by state and local law.

Note: Reference Building Standards Law, Health and Safety Code Sections 19850 and 19851, for provisions related to permanent retention of plans.

109.2 Schedule of Permit Fees. On buildings, structures, electrical, gas, mechanical, and plumbing systems or alternations requiring a permit, a fee for each permit shall be paid as required by the current fee resolution approved by the city council.

109.4 Work Commencing Before Permit Issuance. When ever any work for which a permit is required by this code has been commenced without first obtaining said permit, the fee for such permit shall be double the fee established by the current fee resolution approved by the city council.

109.4.1 Investigation Fees: Work Without a Permit. Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit a special investigation may be made before a permit may be issued for such work.

109.4.2 Fee. An investigation fee in addition to the permit fee shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee.

109.6 Refunds. The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected.

The building official may authorize refunding of not more than 80 percent of the permit fee paid when the permit is canceled and no work has been done under a permit issued in accordance with this section.

The building official may authorize refunding of the plan review fee paid with an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize refunding of any fee paid except by written request filed by the original permittee and for building permits that are not expired.

109.7 Plan Review Fees. When a plan review is required a plan checking fee shall be paid at the time of submitting plans and specifications for checking.

When submittal documents are incomplete or changed so as to require additional plan review or when the project involves deferred submittal items an additional plan review fee may be charged as deemed necessary by the building official at rate established in the current fee resolution adopted by the city council.

110.3.8 Other Inspections. In addition to the inspections specified above the building official may make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws which are enforced by the code enforcement agency.

110.7 Inspection Record Card. Work requiring a permit shall not be commenced until the permit holder or an agent of the permit holder has posted or otherwise made available the inspection record card issued by the building official such as to allow the building official to conveniently make the required entries thereon regarding inspection of the work. This card shall be maintained available by the permit holder until final approval has been granted by the building official.

110.8 Reinspections. A reinspection fee may be assessed as deemed necessary by the building official for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This section is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection records card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is required, or for deviating from plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required reinspection fees have been paid.

The reinspection fee shall be in accordance with the current fee resolution adopted by the city council.

111.2 Certificate Issued. After the building official inspects the building or structure and finds no violations of the provisions of this code or other laws that are enforced by the building safety division, the building official shall either sign the approved inspection record card or issue a certificate of occupancy that contains the following:

1. The building permit number.
2. The address of the structures.
3. A description of that portion of the structure for which the certificate is issued.
4. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
5. The name of the building official.
6. The edition of the code under which the permit was issued.
7. The use and occupancy, in accordance with the provisions of Chapter 3.
8. The type of construction as defined in Chapter 6.
9. If an automatic sprinkler system is provided, whether the sprinkler system is required.
10. Any special stipulations and conditions of the building permit.

114.1. Unlawful Acts. It is unlawful for any person to perform any grading, or to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy, or maintain any building or structure in the city, or to install or maintain any plumbing or drainage systems, or any mechanical systems, or any electrical wiring or fire safety systems in or about any building or structure in the city, or cause the same to be done, contrary to or in violation of any of the provisions of the administrative or technical code. Each such person is guilty of a separate offense for each and every day during any portion of which a violation of any provision of any codes continued, or permitted by such person and shall be punishable accordingly.

Section 117 Address Identification

117.1. Address Identification.

All entrances from the public streets of the city of Sunnyvale to buildings fronting thereon shall be numbered as provided in this chapter.

The numbers shall be placed upon, or immediately above or to one side of the door or gate or post of such entrance or shall be otherwise conspicuously located near said entrance so that the same shall be in plain view. Each character shall be a minimum 4 inches high and not less than 0.5 inch in width. They shall be installed on a contrasting background and be plainly visible from the street or road fronting the property.

Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure.

When required by the building official or fire marshal, address numbers and street names shall be provided in additional approved locations to facilitate emergency response.

117.2. Odd and even numbers.

Where possible all numbers on the northerly and westerly sides of streets shall be odd numbers and all numbers on the southerly and easterly sides of streets shall be even numbers.

117.3. Official street numbering map.

A map entitled "official street numbering map of the city of Sunnyvale" on file in the office of the chief building official exhibiting the various numbers to lots and parcels of land fronting on the various streets in the city of Sunnyvale is hereby referred to for particulars and is made a part hereof and numbers shall be determined and located as shown on the map.

117.4. Numbers designated by chief building official.

It shall be the duty of the chief building official to designate the respective numbers for buildings or parcels of land fronting on streets heretofore laid out or extended

117.5. Display of numbers required.

No owner, occupant, lessee, tenant or subtenant of any building having an entrance which fronts on a public street shall display any number of such building or entrance thereto other than the proper number designated by the chief building official and shall within five days after receiving notice of such designated number from the chief building official place the same upon or immediately above or to one side of the door, gate, post or entrance to such building or in some other conspicuous location as provided in this chapter.

117.6. Placing of numbers at occupant's expense.

It shall be the responsibility of both the owner and occupant of any building, at his expense, to cause the same to be numbered in accordance with this chapter.

117.7. Permit required for numbers on streets, sidewalks or curb.

No person shall place, maintain or permit to be placed or maintained any number, figure, letter, carving, drawing, design or other marking upon any street, sidewalk, parking place or curb in the city without first obtaining written authorization from the director of public works who shall have the authority to issue regulations and standards for such activity. The following requirements and conditions shall apply to all requests to conduct the service of curb identification marking:

(a) No person shall engage in the business of painting numbers or other markings on curbs, which markings identify the street location of any structure within the city, without first obtaining a business license.

(b) Written consent and approval of the owner or occupant of the structure shall be obtained, prior to commencing any work, on forms which shall be approved by the director of public works.

(c) Markings shall be three and one-half inches to four inches in height of high gloss black enamel paint on a white background or of such dimensions, color and quality of materials as shall be approved by the director of public works.

(d) The authorization provided for herein may be revoked by the director of public works whenever he finds noncompliance with the provisions of this chapter or any regulation or standards promulgated by him pursuant to the authority granted herein.

16.16.040. Definitions.

California Building Code Chapter 2 is hereby amended to include:

For the purpose of the California Building Code, certain terms are defined as follows:

(1) "Board of appeals" means the board created to hear and determine appeals from a decision or order of the building inspection superintendent.

(2) "Building inspection superintendent" means the officer or other person charged with the administration and enforcement of the following codes of the city:

- (A) Building Code,
- (B) Residential Code,
- (C) Existing Building Code,
- (D) Plumbing Code,
- (E) Mechanical Code,
- (F) Electrical Code,
- (G) Historical Buildings Code,
- (H) Energy Code,
- (I) Green Building Code.

(3) "Building official" or "chief building official" means building inspection superintendent.

(4) "The codes" mean each and all of the following codes of the city:

- (A) Building Code,
- (B) Residential Code,
- (C) Existing Building Code,
- (D) Plumbing Code,
- (E) Mechanical Code,
- (F) Electrical Code,
- (G) Historical Buildings Code,
- (H) Fire Code,
- (I) Energy Code,

- (J) Green Building Code,
- (K) Property Maintenance Code.

16.16.050. Standards for high-rise buildings.

2013 California Building Code Section 403 is hereby replaced by the applicable provisions of Chapter 16.52.

16.16.060. Numbering of Buildings.

2013 California Building Code Section 501.2 is hereby replaced with the applicable provisions of Chapter 16.16.030.

16.16.070. Fire extinguishing systems.

Except for the application of Sections 504.2 and 506.3 of the California Building Code, the installation requirements for fire extinguishing systems, including California Building Code Section 903, shall be governed by the applicable provisions of the California Fire Code as adopted by Chapter 16.52, and by the applicable provisions of Chapter 16.54.

16.16.080. Fire protection systems.

2013 California Building Code Chapter 9 is hereby replaced by the applicable provisions of Chapter 16.52.

16.16.090. Roof material rating.

2013 California Building Code Section 1505.1.3 is amended to read as follows:

1505.1.3 Roof Coverings in All Other Areas. The entire roof covering of every existing structure where more than fifty percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.

16.16.100. Concrete construction.

2013 California Building Code Section 1705.3 is hereby amended to read:

1705.3 Concrete Construction. The special inspections and verifications for concrete construction shall be as required by this section and Table 1705.3.

Exceptions: Special inspections shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above grade plane that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength, f'_c , no greater than 2,500 pounds per square inch (psi) (17.2 MPa).

2. Continuous concrete footings supporting walls of buildings three stories or less above grade plane that are fully supported on earth or rock where:

- 2.1. The footings support walls of light-frame construction;
 - 2.2. The footings are designed in accordance with Table 1809.7; or
 - 2.3. The structural design of the footing is based on a specified compressive strength, f'_c , no greater than 2,500 pounds per square inch (psi) (17.2 Mpa), regardless of the compressive strength specified in the construction documents or used in the footing construction.
3. Nonstructural concrete slabs supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi (1.03 Mpa).
 4. Concrete foundation walls constructed in accordance with Table 1807.1.6.2.
 5. Concrete patios, driveways and sidewalks, on grade.

16.16.110. Modifications to ACI 318.

2013 California Building Code Section 1905.1.8 is amended to read as follows:

1905.1.8 ACI 318, Section 22.10. Delete ACI 318, Section 22.10, and replace with the following:

22.10 - Plain concrete in structures assigned to seismic design category C, D, E or F.

22.10.1- Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:

(a) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.

Exception: In detached one and two-family dwelling three stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.

(b) Plain concrete footing supporting walls are permitted, provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

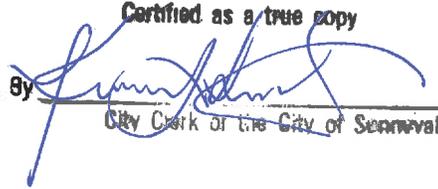
Exception: In detached one and two-family dwellings three stories or less in height and constructed with stud bearing walls, plain concrete with at least two continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.

16.16.120. Moved structures.

California Building Code Section 3410 is hereby amended to read:

3410.1 Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

Exception: Moved apartment houses and dwellings may retain existing materials and methods of construction, provided the apartment house or dwelling complies with the building standards for foundations applicable to new construction and does not become or continue to be a substandard building. For additional information, see Health and Safety Code Section 17958.9.

Certified as a true copy
By 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3008-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA RESIDENTIAL CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE RESIDENTIAL CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2932-10, codified as Chapter 16.17 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.17 ADDED. Sunnyvale Municipal Code Chapter 16.17 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

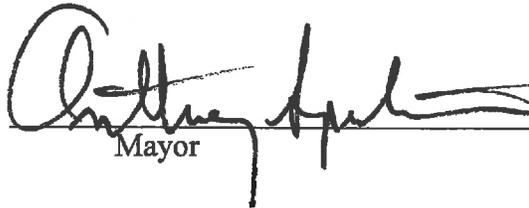
AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-
MILIUS, DAVIS
NOES: NONE
ABSTAIN: NONE
ABSENT: NONE

ATTEST:

APPROVED:



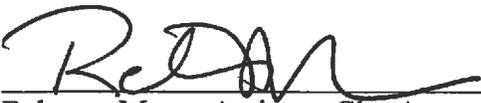
City Clerk



Mayor

Date of Attestation: 12/15/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

Chapter 16.17.
RESIDENTIAL CODE

16.17.010. Title.

16.17.020. Adoption by reference.

16.17.030 Administration

16.17.040. Definitions.

16.17.050. Fire-resistant construction.

16.17.060. Townhouses.

16.17.060. Sound transmission.

16.17.070. Fire extinguishing systems.

16.17.080. Concrete construction.

16.17.090. Gypsum board and plaster as wall bracing materials.

16.17.100. Roof material rating.

16.17.010. Title.

16.17.010. Title.

This chapter shall be known and may be cited and referred to as the “Residential Code for the City of Sunnyvale.”

16.17.020. Adoption by reference.

The 2012 International Residential Code in its entirety, along with Appendices G and H as published by the International Code Council, Inc. and amendments to sections of the 2012 International Residential Code adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 2.5 known as the California Residential Code, is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the residential code of the city of Sunnyvale.

16.17.030. Administration.

2013 California Residential Code chapter 1 division II is hereby amended as follows:

2013 California Residential Code chapter 1 division II is hereby replaced by the provisions of Chapters 16.16.

16.17.040. Definitions.

2013 California Residential Code Chapter 2 is hereby amended as follows:

For the purpose of the California Code, certain terms are defined as follows:

(1) “Board of appeals” means the board created to hear and determine appeals from a decision or order of the building inspection superintendent.

(2) “Building inspection superintendent” means the officer or other person charged with the administration and enforcement of the following codes of the city:

- (A) Building Code,
- (B) Residential Code,
- (C) Existing Building Code,
- (D) Plumbing Code,
- (E) Mechanical Code,
- (F) Electrical Code,
- (G) Historical Buildings Code,
- (H) Energy Code,

(I) Green Building Code

(3) "Building official" or "chief building official" means building inspection superintendent.

(4) "The codes" mean each and all of the following codes of the city:

- (A) Building Code,
- (B) Residential Code,
- (C) Existing Building Code,
- (D) Plumbing Code,
- (E) Mechanical Code,
- (F) Electrical Code,
- (G) Historical Buildings Code,
- (H) Fire Code,
- (I) Energy Code,
- (J) Green Building Code.
- (K) Property Maintenance Code.

(4) "TOWNHOUSE". A single-family dwelling unit on an individual lot and constructed in a group of three or more attached units in which each unit extends from foundation to roof and with a yard or public way on at least two sides.

16.17.050. Fire-resistant construction.

2013 California Residential Code Table R302.1(2) footnote "a" is amended to read follows:

^a For residential subdivisions where all dwellings and accessory buildings are equipped throughout with an automatic sprinkler system installed in accordance with Section R313, the fire separation distance for nonrated exterior walls and rated projections shall be permitted to be reduced to 0 feet, and unlimited unprotected openings and penetrations shall be permitted, where the adjoining lot provides an open setback yard with a recorded no-build easement that is 6 feet or more in width on the opposite side of the property line.

16.17.060. Townhouses.

2013 California Residential Code Section R302.2 is amended as follows:
Delete the exception.

16.17.070. Sound transmission.

The title for 2013 California Residential Code Section R303 is amended to read as follows:

LIGHT, VENTILATION, HEATING, AND SOUND TRANSMISSION

2013 California Residential Code Section R303.10 is added to Chapter 3 of the 2013 California Residential Code to read as follows:

R303.10 Sound Transmission. For sound transmission control between attached dwelling units, see Section 1207 of the California Building Code.

16.17.080. Fire extinguishing systems.

2013 California Residential Code sections R313.1, R313.2, and R313.3 are hereby amended to read as follows:

R313.1 Townhouse automatic fire sprinkler systems.

An automatic residential fire sprinkler system shall be installed in townhouses.

Existing Townhouses. An automatic residential fire sprinkler system shall be installed in existing townhouses when additions are made that are in excess of 50 percent of the original building area.

Firewalls used to separate building areas shall be constructed in accordance with the California Building Code and shall be without openings or penetrations.

Exception: A one-time addition to existing townhouses that do not exceed 500 square feet of building area.

R313.1.1 Design and Installation.

Automatic residential fire sprinkler systems for townhouses shall be designed and installed in accordance with NFPA 13D and local standards.

R313.2 One- and two-family dwellings automatic fire systems.

An automatic residential fire sprinkler system shall be installed in one- and two-family dwellings.

Existing one and two-family dwellings. An automatic residential fire sprinkler system shall be installed in existing one and two-family dwellings when additions are made that are in excess of 50 percent of the original building area.

Firewalls used to separate building areas shall be constructed in accordance with the California Building Code and shall be without openings or penetrations.

Exception: One-time additions to one and two-family dwellings that do not exceed 500 square feet of building area.

Group U private garages and carports shall comply with Section 903.2.18 of the California Fire Code.

R313.2.1 Design and Installation.

Automatic residential fire sprinkler systems for townhouses shall be designed and installed in accordance with NFPA 13D and local standards.

2013 California Residential Code Section R313.3 is hereby amended by deleting the following provisions:

R313.3 Dwelling unit fire sprinkler systems.

16.17.090. Concrete construction.

2013 California Residential Code Section R403.1.3 is amended to read as follows:

R403.1.3 Seismic Reinforcing. Concrete footings located in Seismic Design Categories D₀, D₁, and D₂, as established in Table R301.2(1), shall have minimum reinforcement of at least two continuous longitudinal reinforcing bars not smaller than No. 4 bars. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.

In Seismic Design Categories D₀, D₁, and D₂ where a construction joint is created between a concrete footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

In Seismic Design Categories D₀, D₁, and D₂ where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

In Seismic Design Categories D₀, D₁, and D₂ masonry stem walls without solid grout and vertical reinforcing are not permitted.

Exception: In detached one- and two-family dwellings which are three stories or less in height and constructed with stud bearing walls, isolated plain concrete footings supporting columns or pedestals are permitted.

16.17.100. Gypsum board and plaster as wall bracing materials.

Title for the 2013 California Residential Code Table R602.10.3(3) is amended to read as follows:

TABLE R602.10.3(3)^{a,b,c,d,e}
BRACING REQUIREMENTS BASED ON
SEISMIC DESIGN CATEGORY

(AS A FUNCTION OF BRACED WALL LINE LENGTH)

2013 California Residential Code Table R602.10.3(3) footnote "e" is added to the end of the table to read as follows:

^e In Seismic Design Categories D₀, D₁, and D₂, Methods GB is not permitted and the use of Method PCP is limited to one-story single family dwellings and accessory structures.

2013 California Residential Code Section R602.10.4.4 is added to Chapter 6 of the 2013 California Residential Code to read as follows:

R602.10.4.4 Limits on Methods GB and PCP. In Seismic Design Categories D₀, D₁, and D₂, Methods GB is not permitted for use as intermittent braced wall panels, but gypsum board is permitted to be installed when required by this Section to be placed on the opposite side of the studs from other types of braced wall panel sheathing. In Seismic Design Categories D₀, D₁, and D₂, the use of Method PCP is limited to one-story single family dwellings and accessory structures.

16.17.110. Roof material rating.

2013 California Residential Code Section R902.1.3 is amended to read as follows:

R902.1.3 Roof Coverings in All Other Areas. The entire roof covering of every existing structure where more than fifty percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.

ORDINANCE NO. 3009-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA EXISTING BUILDING CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE EXISTING BUILDING CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2933-10, codified as Chapter 16.18 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.18 ADDED. Sunnyvale Municipal Code Chapter 16.18 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS

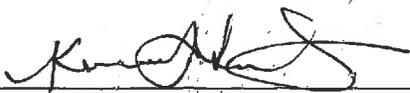
NOES: NONE

ABSTAIN: NONE

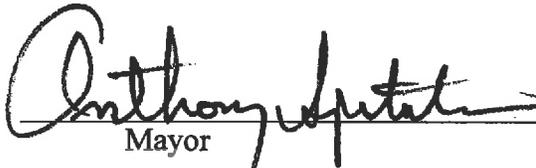
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12/5/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

Chapter 16.18.

EXISTING BUILDING CODE

16.18.010. Title.

16.18.020. Adoption by reference.

16.18.010. Title.

This chapter shall be known and may be cited and referred to as the “Existing Building Code for the City of Sunnyvale.”

16.18.020. Adoption by reference.

The “2013 California Existing Building Code,” adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 10 is hereby adopted by reference as the existing building code of the city of Sunnyvale.

By 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3010-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA PLUMBING CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE PLUMBING CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2934-10, codified as Chapter 16.24 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.24 ADDED. Sunnyvale Municipal Code Chapter 16.24 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS

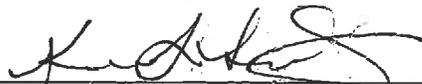
NOES: NONE

ABSTAIN: NONE

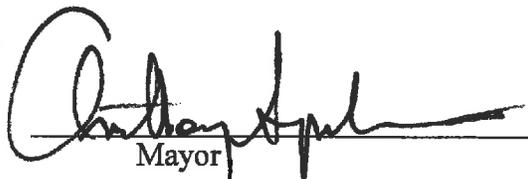
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12/15/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

Chapter 16.24.
PLUMBING CODE

16.24.010. Title.

16.24.020. Adoption by reference.

16.24.025. Administration.

16.24.030. Alternative water sources for nonpotable applications.

16.24.010. Title.

This chapter shall be known and may be cited and referred to as the "Plumbing Code for the City of Sunnyvale."

16.24.020. Adoption by reference.

The 2012 Uniform Plumbing Code in its entirety as published by the International Association of Plumbing and Mechanical Officials and amendments to sections of the 2012 Uniform Plumbing Code adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 5 known as the California Plumbing Code, is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the plumbing code of the city of Sunnyvale.

16.24.025. Administration.

2013 California Plumbing Code Chapter 1 Division II is hereby amended as follows:

2013 California Plumbing Code Chapter 1 Division II is hereby replaced by the applicable provisions of Chapters 16.16.

16.24.030. Alternative water sources for nonpotable applications.

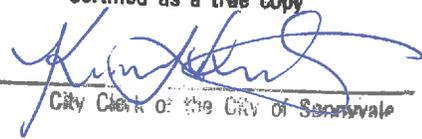
2013 California Plumbing Code Chapter 16A is amended to read as follows:

1602.10.3 Groundwater Depth. Adequate groundwater separation shall be demonstrated to the satisfaction of the Enforcing Agency per the requirements below. Adequate demonstration of the requirements can be shown through documented seasonal high groundwater levels within the area or if there is no evidence of groundwater in a test hole of the required depth.

Clothes washer system or simple system: The deepest irrigation or disposal point of the proposed graywater system shall not extend within five (5) vertical feet (1,524 mm) of groundwater.

Complex system: The deepest irrigation or disposal point of the proposed graywater system shall not extend within ten (10) vertical feet (3,048 mm) of groundwater.

1602.10 Required Area of Irrigation or Disposal Fields. Irrigation or disposal fields may have one or more valved zones. Each zone must be of adequate size to receive the graywater anticipated in that zone. No irrigation or disposal field shall extend to a depth where graywater contaminates the groundwater, ocean water or surface water. The applicant shall supply evidence of groundwater depth to the satisfaction of the Enforcing Agency in accordance with the requirements in Section 1604A.1.

By 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3011-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA MECHANICAL CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE MECHANICAL CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2935-10, codified as Chapter 16.28 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.28 ADDED. Sunnyvale Municipal Code Chapter 16.28 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS

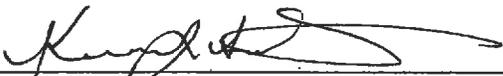
NOES: NONE

ABSTAIN: NONE

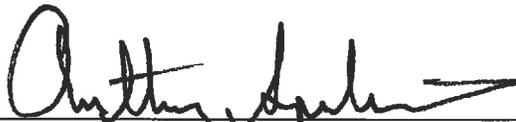
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12/15/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

Chapter 16.28.
MECHANICAL CODE

16.28.010. Title.

16.28.020. Adoption by reference.

16.28.025. Administration.

16.28.010. Title.

This chapter shall be known and may be cited and referred to as the “Mechanical Code for the City of Sunnyvale.”

16.28.020. Adoption by reference.

The 2012 Uniform Mechanical Code in its entirety as published by the International Association of Plumbing and Mechanical Officials and amendments to sections of the 2012 Uniform Mechanical Code adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 4 known as the California Plumbing Code, is hereby adopted by reference, is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the mechanical code of the city of Sunnyvale.

16.28.025. Administration.

2013 California Mechanical Code Chapter 1 Division II is hereby amended as follows:

2013 California Mechanical Code Chapter 1 Division II is hereby replaced by the applicable provisions of Chapters 16.16 and 16.17.

By 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3012-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA ELECTRICAL CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE ELECTRICAL CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2936-10, codified as Chapter 16.32 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.32 ADDED. Sunnyvale Municipal Code Chapter 16.32 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS

NOES: NONE

ABSTAIN: NONE

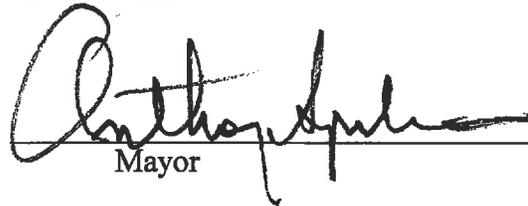
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12/15/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

Chapter 16.32.
ELECTRICAL CODE

16.32.010. Title.

16.32.020. Adoption by reference.

16.32.030. Administration.

16.32.010. Title.

This chapter shall be known and may be cited and referred to as the “Electrical Code for the City of Sunnyvale.”

16.32.020. Adoption by reference.

The 2011 National Electrical Code in its entirety as published by the National Fire Protection Association and amendments to sections of the 2011 National Electrical Code adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 3 known as the California Electrical Code, is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the electrical code of the city of Sunnyvale.

16.32.030. Administration.

2013 California Electrical Code section 89.101 is hereby amended as follows:

2013 California Electrical section 89.101 is hereby replaced by the applicable provisions of Chapters 16.16.

3y 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3013-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA HISTORICAL BUILDING CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE HISTORICAL BUILDING CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2937-10, codified as Chapter 16.34 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.34 ADDED. Sunnyvale Municipal Code Chapter 16.34 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for he purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS

NOES: NONE

ABSTAIN: NONE

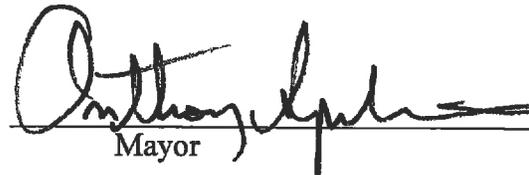
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12/5/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

**Chapter 16.34.
HISTORICAL BUILDING CODE**

16.34.010. Title.

16.34.020. Adoption by reference.

16.34.010. Title.

This chapter shall be known and may be cited and referred to as the “Historical Building Code for the City of Sunnyvale.”

16.34.020. Adoption by reference.

The “2013 California Historical Building Code” adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 8 is hereby adopted by reference as the historical building code of the city of Sunnyvale.


City Clerk of the City of Sunnyvale

ORDINANCE NO. 3014-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA ENERGY CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE ENERGY CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2938-10, codified as Chapter 16.42 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.42 ADDED. Sunnyvale Municipal Code Chapter 16.42 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS

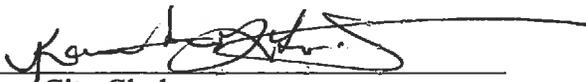
NOES: NONE

ABSTAIN: NONE

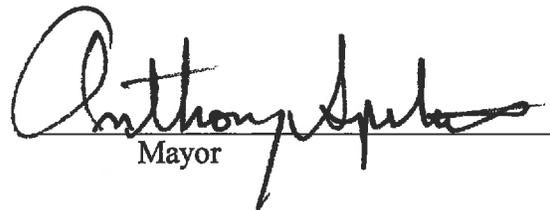
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12/5/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

**Chapter 16.42.
ENERGY CODE**

16.42.010. Title.

16.42.020. Adoption by reference.

16.42.010. Title.

This chapter shall be known and may be cited and referred to as the “Energy Code for the City of Sunnyvale.”

16.42.020. Adoption by reference.

The “2013 California Energy Code” adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 6 is hereby adopted by reference as the energy code of the city of Sunnyvale.

By 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3015-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA GREEN BUILDING CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE GREEN BUILDING CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2939-10, codified as Chapter 16.43 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.43 ADDED. Sunnyvale Municipal Code Chapter 16.43 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS

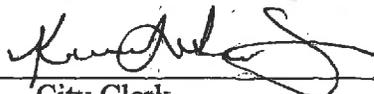
NOES: NONE

ABSTAIN: NONE

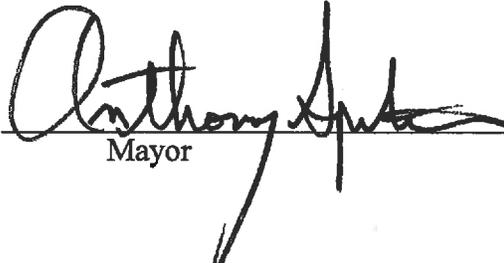
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12/15/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

Chapter 16.43.
GREEN BUILDING CODE

16.43.010. Title.

16.43.020. Adoption by reference.

16.43.030. Fireplaces and wood-burning appliances.

16.43.040. Pre-wiring for electric car chargers.

16.43.010. Title.

This chapter shall be known and may be cited and referred to as the "Green Building Code for the City of Sunnyvale."

16.43.020. Adoption by reference.

The "2013 California Green Building Standards Code" adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 11 is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the green building code of the city of Sunnyvale.

16.43.030. Fireplaces and wood-burning appliances.

2013 California Green Building Code Section 4.503 is amended to read:

(a) **Section 4.503 Fireplaces and Wood-Burning Appliances.** Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed wood-burning fireplace, stove, or pellet stove shall comply with U.S. EPA Phase II emission limits where applicable.

(b) This section shall not apply to the repair, reconstruction or replacement of any lawful, existing wood-burning appliance.

(c) This section shall not apply to a gas fireplace. However, the conversion of a gas fireplace to burn wood shall constitute the installation of a wood-burning appliance and shall be subject to the requirements of this chapter.

(d) It is unlawful to burn the following in any fireplace or wood-burning appliance:

- (1) Coal;
- (2) Garbage;
- (3) Glossy or colored paper;
- (4) Paint;
- (5) Paint solvent;
- (6) Particle board;
- (7) Plastic or items made from plastic;
- (8) Rubber or items made from rubber;
- (9) Salt water driftwood;
- (10) Treated wood; and
- (11) Waste petroleum products.

California Green Building Code Section 5.503 is amended to read:

(a) **Section 5.503 Fireplaces and Wood-Burning Appliances.** Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed wood-burning fireplace, stove, or pellet stove shall comply with U.S. EPA Phase II emission limits where applicable.

(b) This section shall not apply to the repair, reconstruction or replacement of any lawful, existing wood-burning appliance.

EXHIBIT A

(c) This section shall not apply to a gas fireplace. However, the conversion of a gas fireplace to burn wood shall constitute the installation of a wood-burning appliance and shall be subject to the requirements of this chapter.

(d) It is unlawful to burn the following in any fireplace or wood-burning appliance:

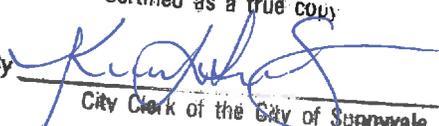
- (1) Coal;
- (2) Garbage;
- (3) Glossy or colored paper;
- (4) Paint;
- (5) Paint solvent;
- (6) Particle board;
- (7) Plastic or items made from plastic;
- (8) Rubber or items made from rubber;
- (9) Salt water driftwood;
- (10) Treated wood; and
- (11) Waste petroleum products.

16.43.040. Pre-wiring for electric car chargers.

2013 California Green Building Code Section 4.106.4 is hereby added:

(a) **Section 4.106.4 Pre-Wiring for Electric Car Chargers.** Effective July 1, 2012, parking spaces shall be pre-wired to accommodate Level 2 electric car chargers in accordance with Chapter 16.32, as follows:

- (1) All garages or carports accessory to single-family dwelling;
- (2) All garages or carports in residential developments with attached individual garages or carports;
- (3) Twelve and one-half percent of the total required parking spaces in residential developments that provide common shared parking.

Certified as a true copy
By 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3016-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE REPEALING CHAPTER 16.44 (SWIMMING POOLS) OF TITLE 16 (BUILDING AND CONSTRUCTION) OF THE SUNNYVALE MUNICIPAL CODE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Chapter 16.44 (Swimming Pools) of Title 16 (Building and Construction) of the Sunnyvale Municipal Code is hereby repealed.

SECTION 2. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 3. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 4. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

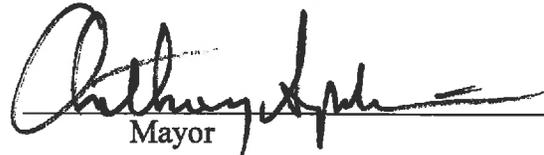
AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-
MILIUS, DAVIS
NOES: NONE
ABSTAIN: NONE
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12/5/2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

By 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3017-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION), OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE, WITH CERTAIN DELETIONS AND AMENDMENTS THERETO, AS THE PROPERTY MAINTENANCE CODE OF THE CITY OF SUNNYVALE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2940-10, codified as Chapter 16.50 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.50 ADDED. Sunnyvale Municipal Code Chapter 16.50 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, amendments and/or additions to the California Building Codes as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in Resolution No. 619-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

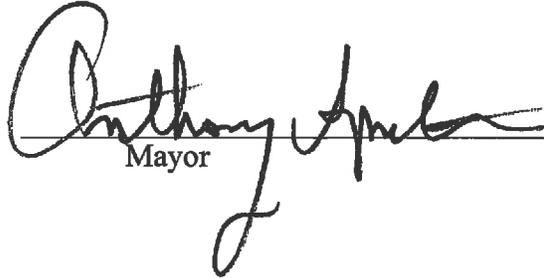
AYES:
NOES:
ABSTAIN:
ABSENT:

ATTEST:

APPROVED:



City Clerk



Mayor

Date of Attestation: 12-15 / 2013
(SEAL)

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

Chapter 16.50.

PROPERTY MAINTENANCE CODE

16.50.010. Title.

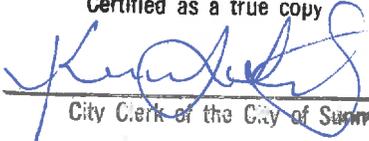
16.50.020. Adoption by reference.

16.50.010. Title.

This chapter shall be known and may be cited and referred to as the "Property Maintenance Code for the City of Sunnyvale."

16.50.020. Adoption by reference.

The "2012 International Property Maintenance Code" is hereby adopted by reference as the property maintenance code of the city of Sunnyvale. All references to jurisdictional requirements are found in the Sunnyvale Municipal Code or other appropriate schedules.

By 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3021-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE REPEALING CHAPTER 16.58 (NUMBERING OF BUILDINGS) OF TITLE 16 (BUILDING AND CONSTRUCTION) OF THE SUNNYVALE MUNICIPAL CODE

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Chapter 16.58 (Numbering of Buildings) of Title 16 (Building and Construction) of the Sunnyvale Municipal Code is hereby repealed.

SECTION 2. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 3. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 4. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MEYERING, MARTIN-MILIUS, DAVIS

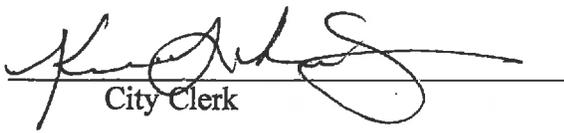
NOES: NONE

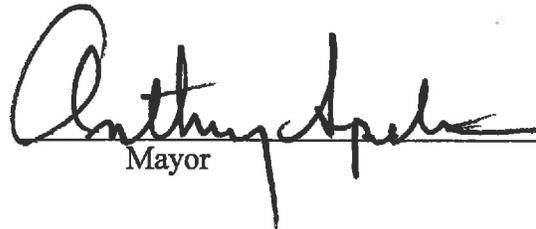
ABSTAIN: NONE

ABSENT: NONE

ATTEST:

APPROVED:


City Clerk


Mayor

Date of Attestation: 12/5/2013
(SEAL)

APPROVED AS TO FORM:


Rebecca Moon, Assistant City Attorney

BUILDING STANDARDS COMMISSION

2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959



January 27, 2014

Lynne M. Kilpatrick, Fire Marshall
Department of Public Safety
City of Sunnyvale
P.O. Box 3707
Sunnyvale, CA 94088-3707

RE: Ordinance #3018-13

Dear Ms. Kilpatrick:

This letter is to advise you of our determination regarding the referenced ordinance with express findings received from your agency on December 19, 2013.

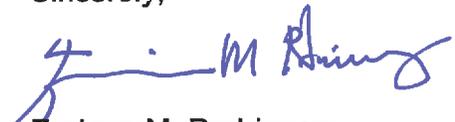
Our review finds the submittal to contain one ordinance modifying provisions of the 2013 California Building Standards Code in Title 24, California Code of Regulations (code), and express findings complying with Health and Safety Code §§17958.7 and 18941.5. The code modification is accepted for filing and is enforceable. This letter attests only to the satisfaction of the cited law for filing of local code amendment supported by an express finding with the Commission. The Commission is not authorized by law to evaluate the merit of the code modification or the express finding.

Local modifications to the code are specific to a particular edition of the code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the code is published.

On a related matter, should your city receive and ratify Fire Protection District ordinances making modifications to the code, be advised that Health and Safety Code §13869.7(c) requires such ratified ordinances and express findings to be filed with the Department of Housing and Community Development, Division of Codes and Standards, State Housing Law Program, rather than this Commission. Also, ordinances making modifications to the energy efficiency standards of the code may require approval from the California Energy Commission pursuant to Public Resources Code §25402.1(h)(2).

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,


Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings

DEC 12 2013

SUNNYVALE DEPARTMENT OF PUBLIC SAFETY



December 9, 2013

California Building Standards Commission
2020 West El Camino
Sacramento, CA 95833-2936

Dear Commissioners:

Pursuant to the requirements of 2012 California Fire Code Section 1.1.8.1, we are hereby transmitting to you a copy of the City of Sunnyvale's adopted ordinance and resolution that contains local amendments to the 2012 California Fire Code together with a recitation of the findings upon which the amendments were based.

Sincerely,

Lynne M. Kilpatrick
Fire Marshal

Sunnyvale Department of Public Safety



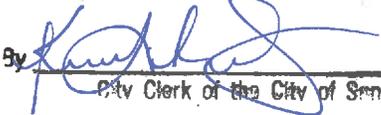
Lynne M. Kilpatrick
Fire Marshal

Main: (408) 730-7212
Direct: (408) 730-7219
lkilpatrick@sunnyvale.ca.gov

505 W. Olive Ave., Suite 150 | P.O. Box 3707 | Sunnyvale, CA 94088-3707

"Providing Our Community With Fully Integrated Public Safety Services"
Police – EMS – Fire

Fire Prevention Office | 505 W. Olive Ave., Suite 150, Sunnyvale, CA 94086 | Main: 408-730-7212
fireprevention@sunnyvale.ca.gov | FirePrevention.inSunnyvale.com

By 
 City Clerk of the City of Sunnyvale

RESOLUTION NO. 620-13

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE FINDING AND DETERMINING THE NEED FOR MODIFICATIONS TO THE 2013 CALIFORNIA FIRE CODE

WHEREAS, the City of Sunnyvale is adopting the 2013 CALIFORNIA FIRE CODE with numerous changes and modifications;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNNYVALE that it finds and determines there is a need to adopt the changes or modifications because of local climatic, topographic, geological and related geographic conditions.

General Findings

1. Climatic

- a. **Precipitation.** Precipitation ranges from 4.83 to 30.30 inches per year with an average of approximately 13.86 inches per year. Approximately 90% falls during the months of November through April and 10% from May through October. This area experienced a major drought in 1977-78 and a moderate drought the next five years; it is possible that more droughts will occur in the future. The local climate is characterized by markedly delineated rainy and dry seasons, which tend to maximize the expansive characteristics of soil.
- b. **Relative Humidity.** Humidity generally ranges from 60% during daytime to 80% at night. It drops to 20% during the summer months and occasionally drops lower.
- c. **Temperatures.** Temperatures have been recorded as high as 108° F. Average summer highs are in the 78°-82° F. range.
- d. **Winds.** Prevailing winds are from the Northwest or Southeast. However, winds are experienced from virtually every direction at one time or another. Velocities are generally in the 5-mph to 15-mph range, gusting to 7.4 mph to 30 mph, particularly during the summer months. Extreme winds, up to 60 mph, have been known to occur.
- e. **Summary.** These local climatic conditions affect the acceleration, intensity and size of fire in the community. Times of little or no rainfall, of low humidity and high temperatures create extremely hazardous conditions, particularly as they relate to wood shake and shingle roof fires and conflagrations. The winds experienced in this area can have a tremendous impact upon structure fires of buildings in close proximity to one another commonly found in Sunnyvale. During wood shake and shingle roof fires, or exposure fires, winds can carry sparks and burning brands to other structures, thus spreading the fire and causing conflagrations. In building fires, winds can literally force fires back into the building and can create a blowtorch effect, in addition to preventing "natural" ventilation and cross-ventilation efforts.

2. Geological, Geographic and Topographic

- a. **Geographic Location.** Sunnyvale is located in the Santa Clara Valley. It has taken its place as the second largest city in the heart of the "Silicon Valley," the center for an expanding and changing technology industry.
- b. **Seismic Location.** Sunnyvale is situated on alluvial soils between San Francisco Bay and the San Andreas Fault zone. The City's location makes it particularly vulnerable to damage to

taller and older structures caused by seismic events. The relatively young geological processes that have created the San Francisco Bay Area are still active today. Seismically, the City sits between two active earthquake faults (San Andreas and the Hayward/Calaveras) and numerous potentially active faults.

c. **Seismic and Fire Hazards.** Gypsum wallboard and exterior portland cement plaster have performed poorly during recent California seismic events. The shear values for gypsum wallboard and portland cement stucco contained in the code are based on mono-directional testing. It is appropriate to limit the use of these products until cyclic loading testing are performed and evaluated. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself.

Hazardous materials, particularly toxic gases, could pose the greatest threat to the largest number, should a significant seismic event occur. Public safety resources would have to be prioritized to mitigate the greatest threat, and may likely be unavailable for smaller single dwelling or structure fires.

Other variables may tend to intensify the situation:

1. The extent of damage to the water system;
2. The extent of isolation due to bridge and/or freeway overpass collapse;
3. The extent of roadway damage and/or amount of debris blocking the roadways;
4. Climatic conditions (hot, dry weather with high winds);
5. Time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours;
6. The availability of timely mutual aid or military assistance;
7. The large portion of dwellings with wood shingle roof coverings could result in conflagrations.

d. **Size and Population.** The City has an area over 24 square miles in size and a population estimated to be 145,973.

e. **Development.** Sunnyvale is a community, which is projected to add 7,500 new residential units within the next twenty-five years, primarily in multi-family configurations, for which building security is a matter of acute importance.

f. **Public Safety Department.** Sunnyvale utilizes a public safety (joint police/fire) department with personnel who function as both fire suppression and police officers, resulting in fewer personnel than otherwise would be required for a city of its size. A premium is therefore placed on built-in physical techniques and devices as crime preventative measures. It is therefore also imperative that fire detection and suppression occur as quickly as possible to minimize loss of property and life. For these reasons the most stringent provisions are required concerning fire detection, alarm and suppression systems.

g. **Roads and Streets.** The number of vehicle miles driven in the City is steadily increasing and considerable efforts in traffic and roadway improvements are being made to ease the crush of commuters to and through the City to their homes and places of work. Because of the City's high concentration of jobs, much of the peak traffic is made by nonresidents traveling to or from Sunnyvale. The impact of planned developments and traffic flow will continue to have an effect on the Department of Public Safety and delivery of fire services.

h. Industry. Sunnyvale is the site of many manufacturing and research industries which use toxic, flammable and explosive chemicals and materials in potentially hazardous combinations. Special precautions thus are required to minimize the risk of damage to adjoining persons and properties.

i. Mixed Industrial/Residential Uses. High-density residential uses are located near high-risk industries, necessitating special precautions.

j. Transportation. Sunnyvale is divided by an interstate highway, which potentially could affect response times of fire suppression equipment.

k. Soil Conditions and Topography. Sunnyvale lies at the southern end of San Francisco Bay and is built atop the alluvial deposits that surround the margins of the Bay. The alluvium was created by the flooding of the many streams emptying into the San Francisco Bay depression, and from intermittent seawater inundation that has occurred over the last 2 or 3 million years. The areas closest to the Bay are overlain by unconsolidated fine silty clay, known as "Bay Mud" which varies in thickness from a few feet to as much as 30 feet. Generally, the older, more stable alluvium is to the south and the younger, less stable material is to the north. Bedrock lies beneath the area at depths generally 300' or more. The topography is essentially flat, dropping from an elevation of 300 feet to sea level. The slope across the City is in a northeasterly direction from the high point in the southwest corner to the Bay. The average slope is approximately 0.9%.

The Silicon Valley is within a very active seismic area and local soil conditions can be highly expansive (clay soils). The Northridge earthquake provided hundreds of examples of damage to plain concrete footings. This type of damage is extremely expensive to repair, in contrast to the small expense of providing nominal footing reinforcement. Footing reinforcement is also necessary to prevent damage due to pumping action caused by local expansive soils, which shrink and swell during seasonal drying and wetting conditions.

Most of the surface soils in the Silicon Valley are relatively young and unconsolidated sedimentary materials formed from a wide variety of parent materials. The varying chemical composition, degree of weathering, and the relatively acid environment have created soils of varying types, which are particularly corrosive in nature. Much of the surface soil in the Silicon Valley is highly expansive (i.e., shrink-swell behavior) and has low bearing strength.

l. Water/Sewer. Some parts of the Silicon Valley have hard water, which is corrosive to ferrous pipe. The groundwater table is unusually high in many places. Expansive soils create unstable conditions, which increase the potential of breaks in sewer laterals. To maintain health and sanitary services, it is necessary to gain access, to periodically maintain public sanitary laterals.

m. Buildings, Landscaping and Clearances. Many of the newer large buildings and building complexes are of designs, which greatly limit visibility and approach to and accessibility by Public Safety resources. Many houses and other buildings with wood roofs and/or sidings are so close together that fire will readily spread from one to another by both radiation and convection.

n. Summary. The stated local geological, geographic and topographical conditions increase the magnitude, exposure, accessibility problems and fire hazards presented to the Department of Public Safety. Lying beneath Sunnyvale are thick layers of sand, gravel and clay, known as alluvium, which amplify the effects of earthquakes. Based on the damage caused in Santa Clara Valley by the 1906 earthquake and the poor performance of alluvial deposits during earthquakes, this area could be subject to severe damage.

Findings.

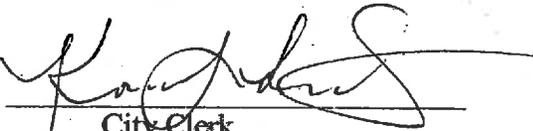
With the exception of changes justified on administrative grounds, the local amendments of the 2013 CALIFORNIA FIRE CODE are justified by all of the aforementioned general findings.

BE IT FURTHER RESOLVED that the City Clerk is hereby directed to cause a copy of this resolution, together with the ordinances making the changes and modifications to the enumerated uniform codes, to be filed with the State Department of Housing and Community Development.

Adopted by the City Council at a regular meeting held on November 19, 2013, by the following vote:

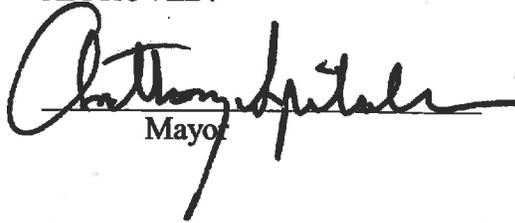
AYES: GRIFFITH, MOYLAN, WHITTUM, MARTIN-MILIUS, DAVIS
NOES: MEYERING
ABSTAIN:
ABSENT: SPITALERI

ATTEST:



City Clerk
(SEAL)

APPROVED:



Mayor

APPROVED AS TO FORM:



Joan A. Borger, City Attorney

By 
City Clerk of the City of Sunnyvale

ORDINANCE NO. 3018-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING TITLE 16 (BUILDING AND CONSTRUCTION) OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2013 CALIFORNIA FIRE CODE AS THE FIRE CODE OF THE CITY OF SUNNYVALE

WHEREAS, the public health, safety and welfare will be served by the adoption of the "2012 International Fire Code" as amended by the "2013 California Fire Code," including appendixes Appendices B, C, D, F, H, and, as amended by the State of California and local amendments, which are hereby adopted by reference as the Fire Code of the City of Sunnyvale.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. REPEAL. Ordinance No. 2942-10, codified as Chapter 16.52 of the Sunnyvale Municipal Code, and all prior ordinances pertaining to this subject are hereby repealed.

SECTION 2. CHAPTER 16.52 ADDED. Sunnyvale Municipal Code Chapter 16.52 is hereby added to read as set forth in Exhibit "A" attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Sunnyvale declares that it would have passed this ordinance and every section, subsection, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 6. FINDINGS. The deletions, additions, and/or amendments to the California Fire Code as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the general and specific findings by the City Council of the City of Sunnyvale, which

findings are set forth in Resolution No. 620-13.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on January 1, 2014.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication of a notice once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held, November 19, 2013, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on November 26, 2013, by following vote:

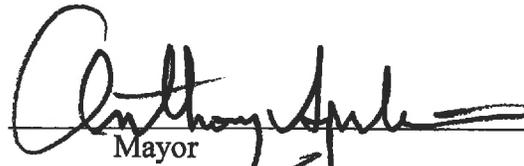
AYES: SPITALERI, GRIFFITH, MOYLAN, WHITTUM, MARTIN-MILIUS, DAVIS
NOES: MEYERING
ABSTAIN: NONE
ABSENT: NONE

ATTEST:

APPROVED:



City Clerk 12/5/2013



Mayor

APPROVED AS TO FORM:



Rebecca Moon, Assistant City Attorney

Chapter 16.52.
FIRE CODE

- 16.52.010. Title.**
- 16.52.020. Adoption by reference.**
- 16.52.030. Fire district designated.**
- 16.52.040. Hazardous materials.**
- 16.52.050. Duties are discretionary.**
- 16.52.060. Reference to codes.**
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- 16.52.108. Board of appeals.**
- 16.52.109. Violations.**
- 16.52.110. Unsafe buildings.**
- 16.52.111. Stop work or use order.**
- 16.52.113. Fees.**
- 16.52.202. General definitions.**
- 16.52.308. Open flames.**
- 16.52.311. Vacant premises.**
- 16.52.315. General storage.**
- 16.52.316. Hazards to firefighters.**
- 16.52.401. Emergency planning and preparedness.**
- 16.52.403. Public assemblages and events.**
- 16.52.404. Fire safety and evacuation plans.**
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- 16.52.408. Use and occupancy related requirements.**
- 16.52.503. Fire apparatus access roads.**
- 16.52.504. Access to building openings and doors.**
- 16.52.505. Premises identification.**
- 16.52.507. Fire protection water supplies.**
- 16.52.508. Fire command center.**
- 16.52.510. Emergency responder radio coverage.**
- 16.52.511. Firefighter air replenishment systems.**
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- 16.52.601. Building services and systems.**
- 16.52.604. Emergency and standby power systems.**
- 16.52.605. Electrical equipment, wiring and hazards.**
- 16.52.606. Mechanical refrigeration.**
- 16.52.608. Stationary storage battery systems.**
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- 16.52.901. Fire protection systems.**
- 16.52.903. Automatic sprinkler systems.**
- 16.52.905. Standpipe systems.**
- 16.52.913. Fire pumps.**
- 16.52.914. Fire protection based on special detailed requirements of use and occupancy.**
- 16.52.1009. Stairways.**

- 16.52.1030. Maintenance of means of egress.**
- 16.52.1103. Fire safety requirements for existing buildings.**
- 16.52.2311. Repair garages.**
- 16.52.2803. Lumberyards and woodworking facilities.**
- 16.52.3304. Fire safety during construction and demolition.**
- 16.52.5001. Hazardous materials: general.**
- 16.52.5003. Hazardous materials: general requirements.**
- 16.52.5004. Hazardous materials: storage.**
- 16.52.5005. Hazardous materials: use, dispensing and handling.**
- 16.52.5301. Compressed gases.**
- 16.52.5601. Explosives and fireworks.**
- 16.52.5704. Flammable and combustible liquids.**
- 16.52.5706. Special operations.**
- 16.52.6001. Highly toxic and toxic materials and moderately toxic gases.**
- 16.52.6004. Highly toxic, toxic and moderately toxic compressed gases including those used as refrigerants.**
- 16.52.6405. Pyrophoric materials.**
- 16.52.7000. Modifications.**
- 16.52.8101. Fire apparatus and access roads.**
- 16.52.8102. Required access.**
- 16.52.8103. Minimum specifications.**
- 16.52.8104. Aerial fire apparatus access roads.**
- 16.52.8105 Multi-family residential developments.**

16.52.010. Title.

This chapter shall be known and may be cited and referred to as the “Fire Code for the City of Sunnyvale.”

16.52.020. Adoption by reference.

The “2012 International Fire Code” in its entirety, along with Appendices B, C, D, F, H, and I, as published by the International Code Council, Inc., and amendments to sections of the 2012 International Fire Code and Appendix K adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 9 known as the California Fire Code; is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the Fire Code of the City of Sunnyvale.

16.52.030. Fire District designated.

The entire City of Sunnyvale is designated as a fire district.

16.52.040. Hazardous materials.

Whenever a provision of this chapter conflicts with any provision of Title 20 of the Sunnyvale Municipal Code, the stricter provision shall govern. Wherever in this ordinance there is a conflict between metric units of measurement and English units, the English units govern.

16.52.050. Duties are discretionary.

Notwithstanding any other provision of this chapter or any provision of the California Fire Code, whenever the words "shall" or "must" are used in establishing a responsibility or duty of the City, its elected or appointed officers, employees, or agents, it is the legislative intent that such words establish discretionary responsibility or duty requiring the exercise of judgment and discretion.

All inspections specified herein shall be at the discretion of the fire code official and nothing in the California Fire Code or in the Sunnyvale Municipal Code shall be construed as requiring the city to conduct any such inspection nor shall any actual inspection made imply a duty to conduct any other inspection. Furthermore, neither the California Fire Code nor the Sunnyvale Municipal Code shall be construed to hold the city or any officers, employees or representatives of the city responsible for any damage to persons or property by reason of making inadequate or negligent inspection or by reason of any failure to make an inspection or reinspection.

16.52.060. Reference to codes.

California Fire Code Section 1.1.8 is hereby amended by adding the following provision to read:

1.1.8.2. Reference to codes. Whenever reference is made in this code to a building, mechanical, plumbing, or electrical code, such reference shall mean the version of such code as amended and adopted by the city of Sunnyvale.

16.52.101. Scope and administration.

(a) Title.

California Fire Code Section 101.1 is hereby amended to read:

[A] **101.1 Title.** These regulations shall be known as the Fire Code of the city of Sunnyvale, hereinafter referred to as “this code.”

16.52.103. Department of fire prevention.

(a) Appointment.

California Fire Code Section 103.2 is hereby amended to read:

[A] **103.2. Appointment.** A *fire code official*, other than the Director of Public Safety, shall be appointed by the chief appointing authority of the jurisdiction; and the *fire code official*, other than the Director of Public Safety, shall not be removed from office except for cause and after full opportunity to be heard on specific and relevant charges by and before the appointing authority.

16.52.104. General authority and responsibilities.

(a) General.

California Fire Code Section 104.1 is hereby amended to read:

[A] **104.1 General.** The *fire code official* is hereby authorized to enforce the provisions of this code and shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to carry out the provisions of this code and clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code.

(b) Obstructing operations.

California Fire Code Section 104.11.2 is hereby amended to read:

[A] **104.11.2 Obstructing operations.** No person shall obstruct the operations of the fire department in connection with extinguishment, ~~or~~ control or investigation of any fire, or actions relative to other emergencies, or disobey any lawful command of the fire chief or officer of the fire department in charge of the emergency, or any part thereof, or any lawful order of a police officer assisting the fire department.

(c) Prohibited use, display or sales of devices.

California Fire Code Section 104 is hereby amended by adding Section 104.12 to read:

104.12 Prohibited use, display or sale of devices. The *fire code official* may prohibit the use, display or sale of any device, material or object that is designed to be used in such a manner as to violate any provisions of this code, or if the use or sale of such constitutes a distinct hazard to life or property. Any materials shown by nationally recognized fire test to have a life hazard greater than that indicated by the manufacturer's literature and controlled by building code interior finish regulations or fire code decorative material regulations is either prohibited or shall be installed or used with such additional fire safety features as are necessary to substantially reduce the life hazard.

(d) Standby fire personnel and fire watch personnel.

California Fire Code Section 104 is hereby amended by adding 104.14 to read:

104.14 Standby fire personnel and fire watch personnel. The *fire code official* has the authority to require, at no cost to the jurisdiction, standby fire personnel and/or fire watch personnel if in the opinion of the fire code official potentially hazardous conditions or reductions in a life safety feature exist. The owner, agent, or lessee shall provide one or more qualified persons, as required and approved, to be on duty. Such standby fire personnel or fire watch personnel shall be subject to the fire code official's orders at all times and remain on duty during the times such places are open to the public, when such activity is being conducted, or as required by the *fire code official*. Fire watch personnel are not employees or agents of the city.

16.52.105. Permits.

(a) Permits required.

California Fire Code Section 105.1.1 is hereby amended to read:

[A] **105.1.1 Permits required.** Any property owner or authorized agent who intends to conduct an operation or business, or install or modify systems and equipment which is regulated by this code, or to cause any such work to be done, shall first make application to the fire code official and obtain the required permit. Where a permit is obtained for hazardous materials pursuant to Title 20 of the Sunnyvale Municipal Code there shall be no requirement for an additional permit for such hazardous materials under this code. Permit fees, if any, may be required to be paid prior to issuance of the permit. Failure to pay the required permit fee may result in cancellation of the permit.

(b) Refusal to issue a permit.

California Fire Code Section 105.2.1 is hereby amended to read:

[A] 105.2.1 Refusal to issue permit. If the application for a permit describes an activity that does not conform to the requirements of this code and other pertinent laws and ordinances, the fire code official may not issue a permit, and may return the application to the applicant with the refusal to issue such permit. Such refusal shall, when requested, be in writing and shall contain the reasons for refusal.

(c) Time limitation of application.

California Fire Code Section 105.2.3 is hereby deleted in its entirety.

(d) Action on application.

California Fire Code Section 105.2.4 is hereby amended to read:

[A] 105.2.3 Action on application. The fire code official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the fire code official may reject such application in writing, stating the reasons therefor. If the fire code official is satisfied that the proposed work or operation conforms to the requirements of this code and laws and ordinances applicable thereto, the fire code official shall issue a permit as soon as practicable.

(e) Conditions of a permit.

California Fire Code Section 105.3 is hereby amended to read:

[A] 105.3 Conditions of a permit. The *fire code official* may condition any permit, increasing or decreasing the scope of activity, and/or specifying fire safety provisions in addition to those established by this code, if the *fire code official* deems such conditions necessary to provide reasonable public safety.

A permit shall constitute permission to maintain, store or handle materials; or to conduct processes which produce conditions hazardous to life or property; or to install equipment utilized in connection with such activities; or to install or modify any fire protection system or equipment or any other construction, equipment installation or modification in accordance with the provisions of this code where a permit is required by Section 105.6 or 105.7. Such permission shall not be construed as authority to violate, cancel or set aside any of the provisions of this code or other applicable regulations or laws of the jurisdiction.

(f) Temporary certificate of occupancy.

California Fire Code Section 105.3.4 is hereby amended to read:

[A] 105.3.4 Temporary certificate of occupancy. The fire code official is authorized to recommend to the *building code official* that a Temporary Certificate of Occupancy be issued granting permission to occupy the premises or portion thereof before the entire work or operations on the premises is completed, provided that such portion or portions will be occupied safely prior to full completion or installation of equipment and operations without endangering life

or public welfare. The *fire code official* shall notify the *building code official* in writing of any limitations or restrictions necessary to keep the occupied area safe. The holder of a temporary certificate of occupancy shall proceed only to the point for which approval has been given, at the permit holder's own risk and without assurance that approval for the occupancy or the utilization of the entire premises, equipment or operations will be granted.

All mechanical and electrical equipment and other required life safety systems in high rise buildings shall be approved and installed in accordance with approved plans and specifications pursuant to this code and shall be tested and proved to be in proper working condition to the satisfaction of the fire code official and building official prior to issuance of the certificate of occupancy. Such systems shall be maintained in accordance with Title 19, California Code of Regulations and the California Fire Code.

(g) State-regulated occupancies.

California Fire Code Section 105.3 is hereby amended by adding Section 105.3.9 to read:

105.3.9. State-regulated occupancies. It shall be unlawful to operate, maintain or use any-occupancy defined herein as a *Community Care Facility, Day Care or Child Care Center* until all state and local laws and regulations governing safety from fire and panic have been satisfactorily complied with and, where applicable, a permit from the *fire code official* has been obtained in accordance with Section 105.6.

(h) Electronic pre-fire plan required.

California Fire Code Section 105.3 is hereby amended by adding Section 105.3.10 to read:

105.3.10 Electronic pre-fire plan required. When required by the *fire code official*, permit applicants shall submit an *approved* electronic pre-fire plan in accordance with local standards prior to final approval of a permit.

(i) Retention of construction documents.

California Fire Code is hereby amended by deleting Section 105.4.6 in its entirety.

(j) Revocation of permits.

California Fire Code Section 105.5 is hereby amended to read:

[A] 105.5 Revocation of permits. Revocation of permits shall be in accordance with this section.

(k) Revocations, suspensions and denials of requests to renew permits.

California Fire Code Section 105.5 is hereby amended by adding Sections 105.5.1 through 105.5.2.6 to read:

[A] 105.5.1 Nonemergency revocations, suspensions and denials of requests to renew permit. In accordance with applicable law, the *fire code official* may revoke or suspend a permit or deny a request to renew any permit upon evidence submitted to the *fire code official* that conditions or circumstances have changed

so that continued use of the permit would be unsafe or would violate this code or the conditions of the permit. Such conditions or circumstances include, but are not limited to:

1. The permit has been used by a person other than the person to whom the permit was issued,
2. The permit has been used for a location other than that for which it was issued,
3. Any of the conditions or limitations in the permit or the code has been violated,
4. The permittee failed, refused or neglected to comply within the time provided with orders or notices duly served in accordance with the provisions of this code,
5. There has been a false statement or misrepresentation as to a material fact in the application or plans on which the permit or application was based, or
6. The permit was issued in error or in violation of any code, regulation or other law.

105.5.1.1 Notification. The permit holder shall be notified in writing no later than five business days prior to the revocation, suspension or denial of a request to renew such permit.

105.5.1.2 Requesting a hearing. The permit holder may request in writing a hearing before the *fire code official* for reconsideration of the decision to revoke, suspend or deny renewal. The request shall be filed with the *fire code official* by 5 o'clock p.m. of the fifth business day following service of the notice.

105.5.1.3 Hearing. The hearing, if one is requested, shall be held no later than five business days after receipt of the written request.

105.5.1.4 Final decision. The *fire code official* shall issue a final decision, in writing, sustaining, modifying or withdrawing the initial decision to revoke, suspend or deny a request to renew the permit no later than the fifth business day following such hearing. Further appeals shall be in accordance with Section 108 of this code.

105.5.1.5 Further appeals. Further appeals shall be in accordance with Section 108 of this code.

105.5.2 Emergency revocations, suspensions and denials of requests to renew permits. The *fire code official* may revoke, suspend or deny a request to renew a permit in emergency situations, without providing prior notice to the permit holder, if an imminent fire, life-safety, or other hazard regulated by this code exists, and failure to take immediate action may cause imminent harm to humans, domestic animals, livestock, wildlife, or to the immediate or neighboring property, lands or premises.

105.5.2.1 Surrendering permits. If such emergency is found to exist and if the *fire code official* revokes, suspends, or refuses to renew a permit, all permits shall

be surrendered to the *fire code official* or his/her authorized representative upon demand.

105.5.2.2 Suspending activities. The activities sanctioned by the suspended or revoked permits shall be suspended until the *fire code official* finds the emergency no longer exists and reinstates the permit.

105.5.2.3 Requesting an appeal. Persons whose permits have been revoked or suspended without notice may appeal the *fire code official's* action by filing a written notice of appeal to the *fire code official* by 5 o'clock p.m. of the fifth business day following such revocation, suspension or denial or a request to renew a permit.

105.5.2.4 Hearing. The hearing with the *fire code official* shall be no later than five business days from the receipt of such written appeal.

105.5.2.5 Final decision. The *fire code official* shall issue a final decision in writing, sustaining, modifying or withdrawing the initial decision to revoke, suspend or deny a request to renew the permit no later than the fifth business day following such hearing.

105.5.2.6 Further appeals. Further appeals shall be in accordance with Section 108 of this code.

(l) Carnivals and fairs.

California Fire Code Section 105.6.4 is hereby amended to read:

[A] 105.6.4 Carnivals and fairs. An operational permit is required to conduct a carnival, fair or outdoor assembly event. See also 105.6.56, Outdoor Assembly Event.

(m) Compressed gases.

California Fire Code Table 105.6.8 is hereby amended to read:

[A] 105.6.8 Compressed gases. An operational permit is required for the storage, use or handling at normal temperature and pressure (NTP) of compressed gases in excess of the amounts listed in Table 105.6.8.

TABLE 105.6.8
PERMIT AMOUNTS FOR COMPRESSED GASES

TYPE OF GAS	AMOUNT (cubic feet at NTP)
Corrosive	200
Flammable (except cryogenic fluids and liquefied petroleum gases)	200
Highly toxic	Any Amount
Inert and simple asphyxiant	6,000
Moderately toxic	20
Other health hazard	200

Oxidizing (including oxygen)	504
Pyrophoric	Any amount
Toxic	Any Amount

(n) Explosives.

California Fire Code Sections 105.6.14 is hereby amended to read:

[A] 105.6.14 Explosives. An operational permit is required for the possession, manufacture, storage, handling, sale, use, or disposal of any quantity of explosives, explosive materials, fireworks or pyrotechnic special effects within the scope of Chapter 56.

Exceptions:

1. Storage in Group R-3 occupancies of smokeless powder, black powder and small arms primers for personal use, not for resale and in accordance with Section 5606.
2. Gunpowder and smokeless powder not exceeding 20 pounds net weight.
3. Black sporting powder not exceeding 1 pound net weight.

(o) Limits established by law.

California Fire Code Section 105.6 is hereby amended by adding Section 105.6.14.1 to read:

105.6.14.1 Limits established by law. The storage of explosives and blasting agents is permitted only within those districts established in Title 19 of the Sunnyvale Municipal Code (Zoning) and described as the Industrial and Service Zone (M-S) and General Industrial (M-3) Zoning Districts except for temporary storage for use in connection with approved blasting operations; provided, however, this prohibition shall not apply to wholesale and retail stocks of small arms ammunition, explosive bolts, explosive rivets or cartridges for explosive actuated power tools in quantities involving less than 500 pounds (226.8 kg) of explosive material.

(p) Hazardous materials.

California Fire Code Table 105.6.20 is hereby amended to read:

[A] 105.6.20 Hazardous materials. An operational permit is required to store, transport on site, use or handle hazardous materials in excess of the amounts listed in Table 105.6.20.

TABLE 105.6.20
PERMIT AMOUNTS FOR HAZARDOUS MATERIALS

TYPE OF MATERIAL	AMOUNT
Combustible liquids	See Section 105.6.16

Corrosive materials Gases Liquids Solids	See Section 105.6.8 55 gallons 500 pounds
Explosive materials	See Section 105.6.14
Flammable materials Gases Liquids Solids	See Section 105.6.8 See Section 105.6.16 100 pounds
Highly toxic materials Gases Liquids Solids	See Section 105.6.8 Any Amount Any Amount
Moderately toxic materials Gases	See Section 105.6.8
Other health hazard materials Gases Liquids Solids	See Section 105.6.8 55 gallons 500 pounds
Oxidizing materials Gases Liquids Class 4 Class 3 Class 2 Class 1 Solids Class 4 Class 3 Class 2 Class 1	See Section 105.6.8 Any Amount 1 gallon ^a 10 gallons 55 gallons Any Amount 10 pounds ^b 100 pounds 500 pounds
Organic peroxides Liquids Class I Class II Class III Class IV Class V Solids Class I Class II Class III Class IV Class V	Any Amount Any Amount 1 gallon 2 gallons No Permit Required Any Amount Any Amount 10 pounds 20 pounds No Permit Required

Pyrophoric materials Gases Liquids Solids	Any Amount Any Amount Any Amount
Toxic materials Gases Liquids Solids	See Section 105.6.8 10 gallons 100 pounds
Unstable (reactive) materials Liquids Class 4 Class 3 Class 2 Class 1 Solids Class 4 Class 3 Class 2 Class 1	Any Amount Any Amount 5 gallons 10 gallons Any Amount Any Amount 50 pounds 100 pounds
Water-reactive materials Liquids Class 3 Class 2 Class 1 Solids Class 3 Class 2 Class 1	Any Amount 5 gallons 55 gallons Any Amount 50 pounds 500 pounds

For SI: 1 gallon = 3.785 L, 1 pound = 0.454 kg

- a. 20 gallons when Table 5003.1.1(1) Note k applies and hazard identification signs in accordance with Section 5003.5 are provided for quantities 20 gallons or less.
- b. 200 pounds when Table 5003.1.1(1) Note k applies and hazard identification signs in accordance with Section 5003.5 are provided for quantities of 200 pounds or less.

(q) Hot work operations.

California Fire Code Section 105.6.23 is hereby amended to read:

[A] 105.6.23 Hot work operations. An operational permit is required for hot work including, but not limited to:

1. Public exhibitions and demonstrations where hot work is conducted.
2. Use of portable hot work equipment inside a structure.

Exception: Approved self-contained torch assemblies or similar appliances using LP-gas in accordance with the following:

- a. LP-gas cylinders that comply with UL 147A, Standard for Nonrefillable (Disposable) Type Fuel Gas Cylinder Assemblies.
 - b. LP-gas cylinders that have a maximum water capacity of 2.7 lb (1.2 kg).
 - c. The maximum aggregate water capacity of LP-gas cylinders in storage (e.g. not connected for use) and use does not exceed 2.7 lb (1.2 kg) per control area.
3. Fixed-site hot work equipment such as welding booths.
 4. Hot work conducted within a wildfire risk area.
 5. Application of roof coverings with the use of an open-flame device.
 6. Hot work on storage tanks, piping and associated systems containing or previously containing flammable or combustible liquids, or other hazardous materials that could present a fire or explosion hazard.
 7. When approved, the fire code official shall issue a permit to carry out a hot work program. This program allows approved personnel to regulate their facility's hot work operations. The approved personnel shall be trained in the fire safety aspects denoted in this chapter and shall be responsible for issuing permits requiring compliance with the requirements found in Chapter 35. These permits shall be issued only to their employees or hot work operations under their supervision.

(r) LP-gas.

California Fire Code Section 105.6.27 is hereby amended to read:

[A] 105.6.27 LP-gas. An operational permit is required for:

1. Storage and use of LP-gas.

Exceptions:

1. A permit is not required for individual containers with a 500-gallon (1893L) water capacity or less or multiple container systems having an aggregate quantity not exceeding 500 gallons (1893 L), serving occupancies in Group R-3.
 2. A permit is not required for LP-gas containers having a water capacity not exceeding 48 pounds [nominal 20 pounds (9 kg) LP-gas] connected to a LP-gas grill unless located at a public assembly or on a public way, or if used for commercial purposes.
2. Operation of cargo tankers that transport LP-gas.

(s) Miscellaneous combustible storage.

California Fire Code Section 105.6.29 is hereby amended to read:

[A] 105.6.29 Miscellaneous combustible storage. An operational permit is required to store in any building or upon any premises Class IV or high hazard commodities in excess of 2,500 cubic feet (71m3) gross volume.

(t) Stationary battery system.

California Fire Code Section 105 is hereby amended by adding Section 105.6.48 as follows:

105.6.48 Stationary battery system. An operational permit is required for stationary storage battery systems regulated in Section 608.

(u) Child-care center.

California Fire Code Section 105 is hereby amended by adding Section 105.6.49 as follows:

105.6.49 Child-care center. An operational permit is required to operate a *child-care center* as defined in Chapter 2.

(v) Emergency responder radio coverage system.

California Fire Code Section 105 is hereby amended by adding Section 105.6.50 as follows:

105.6.50 Emergency responder radio coverage system. An operational permit is required to maintain an emergency responder radio coverage system in accordance with Section 510.

(w) Firefighter air replenishment system.

California Fire Code Section 105 is hereby amended by adding Section 105.6.51 as follows:

105.6.51 Firefighter air replenishment system. An operational permit is required to maintain a firefighter air replenishment system.

(x) Group home.

California Fire Code Section 105 is hereby amended by adding Section 105.6.52 as follows:

105.6.52 Group home. An operational permit is required to operate a *group home* as defined in Chapter 2.

(y) Hazardous material stabilization.

California Fire Code Section 105 is hereby amended by adding Section 105.6.53 as follows:

105.6.53 Hazardous material stabilization. A temporary operational permit is required to stabilize potentially unstable (reactive) hazardous materials.

(z) Helicopter lifts.

California Fire Code Section 105 is hereby amended by adding Section 105.6.54 as follows:

105.6.54 Helicopter lifts. A temporary operational permit is required to move suspended loads via helicopter over populated areas.

(aa) Hospitals and psychiatric hospitals.

California Fire Code Section 105 is hereby amended by adding Section 105.6.55 as follows:

105.6.55 Hospitals and psychiatric hospitals. An operational permit is required to operate a *hospital* or *psychiatric hospital* as defined in Chapter 2.

(bb) Large family day care home.

California Fire Code Section 105 is hereby amended by adding Section 105.6.56 as follows:

105.6.56 Large family day care home. An operational permit is required to operate a *large family day care home* as defined in Chapter 2.

(cc) Outdoor assembly event.

California Fire Code Section 105 is hereby amended by adding Section 105.6.57 as follows:

105.6.57 Outdoor assembly event. A temporary operational permit is required to operate an *outdoor assembly event*.

(dd) Residential care facility for the elderly.

California Fire Code Section 105 is hereby amended by adding Section 105.6.58 as follows:

105.6.58 Residential care facility for the elderly. An operational permit is required to operate a residential care facility for the elderly having seven (7) or more residents as defined in Chapter 2.

(ee) Residential care facility for the chronically ill.

California Fire Code Section 105 is hereby amended by adding Section 105.6.59 as follows:

105.6.59 Residential care facility for the chronically ill. An operational permit is required to operate a residential care facility for the chronically ill as defined in Chapter 2.

(ff) Temporary assembly occupancy.

California Fire Code Section 105 is hereby amended by adding Section 105.6.60 as follows:

105.6.60 Temporary assembly occupancy. A temporary operational permit is required to use any building or structure, or portion thereof, other than established Group R-3 and Group A occupancies for assembly purposes where the occupant load is more than 50 persons. Plans shall be submitted to the fire code official at least 30 days prior to the event where temporary alterations are made to the existing means of egress. The number of such permits for any building or structure, or portion thereof, is limited to one per quarter. Additional permits may be issued where application for a change of use for the building, or structure, or portion thereof, has been submitted to the Community Development Department (CDD) with the approval of the building official.

(gg) Fire fighter air replenishment system.

California Fire Code Section 105 is hereby amended by adding Section 105.7.17 as follows:

105.7.17 Firefighter air replenishment system. A construction permit is required to install or modify firefighter air replenishment systems.

16.52.106. Inspections.

(a) Special inspections.

California Fire Code is hereby amended by adding Section 106.5 to read:

106.5 Special inspections. The fire code official is authorized to appoint qualified persons or agencies having special technical skills as special inspectors or plan reviewers and accept their inspection, plan review and evaluation of specialized fire protection equipment or systems.

16.52.107. Maintenance.

(a) Overcrowding.

California Fire Code Section 107.5 is hereby amended to read:

[A] 107.5 Overcrowding. Overcrowding or admittance of any person beyond the approved capacity of a building or a portion thereof shall not be allowed. The fire code official, upon finding any overcrowding conditions or obstructions in aisles, passageways or other means of egress, or upon finding any condition which constitutes a life safety hazard, shall be authorized to direct actions be taken to reduce the overcrowding or to cause the event to be stopped until such condition or obstruction is corrected.

(b) Hazard abatement.

California Fire Code is hereby amended by adding Section 107.6 to read:

107.6 Hazard abatement. Any act or condition that presents a fire, panic, or life safety hazard, or would contribute to the rapid spread of fire or inhibit mitigation or increase the chance of release of hazardous material, or would interfere with, hinder, or delay the egress of occupants or response of emergency personnel and which is not otherwise addresses in the code, shall be abated, eliminated or corrected as directed by the *fire code official*.

16.52.108. Board of appeals.

California Fire Code is hereby amended by adding Section 108.1.1 to read:

108.1.1 Appeals. The Office of the City Clerk maintains guidelines and procedures for the Board of Appeals.

16.52.109. Violations.

(a) Unlawful acts.

California Fire Code Section 109.1 is hereby amended to read as follows:

[A] 109.1 Unlawful acts. 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. It is a violation of the Sunnyvale Fire Code for any person to fail to comply with the Sunnyvale Fire Code or with any written order issued by the *fire code official*.

(b) Violation penalties.

California Fire Code Section 109.4 is hereby amended to read:

[A] 109.4 Violation penalties. Any person, property owner, firm or corporation 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 provision provisions of this code, shall be guilty of a misdemeanor unless an infraction is specified, and upon conviction thereof shall be punishable as provided in Chapter 1.04 of the Sunnyvale Municipal Code.

(c) Civil penalties.

California Fire Code Section 109.4.2 is hereby amended by adding Section 109.4.2 to read:

109.4.2 Civil penalties. Any person, property owner, firm or corporation 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 provision provisions of this code, shall be liable for civil penalties as described in Chapter 1 of the Sunnyvale Municipal Code.

In any civil action brought to seek such civil penalties, and/or to obtain injunction relief for violation of any provision of the code, in which action the city prevails, the court shall determine and impose reasonable expenses, including attorney's fees, incurred by the city in the investigation and prosecution of the action.

Such remedies are in addition to and do not supersede or limit any and all other remedies, civil or criminal.

16.52.110. Unsafe buildings.

(a) General

California Fire Code Sections 110.1-110.1.2 are hereby amended to read:

[A] 110.1 General. If a premises, a building or structure or any building system, in whole or in part, endangers any property or the health or safety of the occupants of the property or of neighboring premises, buildings, or the health and safety of the public or fire department personnel, the *fire code official* shall issue such notice or orders to remove or remedy the conditions as shall be deemed

necessary in accordance with this section. The *fire code official* may refer the building to the Community Development Department for any repairs, alterations, remodeling, removing or demolition required.

[A] **110.1.1 Unsafe conditions.** Structures, premises or existing equipment that are or hereafter become unsafe or deficient because of inadequate means of egress, that constitute a fire hazard, that involve illegal or improper occupancy or inadequate maintenance, or that are otherwise dangerous to human life or public welfare, shall be deemed an unsafe condition. A vacant structure which is not secured against unauthorized entry as required by Section 311 shall be deemed unsafe.

[A] **110.1.2 Structural hazards.** When an apparent structural hazard is caused by the faulty installation, operation or malfunction of any of the items or devices governed by this code, the fire code official is authorized to immediately notify the *building code official* in accordance with Section 110.1.

(b) Notification.

California Fire Code Section 110.5 is hereby amended by adding Section 110.5 to read:

110.5 Notification. The *fire code official* shall serve the responsible party with a copy of violations, correction letters and orders issued.

16.52.111. Stop work or use order.

(a) Order.

California Fire Code Section 111.1 is hereby amended to read:

[A] **111.1 Order.** Whenever the *fire code official* finds any work or use regulated by this code being performed in a manner contrary to the provisions of this code or in a dangerous or unsafe manner, the *fire code official* is authorized to issue a stop work or use order.

(b) Issuance.

California Fire Code Section 111.2 is hereby amended to read:

[A] **111.2 Issuance.** A stop work or use order shall be in writing and shall be given to the owner of the property, or to the owner's agent, or to the person doing the work or use. Upon issuance of a stop work or use order, the cited work or use shall immediately cease. The stop work or use order shall state the reason for the order, and the conditions under which the cited work or use is authorized to resume.

(c) Emergencies.

California Fire Code Section 111.3 is hereby amended to read:

[A] **111.3 Emergencies.** Where an emergency exists, the fire code official shall not be required to give a written notice prior to stopping the work or use.

(d) Failure to comply.

California Fire Code Section 111.4 is hereby amended to read:

[A] **111.4 Failure to comply.** It is a violation of this code for any person to continue any work or use after having been served with a stop work or use order, except such work or use as that person is directed to perform to remove a violation or unsafe condition.

16.52.113. Fees.

California Fire Code Section 113 is hereby amended to read:

[A] **113.1 Fees.** A permit shall not be issued until the fees have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

Exception: When authorized by the fire code official permit fees may be invoiced post permit issuance pursuant to the fee schedule.

[A] **113.2 Schedule of permit fees.** A fee for each permit shall be paid as required, in accordance with the schedule established by the governing authority.

[A] **113.3 Related fees.** The payment of the fee for the construction, alteration, removal or demolition of work done in connection to or concurrently with the work or activity authorized by a permit does not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

113.4 Refunds. The applicable governing authority is authorized to establish a refund policy.

16.52.202. General definitions.

California Fire Code Section 202 is hereby amended by adding and amending the following definitions:

BONFIRE. An outdoor fire utilized for ceremonial or recreational purposes and exceeding the size of a recreational fire.

CONTINUOUS GAS DETECTION SYSTEM. A gas detection system where the analytical instrument is maintained in continuous operation and sampling is performed without interruption. Analysis is allowed to be performed on a cyclical basis at intervals not to exceed 30 minutes. In occupied areas where air is re-circulated and not exhausted to a treatment system (e.g. breathing zone), the fire code official may require a cyclical basis at intervals not to exceed 5 minutes.

CORROSIVE LIQUID. Corrosive liquid is

1. any liquid which, when in contact with living tissue, will cause destruction or irreversible alteration of such tissue by chemical action;
2. any liquid having a pH of 2 or less or 12.5 or more;
3. any liquid classified as corrosive by the U.S. Department of Transportation; and
4. any material exhibiting the characteristics of corrosivity in accordance with Title 22, California Code of Regulations §66261.22.

FIRE CHIEF. The Fire Chief is the Director of Public Safety.

FIRE DEPARTMENT. The Fire Department is the Department of Public Safety.

FIREFIGHTER AIR REPLENISHMENT SYSTEM (FARS). A permanently installed arrangement of piping, valves, fittings and equipment to facilitate the replenishment of breathing air in self-contained breathing apparatus (SCBA) for firefighters engaged in emergency operations.

MAXIMUM THRESHOLD QUANTITY (MAX TQ). Maximum Threshold Quantity (Max TQ) is the maximum quantity of a moderately toxic or toxic gas, which may be stored in a single vessel before a more stringent category of regulation is applied. The following equation shall be used to calculate the Max TQ:

$$\text{Max TQ (pounds)} = \text{LC50 (ppm)} \times 2 \text{ (pounds)}$$

For gas mixtures containing one or more toxic, highly toxic or moderately toxic components, LC50 shall be calculated using CGA Standards P-20 as referenced in Appendix E, Section 103.1.3.1

MODERATELY TOXIC GAS. A chemical or substance that has a median lethal concentration (LC50) in air more than 2000 parts per million but not more than 5000 parts per million by volume of gas or vapor, when administered by continuous inhalation for an hour, or less if death occurs within one hour, to albino rats weighing between 200 and 300 grams each.

OTHER HEALTH HAZARD MATERIAL. A hazardous material which affects target organs of the body, including but not limited to, those materials which produce liver damage, kidney damage, damage to the nervous system, act on the blood to decrease hemoglobin function, deprive the body tissue of oxygen or affect reproductive capabilities, including mutations (chromosomal damage), sensitizers or teratogens (effect on fetuses).

OUTDOOR ASSEMBLY EVENT. Private or public event conducted outdoors, including but not limited to beer gardens and mazes, having a projected attendance of 1,000 or more or confines 100 or more attendees by permanent or temporary installation of barricades or fencing.

Exception: Events held at Group R, Division 3 occupancies.

SECONDARY CONTAINMENT. That level of containment that is external to and separate from primary containment and is capable of safely and securely containing the material, without discharge, for a period of time reasonably necessary to ensure detection of and remedy the primary containment failure.

SKY LANTERN. An unmanned device that incorporates an open flame in order to make the device airborne.

WORKSTATION. A defined space or independent piece of equipment using hazardous materials where a specific function, laboratory procedure or research activity occurs. *Approved or listed* hazardous materials storage cabinets, flammable liquid storage cabinets or gas cabinets serving a workstation are included as part of the workstation. A

workstation is allowed to contain ventilation equipment, fire protection devices, detection devices, electrical devices and other processing and scientific equipment.

16.52.308. Open flames

(a) Sky lanterns.

California Fire Code Section 308 is hereby amended by adding Section 308.1.6.3 to read:

308.1.6.3 Sky lanterns. No person shall release or cause to be released an untethered sky lantern.

16.52.311. Vacant premises.

(a) Placards.

California Fire Code Section 311.5 is hereby amended to read:

311.5 Placards. If any vacant or abandoned buildings or structures are determined to be unsafe pursuant to Section 110 of this code relating to structural or interior hazards, the *fire code official* shall be authorized to require marking as required by Sections 311.5.1 through 311.5.5.

16.52.315. General storage.

(a) Storage under stairways.

California Fire Code Section 315 is hereby amended by adding Section 315.3.5 to read:

315.3.5 Storage under stairways. Storage is prohibited under exit stairways.

Exceptions:

1. Enclosures under stairways in accordance with Section 1009.9.3.
2. In buildings equipped throughout with an approved automatic sprinkler system.

16.52.316. Hazards to firefighters.

(a) Roof guardrails at interior courts.

California Fire Code Section 316 is hereby amended by adding Section 316.7 to read:

316.7 Roof guardrails at interior courts. Roof openings into interior courts that are bounded on all sides by building walls shall be protected with guardrails. The top of the guardrail shall not be less than 42 inches in height above the adjacent roof surface that can be walked on. Intermediate rails shall be designed and spaced such that a 12-inch diameter sphere cannot pass through.

Exception: Where the roof opening is greater than 600 square feet in area.

16.52.401. Emergency planning and preparedness.

(a) Approval.

California Fire Code Section 401.2 is hereby amended to read:

401.2 Approval. Where required by the *fire code official*, fire safety plans, emergency procedures and employee training programs shall be *approved*.

(b) Unplanned evacuation.

California Fire Code is hereby amended by adding Section 401.7 to read as follows:

401.7 Unplanned evacuation. Evacuations made necessary by unplanned activation of a fire alarm system or by any other emergency may be substituted for a required evacuation drill only when approved by the *fire code official*.

16.52.403. Public assemblages and events.

(a) Duties.

California Fire Code Section 403.1.1 is hereby amended to read:

403.1.1 Duties. Fire watch personnel shall keep diligent watch for fires, obstructions to *means of egress* and other hazards during the time such place is open to the public or such activity is being conducted and take prompt measures for remediation of hazards, extinguishment of fires that occur and assist in the evacuation of the public from the structures. *Fire watch* personnel are subject to the *fire code official's* orders at all times; shall remain on duty during the times such places are open to the public, or as otherwise required by *fire code official*; and shall not be required or permitted, while on duty, to perform any duties other than those specified by the *fire code official*.

16.52.404. Fire safety and evacuation plans.

California Fire Code Section 404.2 is hereby amended by adding and amending the following Sections to read:

404.2 Fire safety and evacuation plans. Fire safety and evacuation plans shall comply with the requirements of Sections 404.2.1 through 404.7.6.

404.2.1 Where required. A fire safety and evacuation plan shall be prepared and maintained for the following occupancies and buildings.

1. Group A having an occupant load of 100 or more.
2. Group B buildings having an occupant load of 500 or more persons.
3. Group E
4. Group F buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
5. Group H.
6. Group I.
7. Group R-1.
8. Group R-2 college and university buildings.
9. Group R-4.
10. High-rise buildings.
11. Group M buildings having an occupant load of 500 or more persons.
12. Covered malls exceeding 50,000 square feet (4645 m²) in aggregate floor area.
13. Open mall buildings exceeding 50,000 square feet (4645 m²) in aggregate area within perimeter line.
14. Underground buildings.

15. Buildings with an atrium and having an occupancy in Group A, E or M.
16. Group R-2.1

16.52.405. Emergency evacuation drills.

(a) Initiation.

California Fire Code Section 405.7 is hereby amended to read:

405.7 Initiation. Where a fire alarm system is provided, emergency evacuation drills shall be initiated by activating the fire alarm system. The fire alarm monitoring company shall be notified prior to the activation of the fire alarm system for a proposed drill and again at the conclusion of the transmission and restoration of the fire alarm system to normal mode.

(b) Recall and reentry.

California Fire Code Section 405.9 is hereby amended to read:

405.9 Recall and reentry. The recall signal initiation means shall be manually operated and under the control of the *person* in charge of the premises or the official in charge of the incident. No one shall reenter the premises until authorized to do so by the official in charge.

16.52.408. Use and occupancy related requirements

(a) Approval

California Fire Code Section 408.11.1.1 is hereby amended to read:

408.11.1.1 Approval. Where required by the *fire code official*, the lease plan shall be submitted to the fire code official for approval, and shall be maintained on site for immediate reference by responding fire service personnel.

(b) Revisions.

California Fire Code Section 408.11.1.2 is hereby amended to read:

408.11.1.2 Revisions. The lease plan shall be revised annually or as often as necessary to keep them current.

16.52.503. Fire apparatus access roads.

(a) Where required.

California Fire Code Section 503.1 is hereby amended to read:

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3 and Appendix D as amended.

(b) Buildings and facilities.

California Fire Code Section 503.1.1 is hereby amended to read:

503.1.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend within 150 feet (945,720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Exceptions: The *fire code official* is authorized to increase the dimension of 150 feet (45,720 mm) where:

1. The building is equipped throughout with an approved automatic fire sprinkler system, installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.
2. Fire apparatus roads cannot be installed because of topography, waterways, nonnegotiable grades or other similar conditions, an approved alternative means of fire protection shall be provided.

(c) Dimensions.

California Fire Code Section 503.2.1 is hereby amended to read:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of 13 feet 6 inches (4115 mm).

Exceptions:

1. When there are not more than two Group R, Division 3, or Group U occupancies, the access road width may be modified by the *fire code official*.
2. Fire apparatus access widths shall be increased to 24 feet (7315.2 mm) when in the opinion of the *fire code official* widths are not adequate to provide fire apparatus access.
3. Fire apparatus access roads serving buildings or portions of buildings or facilities exceeding 30 feet (9144 mm) in height above the lowest level of fire department vehicle access shall have a minimum unobstructed width of 26 feet (7924.8 mm).
4. Vertical clearances shall be increased when in the opinion of the fire code official vertical clearances are not adequate to provide fire apparatus access.

(d) Surface.

California Fire Code Section 503.2.3 is hereby amended to read:

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities. Calculations for apparatus access road design shall be submitted for review prior to construction. The minimum traffic index for the access road design shall be 5.0 and shall bear the stamp and signature of a State of California engineer licensed for such design work.

(e) Turning radius.

California Fire Code Section 503.2.4 is hereby amended to read:

503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be:

1. at least 30 feet inside curb radius where access roads less than 26 feet wide are provided, and
2. at least 25 feet inside curb radius where access roads 26 feet wide or greater are provided.

(f) Dead ends.

California Fire Code Section 503.2.5 is hereby amended to read:

503.2.5 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with an *approved* turnaround in accordance with Appendix D as amended.

(g) Cul-de-sacs.

California Fire Code Section 503.2.5 is hereby amended by adding Section 503.2.5.1 to read:

503.2.5.1 Cul-de-sacs. For the purposes of fire protection and fire apparatus accessibility, cul-de-sac streets shall not exceed 400 feet (121920 mm) maximum length. If it is determined that a longer cul-de-sac is essential for the property to be developed, the *fire code official* may impose additional requirements to ensure protection of life and property, including, but not limited to:

1. Additional fire hydrants.
2. Increased turnaround ability.
3. Increased sprinkler density and coverage.
4. Emergency access easements.

(h) Grade.

California Fire Code Section 503.2.7 is hereby amended to read:

503.2.7 Grade. The grade of the fire apparatus access road shall be in accordance with Appendix D as amended.

(i) No parking in driveway.

California Fire Code Section 503.3 is hereby amended by adding Section 503.3.1 to read:

503.3.1 No parking in driveway signs. A sign of a size, type and design *approved* by the *fire code official* shall be located on the right side of the fire lane within the first 25 feet (7620 mm) of entry into driveways of approved fire apparatus access roads. The sign shall be permanently mounted with the bottom of the sign to be at least 6 feet (1828.8 mm) above grade but not greater than 10 feet (3048 mm) above grade.

(j) No parking – fire lane identification.

California Fire Code Section 503.3 is hereby amended by adding Section 503.3.2 to read:

503.3.2 No parking - fire lane identification. When required by the *fire code official*, one or more of the following methods shall be used to identify fire apparatus access roads and prohibit their obstruction:

1. The entire length of the fire apparatus access road shall be marked by approved signs posted conspicuously at intervals no greater than 50 feet (15240 mm) that identify the road as a "Fire Lane" and state the prohibition of parking therein, "NO PARKING - FIRE LANE". Such signs shall be posted in a permanent manner at a height no greater than 10 feet (3048 mm) and no less than 6 feet (1828.8 mm) above grade. Signs shall be 12" X 18" in size with letters not less than one inch in height and meet the State of California specifications for reflectivity.
2. The entire length of standard curbs bordering fire apparatus access roads shall be painted traffic red and shall have the words "NO PARKING - FIRE LANE" stenciled upon their horizontal and vertical surfaces at intervals of not more than 50 feet (15240 mm). Letters shall be of block style, minimum five (5) inches in height with a stroke of not less than 3/4 inch, and shall be painted white on a traffic red background.

Violation of posted "FIRE LANES" as described in California Vehicle Code Section 22500.1 may be subject to immediate removal as set forth in California Vehicle Code Section 22651 for any vehicle parked or left standing in an area identified as a fire lane.

(k) Compliance with orders and notices.

California Fire Code Section 503.3 is hereby amended by adding Section 503.3.3 to read:

503.3.3 Compliance with orders and notices. It shall be unlawful for any owner, lessee, or person in charge of such private property to fail to install and then maintain such access signage and markings after having been given proper notice for such installation. When such areas are marked and signed as provided herein, it shall be unlawful for any person to park or leave standing a vehicle adjacent to any signed or marked area.

16.52.504. Access to building openings and doors.

(a) Access control devices.

California Fire Code is hereby amended by adding Section 504.5 to read:

504.5 Access control devices. When access control devices including bars, grates, gates, electric or magnetic locks or similar devices, which would inhibit rapid fire department emergency access to the building, are installed, such devices shall be approved by the fire code official. All electrically powered access control devices shall be provided with an approved means for deactivation or unlocking from a single location or otherwise approved by the fire code official. Access control devices shall also comply with Chapter 10 Means of Egress.

16.52.505. Premises identification.

(a) Site directories.

California Fire Code is hereby amended by adding Section 505.3 to read:

505.3 Site directories. When required by the *fire code official*, approved site directories, illustrating and identifying buildings, important site features and access roads shall be installed and maintained at multi-building complexes.

16.52.507. Fire protection water supplies.

(a) Fire flow.

California Fire Code Section 507.3 is hereby amended to read:

507.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined in accordance with Appendix B.

(b) Where required.

California Fire Code Section 507.5.1 is hereby amended to read:

507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 300 feet (91.5 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility of building, onsite fire hydrants and mains shall be provided where required by the *fire code official*. The location, number and type of hydrants shall be *approved by the fire code official*.

(c) Hydrant for standpipe system.

California Fire Code Section 507.5.1.1 is hereby amended to read:

507.5.1.1 Hydrant for standpipe system. Buildings equipped with a standpipe system installed in accordance with Section 905 shall have a hydrant within 50 feet (15 m) of the fire department connections.

Exception: The distance shall be permitted to exceed 50 feet (15 m) where approved by the *fire code official*.

(d) Hydrant for automatic sprinkler system.

California Fire Code Section 507.5.1 is hereby amended by adding 507.5.1.2 to read:

507.5.1.2 Hydrant for automatic sprinkler system. Buildings equipped with an automatic sprinkler system installed in accordance with Section 903 shall have a hydrant within 50 feet (15 m) of the fire department connections.

Exception: The distance shall be permitted to exceed 50 feet (15 m) where approved by the *fire code official*.

(e) Obstruction.

California Fire Code Section 507.5.4 is hereby amended to read:

507.5.4 Obstruction. Unobstructed access to fire hydrants and fire protection equipment shall be maintained at all times. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment of fire hydrants.

(f) Identification and marking.

California Fire Code is hereby amended by adding Section 507.5.7 to read:

507.5.7 Identification and marking. Fire protection equipment and hydrants shall be clearly identified in a manner approved by the *fire code official*. All fire department connections, post indicator valves and on-site fire hydrants shall be painted an approved 'safety' yellow. Hydrant locations shall be identified by the installation of blue reflective markers.

16.52.508. Fire command center.

(a) Location and access.

California Fire Code Section 508.1.1 is hereby amended to read:

508.1.1 Location and access. The location and accessibility of the *fire command center* shall be *approved* by the *fire code official*. The *fire command center* shall be located adjacent to an *approved* fire apparatus access road and be accessible directly from the exterior of the building.

(b) Separation and ventilation.

California Fire Code Section 508.1.2 is hereby amended to read:

508.1.2 Separation and ventilation. The *fire command center* shall be separated from the remainder of the building by not less than a 1-hour *fire barrier* constructed in accordance with Section 707 of the *International Building Code* or *horizontal assembly* constructed in accordance with Section 711 of the *International Building Code*, or both.

The *fire command center* shall be provided with an independent ventilation system in accordance with the *California Mechanical Code* and have manual shut-off capability within the *fire command center*.

(c) Required features.

California Fire Code Section 508.1.5 is hereby amended to read:

508.1.5 Required features. The *fire command center* shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system control unit.
2. The fire department communications system.
3. *Fire alarm system zoning annunciator panel required by Section 907.6.3.3.*
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air distribution systems.

6. The firefighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking *stairway* doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, *means of egress*, *fire protection systems*, fire-fighting equipment and fire department access, and the location of *fire walls*, *fire barriers*, *fire partitions*, *smoke barriers* and smoke partitions.
13. An *approved* Building Information Card that contains, but is not limited to, the following information:
 - 13.1 General building information that includes: property name, address, the number of floors in the building (above and below grade), use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor), estimated building population (i.e., day, night, weekend);
 - 13.2 Building emergency contact information that includes: a list of the building's emergency contacts (e.g., building manager, building engineer, etc.) and their respective work phone number, cell phone number, and e-mail address;
 - 13.3 Building construction information that includes: the type of building construction (e.g., floors, walls, columns, and roof assembly);
 - 13.4 Exit stair information that includes: number of *exit stairs* in the building, each *exit stair* designation and floors served, location where each *exit stair* discharges, *exit stairs* that are pressurized, *exit stairs* provided with emergency lighting, each *exit stair* that allows reentry, *exit stairs* providing roof access; elevator information that includes: number of elevator banks, elevator bank designation, elevator car numbers and respective floors that they serve, location of elevator machine rooms, location of sky lobby, location of freight elevator banks;
 - 13.5 Building services and system information that includes: location of mechanical rooms, location of building management system, location and capacity of all fuel oil tanks, location of emergency generator, location of natural gas service;
 - 13.6 *Fire protection system* information that includes: locations of standpipes, location of fire pump room, location of fire department connections, location of firefighter air replenishment system features and stations, location of emergency responder radio system controller, floors protected by *automatic sprinklers*, location of different types of *automatic sprinkler systems* installed (e.g., dry, wet, pre-action, etc.); and
 - 13.7 Hazardous material information that includes: location of hazardous material, quantity of hazardous material.
14. Work table and chairs.
15. Generator supervision devices, manual start and transfer features.

16. Public address system, where specifically required by other sections of this code.
17. Elevator fire recall switch in accordance with ASME A17.1.
18. Elevator emergency or standby power selector switch(es), where emergency or *standby power* is provided.
19. *A master switch for unlocking elevator lobby doors permitted by Section 1008.1.4.6.*
20. On-site fire protection water tank fill valve control switch, tank level indicators, tank low-level alarm, and tank fill signal.
21. Building security system controls and related equipment.
22. All control panels shall be permanently identified in an approved manner as to function.
23. Other fire protection equipment and system controls as required by the *fire code official*.

Fire command centers shall not be used for the housing of any boiler, heating unit, generator, combustible storage, or similar hazardous or combustible storage.

16.52.510. Emergency responder radio coverage.

(a) Emergency responder radio coverage in new buildings.

California Fire Code Section 510.1 is hereby amended to read:

510.1 Emergency responder radio coverage in new buildings. *Approved* radio coverage for emergency responders shall be provided within all buildings meeting any one of the following conditions:

1. There are more than 3 *stories above grade plane* (as defined by the Building Code Section 202);
2. The total building area is 30,000 square feet or more;
3. The total *basement* area is 5,000 square feet or more;
4. The building is equipped with a solar photovoltaic system; or
5. Radio coverage signal strength levels are not consistent with the minimum levels set forth in Section 510.4.1.

The radio coverage system shall be installed and maintained in accordance with Sections 510.4 through 510.6 of this code and with the applicable provisions of NFPA 72, National Fire Alarm and Signaling Code.

The coverage shall be based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

Exceptions:

1. Where *approved* by the *fire code official*, a wired communication system in accordance with Section 907.2.13.2 shall be permitted to be installed or maintained in lieu of an *approved* radio coverage system.
2. Buildings and areas of buildings that have minimum radio coverage signal strength levels of the Silicon Valley Regional Interoperability Authority

(SVRIA) P25 Phase 2 700 MHz Digital Trunked Radio System within the building in accordance with Section 510.4.1 without the use of an indoor radio coverage system.

3. In facilities where emergency responder radio coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the *fire code official* shall have the authority to accept an automatically activated emergency responder radio coverage system.
4. One and two family dwellings and townhouses.

(b) Obstruction by new buildings.

California Fire Code Section 510.1 is hereby amended by adding Section 510.1.1 to read:

510.1.1 Obstruction by new buildings. When in the opinion of the *fire code official*, the construction of a new building obstructs line of sight emergency radio communications to existing buildings or other locations, the developer of the new building shall correct the degraded radio coverage as necessary to restore communications capabilities in accordance with Section 510 of this code.

(c) Permit required.

California Fire Code Section 510.3 is hereby amended to read:

510.3 Permit required. A construction permit, for the installation of, or modification of, emergency responder radio coverage systems and related equipment is required as specified in Section 105.7.5. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

An operational permit is required to maintain an emergency responder radio coverage system as specified in Section 105.6.

(d) Radio signal strength.

California Fire Code Section 510.4.1 is hereby amended to read:

510.4.1 Radio signal strength. The building shall be considered to have acceptable emergency responder radio coverage when signal strength measurements in 90((95)) percent of all areas on each floor of the building meet the signal strength requirements in Sections 510.4.1.1 and 510.4.1.2.

Exception: Critical areas, such as the *fire command center(s)*, the fire pump room(s), *interior exit stairways*, *exit passageways*, elevator lobbies, standpipe cabinets, rescue air filling stations, sprinkler sectional valve locations, and other areas required by the *fire code official*, shall be provided with 99 percent floor area radio coverage.

(e) Minimum signal strength into the building.

California Fire Code Section 510.4.1.1 is hereby amended to read:

510.4.1.1 Minimum signal strength into the building. A minimum signal strength of -95 dBm shall be receivable in 90% of the area of each floor within

the building when transmitted from the Silicon Valley Regional Interoperability Authority (SVRIA) P25 Phase 2 700 MHz Digital Trunked Radio System.

(f) Minimum signal strength out of the building.

California Fire Code Section 510.4.1.2 is hereby amended to read:

510.4.1.2 Minimum signal strength out of the building. A minimum signal strength of -95 dBm shall be received by the Silicon Valley Regional Interoperability Authority (SVRIA) P25 Phase 2 700 MHz Digital Trunked Radio System when transmitted from 90% of the area of each floor within the building.

(g) Delivered audio quality.

California Fire Code Section 510.4.1 is hereby amended by adding Section 510.4.1.3 to read:

510.4.1.3 Delivered audio quality. The radio coverage system shall provide a minimum delivered audio quality of level 3.4 (DAQ "3.4") on each floor of the building or structure. DAQ 3.4 constitutes audio quality that makes speech understandable with repetition only rarely required with some noise and distortion.

(h) Supported frequencies.

California Fire Code Section 510.4.1 is hereby amended by adding Section 510.4.1.4 to read:

510.4.1.4 Supported frequencies. A frequency range supported *from* the Silicon Valley Regional Interoperability Authority (SVRIA) P25 Phase 2 700 MHz Digital Trunked Radio System as determined by the *fire code official* (base transmitter frequencies), and a frequency range supported *to* the Silicon Valley Regional Interoperability Authority (SVRIA) P25 Phase 2 700 MHz Digital Trunked Radio System as determined by the *fire code official* (radio field transmit frequencies) on each floor of the building.

(i) Building conduit.

California Fire Code Section 510.4.1 is hereby amended by adding Section 510.4.1.5 to read:

510.4.1.5 Building conduit. All new buildings shall be constructed with not less than a two-inch (2") conduit installed between the first floor or the bottom subterranean floor, as applicable, and said conduit shall extend along the center of the building to the roof. At each floor and the roof, an opening shall be made to allow easy access to the conduit from the ceiling. Access in either the form of a drop ceiling or conduit shall be made along hallways and through firewalls. All floors of the subterranean parking garages shall have a similar conduit installation.

(j) Amplification systems allowed.

California Fire Code Section 510.4.2.1 is hereby amended to read:

510.4.2.1 Amplification systems allowed. Buildings and structures which cannot support the required level of radio coverage shall be equipped with a radiating cable system, a distributed antenna system with Federal Communications Commission (FCC)-certified, public-safety grade signal boosters (amplifiers) designed for the bands and frequencies specified by the *fire code official*, or other system allowed by the *fire code official* in order to achieve the required adequate radio coverage.

(k) Technical criteria.

California Fire Code Section 510.4.2.2 is hereby amended to read:

510.4.2.2 Technical criteria. The *fire code official* shall provide the various frequencies required, the location of radio sites, effective radiated power of radio sites, and other supporting technical information upon request by the building owner or owner's representative.

(l) Power supply sources.

California Fire Code Section 510.4.2.3 is hereby amended to read:

510.4.2.3 Power supply sources. Emergency responder radio coverage systems shall be provided with at least two independent and reliable power supply sources conforming to NFPA 72 and the Electrical Code, one primary and one secondary. The secondary power supply shall be capable of operating the emergency responder radio coverage system for a period of at least 24 hours. When primary power is lost, the power supply to the emergency responder radio coverage system shall automatically transfer to the secondary power supply.

(m) Signal booster requirements.

California Fire Code Section 510.4.2.4 is hereby amended to read:

510.4.2.4 Signal booster requirements. If used, signal boosters shall meet the following requirements:

1. All signal booster components shall be contained in a National Electrical Manufacturer's Association (NEMA) 4-type waterproof cabinet or other *approved* enclosure.
2. Battery systems used for the emergency power source shall be contained in a NEMA 4-type waterproof cabinet.
Exception: Listed battery systems that are contained in integrated battery cabinets.
3. The signal booster system and power supply(ies) shall be electrically supervised and monitored by a supervisory service and shall provide automatic supervisory and trouble signals for failed primary system, failed secondary system, and backup capacity at 75% that are annunciated by the fire alarm system in accordance with NFPA 72.
Exception: For buildings without a fire alarm system, a dedicated monitoring panel in accordance with NFPA 72 shall be provided to annunciate automatic supervisory and trouble signals for the signal booster system and power supply(ies) and sound an audible signal at a constantly attended location.
4. Equipment shall have FCC certification prior to installation.

5. Unless otherwise approved by the *fire code official*, only channelized signal boosters shall be permitted.

(n) Additional frequencies and change of frequencies.

California Fire Code Section 510.4.2.5 is hereby amended to read:

510.4.2.5 Additional frequencies and change of frequencies. The distributed antenna system shall be capable of providing indoor coverage for public safety radio systems operating in the VHF, UHF, 700/800MHz bands and future 700MHz Broadband and shall also be capable of modification or expansion in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC.

(o) Installation requirements.

California Fire Code Section 510.5 is hereby amended to read:

510.5 Installation requirements. The installation of the public safety radio coverage system shall be in accordance with Sections 510.5.1 through 510.5.6.

(p) Approval prior to installation.

California Fire Code Section 510.5.1 is hereby amended to read:

510.5.1 Approval prior to installation. Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC shall not be installed without prior coordination and approval of the *fire code official*.

(q) Minimum qualifications of personnel.

California Fire Code Section 510.5.2 is hereby amended to read:

510.5.2 Minimum qualifications of personnel. The minimum qualifications of the system designer, lead installation personnel and personnel conducting radio system tests shall include possession of:

1. A valid FCC-issued general radio operators license; and
2. Certification of in-building system training issued by
 - a. Associated Public Safety Communications Officials (APCO)
 - b. National Association of Business Education Radio (NABER)
 - c. Personal Communications Industry Association (PCIA) or,
 - d. the manufacturer of the equipment being installed.

All design documents and all tests shall be documented and signed by a person meeting the minimum qualification noted in this section.

(r) Acceptance test procedure and system certification.

California Fire Code Section 510.5.3 is hereby amended to read:

510.5.3 Acceptance test procedure and system certification. When an emergency responder radio coverage system is required, and upon completion of installation, the building owner shall have the radio system tested to ensure that two-way coverage on each floor of the building is in accordance with Section 510.4.1. The test procedure shall be conducted as follows:

1. Talk-back testing from a site to the Silicon Valley Regional Interoperability Authority (SVRIA) P25 Phase 2 700 MHz Digital Trunked Radio System shall use Sunnyvale Department of Public Safety radio(s) and may be witnessed by a representative of the Sunnyvale Department of Public Safety.
2. Each floor of the building shall be divided into a grid of 20 approximately equal test areas.
3. A test location approximately in the center of each test area shall be selected for the test, with the radio enabled to verify two-way communications to and from the outside of the building through the Silicon Valley Regional Interoperability Authority (SVRIA) P25 Phase 2 700 MHz Digital Trunked Radio System. Once the test location has been selected, that location shall represent the entire test area. Failure in the selected test location shall be considered failure of that test area.
4. The test for emergency responder radio coverage will be considered passed when 90% of the test locations on each floor are able to pass two-way communications to and from the outside of the building.
Exception: Critical areas shall be provided with 99 percent floor area radio coverage.
5. In the event that three of the test areas on a floor fail the talk back test, in equal test areas. If the system fails the 90% coverage requirement for the 40-area test, the emergency responder radio system shall be altered to meet the 90 percent coverage requirement.
Exception: Critical areas shall be provided with 99 percent floor area coverage.
6. The gain values/output levels of all amplifiers shall be measured and the test measurement results shall be kept on file with the building owner so that the measurements can be verified during annual tests. In the event that the measurement results become lost, the building owner shall be required to rerun the acceptance test to reestablish the gain values.
7. As part of the installation a spectrum analyzer or other suitable test equipment shall be utilized to ensure spurious oscillations are not being generated by the subject signal booster. This test shall be conducted at time of installation and subsequent annual inspections.
8. Prior to issuance of the building Certificate of Occupancy, the building owner or owner's representative shall provide the Sunnyvale Department of Public Safety with a certification letter stating that the emergency responder radio coverage system has been installed and tested in accordance with Sections 510.4 and 510.5, and that the system is complete and fully functional. A system acceptance test report shall be submitted to the fire code official, maintained on the premises and be made available to the public safety department upon request. The report shall verify compliance with Section 510.5.4, and include the emergency responder radio coverage system equipment data sheets, diagram showing device locations and wiring schematic, and a copy of the electrical permit and system certification letter.

(s) Location of equipment.

California Fire Code Section 510.5 is hereby amended by adding Section 510.5.5 to read:

510.5.5 Location of equipment. For buildings without a *fire command center* the communications control equipment and portable handsets shall be located inside the building near the fire alarm control panel, or other *approved* location.

(t) Signage.

California Fire Code Section 510.5 is hereby amended by adding Section 510.5.6 to read:

510.5.6 Signage. Buildings equipped with an emergency responder radio coverage system shall be identified by an *approved* sign located above or near the building Knox Box stating: "This building is equipped with an Emergency Responder Radio Coverage System".

(u) Maintenance.

California Fire Code Sections 510.6 through 510.6.3 are hereby amended to read:

510.6 Maintenance. The emergency responder radio coverage system shall be maintained operational at all times in accordance with Sections 510.6.1 through 510.6.5.

510.6.1 Testing and proof of compliance. The emergency responder radio coverage system shall be inspected and tested annually or whenever structural changes occur including additions or remodels that could materially change the original field performance tests. Individuals conducting the tests shall meet the minimum qualifications in accordance with Section 510.5.2 and shall be an *approved* third party, independent of the system designer and installer. Testing shall consist of the following:

1. In-building coverage test as described in Section 510.5.4.
2. Signal boosters shall be tested to ensure that the gain/output level is the same as it was upon initial installation and acceptance.
3. Backup batteries and power supplies shall be tested under load of a period of one hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.
4. All other active components shall be checked to verify operation within the manufacturer's specifications.
5. At the conclusion of the testing, a report, which shall verify compliance with Sections 510.5.4 and 510.6 shall be submitted to the *fire code official* and a copy maintained on the premises and made available to Public Safety Department personnel upon request.

510.6.2 Additional frequencies. The building *owner* shall modify or expand the emergency responder radio coverage system at their expense in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC. Prior approval of a public safety radio coverage system on previous frequencies does not exempt this section.

510.6.3 Field testing. Sunnyvale Department of Public Safety personnel shall have the right to enter onto the property at any reasonable time to conduct field testing to verify the required level of radio coverage.

(v) Maintenance.

California Fire Code Section 510.6 is hereby amended by adding Sections 510.6.4 and 510.6.5 to read:

510.6.4 Qualifications of testing personnel. All tests shall be documented and signed by a person in possession of a current FCC General Radiotelephone Operator license, or a current technician certification issued by a nationally recognized organization, school or a certificate issued by the manufacturer of the equipment being installed.

510.6.5 Continuing operation/supervision. The occurrence of any fault in an emergency responder radio coverage system where the system function is decreased shall result in the transmission of a supervisory signal to a supervisory service. Systems that are out-of-service for more than 8 hours require notification to the *fire code official*.

16.52.511. Firefighter air replenishment systems.

California Fire Code is hereby amended by adding Section 511 to read:

511.1 Firefighter air replenishment systems. A firefighter's air replenishment system, firefighter's designated elevator, or another alternate system designed to meet firefighter safety needs as determined and approved by the *fire code official*, shall be installed in any building classified as a high rise by the California Building Code. Firefighter air replenishment systems shall provide an adequate pressurized fresh air supply for filling breathing air bottles carried by fire suppression, rescue and other personnel in the performance of their duties. Mobile refill stations will generally be located away from the building. Interior refill stations shall generally be located inside vestibules or rooms within close proximity to a stairway enclosure. Fill station locations, additional design criteria and specifications shall be in accordance with the Department of Public Safety's firefighters' air replenishment system standard.

511.2 Firefighter air replenishment system maintenance. Existing firefighter's air replenishment systems shall be maintained in an operable condition and shall be tested in accordance with nationally recognized fire safety standards.

16.52.512. High rise building emergency helicopter landing facility.

California Fire Code is hereby amended by adding Section 512 to read:

512.1 Where required. A helistop, in compliance with Section 2007, shall be provided for every high rise building having floors used for human occupancy located more than one hundred fifty feet above the lowest floor level having building access.

Exceptions:

1. When approved by the *fire code official*, a helistop may be omitted when a permanent enclosed stairway is provided for Public Safety Department use. This

stairway shall access all floors of the building. The stairway shall be a minimum of thirty-six inches wide. Stair landings shall be a minimum of forty-eight inches at the head and bottom of stair flights. Access to this stairway shall be by Public Safety Department personnel only. The Public Safety Department stairway shall meet all of the requirements of Chapters 10 and 11 of the California Building Code, except manual pull stations, public telephones and exit signs will not be required. The locking of stairway doors shall be on a separate switch located in the fire command center and not tied into the fire alarm system.

2. When approved by the *fire code official*, a helistop may be omitted when the building is equipped with a freight elevator that serves all floors and is separated from all other elevators. This elevator shaft and its lobbies shall be protected by a minimum of two-hour fire-resistance construction with all openings protected by a minimum of one and one-half hour fire-resistive construction and the elevator shall meet the requirements of an emergency elevator.

512.2 Additional design criteria. All high rise building helistops shall be designed in accordance with the Department of Transportation, Federal Aviation Administration, Helicopter Design Advisory Circular 150/5390-2C, and Title 21, Division of Aeronautics.

16.52.601. Building services and systems.

(a) Permits.

California Fire Code Section 601.2 is hereby amended to read:

601.2 Permits. Permits shall be obtained for refrigeration systems, battery systems, fuel tanks connected to emergency or standby power systems, emergency responder radio systems, firefighter air replenishment systems and solar photovoltaic power systems as set forth in Sections 105.6 and 105.7.

16.52.604. Emergency and standby power systems.

(a) Refrigeration systems.

California Fire Code Section 604 is hereby amended by adding Section 604.2.19 to read:

604.2.19 Refrigeration systems. Where treatment, detection, mechanical ventilation, alarm or other electrically operated systems are required for refrigeration systems, such systems shall be provided with an approved standby source of power in accordance with the *California Electrical Code*.

(b) Repair garages.

California Fire Code Section 604 is hereby amended by adding Section 604.2.20 to read:

604.2.20 Repair garages. Where mechanical ventilation, treatments systems, alarm, detection or other electrically operated systems are required in repair garages for lighter than air fuels, such systems shall be provided with an approved standby source of power in accordance with the *California Electrical Code*.

16.52.605. Electrical equipment, wiring and hazards.

(a) Immersion heaters.

California Fire Code Section 605 is hereby amended by adding Section 605.12 to read:

605.12 Immersion heaters. All electrical immersion heaters used in dip tanks, sinks, vats and similar operations shall be provided with approved over-temperature controls and low liquid level electrical disconnects. Manual reset of required protection devices shall be provided.

16.52.606. Mechanical refrigeration.

(a) Refrigerant detection system.

California Fire Code Section 606.8 is hereby amended to read:

606.8 Refrigerant detection system. Machinery rooms shall contain a refrigerant detection system with an audible and visual alarm. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The alarm shall be actuated at a value not greater than the corresponding TLV-TWA values shown in the *California Mechanical Code* for the refrigerant classification. Detectors and alarms shall be placed in *approved* locations. The detectors shall transmit a signal to an approved location.

(b) Standby power.

California Fire Code Section 606 is hereby amended by adding Section 606.17 to read:

606.17 Standby power. Where mechanical ventilation, treatment systems, temperature control, alarm, detection or other electrically operated systems are required, such systems shall be provided with an approved standby source of power in accordance with the *California Electrical Code*.

16.52.608. Stationary storage battery systems.

(a) Failure of ventilation system.

California Fire Code Section 608 is hereby amended by adding Section 608.6.1.1 to read:

608.6.1.1 Failure of ventilation system. Failure of the ventilation system shall automatically disengage the charging system.

16.52.806. Decorative vegetation in new and existing buildings.

(a) Display inside buildings.

California Fire Code Section 806.1.1 is hereby amended to read:

806.1.1 Display inside buildings. The display of Christmas trees and other decorative vegetation shall be in accordance with the California Code of Regulations, Title 19, Division 1, §3.08 and Sections 806.1 through 806.5.

Exceptions:

1. Trees located in areas protected by an approved automatic sprinkler system in accordance Section 903.1.1 or 903.3.1.2 shall not be prohibited in Groups A, E, M, R-1 and R-2.
2. Trees shall be allowed within dwelling units in Group R-2 occupancies.

16.52.901. Fire protection systems

(a) Occupancy

California Fire Code Section 901.5.1 is hereby amended to read:

901.5.1 Occupancy. It shall be unlawful to occupy any portion of a building or structure until the systems required by this chapter have been tested and *approved*.

(b) Inspection, testing and maintenance.

California Fire Code Section 901.6 is hereby amended to read:

901.6 Inspection, testing and maintenance. Fire detection, alarm and extinguishing systems, mechanical smoke exhaust systems, fire hydrant systems, fire standpipe systems, fire pump systems, private fire service mains, and smoke and heat vents shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. Nonrequired *fire protection systems* and equipment shall be inspected, tested and maintained or removed when approved by the *fire code official*.

(c) Cabinets.

California Fire Code Section 901 is hereby amended by adding Sections 901.11 through 901.11.2 to read:

901.11 Cabinets. Cabinets containing fire-fighting equipment, such as standpipes, fire hose, fire extinguishers or fire department valves, shall not be blocked from use or obscured from view.

901.11.1 Cabinet equipment identification. Cabinets shall be identified in an *approved* manner by a permanently attached sign with letters not less than 2 inches (51 mm) high in a color that contrasts with the background color, indicating the equipment contained therein.

Exceptions:

1. Doors not large enough to accommodate a written sign shall be marked with a permanently attached pictogram of the equipment contained therein.
2. Doors that have either an *approved* visual identification clear glass panel or a complete glass door panel.

901.11.2 Locking cabinet doors. Cabinets shall be unlocked.

Exceptions:

1. Visual identification panels of glass or other approved transparent frangible material that is easily broken and allows access.

2. *Approved* locking arrangements.
3. Group I-3 occupancies.

16.52.903. Automatic sprinkler systems

(a) Design criteria.

California Fire Code Section 903.1 is hereby amended by adding Section 903.1.1.1 to read:

903.1.1.1 Design criteria. The following design criteria shall be applied for NFPA 13 and NFPA 13D fire sprinkler systems:

1. The design criteria shall be set at 10 percent below the hydraulic curve drawn from the available water supply.
2. A maximum flow velocity of 20 feet per second shall not be exceeded.
3. Where corrosive conditions are known to exist due to moisture or fumes from corrosive chemicals or both, special types of fittings, pipes and hangers that resist corrosion shall be used or a protective coating shall be applied to all unprotected exposed surfaces of the sprinkler system.

(b) Residential sprinkler systems.

California Fire Code Section 903.1 is hereby amended by adding Section 903.1.2 to read:

903.1.2 Residential sprinkler systems. Fire sprinkler systems in residential occupancies as required by California Residential Code Section R313 shall be regulated under the authority of the *fire code official*.

(c) Where required.

California Fire Code Section 903.2 is hereby amended to read:

903.2 Where required. Approved automatic sprinkler systems in new and existing buildings and structures shall be provided in the locations described in this Section or in Sections 903.2.1 through 903.2.19, whichever is the more restrictive.

For the purposes of this Section, firewalls used to separate building areas shall be constructed in accordance with the California Building Code and shall be without openings or penetrations.

1. An automatic sprinkler system shall be provided throughout all new buildings and structures.
Exception: Buildings and structures, other than group R-3 occupancies and townhouses that do not exceed 1000 square feet of building area.
2. An automatic sprinkler system shall be provided throughout existing buildings and structures less than 3600 square feet, other than group R-3 occupancies and townhouses, when additions are made that increase the building area to 3600 square feet or greater, or that create conditions described in Sections 903.2.1 through 903.2.18.
Exception: One-time additions to existing buildings that do not total more than 500 square feet of building area.
3. An automatic sprinkler system shall be provided throughout existing buildings and structures 3600 square feet or greater, other than group R-3

occupancies and townhouses, when any addition is made, or that create conditions described in Sections 903.2.1 through 903.2.18.

Exception: One-time additions to existing buildings that do not total more than 500 square feet of building area.

4. An automatic sprinkler system shall be provided throughout existing buildings and structures 3600 square feet or greater, other than group R-3 occupancies and townhouses, when alterations or repairs are made that are in excess of 50 percent of the existing building area within a 12-month period, or that create conditions described in Sections 903.2.1 through 903.2.18 or Chapter 11. For the purposes of this chapter, alterations and repairs shall be determined by *the fire code official* and include, but not be limited to; changes in T-bar ceiling, changes in the means of egress system, extending travel distances that would otherwise require the addition of automatic fire sprinklers, and extended distances from fire apparatus access roads.
5. An automatic sprinkler system shall be provided when there is any change in the character of occupancy or in the use of any existing building or structure 3600 square feet or greater, when the fire code official determines the change would place the building into a more hazardous division of the same occupancy group, or into a different occupancy group, which constitutes a greater life safety exposure or increased fire risk.
6. An automatic sprinkler system shall be provided in all accessible combustible and noncombustible sub-floors, attic space, or areas above ceilings, which are greater than 6 inches (152.4 mm) in height and contain electrical or mechanical components, in a fire sprinklered structure.
Exceptions:
 1. NFPA 13D systems shall comply with California Residential Code R313 and local standards.
 2. *The fire code official* may permit the use of smoke detection in lieu of fire sprinklers in noncombustible and non-assessable floor spaces and when construction materials do not exceed a flame spread rating of 25.
7. An automatic sprinkler system shall be provided throughout all new basements regardless of size, and throughout existing basements that are expanded by more than 50 percent.
8. Automatic sprinkler protection shall be provided in all storage areas that are within 5 feet (3048 mm) of the exterior building walls, roof overhangs, canopies or constitute an exposure to adjacent property.

Such sprinklers may be connected to the domestic water, supply if the structure is not otherwise required to be fire sprinklered. Systems using domestic water supply shall not be less than 1-inch (25.4-mm) diameter pipe. Sufficient coverage of the area shall be provided and an approved accessible shut-off valve is to be provided for each room or area. Where valves are subject to possible vandalism, an approved means of securing the valve in the open position shall be provided. Where there are no ceilings, an 18 square inch (11,613 square mm) heat baffle shall be provided not more than 6 inches (152.4 mm) above the sprinkler head. All exposed piping shall be brazed copper or steel.

(d) NFPA 13 sprinkler systems.

California Fire Code Section 903.3.1.1 is hereby amended to read:

903.3.1.1 NFPA 13 sprinkler systems. Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 *as amended in Chapter 80* except as provided in Section 903.3.1.1.1.

Exception: For new buildings having no designated use or tenant, the minimum sprinkler design density shall be Ordinary Hazard Group 2.

(e) NFPA 13R sprinkler systems.

California Fire Code Section 903.3.1.2 is hereby amended to read:

903.3.1.2 NFPA 13R sprinkler systems. NFPA 13R sprinkler systems are not permitted. Additional references to NFPA 13R systems in this Section are not applicable.

(f) Fire department connections.

California Fire Code Section 903.3.7 is hereby amended to read:

903.3.7 Fire department connections. All 4-inch (101.6 mm) fire lines shall be equipped with a two-way fire department connection. All 6-inch (152.4 mm) fire lines shall be equipped with a four-way fire department connection. All fire department connections shall be located within 25 feet (7620 mm) of the street or approved fire access lane, not less than 30 inches (762 mm) nor more than 3 feet (914.4 mm) above the finished grade, and shall be equipped with an approved check valve and plugs or caps. All connections shall be protected against mechanical or vehicular damage and shall be visible and accessible. The number of fire department connections shall be determined by the *fire code official*.

(g) Floor control valves.

California Fire Code Section 903.3.8 is hereby amended to read:

903.3.8 Floor control valves. *Floor control valves and waterflow detection assemblies shall be installed at each floor where any of the following occur:*

1. *Buildings that are two or more stories in height.*
2. *Building that are two or more stories below the highest level of fire department vehicle access.*

Exception: *Group R-3 and R3.1 occupancies floor control valves and waterflow detection assemblies shall not be required.*

(h) Riser shut-off valve.

California Fire Code Section 903.3 is hereby amended by adding Section 903.3.9 to read:

903.3.9 Riser shut-off valve. Each individual riser shall be equipped with a post indicator valve located outside the structure. The post indicator valve locations shall be determined upon plan review. Post indicator valves shall be a minimum

of 20 feet (6096 mm) from any building openings. All valves shall be secured with a non-case-hardened lock. For single-use fire laterals, a backflow preventer may be used in lieu of a post indicator valve.

(i) Floor control valves.

California Fire Code Section 903.4.3 is hereby amended to read:

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

16.52.905. Standpipe systems.

(a) Required installations.

California Fire Code Section 905.3 is hereby amended to read:

905.3 Required installations. Standpipe systems shall be installed where required by Sections 905.3.1 through 905.3.10.1 and where the *fire code official* determines that additional standpipes are needed in accordance with Section 901.4.4. Standpipe systems are allowed to be combined with *automatic sprinkler systems*.

Exception: Standpipe systems are not required in Group R-3 occupancies.

16.52.913. Fire pumps.

(a) Fire pumps in high rise buildings.

California Fire Code Section 913.6 is hereby amended to read:

913.6 Fire pumps in high rise buildings.

913.6.1 Fuel supply. *Engine-driven fire pumps and electric drive fire pumps supplied by generators shall both be provided with an on-premises fuel supply, sufficient for not less than 8-hour full demand operation at 100 percent of the rated pump capacity in addition to all other required supply demands in accordance with Sections 9.6 and 11.4.2 of NFPA 20 and this section.*

(b) Additional pump required.

California Fire Code Section 913.6 is hereby amended by adding Section 913.6.2 to read:

913.6.2 Additional pump required. Buildings having floors used for human occupancy located more than one hundred fifty feet above the lowest floor level having building access shall have a minimum of two independently driven fire pumps which shall be provided and sized for fire sprinkler demand and fire department standpipe operation.

16.52.914. Fire protection based on special detailed requirements of use and occupancy.

(a) Automatic sprinkler system.

California Fire Code Section 914.3.1 is hereby amended to read:

914.3.1 Automatic sprinkler system. Buildings and structures shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 and a secondary water supply where required by Section 903.3.5.2. A sprinkler water flow alarm initiating device and a control valve with a supervisory signal initiating device shall be provided at the lateral connection to the riser on each floor.

Exception: An *automatic sprinkler system* shall not be required in spaces or areas of telecommunications equipment buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided that those spaces or areas are equipped throughout with an automatic fire detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour *fire barriers* constructed in accordance with Section 707 of the *International Building Code* or not less than 2-hour *horizontal assemblies* constructed in accordance with Section 711 of the *International Building Code*, or both.

16.52.1009. Stairways.

(a) Roof access.

California Fire Code Section 1009.16.1 is hereby amended to read:

1009.16.1 Roof access. Where a *stairway* is provided to a roof, access to the roof shall be provided through a *penthouse* complying with Section 1509.2.

Exception: In buildings without an occupied roof, access to the roof shall be permitted to be a roof hatch or trap door not less than 16 square feet (1.5 m²) in area and having a minimum dimension of 2 feet 6 inches (762 mm).

16.52.1030. Maintenance of means of egress.

(a) Vehicular obstructions.

California Fire Code Section 1030 is hereby amended by adding Section 1030.3.1 to read:

1030.3.1 Vehicular obstructions. Where means of egress doors are located such that the doors could be obstructed by the parking of vehicles, vehicular barriers shall be provided as required by the fire code official.

(b) Seismic supports for storage shelves.

California Fire Code Section 1030 is hereby amended by adding Section 1030.6.1 to read:

1030.6.1 Seismic supports for storage shelves. All storage shelves, cabinets, and other furnishings within a means of egress shall be adequately secured for seismic forces as required by the California Building Code. Storage shelves, cabinets, and other furnishings within a means of egress not controlled by the California Building Code may require securing, as determined by the *fire code official*.

16.52.1103. Fire safety requirements for existing buildings.

(a) Emergency responder radio coverage in existing buildings.

California Fire Code Section 1103.2 is hereby amended to read:

1103.2 Emergency responder radio coverage in existing buildings. Existing buildings that do not have *approved* radio coverage for emergency responders within the building shall be equipped with such system or coverage within a timeframe established by the *fire code official*.

1. Whenever an existing wired communication system cannot be repaired or is being replaced, or where not *approved* in accordance with Section 510.1, Exception 1.
2. When undergoing substantial alteration as determined by the *fire code official*.
3. When determined by the *fire code official* that buildings, classes of buildings or specific occupancies do not have minimum radio coverage signal strength levels and pose an undue risk to emergency responders that cannot be reasonably mitigated by other means.

Exception: Where it is determined by the *fire code official* that the radio coverage system is not needed.

16.52.2311. Repair garages.

(a) Supervision and monitoring.

California Fire Code Section 2311 is hereby amended by adding Section 2311.7.2.4 to read:

2311.7.2.4 Supervision and monitoring. Required gas detection and mechanical ventilation systems shall be electrically supervised and monitored in accordance with Section 5004.10.

(b) Standby power.

California Fire Code Section 2311 is hereby amended by adding Section 2311.7.2.5 to read:

2311.7.2.5 Standby power. The gas detection system shall have a battery backup or an approved alternate source of power in accordance with NFPA 72.

16.52.2803. Lumberyards and woodworking facilities

(a) Fire protection water supply system.

California Fire Code Section 2803 is hereby amended by adding Section 2803.8 to read:

2803.8 Fire protection water supply system. An approved fire protection water supply and hydrant system suitable for the hazard involved shall be provided. Hydrant systems shall be installed in accordance with the State of California adopted edition of NFPA 24 and local requirements.

16.52.3304. Fire safety during construction and demolition.

(a) Stairways required.

California Fire Code Section 3311.1 is hereby amended to read:

[B] 3311.1 Stairways required. Each level above the first story in new multi-story buildings that require two exit stairways shall be provided with at least two usable exit stairways after the floor decking is installed. The stairways shall be continuous and discharge to grade level. Stairways serving more than two floor levels shall be enclosed (with openings adequately protected) after exterior walls/windows are in place. Exit stairs in new and in existing, occupied buildings shall be lighted and maintained clear of debris and construction materials at all times.

Exception: For new multi-story buildings, one of the required exit stairs may be obstructed on not more than two contiguous floor levels for the purposes of stairway construction (i.e., installation of gypsum board, painting, flooring, etc.).

(b) Required means of egress.

California Fire Code Section 3311 is hereby amended by adding Section 3311.1.1 to read:

3311.1.1 Required means of egress. All new buildings under construction shall have at least one unobstructed means of egress. All means of egress shall be identified in the prefire plan as outlined in Section 3308.2.

16.52.5001. Hazardous materials: general.

(a) Health hazards.

California Fire Code Section 5001.2.2.2 is hereby amended to read:

5001.2.2.2 Health hazards. The material categories listed in this section are classified as health hazards. A material with a primary classification as a health hazard can also pose a physical hazard.

1. Highly toxic and toxic materials.
2. Corrosive materials.
3. Moderately toxic gas.
4. Other health hazard material.

(b) Biosafety level 3 and biosafety level 4 operations.

California Fire Code Section 5003 is hereby amended by adding Section 5001.7 to read:

5001.7 Biosafety level 3 and biosafety level 4 operations. The *fire code official* shall be notified in writing annually of locations where biosafety level 3 (BSL-3) or biosafety level 4 (BSL-4) operations as defined by the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes of Health (CDC/NIH) are being performed. Such notification shall identify the location(s) within the building where BSL-3 and BSL-4

operations are conducted and shall certify compliance with the CDC/NIH's recommended practices for such operations.

16.52.5003. Hazardous materials: general requirements.

(a) Highly toxic, toxic and moderately toxic gases and similarly used or handled materials.

California Fire Code Section 5003 is hereby amended by adding Section 5003.1.3.1 to read:

5003.1.3.1 Highly toxic, toxic and moderately toxic gases and similarly used or handled materials. The storage, use and handling of highly toxic, toxic and moderately toxic gases in amounts exceeding Table 6004.2 or 6004.3 shall be in accordance with this chapter and Chapter 60. Any highly toxic, toxic or moderately toxic material that is used or handled as a gas or vapor shall be in accordance with the requirements for toxic, highly toxic or moderately toxic gases.

(b) Other health hazards.

California Fire Code Section 5001 is hereby amended by adding Section 5003.1.5 to read:

5003.1.5 Other health hazard materials. The storage, use and handling of materials classified as other health hazards including carcinogens, irritants and sensitizers in amounts exceeding 810 cubic feet for gases, 55 gallons for liquids and 5,000 pounds for solids shall be in accordance with Section 5003.

(c) Spill control and secondary containment requirements.

California Fire Code Section 5003 is hereby amended by adding Section 5003.1.6 to read:

5003.1.6 Spill control and secondary containment requirements. A spill control and secondary containment system shall be required for all hazardous materials, which are liquids or solids at normal temperature, and pressure (NTP) where a spill is determined to be a plausible event and where such an event would endanger people, property or the environment. Construction shall be substantial, capable of safely and securely containing a sudden release without discharge. Design criteria shall be performance based and constructed of physically and chemically compatible materials to resist degradation and provide structural and functional integrity for a period of time reasonably necessary to ensure detection, mitigation, and repair of the primary system. Regardless of quantities, spill control and secondary containment shall also comply with Section 5004.2.

(d) Design and construction.

California Fire Code Section 5003.2.2.1 is hereby amended to read:

5003.2.2.1 Design and construction. Piping, tubing, valves, fittings and related components used for hazardous materials shall be in accordance with the following:

1. Piping, tubing, valves, fittings and related components shall be designed and fabricated from materials compatible with the material to be contained and shall be of adequate strength and durability to withstand the pressure, structural and seismic stress, and exposure to which they are subject.
2. Piping and tubing shall be identified in accordance with ASME A13.1 and the Santa Clara County Fire Chiefs' Marking Requirements and Guidelines for Hazardous Materials and Hazardous Waste to indicate the material conveyed.
3. Readily accessible manual valves or automatic remotely activated fail-safe emergency shutoff valves shall be installed on supply piping and tubing at the following locations:
 1. The point of use.
 2. The tank, cylinder or bulk use.
4. Manual emergency shutoff valves and controls for remotely activated emergency shutoff valves shall be identified and the location shall be clearly visible accessible and indicated by means of a sign.
5. Backflow prevention or check valves shall be provided when the backflow of hazardous materials could create a hazardous condition or cause the unauthorized discharge of hazardous materials.
6. Where gases or liquids having a hazard ranking of:
 - Health hazard Class 3 or 4
 - Flammability Class 4
 - Instability Class 3 or 4in accordance with NFPA 704 are carried in pressurized piping above 15 pounds per square inch gauge (psig)(103 KPa), an approved means of leak detection, emergency shutoff and excess flow control shall be provided. Where the piping originates from within a hazardous material storage room or area, the excess flow control shall be located within the storage room or area. Where the piping originates from a bulk source, the excess flow control shall be located as close to the bulk source as practical.

Exceptions:

1. Piping for inlet connections designed to prevent backflow.
2. Piping for pressure relief devices.
7. Secondary containment or equivalent protection from spills shall be provided for piping for highly toxic and toxic corrosive gases above threshold quantities listed in Tables 6004.2 and 6004.3 and for all liquid hazardous materials regulated by this code. Secondary containment includes, but is not limited to double walled piping.

Exceptions:

1. Secondary containment is not required for toxic corrosive gases if the piping is constructed of inert materials.
2. Piping under sub-atmospheric conditions if the piping is equipped with an alarm and fail-safe-to-close valve activated by a loss of vacuum.
8. Expansion chambers shall be provided between valves whenever the regulated gas may be subjected to thermal expansion. Chambers shall be sized to provide protection for piping and instrumentation and to accommodate the expansion of regulated materials.

(e) Additional regulation for supply piping for health hazard materials.
California Fire Code Section 5003.2.2.2 is hereby amended to read:

5003.2.2.2 Additional regulation for supply piping for health hazard materials. Supply piping and tubing for gases and liquids having a health hazard ranking of 3 or 4 shall be in accordance with ASME B31.3 and the following:

1. Piping and tubing utilized for the transmission of highly toxic, toxic or highly volatile corrosive liquids and gases shall have welded or brazed connections throughout except for connections within an exhausted enclosure if the material is a gas, or an approved method of drainage or containment is provided for connections if the material is a liquid.
2. Piping and tubing shall not be located within corridors, within any portion of a means of egress required to be enclosed in fire-resistance-rated construction or in concealed spaces in areas not classified as Group H Occupancies.
Exception: Piping and tubing within the space defined by the walls of corridors and the floor or roof above or in concealed space above other occupancies when installed in accordance with Section 415.8.6.3 of the California Building Code as required for Group H, Division 5 Occupancies.
3. All primary piping for highly toxic, toxic and moderately toxic gases shall pass a helium leak test of 1×10^{-9} cubic centimeters per second where practical, or shall pass testing in accordance with an approved, nationally recognized standard. Tests shall be conducted by a qualified "third party" not involved with the construction of the piping and control systems.

(f) Equipment, devices and systems requiring testing.
California Fire Code Section 5003.2.9.1 is hereby amended to read:

5003.2.9.1 Equipment, devices and systems requiring testing. The following equipment, systems and devices shall be tested in accordance with Sections 5003.2.9 and 5003.2.9.2.

1. Gas detection systems, alarms and automatic emergency shutoff valves required by Section 6004.2.2.10 for highly toxic, toxic and moderately toxic gases.
2. Limit control systems for liquid level, temperature and pressure required by Sections 5003.2.7, 5004.8 and 5005.1.4.
3. Emergency alarm systems and supervision required by Sections 5004.9 and 5005.4.4.
4. Monitoring and supervisory systems required by Sections 5004.10 and 5005.1.6.
5. Manually activated shutdown controls required by Section 6403.1.1.1 for compressed gas systems conveying pyrophoric gases.
6. Gas detection systems, alarms and automatic emergency shutoff valves installed in repair garages for vehicles fueled by lighter-than-air fuels in accordance with Section 2311.7.
7. Refrigeration equipment and systems where required in accordance with Section 606.6.

8. Gas detection systems, alarms and automatic emergency shutoff valves installed for asphyxiant gases.

(g) Unauthorized discharges.

California Fire Code Section 5003.3.1 is hereby amended to read:

5003.3.1 Unauthorized discharges. When hazardous materials are released in quantities reportable under state, federal or local regulations or when there is release or a threatened release that presents a threat to health, property or the environment, the fire code official shall be notified immediately in an approved manner and the following procedures required in accordance with Sections 5003.3.1.1 through 5003.3.1.4.

(h) Ventilation ducting.

California Fire Code Section 5003 is hereby amended by adding Section 5003.5.2 to read:

5003.5.2 Ventilation ducting. Product conveying ducts for venting hazardous materials operations shall be labeled with the hazard class of the material being vented and the direction of flow.

(i) "H" Occupancies.

California Fire Code Section 5003 is hereby amended by adding Section 5003.5.3 to read:

5003.5.3 "H" Occupancies. In "H" occupancies, all piping and tubing may be required to be identified when there is any possibility of confusion with hazardous materials transport tubing or piping. Flow direction indicators are required.

(j) Fire extinguishing systems for workstations dispensing, handling or using hazardous materials.

California Fire Code Section 5003 is hereby amended by adding Section 5003.9.11 to read:

5003.9.11 Fire extinguishing systems for workstations dispensing, handling or using hazardous materials. Combustible and non-combustible workstations, which dispense, handle or use hazardous materials, shall be protected by an approved automatic fire extinguishing system in accordance with Section 2703.10.

Exception: Internal fire protection is not required for Biological Safety Cabinets that carry NSF/ANSI certification where quantities of flammable liquids in use or storage within the cabinet do not exceed 500 ml.

16.52.5004. Hazardous materials: storage.

(a) Spill control for hazardous materials liquids.

California Fire Code Section 5004.2.1 is hereby amended to read:

5004.2.1 Spill control for hazardous material liquids. Rooms, buildings or areas used for storage of hazardous material liquids shall be provided with spill control to prevent the flow of liquids to adjoining areas. Floors in indoor locations and similar surfaces in outdoor locations shall be constructed to contain a spill from the largest single vessel by one of the following methods:

1. Liquid-tight sloped or recessed floors in indoor locations or similar areas in outdoor locations.
2. Liquid-tight floors in indoor locations or similar areas provided with liquid-tight raised or recessed sills or dikes.
3. Sumps and collection systems.
4. Other approved engineered systems.

Except for surfacing, the floors, sills, dikes, sumps and collection systems shall be constructed of noncombustible material, and the liquid-tight seal shall be compatible with the material stored. When liquid-tight sills or dikes are provided, they are not required at perimeter openings having an open-grate trench across the opening that connects to an approved collection system.

(b) Secondary containment for hazardous materials liquids and solids.

California Fire Code Section 5004.2.2 is hereby amended to read:

5004.2.2 Secondary containment for hazardous material liquids and solids.

Buildings, rooms or areas used for the storage of hazardous materials liquids or solids shall be provided with secondary containment in accordance with this section.

(c) Required secondary containment for hazardous materials solids and liquids.

California Fire Code Section 5004.2.2 is hereby amended by deleting Table 5004.2.2.2 in its entirety.

(d) Incompatible materials.

California Fire Code Section 5004.2.2.2 is hereby amended to read:

5004.2.2.2 Incompatible materials. Incompatible materials shall be separated from each other in independent secondary containment systems.

16.52.5005. Hazardous materials: use, dispensing and handling.

(a) Dispensing, use and handling.

California Fire Code Section 5005.9 is hereby amended to read:

5005.4.4 Dispensing, use and handling. Where hazardous materials having a hazard ranking of 3 or 4 in accordance with NFPA 704, or toxic gases exceeding 10 cu. ft. and any amount of highly toxic compressed gases are transported through corridors, interior exit stairways or ramps or exit passageways, there shall be an emergency telephone system, a local manual alarm station or an approved alarm-initiating device at not more than 150-foot (45,720 mm) intervals and at each exit and exit-access doorway throughout the transport route. The signal shall be relayed to an approved central, proprietary or remote station service or constantly attended on-site location and shall also initiate a local audible alarm.

16.52.5301. Compressed gases.

(a) Scope.

California Fire Code Section 5301.1 is hereby amended to read:

5301.1 Scope. Storage, use and handling of compressed gases in compressed gas containers, cylinders, tanks and systems shall comply with this chapter, including those gases regulated elsewhere in this code. Partially full compressed gas containers, cylinders or tanks containing residual gases shall be considered as full for the purposes of the controls required.

Exceptions:

1. Gases used as refrigerants in refrigeration systems (see Section 606).
2. Compressed natural gas (CNG) for use as a vehicular fuel shall comply with Chapter 23, NFPA 52 and the California Mechanical Code.

Cutting and welding gases shall also comply with Chapter 35.

Cryogenic fluids shall also comply with Chapter 55. Liquefied natural gas for use as a vehicular fuel shall also comply with NFPA 52 and NFPA 59A.

Liquefied carbon dioxide systems shall also comply with NFPA 55.

Compressed gases classified as hazardous materials shall also comply with Chapter 50 for general requirements and chapters addressing specific hazards, including Chapters 58 (Flammable Gases), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids) and 64 (Pyrophoric Materials).

LP-gas shall also comply with Chapter 61 and the *California Mechanical Code*.

16.52.5601. Explosives and fireworks.

Chapter 56 of the 2012 International Fire Code is not adopted with the exception of the following Sections:

5601.1 Scope. For explosives requirements see California Code of Regulations, Title 19, Division 1, Chapter 10 and Section 5601.2 of this Chapter. For fireworks requirements see California Code of Regulations, Title 19, Division 1, Chapter 6 and Section 5601.3 of this Chapter. For small arms ammunition, see Section 5601.5 of this Chapter.

Exceptions:

1. The armed Forces of the United States, Coast Guard or National Guard.
2. Explosives in forms prescribed by the official United States Pharmacopoeia.
3. The use of explosive materials by federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities.
4. Items preempted by federal regulations.

5601.2 Explosives. The possession, manufacture, storage, sale, handling, and use of explosives are prohibited.

Exceptions:

1. Possession, storage, handling and use of explosives for test and research purposes are allowed with permit and approval of the *fire code official*.
2. Possession, storage, handling and use of squibs, explosive nuts or bolts and similar small quantity explosive devices are allowed with permit and approval of the *fire code official*.

5601.3 Fireworks. The possession, manufacture, storage, sale, handling, and use of fireworks, including those fireworks classified as Safe and Sane by the California State Fire Marshal, are prohibited.

Exceptions:

1. Storage, handling and use of fireworks and pyrotechnic special effects outside of buildings when used for public or proximate audience displays, motion picture, television, theatrical and group entertainment productions and when in accordance with Title 19 of the California Code of Regulations.
2. Storage, handling and use of pyrotechnic special effects fireworks inside of buildings when used for proximate audience displays or special effects in theatrical, television, motion picture and group entertainment productions when in accordance with Title 19 of the California Code of Regulations and when in buildings equipped throughout with an approved fire sprinkler system.

5601.4 Model rocketry. The storage, handling, and use of model rockets shall be in accordance with Title 19 of the California Code of Regulations and as approved by the fire code official.

5601.5 Small arms ammunition-general. Indoor storage and display of black powder, smokeless propellants and small arms ammunition shall comply with Sections 5601.5.1 through 5601.5.4.2.3.

5601.5.1 Packages. Smokeless propellants shall be stored in approved shipping containers conforming to DOTn 49 CFR, Part 173.

5601.5.1.1 Repackaging. The bulk repackaging of smokeless propellants, black powder and small arms primers shall not be performed in retail establishments.

5601.5.1.2 Damaged packages. Damaged containers shall not be repackaged.

Exception: Approved repackaging of damaged containers of smokeless propellant into containers of the same type and size as the original container.

5601.5.2 Storage in Group R occupancies. The storage of small arms ammunition in Group R occupancies shall comply with Sections 5601.5.2.1 through 5601.5.2.3.

5601.5.2.1 Smokeless propellants. Smokeless propellants intended for personal use in quantities not exceeding 20 pounds (9 kg) are permitted to be stored in Group R-3 occupancies where kept in original containers. Smokeless powder in quantities exceeding 20 pounds (9 kg) but not exceeding 50 pounds (23 kg) are permitted to be stored in Group R-3 occupancies where kept in a wooden box or cabinet having walls of at least 1 inch (25 mm) nominal thickness.

5601.5.2.2 Black powder. Black powder intended for personal use in quantities not exceeding 20 pounds (9 kg) are permitted to be stored in Group R-3 occupancies where kept in original containers and stored in a wooden box or cabinet having walls of at least 1 inch (25 mm) nominal thickness

5601.5.2.3 Small arms primers. No more than 10,000 small arms primers shall be stored in Group R-3 occupancies.

5601.5.3 Display and storage in Group M occupancies. The display and storage of small arms ammunition in Group M occupancies shall comply with Sections 5601.5.3.1 through 5601.5.3.2.3.

5601.5.3.1 Display. The display of small arms ammunition in Group M occupancies shall comply with Sections 5601.5.3.1.1 through 5601.5.3.1.3.

5601.5.3.1.1 Smokeless propellant. No more than 20 pounds (9 kg) of smokeless propellants, each in containers of 1 pound (0.454 kg) or less capacity, shall be displayed in Group M occupancies.

5601.5.3.1.2 Black powder. No more than 1 pound (0.454 kg) of black powder shall be displayed in Group M occupancies.

5601.5.3.1.3 Small arms primers. No more than 10,000 small arms primers shall be displayed in Group M occupancies.

5601.5.3.2 Storage. The storage of small arms ammunition in Group M occupancies shall comply with Sections 5601.5.3.2.1 through 5601.5.3.2.3.

5601.5.3.2.1 Storage of smokeless propellant. Commercial stocks of smokeless propellants not on display shall not exceed 100 pounds (45 kg). Quantities exceeding 20 pounds (9 kg), but not exceeding 100 pounds (45 kg) shall be stored in portable wooden boxes having walls of at least 1 inch (25 mm) nominal thickness.

5601.5.3.2.2 Black powder. Commercial stocks of black powder not on display shall not exceed 50 pounds (23 kg) and shall be stored in a type 4 indoor magazine. When black powder and smokeless propellants are stored together in the same magazine, the total quantity shall not exceed that permitted for black powder.

5601.5.3.2.3 Small arms primers. Commercial stocks of small arms primers not on display shall not exceed 750,000. Storage shall be arranged such that not more than 100,000 small arms primers are stored in any one pile and piles are at least 15 feet (4572 mm) apart.

16.52.5704. Flammable and combustible liquids

(a) Locations where aboveground tanks are prohibited and tank capacity limits. California Fire Code Section 5704.2.9.6.1 is hereby amended to read:

5704.2.9.6.1 Locations where aboveground tanks are prohibited and tank capacity limits. Storage of Class I and II liquids in aboveground tanks

outside buildings is prohibited zoning districts established in Title 19 of the Sunnyvale Municipal Code unless such installations are permitted.

When permitted, the following tank capacity limits shall apply:

Double wall steel aboveground tanks used for the storage of Class II liquids, including integral diesel fuel storage tanks for generators or fire pumps shall be listed and limited to an individual and aggregate capacity of 660 gallons.

Protected aboveground tanks shall not exceed 2,000 gallons individual capacity and 6,000 gallons aggregate capacity.

Exceptions:

1. Where approved by the *fire code official*, protected aboveground tanks storing other than Class I flammable liquids used to power generators or fire pumps.
2. Protected aboveground tanks used for dispensing fuel into motor vehicles in accordance with Chapter 23.

(b) Overfill prevention.

California Fire Code Section 5704.2.7.5.8 is hereby amended to read:

5704.2.7.5.8 Overfill Prevention. An approved means or method in accordance with Section 5704.2.9.7.6 shall be provided to prevent the overfilling of all Class I, II and III-A liquid storage tanks. Storage tanks in refineries, bulk plants or terminals regulated by Sections 5706.4 or 5706.7 shall have overfill protection in accordance with API 2350.

An approved means or method in accordance with Section 5704.2.9.7.6 shall be provided to prevent the overfilling of Class IIIB liquid storage tanks connected to fuel-burning equipment inside buildings.

Delete Exception

(c) Automatic filling of tanks.

California Fire Code Section 5704 is hereby amended by adding Section 5704.2.7.5.9 to read:

5704.2.7.5.9 Automatic filling of tanks. Systems that automatically fill flammable or combustible liquid tanks shall be equipped with overfill protection, approved by the fire code official that sends an alarm signal to a constantly attended location and immediately stops the filling of the tank. The alarm signal and automatic shutoff shall be tested on an annual basis and records of such testing shall be maintained on-site for a period of five (5) years.

(d) Buoyancy calculation.

California Fire Code Section 5704 is hereby amended by adding Section 5704.2.11.3.1 to read:

5704.2.11.3.1 Buoyancy calculation. Buoyancy calculations bearing the signature of a state registered engineer for all underground tank installations are required to be submitted at the time of plan review.

(e) Liquids for maintenance and operation of equipment.

California Fire Code Section 5704.3.4.4 is hereby amended to read:

5704.3.4.4 Liquids for maintenance and operation of equipment. In all occupancies, quantities of flammable and combustible liquids in excess of 10 gallons (38 L) used for maintenance purposes, laboratory work and the operation of equipment shall be stored in liquid storage cabinets in accordance with Section 5704.3.2. Quantities not exceeding 10 gallons (38 L) are allowed to be stored outside of a cabinet when in approved containers located in private garages or other approved locations.

16.52.5706. Special operations.

(a) Permanent and temporary tanks.

California Fire Code Section 5706.2.4 is hereby amended to read:

5706.2.4 Permanent and temporary tanks. The capacity of permanent above-ground tanks containing Class I or II liquids shall not exceed 1,100 gallons (4164 L). Tanks shall be of the single-compartment design.

Exception: Where approved by the *fire code official*, permanent above-ground tanks of greater capacity which meet the requirements of Section 5704.2.

(b) Location of bulk plants or terminals.

California Fire Code Section 5706 is hereby amended by adding Section 5706.4.11 to read:

5706.4.11 Location of bulk plants or terminals. No new bulk plants or terminals shall be constructed within any zoning districts established in Title 19 of the Sunnyvale Municipal Code unless such installations are permitted.

16.52.6001. Highly toxic and toxic materials and moderately toxic gases.

(a) Title

California Fire Code Chapter 60 title is hereby amended to read:

**CHAPTER 60
HIGHLY TOXIC AND TOXIC MATERIALS
AND MODERATELY TOXIC GASES**

(b) Moderately toxic gases with a LC50 equal to or less than 3000 parts per million.

California Fire Code Section 6001 is hereby amended by adding Section 6001.3 to read:

6001.3 Moderately toxic gases with a LC50 equal to or less than 3000 parts per million. Notwithstanding the hazard class definition in Section 3702, moderately toxic gases with an LC50 less than 3,000 parts per million shall

additionally comply with the requirements for toxic gases in Section 6004 of this code.

16.52.6004. Highly toxic, toxic and moderately toxic compressed gases including those used as refrigerants.

(a) **Title.** California Fire Code Section 6004 title is hereby amended to read:

**SECTION 6004
HIGHLY TOXIC, TOXIC AND MODERATELY TOXIC COMPRESSED GASES
INCLUDING THOSE USED AS REFRIGERANTS**

(b) **Highly toxic, toxic and moderately toxic compressed gases.**

California Fire Code Section 6004 is hereby amended by adding Sections 6004.1.4 through 6004.1.14 to read:

6004.1.4 Automatic shut-off valve. An automatic shut-off valve, which is of a fail-safe to close design, shall be provided to shut off the supply of highly toxic gases for any of the following:

1. Activation of a manual fire alarm system.
2. Activation of the gas detection system.
3. Failure of emergency power.
4. Failure of primary containment.
5. Seismic activity.
6. Failure of required ventilation.
7. Manual activation at an approved remote location.

6004.1.5 Emergency control station. Signals from emergency equipment used for highly toxic gases shall be transmitted to an emergency control station or other approved monitoring station, which is continually staffed by trained personnel.

6004.1.6 Maximum threshold quantity. Toxic gases stored or used in quantities exceeding the maximum threshold quantity in a single vessel per control area or outdoor control area shall comply with the additional requirements for highly toxic gases of Section 6004 of this code.

Moderately toxic gases stored or used in quantities exceeding the maximum threshold quantity in a single vessel per control area or outdoor control area shall comply with the additional requirements for toxic gases of Section 6004 of this code.

6004.1.7 Reduced flow valve. All containers of materials other than lecture bottles containing highly toxic material and having a vapor pressure exceeding 29 psia shall be equipped with a reduced flow valve when available. If a reduced flow valve is not available, the container shall be used with a flow-limiting device. All flow limiting devices shall be part of the valve assembly and visible to the eye when possible; otherwise, they shall be installed as close as possible to the cylinder source.

6004.1.8 Fire extinguishing systems. Buildings and covered exterior areas for storage and use areas of materials regulated by this Chapter shall be protected by an automatic fire sprinkler system in accordance with NFPA 13. The design of the sprinkler system for any room or area where highly toxic, toxic and moderately toxic gases are stored, handled or used shall be in accordance with Section 5004.5.

6004.1.9 Local gas shut off. Manual activation controls shall be provided at locations near the point of use and near the source, as approved by the fire code official. The *fire code official* may require additional controls at other places, including, but not limited to, the entry to the building, storage or use areas, and emergency control stations. Manual activated shut-off valves shall be of a fail-safe-to-close design.

6004.1.10 Exhaust ventilation monitoring. For highly toxic gases and toxic gases exceeding threshold quantities, a continuous monitoring system shall be provided to assure that the required exhaust ventilation rate is maintained. The monitoring system shall initiate a local alarm. The alarm shall be both visual and audible and shall be designed to provide warning both inside and outside of the interior storage, use, or handling area.

6004.1.11 Emergency response plan. If the preparation of an emergency response plan for the facility is not required by any other law, responsible persons shall prepare, or cause to be prepared, and filed with the *fire code official*, a written emergency response plan. If the preparation of an emergency response plan is required by other law, a responsible person shall file a copy of the plan with the *fire code official*.

6004.1.12 Cylinder leak testing. Cylinders shall be tested for leaks immediately upon delivery and again immediately prior to departure. Testing shall be approved by the *fire code official* in accordance with appropriate nationally recognized industry standards and practices, if any. Appropriate remedial action shall be immediately undertaken when leaks are detected

6004.1.13 Inert gas purge system. Gas systems shall be provided with dedicated inert gas purge systems. A dedicated inert gas purge system may be used to purge more than one gas, provided the gases are compatible. Purge gas systems inside buildings shall be located in an approved gas cabinet unless the system operates by vacuum demand.

6004.1.14 Seismic shutoff valve. An automatic seismic shut-off valve, which is of a fail-safe to close design, shall be provided to shutoff the supply of highly toxic, toxic and moderately toxic gases with an LC₅₀ less than 3000 parts per million upon a seismic event within 5 seconds of a horizontal sinusoidal oscillation having a peak acceleration of 0.3G (1.47m/sec²) and a period of 0.4 seconds.

(c) Indoor storage and use.

California Fire Code Section 6004.2 is hereby amended to read:

6004.2 Indoor storage and use. The indoor storage or use of highly toxic, toxic and moderately toxic compressed gases shall be in accordance with Sections 6004.2.1 through 6004.2.2.10.3.3. The threshold quantity for highly toxic, toxic and moderately toxic gases for indoor storage and use are set forth in Table 6004.2.

(d) Indoor threshold quantities for highly toxic, toxic and moderately toxic gases in storage and use.

California Fire Code Section 6004.2 is hereby amended by adding Table 6004.2 to read:

TABLE 6004.2
INDOOR THRESHOLD QUANTITIES
FOR HIGHLY TOXIC, TOXIC AND MODERATLEY TOXIC
GASES IN STORAGE AND USE

HAZARD CLASS	INDOOR THRESHOLD QUANTITY (cubic feet)
Highly Toxic	0
Toxic	10
Moderately Toxic	20

(e) Applicability.

California Fire Code Section 6004.2.1 is hereby amended to read:

6004.2.1 Applicability. The applicability of regulations governing the indoor storage and use of highly toxic, toxic and moderately toxic compressed gases shall be in accordance with Sections 6004.2.1.1 through 6004.2.1.3.

(f) Quantities not exceeding the maximum allowable quantity per control area.

California Fire Code Section 6004.2.1.1 is hereby amended to read:

6004.2.1.1 Quantities not exceeding the maximum allowable quantity per control area. The indoor storage or use of highly toxic, toxic and moderately toxic gases in amounts not exceeding the maximum allowable quantity per control area set forth in Table 6004.2 shall be in accordance with Sections 5001, 5003, 6001, 6004.1 and 6004.2.

(g) General indoor requirements.

California Fire Code Section 6004.2.2 is hereby amended to read:

6004.2.2 General indoor requirements. The general requirements applicable to the indoor storage and use of highly toxic and toxic compressed gases shall be in accordance with Sections 6004.2.2.1 through 6004.2.2.10.3.

Moderately toxic gases with an LC₅₀ less than 3,000 parts per million shall comply with the requirements for toxic gases in Sections 6004.2.2.1 through 6004.2.2.10.3

All other moderately toxic gases exceeding the threshold quantity shall comply with the requirements for toxic gases in Sections 6004.2.2.1 through 6004.2.2.7.

(h) Treatment systems.

California Fire Code Section 6004.2.2.7 is hereby amended to read:

6004.2.2.7 Treatment systems. The exhaust ventilation from gas cabinets, exhausted enclosures and gas rooms and local exhaust systems required in Section 6004.2.2.4 and 6004.2.2.5 shall be directed to a treatment system. The treatment system shall be utilized to handle the accidental release of gas and to process exhaust ventilation. The treatment system shall be designed in accordance with Sections 6004.2.2.7.1 through 6004.2.2.7.5 and Section 510 of the California Mechanical Code.

Exceptions:

1. Highly toxic, toxic and moderately toxic gases storage. A treatment system is not required for cylinders, containers and tanks in storage when all of the following are provided:
 - 1.1. Valve outlets are equipped with gas-tight outlet plug or caps.
 - 1.2. Hand wheel-operated valves have handles secured to prevent movement.
 - 1.3. Approved containment vessels or containment systems are provided in accordance with Section 6004.2.2.3.

Delete Exception 2

(i) Alarms.

California Fire Code Section 6004.2.2.10.2 is hereby amended to read:

6004.2.2.10.2 Alarms. The gas detection system shall initiate a local alarm and transmit a signal to a constantly attended control station when a short-term hazard condition is detected. The alarm shall be both visual and audible and shall provide warning both inside and outside the area where the gas is detected. The audible alarm shall be distinct from all other alarms.

Delete Exception

(j) Outdoor storage and use.

California Fire Code Section 6004.3 is hereby amended to read:

6004.3 Outdoor storage and use. The outdoor storage or use of highly toxic, toxic and moderately toxic compressed gases shall be in accordance with Sections 6004.3.1 through 6004.3.4. The threshold quantity for highly toxic, toxic and moderately toxic gases for outdoor storage and use are set forth in Table 6004.3.

(k) Maximum outdoor threshold quantities for highly toxic, toxic and moderately toxic gases in storage and use.

California Fire Code Section 6004.3 is hereby amended by adding Table 6004.3 to read:

TABLE 6004.3
MAXIMUM OUTDOOR THRESHOLD QUANTITIES
FOR HIGHLY TOXIC, TOXIC AND MODERATELY TOXIC
GASES IN STORAGE AND USE

HAZARD CLASS	MAXIMUM OUTDOOR THRESHOLD QUANTITY (cubic feet)
Highly Toxic	0
Toxic	10
Moderately Toxic	20

(l) Applicability.

California Fire Code Section 6004.3.1 is hereby amended to read:

6004.3.1 Applicability. The applicability of regulations governing the outdoor storage and use of highly toxic, toxic, and moderately toxic compressed gases shall be as set forth in Sections 6004.3.1.1 through 6004.3.1.3.

(m) Quantities not exceeding the maximum allowable quantity per control area.

California Fire Code Section 6004.3.1.1 is hereby amended to read:

6004.3.1.1 Quantities not exceeding the maximum allowable quantity per control area. The outdoor storage or use of highly toxic and toxic gases in amounts exceeding the threshold quantity per control area set forth in Table 6004.3 shall be in accordance with Sections 5001, 5003, 6001, 6004.1, and 6004.3.

Moderately toxic gases with an LC₅₀ less than 3,000 parts per million in amounts exceeding the threshold quantity in Table 6004.3 shall comply with the requirements for toxic gases in Sections 5001, 5003, 6001, 6004.1 and 6004.3.

Moderately toxic gases in amounts exceeding the threshold quantity in Table 6004.3 shall comply with the requirements for toxic gases in Sections 5001, 5003, 6001, 6004.1 and 6004.3.2.1 through 6004.3.2.5.

(n) Outdoor storage weather protection for portable tanks and cylinders.

California Fire Code Section 6004.3.3 is hereby amended to read:

6004.3.3 Outdoor storage weather protection for portable tanks and cylinders.

Weather protection in accordance with Section 5004.13 shall be provided for portable tanks and cylinders located outdoors and not within gas cabinets or exhausted enclosures. The storage area shall be equipped with an approved automatic sprinkler system in accordance with Section 5004.5.

Delete Exceptions

16.52.6405. Pyrophoric materials

(a) Silane distribution systems automatic shutdown.

California Fire Code Section 6405.3 is hereby amended by adding Section 6405.3.1 to read:

6405.3.1 Silane distribution systems automatic shutdown. Silane distribution systems shall automatically shut down at the source upon activation of the gas detection system at levels above the alarm level and/or failure of the ventilation system for the silane distribution system.

16.52.7000. Modifications.

(a) Deferment.

2012 International Fire Code Section B103 is hereby amended by adding Section B103.4 to read:

B103.4 Deferment. The *fire code official* is authorized to defer enforcement of fire flow requirements to allow time for infrastructure upgrades to occur. Temporary mitigation measures as approved by the fire code official may be required for projects in areas with deficient fire flow.

16.52.8101. Fire Apparatus and access roads.

(a) Scope.

Appendix D Section D101.1 of the 2012 International Fire Code is hereby amended to read:

D101.1 Scope. Fire apparatus access roads other than public streets shall be in accordance with this appendix and all other applicable requirements of the *California Fire Code*.

16.52.8102. Required access.

(a) Access and loading.

Appendix D Section D102.1 of the 2012 International Fire Code is hereby amended to read:

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed, substantially altered or moved into or within the jurisdiction when required by the fire code official shall be accessible to fire department apparatus by way of an *approved* fire apparatus access road with an asphalt, concrete or other *approved* driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34 050 kg).

16.52.8103. Minimum specifications.

(a) Turning radius.

Appendix D Section D103.3 of the 2012 International Fire Code is hereby amended to read:

D103.3 Turning radius. The minimum turning radius of a fire apparatus access road shall be in accordance with Section 503.2.4. and the following:

1. 30 feet minimum inside curb radius where access roads less than 26 feet wide are provided, and
2. 25 feet minimum inside curb radius where access roads 26 feet wide or greater are provided.

(b) Dead ends.

Appendix D Section D103.4 of the 2012 International Fire Code is hereby amended to read:

D103.4 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4 and Figure D103.4.

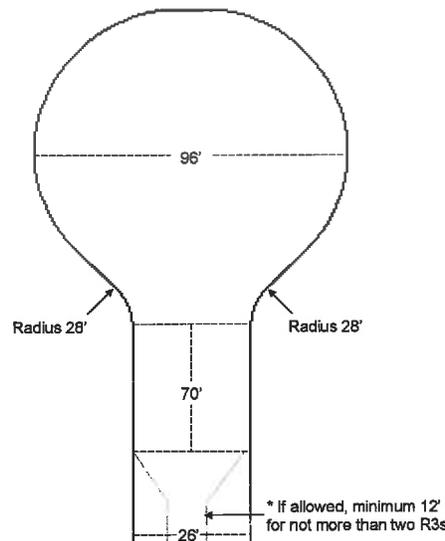
**TABLE D103.4
REQUIREMENTS FOR DEAD-END FIRE
APPARATUS ACCESS ROADS**

[Table D103.4 not reproduced here. No amendments are proposed for the table.]

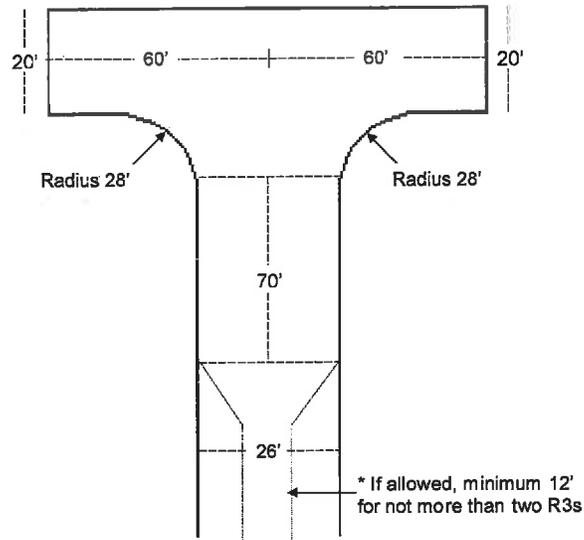
(c) Dead end fire apparatus access road turnaround.

Appendix D Section D103.4 of the 2012 International Fire Code is hereby amended by adding Figure D103.4 to read:

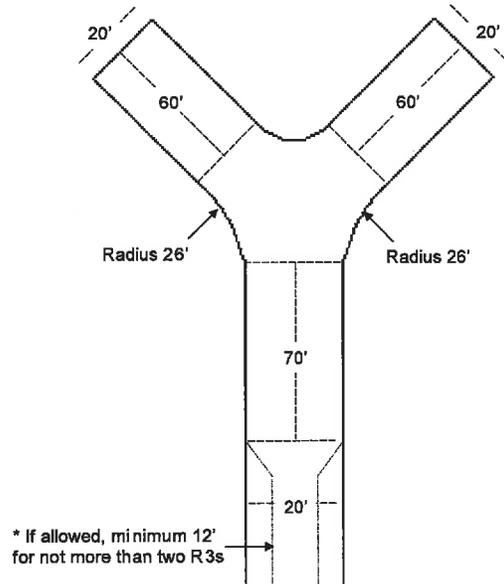
**FIGURE D103.4
DEAD-END FIRE APPARATUS ACCESS ROAD TURNAROUND**



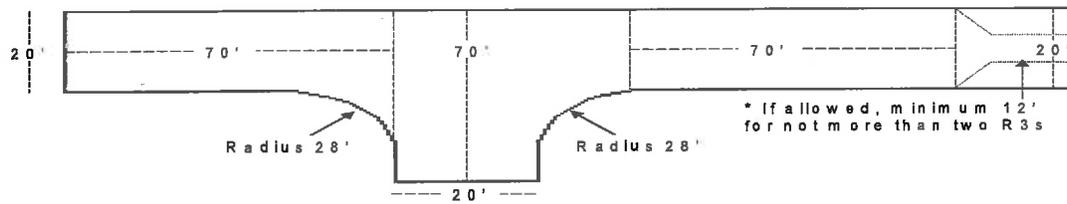
96 Foot Cul-de-sac



120 Foot Hammerhead



60 Foot Y – Acceptable Alternative to 120-Foot Hammerhead



Acceptable Alternative to 120-Foot Hammerhead

(d) Fire apparatus access road gates.

Appendix D Section D103.5 of the 2012 International Fire Code is hereby amended to read:

D103.5 Fire apparatus access road gates. Gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. The minimum gate width shall be 20 feet (6096 mm).
Exception: Access roads serving not more than two Group R-3 or Group U occupancies shall have an unobstructed width of not less than 12 feet.
2. Gates shall be of the swinging or sliding type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.
6. Manual opening gates shall not be locked with a padlock or chain and padlock unless they are capable of being opened by means of forcible entry tools or when a key box containing the key(s) to the lock is installed at the gate location.
7. Locking device specifications shall be submitted for approval by the fire code official.
8. Electric gate operators, where provided, shall be listed in accordance with UL 325.
9. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

(e) Roads 12 to 26 feet in width.

Appendix D Section D103.6.1 of the 2012 International Fire Code is hereby amended to read:

D103.6.1 Roads 12 to 26 feet in width. Fire apparatus access roads 12 to 26 feet wide (6096 to 7925 mm) shall be posted on both sides as a *fire lane*.

(f) Roads more than 26 feet in width.

Appendix D Section D103.6.2 of the 2012 International Fire Code is hereby amended to read:

D103.6.2 Roads more than 26 feet in width. Fire apparatus access roads more than 26 feet wide (7925 mm) to 32 feet wide (9754 mm) shall be posted on one side of the road as a *fire lane*.

16.52.8104. Aerial fire apparatus access roads.

(a) Where required.

Appendix D Section D105.1 of the 2012 International Fire Code is hereby amended to read:

D105.1 Where required. Buildings or portions of buildings or facilities exceeding 30 feet (9144 mm) in height above the lowest level of fire department vehicle access shall be provided with *approved* fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located in areas between the access road and the buildings or portions of buildings that would impede safe deployment of an aerial ladder.

Exception: one and two family dwellings.

16.52.8105 Multi-family residential developments.

(a) Projects having more than 50 dwelling units.

Appendix D Section D106.1 of the 2012 International Fire Code is hereby amended to read:

106.1. Projects having more than 50 dwelling units. Multi-family residential projects having more than 50 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads.

(b) Projects having more than 200 dwelling units.

Appendix D Section D106.2 of the 2012 International Fire Code is hereby deleted.