

BUILDING STANDARDS COMMISSION

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



March 24, 2011

Gail Farber, Director of Public Works
Dept. of Public Works, Bldg. & Safety Division
County of Los Angeles
900 South Fremont Avenue
Alhambra, CA 91803-1331

Dear Gail Farber:

This is to acknowledge receipt of the County of Los Angeles submittal pertaining to Ordinance Nos. 2010-0053 through 2010-0058 with findings on December 29, 2010. As the law states, no local modification or change to the California Building Standards Code (Code) shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission.

It appears that your submittal includes amendments to energy efficiency standards. Local amendments exceeding energy efficiency standards are not enforceable until a finding is made by the California Energy Commission pursuant to Public Resources Code Section 25402.1(h)(2) and Title 24, Part 1, Section 10-106. A copy of this letter is being sent to the Energy Commission for their information. The remainder of your submittal has been filed in our office as of the date noted above.

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Building Standards Commission in order to become effective when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Building Standards Commission.

This letter attests only to the filing of these local modifications with the Building Standards Commission, which is not authorized by law to determine the merit of the filing. The filing of the energy efficiency standards portion of this ordinance will not be complete without the approval of the California Energy Commission. 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: Joe Loyer, California Energy Commission
Chron
Local Filings



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

December 22, 2010

IN REPLY PLEASE

REFER TO FILE:

B-0

Mr. Dave Walls, Executive Director
California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833-2936

Dear Mr. Walls:

COUNTY OF LOS ANGELES ADOPTION OF 2010 CALIFORNIA BUILDING STANDARDS CODE AND LOCAL AMENDMENTS WITH FINDINGS

Enclosed, please find copies of Ordinances adopting the 2010 California Building, Electrical, Plumbing, Mechanical, Residential, and Green Building Standards Codes. The package also includes County Amendments to these Codes together with appropriate Findings pursuant to Section 17958.7 of the California Health and Safety Code. Each of the changes and modifications to the California Building Standards Code was found to be reasonably necessary based upon local climatic, geological, and/or topographical conditions.

At its November 23, 2010, meeting, the County of Los Angeles Board of Supervisors adopted ordinances amending Titles 26, 27, 28, and 29 for the Building, Electrical, Plumbing and Mechanical codes, respectively and in addition created Title 30 for the Residential Code and Title 31 for the Green Building Standards Code of the Los Angeles County Codes. The official Ordinance Numbers are 2010-0053, 2010-0054, 2010-0055, 2010-0056, 2010-0057, and 2010-0058 for the Building, Electrical, Plumbing, Mechanical, Residential, and Green Building Standards Codes, respectively.

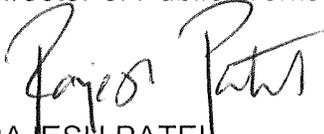
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Mr. Dave Walls
December 22, 2010
Page 2

If you have any questions regarding this matter, please contact Mr. Jonathan Lam at (626) 458-6352 or myself at (626) 458-6385.

Very truly yours,

GAIL FARBER
Director of Public Works

A handwritten signature in black ink, appearing to read "Rajesh Patel". The signature is written in a cursive style with a large initial "R".

RAJESH PATEL
Superintendent of Building
Building and Safety Division

JL:ll
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Enc.

cc: County Counsel (Mark Yanai)

ANALYSIS

This ordinance adds Title 31 - Green Building Standards Code to the Los Angeles County Code. Title 31 incorporates, by reference, portions of the 2010 California Green Building Standards Code, published by the California Building Standards Commission, with certain changes and modifications.

State law requires that the County adopt ordinances that contain the same requirements as are contained in the building standards published in the California Green Building Standards Code. State law allows the County to change or modify these requirements only if it determines that such changes or modifications are reasonably necessary because of local climatic, geological, or topographical conditions.

The changes and modifications to the requirements contained in the building standards published in the 2010 California Green Building Standards Code, which are contained in this ordinance, are based upon express findings, contained in the ordinance, that such changes are reasonably necessary due to local climatic, geological, or topographical conditions.

Title 31 also incorporates, by reference, certain administrative provisions contained in Title 26 - Building Code.

ANDREA SHERIDAN ORDIN
County Counsel

By



MARK T. YANAI
Principal Deputy County Counsel
Property Division

MTY:vn

Requested: 03/10/10

Revised: 10/12/10

ORDINANCE NO. 2010-0058

An ordinance adding Title 31 – Green Building Standards Code of the Los Angeles County Code, relating to the adoption of the 2010 California Green Building Code by reference, with certain changes and modifications.

The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. Title 31 is hereby added to read as follows:

TITLE 31

GREEN BUILDING STANDARDS CODE

CHAPTER 1

ADMINISTRATION

100 ADOPTION BY REFERENCE.

Except as hereinafter changed or modified, Sections 102 through 119 of Chapter 1 of Title 26 of the Los Angeles County Code are adopted by reference and incorporated into this Title 31 as if fully set forth below, and shall be known as Sections 102 through 119 of Chapter 1 of Title 31 of the Los Angeles County Code.

Except as hereinafter changed or modified, Chapters 2 through 8, Appendix A4, and Appendix A5 of that certain code known and designated as the 2010 California Green Building Standards Code, as published by the California Building Standards Commission, are adopted by reference and incorporated into this Title 31 as if fully set forth below, and shall be known as Chapters 2 through 8, Appendix A4, and Appendix A5 of Title 31 of the Los Angeles County Code.

A copy of the 2010 California Green Building Standards Code shall be at all times maintained by the Building Official for use and examination by the public.

101 TITLE, PURPOSE, AND INTENT.

101.1 Title. Title 31 of the Los Angeles County Code shall be known as the "Green Building Standards Code," may be cited as such, and will be referred to herein as "this Code."

101.2 Purpose. The purpose of this Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact, or positive environmental impact, and encouraging sustainable construction practices in the following categories:

1. Planning and design.
2. Energy efficiency.
3. Water efficiency and conservation.
4. Material conservation and resource efficiency.
5. Environmental air quality.

Consistent with this purpose, the provisions of this Code are intended to confer a benefit on the community as a whole and are not intended to establish a duty of care toward any particular person.

This Code shall not be construed to hold the County of Los Angeles or any officer, employee, or agent thereof responsible for any damage to persons or property by reason of any inspection authorized herein or by reason of the issuance or non-issuance of any permit authorized herein, and/or for any action or omission in connection with the application and/or enforcement of this Code. By adopting the

provisions of this Code, the County does not intend to impose on itself, its employees, or agents any mandatory duties of care toward persons and property within its jurisdiction so as to provide a basis of civil liability for damages.

101.3 Scope. The provisions of this Code shall apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in this Code.

It is not the intent that compliance with this Code substitute for, or be identified as, meeting the certification requirements of any green building program.

101.4 Applicability.

101.4.1 Internal conflicts. Where there is a conflict between a general requirement and a specific requirement of this Code, the specific requirement shall be applicable. Where, in any specific case, different sections of this Code specify different materials, methods of construction, or other requirements, the most restrictive shall govern.

101.4.1.1 Differences. In the event of any differences between these building standards and the standard referenced documents, the text of these building standards shall govern.

101.4.1.2 Conflicts with other codes. When the requirements of this Code conflict with the requirements of Titles 26, 27, 28, 29, or 30 of the County Code, the most restrictive requirements shall prevail.

101.4.1.3 Mandatory and voluntary requirements.

This Code contains both mandatory and voluntary green building measures.

101.4.1.4 **Explanatory notes.** Explanatory material, such as references to web sites or other sources where additional information may be found, is included in this Code in the form of notes. Notes are informational only and are not enforceable requirements of this Code.

101.4.2 **Other laws.** The provisions of this Code shall not be deemed to nullify any provisions of local, state, or federal law.

101.4.3 **Referenced codes and standards.** The provisions contained in the codes and standards referenced in this Code, including without limitation, the codes referenced in Sections 101.4.3.1 through 101.4.3.6 below, shall be considered part of the requirements of this Code to the prescribed extent of each such reference.

101.4.3.1 **Building.** The provisions of the Los Angeles County Building Code and the Los Angeles County Residential Code, as applicable, shall apply to the construction, alteration, enlargement, repair, use and occupancy, location, maintenance, removal, and demolition of every structure or any appurtenances connected or attached to such buildings or structures.

101.4.3.2 **Electrical.** The provisions of the Los Angeles County Electrical Code shall apply to the installation of electrical systems, including but not limited to, alterations, repair, replacement, equipment, appliances, fixtures, fittings, and appurtenances thereto.

101.4.3.3 **Mechanical.** The provisions of the Los Angeles County Mechanical Code shall apply to the installation, alterations, repair, and replacement of mechanical systems, including equipment, appliances, fixtures, fittings, and/or appurtenances including ventilating, heating, cooling, air-conditioning, and refrigeration systems, incinerators, and other energy-related systems.

101.4.3.4 **Plumbing.** The provisions of the Los Angeles County Plumbing Code shall apply to the installation, alterations, repair, and replacement of plumbing systems, including equipment, appliances, fixtures, fittings, and appurtenances where connected to a water or a sewage system.

101.4.3.5 **Fire prevention.** The provisions of the California Code of Regulations, Title 19, Division 1, the Los Angeles County Building Code, and the Los Angeles County Fire Code relating to fire and panic safety as adopted by the Office of the State Fire Marshall shall apply to all structures, processes, and premises for protection from the hazard of fire, panic, and explosion.

101.4.3.6 **Energy.** The provisions of the California Energy Code shall apply to the minimum design and construction of buildings for energy efficiency.

SECTION 2. Section 202 is hereby amended to read in alphabetical order as follows:

202 **DEFINITIONS.**

...

CALIFORNIA DEPARTMENT OF WATER RESOURCES MODEL WATER

EFFICIENT LANDSCAPE ORDINANCE. The model ordinance published in Chapter 2.7 of Division 2 of Title 23 of the California Code of Regulations.

...

DEVELOPMENT. Any activity requiring discretionary or non-discretionary land use or construction approval from the County that results in the creation, addition, modification, or replacement of impervious surface area, which replacement is not part of routine maintenance activity. Development includes, but is not limited to, land subdivisions; the construction, installation, addition, or replacement of a building or structure; expansion of a building footprint; and land-disturbing activities related to structural or impervious surfaces. Development shall not include routine maintenance of original lines and grades and/or hydraulic capacity.

...

LOW-RISE RESIDENTIAL BUILDING. A building that is of Occupancy Group R and is threesix stories or less, or that is a one- or two-family dwelling or townhouse.

...

SECTION 3. Section 301 is hereby amended to read as follows:

301 GENERAL.

301.1 Scope.

~~Buildings and structures shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and~~

~~may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county or city and county as specified in Section 101.7, indicated in Section 301.2.~~

301.2 Applicability.

Buildings and structures shall comply with all of the requirements specified in this Section relative to the occupancy type, size, number of stories, and number of units.

301.2.1 Low-rise residential buildings.

Newly constructed low-rise residential buildings as defined in Chapter 2 of this Code shall comply with all applicable requirements of Chapter 4, Residential Mandatory Measures.

301.2.2 Non-low-rise residential buildings.

Newly constructed buildings other than those defined in Chapter 2 of this Code as low-rise residential buildings shall comply with all applicable requirements of Chapter 5, Nonresidential mandatory measures.

301.2.2.1 Buildings greater than or equal to 25,000 square feet.

In addition to the requirements of Section 301.2.2, any newly constructed building greater than or equal to 25,000 square feet shall comply with the measures described in Section A5.601.2.4. Compliance with Section A5.601.2.3 shall be voluntary.

SECTION 4. Section 4.106.4 is hereby added to read as follows:

4.106.4 Low-impact development (LID).

New development or alterations to existing developed sites shall comply with Chapter 12.84 of Title 12 of the Los Angeles County Code.

SECTION 5. Section 4.106.5 is hereby added to read as follows:

4.106.5 Landscape design.

Post-construction landscape designs shall comply with all of the following:

1. Turf areas shall not exceed 25 percent of the total landscaped area.
2. Non-Invasive drought-tolerant plant and tree species appropriate for the climate zone region shall be utilized in at least 75 percent of the total landscaped area.
3. Hydrozoning irrigation techniques shall be incorporated into the landscape design.

SECTION 6. Section 4.304 is hereby amended to read as follows:

4.304.1 Irrigation controllers.

Automatic irrigation system controllers for landscaping ~~provided by the builder~~ and shall be installed at the time of final inspection and shall comply with the following:

...

4.304.2 Reserved.

4.304.3 Water-efficient landscape.

For landscaped areas of any size, a water budget shall be developed for landscape irrigation use that conforms to the California Department of Water Resources Model Water-Efficient Landscape Ordinance.

Exception: As an alternative to a water budget, the following landscapes may comply with the requirements of Section 4.106.5:

1. Developer-installed landscape areas less than or equal to 2,500 square feet.

2. Homeowner-provided and/or homeowner-hired landscape area less than 5,000 square feet.

SECTION 7. Section 4.408 is hereby amended to read as follows:

4.408.1 ~~Construction waste reduction of at least 50 percent.~~

~~Recycle and/or salvage for reuse a minimum of 50 percent of the non-hazardous construction and demolition debris, or meet a local construction and demolition waste management ordinance, whichever is more stringent.~~

~~Exceptions:~~

~~1. Excavated soil and land clearing debris.~~

~~2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.~~

4.408.1.1 Four or fewer units.

Newly constructed projects consisting of four or fewer units shall recycle and/or salvage for reuse a minimum of 50 percent of the non-hazardous construction and demolition debris.

4.408.1.2 Five or more units.

Newly constructed projects consisting of five or more units shall recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition debris.

4.408.2 Construction waste management plan.

~~Where a local jurisdiction does not have a construction and demolition waste management ordinance, a construction waste management plan shall be submitted for approval to the enforcing agency that:~~

- ~~1. Identifies the materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.~~
- ~~2. Specifies if materials will be sorted on site or mixed for transportation to a diversion facility.~~
- ~~3. Identifies the diversion facility where the material collected will be taken.~~
- ~~4. Identifies construction methods employed to reduce the amount of waste generated.~~
- ~~5. Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.~~

4.408.2.1 Documentation.

~~Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, Items 1 through 5. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.~~

~~4.408.2.2~~ ~~Isolated jobsites.~~

~~The enforcing agency may make exceptions to the requirements of this section when jobsites are located in areas beyond the haul boundaries of the diversion facility.~~

~~Notes:~~

~~1. Sample forms found in Chapter 8 may be used to assist in documenting compliance with the waste management plan.~~

~~2. Mixed construction and demolition debris (C&D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).~~

SECTION 8. Section 5.106.2 is hereby added to read as follows:

5.106.2 Low-impact development (LID).

New development or alterations to existing developed sites shall comply with Chapter 12.84 of Title 12 of the Los Angeles County Code.

SECTION 9. Section 5.302.1 is hereby amended to read in alphabetical order as follows:

5.302.1 Definitions.

...

~~**MODEL WATER EFFICIENT LANDSCAPE ORDINANCE.** The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget based on landscaped area and climatological parameters.~~

...

SECTION 10. Section 5.304.1 is hereby amended to read as follows:

5.304.1 Water budget.

A water budget shall be developed for landscape irrigation use that conforms to ~~the local water efficient landscape ordinance or to the California Department of Water Resources Model Water Efficient Landscape Ordinance where no local ordinance is~~ applicable.

Exception: As an alternative to a water budget, landscapes with a landscaped area less than or equal to 2,500 square feet may comply with all of the following measures:

1. Turf area shall not exceed 25 percent of the total landscaped area.
2. Non-invasive drought-tolerant plant and tree species appropriate for the climate zone region shall be utilized in at least 75 percent of the total landscaped area.
3. Hydrozoning irrigation techniques shall be incorporated into the landscape design.

Note: Prescriptive measures to assist in compliance with the water budget are listed in Sections 492.5 through 492.8, 492.10, and 492.11 of the ordinance, which may be found at: <http://www.owue.water.ca.gov/landscape/ord/ord.cfm>

SECTION 11. Section 5.304.3 is hereby amended to read as follows:

5.304.3 Irrigation design.

~~In new nonresidential construction with between 1,000 and 2,500 square feet of landscaped area (the level at which the MLO applies), i~~Install irrigation controllers and sensors which include the following criteria, and meet manufacturer's recommendations.

SECTION 12. Section 5.408 is hereby amended to read as follows:

~~5.408.1~~ **Construction waste diversion**[Reserved].

~~Establish a construction waste management plan for the diverted materials, or meet local construction and demolition waste management ordinance, whichever is more stringent.~~

~~5.408.2~~ **Construction waste management plan**[Reserved].

~~Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan for approval by the enforcement agency that:~~

- ~~1. Identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.~~
- ~~2. Determines if materials will be sorted on-site or mixed.~~
- ~~3. Identifies diversion facilities where material collected will be taken.~~
- ~~4. Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.~~

~~5.408.2.1~~ **Documentation.**

~~Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 5.408.2 items 1 thru 4. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.~~

~~**Exception [DSA-SS]:** Jobsites in areas where there is no mixed construction and demolition debris (C&D) processor or recycling facilities within a feasible haul distance shall meet the requirements as follows:~~

~~1. The enforcement agency having jurisdiction shall at its discretion, enforce the waste management plan and make exceptions as deemed necessary.~~

~~**5.408.2.2 Isolated jobsites [BSC, DSA-SS].**~~

~~The enforcing agency may make exceptions to the requirements of this section when jobsites are located in areas beyond the haul boundaries of the diversion facility.~~

~~**Notes:**~~

~~1. Sample forms found in Chapter 8 may be used to assist in documenting compliance with the waste management plan.~~

~~2. Mixed construction and demolition debris (C&D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).~~

~~**5.408.3 Construction waste reduction of at least 5065 percent.**~~

~~Recycle and/or salvage for reuse a minimum of 5065 percent of the non-hazardous construction and demolition debris, or meet a local construction and~~

demolition waste management ordinance, whichever is more stringent. Calculate the amount of materials diverted by weight or volume, but not by both.

Exceptions:

~~Excavated soil and land-clearing debris.~~

~~Alternate waste and reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.~~

SECTION 13. Appendix A4 is hereby amended to read as follows:

APPENDIX A4

RESIDENTIAL VOLUNTARY MEASURES

~~Some of t~~The measures contained in this appendix are not mandatory unless indicated elsewhere in this Code. ~~adopted by a city, county or city and county as specified in Section 101.7 and provide additional measures that d~~Designers, builders, and property owners may wishare encouraged to consider all of these measures during the planning, design, and construction process.

SECTION 14. Section A4.107.1 is hereby amended to read as follows:

A4.107.1 **Innovative concepts and local environmental conditions.**

The provisions of this eCode are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, method, design, or method of construction not specifically prescribed by this eCode. ~~This code does not limit the authority of city, county, or city and county government to make necessary changes to the provisions contained in this code pursuant to Section 101.7.1.~~

SECTION 15. Section A4.213.1 is hereby amended to read as follows:

A4.213.1 Innovative concepts and local environmental conditions.

The provisions of this eCode are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, method, design, or method of construction not specifically prescribed by this eCode. ~~This code does not limit the authority of city, county, or city and county government to make necessary changes to the provisions contained in this code pursuant to Section 101.7.1.~~

SECTION 16. Section A4.306.1 is hereby amended to read as follows:

A4.306.1 Innovative concepts and local environmental conditions.

The provisions of this eCode are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, method, design, or method of construction not specifically prescribed by this eCode. ~~This code does not limit the authority of city, county, or city and county government to make necessary changes to the provisions contained in this code pursuant to Section 101.7.1.~~

SECTION 17. Section A4.411.1 is hereby amended to read as follows:

A4.411.1 Innovative concepts and local environmental conditions.

The provisions of this eCode are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, method, design, or method of construction not specifically prescribed by this eCode. ~~This code does not limit the authority of city, county, or city and county government to make necessary changes to the provisions contained in this code pursuant to Section 101.7.1.~~

SECTION 18. Section A4.509.1 is hereby amended to read as follows:

A4.509.1 Innovative concepts and local environmental conditions.

The provisions of this eCode are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, method, design, or method of construction not specifically prescribed by this eCode. ~~This code does not limit the authority of city, county, or city and county government to make necessary changes to the provisions contained in this code pursuant to Section 101.7.1.~~

SECTION 19. Section A4.601.1 is hereby amended to read as follows:

A4.601.1 Scope.

The measures contained in this appendix are not mandatory unless adopted by a ~~city, county, or city and county as specified in Section 101.7~~ indicated elsewhere in this Code. The provisions of this sSection outline means of achieving enhanced construction or reach levels by incorporating additional green building measures. In order to meet one of the tier levels designers, builders, or property owners are required to incorporate additional green building measures necessary to meet the threshold of each level.

SECTION 20. Section A4.601.2 is hereby amended to read as follows:

A4.601.2 Prerequisite measures.

Tier 1 and Tier 2 thresholds require compliance with the mandatory provisions of this eCode and incorporation of the required prerequisite measures listed in Section A4.601.4.2 for Tier 1 and A4.601.5.2 for Tier 2. ~~Prerequisite measures are also identified in the Residential Occupancies Application Checklist in Section A4.602.~~

~~As specified in Section 101.7, additional prerequisite measures may be included by the enforcing agency to address specific local environmental conditions and may be listed in the Innovative Concepts and Local Environmental Conditions portions of the checklist.~~

SECTION 21. Section A4.602 is hereby amended to read as follows:

...

~~¹Green building measures listed in this table may be mandatory if adopted by a city, county, or city and county as specified in Section 101.7. Reserved.~~

~~²Required prerequisite for this Tier.~~

SECTION 22. Appendix A5 is hereby amended to read as follows:

APPENDIX A5

NON-RESIDENTIAL VOLUNTARY MEASURES

~~The measures contained in this appendix are not mandatory unless adopted by a city, county, or city and county as specified in Section 101.7 and provide additional measures that except to the extent indicated elsewhere in this Code. dDesigners, builders, and property owners may wish are encouraged to consider all of these measures during the planning, design, and construction process.~~

SECTION 23. Section A5.601.1 is hereby amended to read as follows:

A5.601.1 **Scope.**

~~The measures contained in this appendix are not mandatory unless adopted by local government as specified in Section 101.7 except to the extent indicated elsewhere in this Code. The provisions of this sSection outline means of achieving enhanced~~

construction or reach levels by incorporating additional green building measures. In order to meet one of the tier levels designers, builders, or property owners are required to incorporate additional green building measures necessary to meet the threshold of each level.

SECTION 24. The provisions of this ordinance contain various changes, modifications, and additions to the 2010 Edition of the California Green Building Standards Code. Some of these changes are administrative in nature in that they do not constitute changes or modifications to requirements contained in the building standards published in the California Green Building Standards Code.

Pursuant to California Health and Safety Code sections 17958.5, 17958.7, and 18941.5, the Board of Supervisors hereby expressly finds that all of the changes and modifications to requirements contained in the building standards published in the California Green Building Standards Code, contained in this ordinance, which are not administrative in nature, are reasonably necessary because of local climatic, geological, or topographical conditions in the County of Los Angeles as more particularly described in the table set forth below:

GREEN BUILDING STANDARDS CODE AMENDMENTS		
CODE SECTION	CONDITION	EXPLANATION
301.2.2.1	Climatic and Topographic	Environmental resources in the County of Los Angeles are scarce due to varying and occasionally immoderate temperatures and weather conditions. Expanding the scope of the mandatory requirements of this Code for buildings not defined as low rise residential that are greater than or equal to 25,000 square feet in floor area will achieve a greater reduction in greenhouse gases, higher efficiencies of energy, water, and material usage and improved environmental air quality.

GREEN BUILDING STANDARDS CODE AMENDMENTS		
CODE SECTION	CONDITION	EXPLANATION
4.106.4	Climatic and Topographic	The County of Los Angeles is a densely populated area having residential buildings constructed within a region where water is scarce and maintaining storm water runoff quality is an issue. The proposed low-impact development measures will allow greater conservation of rain water, increase in groundwater recharge, reduction of storm water runoff, and improvement in storm water runoff quality
4.106.5	Climatic	The County of Los Angeles is a densely populated area having residential buildings constructed within a region where water is scarce. The proposed landscape design measures will allow greater efficiencies of outdoor water use.
4.201.1.1, 4.201.1.2	Climatic	Resources in the County of Los Angeles are scarce due to varying and occasionally immoderate temperatures and weather conditions. Expanding the scope of the mandatory measures to require projects of five residential units or more to achieve a reduction in energy usage of at least 15 percent will reduce greenhouse gases and promote greater efficiency in energy usage.
4.304.1	Climatic	The County of Los Angeles is a densely populated area having residential buildings constructed within a region where water is scarce. The proposed modification to require weather or soil based irrigation controllers for any residential building subject to Chapter 4, regardless of which entity provides the landscaping, will allow greater efficiencies of outdoor water use.
4.304.3	Climatic	The County of Los Angeles is a densely populated area having residential buildings constructed within a region where water is scarce. The proposed landscape design measures will allow greater efficiencies of outdoor water use.
4.408.1.1, 4.408.1.2, 4.408.2, 4.408.2.1, 4.408.2.2	Climatic and Topographic	Solid waste disposal sites and locally sourced construction materials in the County of Los Angeles are scarce due to population density and varying and occasionally immoderate temperatures and weather conditions. The proposed modification to require projects of five residential units or more to recycle or reuse 65 percent (instead of 50 percent) of construction debris will allow for a reduction in greenhouse gases

GREEN BUILDING STANDARDS CODE AMENDMENTS		
CODE SECTION	CONDITION	EXPLANATION
		and greater material conservation and resource efficiency.
5.106.2	Climatic and Topographic	The County of Los Angeles is a densely populated area having buildings constructed within a region where water is scarce and maintaining storm water runoff quality is an issue. The proposed low-impact development measures will allow greater conservation of rain water, increase in groundwater recharge, reduction of storm water runoff and improvement in storm water runoff quality.
5.304.1, 5.304.3	Climatic	The County of Los Angeles is a densely populated area having residential buildings constructed within a region where water is scarce. The proposed landscape design measures will allow greater efficiencies of outdoor water use.
5.408, 5.408.1, 5.408.2, 5.408.2.1, 5.408.2.2, 5.408.3, 5.408.4	Climatic and Topographic	Solid waste disposal sites and locally sourced construction materials in the County of Los Angeles are scarce due to population density and varying and occasionally immoderate temperatures and weather conditions. The proposed modification to require projects that are not defined as low rise to recycle or reuse 65 percent (instead of 50 percent) of construction debris will allow for a reduction in greenhouse gases and greater material conservation and resource efficiency.
A5.601.1	Climatic and Topographic	Environmental resources in the County of Los Angeles are scarce due to varying and occasionally immoderate temperatures and weather conditions. Expanding the scope of the mandatory requirements of this Code for buildings not defined as low rise residential that are greater than or equal to 25,000 square feet in floor area will achieve a greater reduction in greenhouse gases, higher efficiencies of energy, water, and material usage and improved environmental air quality.

SECTION 25. This ordinance shall become operative on January 1, 2011.

[31GRNB LDNGMYCC]

SECTION 26. This ordinance shall be published in The Daily Commerce a newspaper printed and published in the County of Los Angeles.



Gloria Molina
Chair

ATTEST:

Sachi A. Hamai

Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that at its meeting of November 23, 2010 the foregoing ordinance was adopted by the Board of Supervisors of said County of Los Angeles by the following vote, to wit:

<u>Ayes</u>	<u>Noes</u>
Supervisors <u>Mark Ridley-Thomas</u>	Supervisors <u>None</u>
<u>Zev Yaroslavsky</u>	
<u>Don Knabe</u>	
<u>Michael D. Antonovich</u>	
<u>Gloria Molina</u>	

Effective Date: December 23, 2010

Operative Date: January 1, 2011

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that pursuant to Section 25103 of the Government Code, delivery of this document has been made.

SAC:
Executive Officer
Clerk of the Board of Supervisors

By Antal
Deputy



APPROVED AS TO FORM:
ANDREA SHERIDAN ORDIN
County Counsel

By Leela Kapur
Leela Kapur
Chief Deputy County Counsel

ANALYSIS

This ordinance repeals those provisions of Title 26 - Building Code of the Los Angeles County Code, which had incorporated portions of the 2007 Edition of the California Building Code by reference and replaces them with provisions incorporating portions of the 2010 California Building Code, published by the California Building Standards Commission, by reference, with certain changes and modifications.

State law requires that the County's Building Code contain the same requirements as are contained in the building standards published in the most recent edition of the California Building Code. State law allows the County to change or modify these requirements only if it determines that such changes or modifications are reasonably necessary because of local climatic, geological, or topographical conditions.

The changes and modifications to requirements contained in the building standards published in the 2010 California Building Code which are contained in this ordinance are based upon express findings, contained in the ordinance, that such changes are reasonably necessary due to local climatic, geological, or topographical conditions.

This ordinance also makes certain modifications to the administrative provisions of Title 26 and to certain chapters of Title 26 that relate to subjects not covered by the California Building Code.

ANDREA SHERIDAN ORDIN
County Counsel

By 

MARK T. YANAI
Principal Deputy County Counsel
Property Division

MTY:vn

07/08/10 (Requested)

10/19/10 (Revised)

HOA.738871.4

ORDINANCE NO. 2010-0053

An ordinance amending Title 26 - Building Code of the Los Angeles County Code by adopting the 2010 California Building Code by reference, with certain changes and modifications, and making other revisions thereto.

The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. Sections 120 through 132 of Chapter 1, Chapters 2 through 35, Appendices C, I, and J and Appendix Chapter A1, which incorporate by reference and modify portions of the 2007 California Building Code, and Chapters 64, 71 and 98, are hereby repealed.

SECTION 2. Chapter 1 is hereby amended to read as follows:

100 ADOPTION BY REFERENCE

Except as hereinafter changed or modified, Sections ~~402~~1.2 through ~~414~~1.14 of Chapter 1 of Division I of that certain building code known and designated as the ~~2007~~2010 California Building Code, as published by the California Building Standards Commission, ~~and~~ are adopted by reference and incorporated into this Title 26 of the Los Angeles County Code as if fully set forth below, and shall be known as Sections ~~420~~119.1.2 through ~~432~~119.1.14, respectively of Chapter 1 of Title 26 of the Los Angeles County Code.

Except as hereinafter changed or modified, Chapters 2 through 35 (including Chapter 7A), Appendices C, I, and J ~~and Appendix Chapter A1~~ of that certain building code known and designated as the ~~2007~~2010 California Building Code, as published by the California Building Standards Commission, ~~and~~ are adopted by reference and

incorporated into this Title 26 of the Los Angeles County Code as if fully set forth below, and shall be known as Chapters 2 through 35, Appendices C, I, and J and ~~Appendix Chapter A4~~ of Title 26 of the Los Angeles County Code.

A copy of said California Building Code, hereinafter referred to as the CBC, including the above-designated appendices, shall be at all times maintained by the Building Official for use and examination by the public.

101 TITLE, PURPOSE, AND INTENT

...

101.2 Purpose and Intent.

The purpose of this Code is to provide minimum standards to preserve the public peace, health, and safety, and general welfare by regulating the design, construction, installation, quality of materials, use, occupancy, location, and maintenance of all buildings, structures, grading, and certain equipment as specifically set forth herein. Consistent with this purpose, the provisions of this Code are intended and always have been intended to confer a benefit on the community as a whole and are not intended to establish a duty of care toward any particular person.

...

101.3 Scope.

The provisions of this Code shall apply to the construction, alteration, moving, demolition, repair, use of any building or structure, and grading within the unincorporated territory of the County of Los Angeles and to such work or use by the

County of Los Angeles in any incorporated city not exercising jurisdiction over such work or use.

The provisions of this eCode shall not apply to work located primarily in a public way other than pedestrian protection structures required by Chapter 33; public utility towers and poles; certain governmental agencies, special districts, and public utilities as determined by the bBuilding oOfficial; equipment not specifically regulated in this Code; hydraulic flood control structures; work exempted by Section 106; or minor work of negligible hazard to life specifically exempted by the bBuilding oOfficial.

...

~~Where, in any specific case, different sections of this Code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.~~

Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with separate means of egress and their accessory structures shall comply with Title 30 - Residential Code.

...

101.4 Applicability.

101.4.1 Internal Conflict. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in any specific case, different Sections of this Code specify different

materials, methods of construction, or other requirements, the most restrictive shall govern.

101.4.2 **Other Laws.** The provisions of this Code shall not be deemed to nullify any provisions of local, state, or federal law.

101.4.3 **Codes and References.** The provisions of the codes and standards referenced in this Code shall be considered part of the requirements of this Code to the prescribed extent of each such reference. Where there are conflicts between provisions of this Code and the provisions of any referenced code or standard, the provisions of this Code shall apply.

102 **UNSAFE BUILDINGS**

102.1 **Definition.** All buildings or structures which are structurally unsound or not provided with adequate egress, or which constitute a fire hazard, or are otherwise dangerous to human life, or which in relation to existing use constitute a hazard to safety or health, or public welfare, by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster damage, or abandonment as specified in this Code or any other effective ordinance, are, for the purpose of this Chapter, unsafe buildings. Whenever the Building Official determines by inspection that a building or structure, whether structurally damaged or not, is dangerous to human life by reason of being located in an area which is unsafe due to hazard from landslide, settlement, or slippage or any other cause, such building shall, for the purpose of this Chapter, be considered an unsafe building.

...

103 VIOLATIONS AND PENALTIES

...

103.4 Recordation of Violation.

103.4.1 General. The Building Official may record a notice with the County Recorder's Office that a property, building, or structure, or any part thereof, is in violation of any provision of this Code provided that the provisions of this Section are complied with. The remedy provided by this Section is cumulative to any other enforcement actions permitted by this Code.

103.4.2 Recordation. If (1) the Building Official determines that any property, building, or structure, or any part thereof is in violation of any provision of this Code; and if (2) the Building Official gives written notice as specified below of said violation; ~~and if (3) within 45 days of said notice, the property, or buildings, or structures thereon are not brought into compliance with this Code,~~ then the Building Official may have sole discretion to, at any time thereafter, record with the County Recorder's Office a notice that the property and/or any building or structure located thereon is in violation of this Code.

103.4.3 Notice. The written notice given pursuant to this Section shall indicate:

1. The nature of the violation(s); and
2. That if the violation is not remedied to the satisfaction of the Building Official ~~within 45 days,~~ the Building Official may, at any time thereafter, record with the

County Recorder's Office a notice that the property and/or any building or structure located thereon is in violation of this Code.

The notice shall be posted on the property and shall be mailed to the owner of the property as indicated on the last equalized County Assessment roll. The mailed notice may be by registered, certified, or first-class mail.

~~The 45-day period for achieving compliance with this Code shall run from the date the property is posted or from the date of the mailing of the notice, whichever is later.~~

...

104 ORGANIZATION AND ENFORCEMENT

...

104.2 Powers and Duties of the Building Official.

104.2.1 General. The Building Official is hereby authorized and

directed to enforce all the provisions of this Code, including the Electrical Code, the Plumbing Code, and the Mechanical Code, the Residential Code, and the Green Building Standards Code, and to make all inspections pursuant to the provisions of each such Code. For such purposes, the Building Official shall have the powers of a law enforcement officer.

The Building Official shall have the power to render interpretations of this Code and to adopt and enforce rules and supplemental regulations in order to clarify the application of its provisions. Such interpretations, rules, and regulations shall be in conformance with the intent and purpose of this Code.

The Building Official shall classify every building or portion thereof into one of the occupancies set forth in Chapter 3 of this Code according to its use or the character of its occupancy.

The Building Official shall also classify every building into one of the types of construction set forth in Chapter 6 of this Code.

...

104.2.3 Right of entry.

104.2.3.1 Whenever it is necessary to make an inspection to enforce any of the provisions of or perform any duty imposed by this Code or other applicable law, or whenever the Building Official or an authorized representative has reasonable cause to believe that there exists in any building or grading or upon any premises any condition which makes such building or grading or premises hazardous, unsafe, or dangerous for any reason specified in this Code or other similar law, the Building Official or an authorized representative hereby is authorized to enter such property at any reasonable time and to inspect the same and perform any duty imposed upon the Building Official by this Code or other applicable law; provided that (i) if such property beis occupied, then the Building Official shall first present proper credentials to the occupant and request entry explaining the reasons therefor; and (ii) if such property beis unoccupied, then the Building Official shall first make a reasonable effort to locate the owner or other persons having charge or control of the property and request entry, explaining the reasons therefor. If such entry cannot be obtained because the owner or other person having charge or control of the property cannot be found after due

diligence or if entry is refused, then the Building Official or an authorized representative shall have some recourse to every remedy provided by law to secure lawful entry and inspect the property.

104.2.3.2 Notwithstanding the foregoing, if the Building Official or an authorized representative has reasonable cause to believe that the building or grading or premises is so hazardous, unsafe, or dangerous as to require immediate inspection to safeguard the public health or safety, the Building Official shall have the right to immediately enter and inspect such property, and may use any reasonable means required to effect such entry and make such inspection, whether such property be occupied or unoccupied and whether or not permission to inspect has been obtained. If the property be occupied, the Building Official shall first present credentials to the occupant and demand entry, explaining the reasons therefor and the purpose of the inspection.

...

104.2.7 **Modifications.** Whenever there are practical difficulties involved in carrying out the provisions of this Code, the Building Official may grant modifications ~~for individual cases~~ on a case by case basis, provided the Building Official shall first find that a special individual reason makes the strict letter of this Code impractical and that the modification is in conformity with the spirit and purpose of this Code and that such modification does not lessen any fire-protection or other life-safety-related requirements or any degree of structural integrity. The details of any action

granting modifications shall be recorded and entered in the files of the code enforcement agency.

...

104.2.8 Alternate mMaterials, dDesigns, and mMethods of eConstruction.

The provisions of this eCode are not intended to prevent the use of any material, appliance, installation, device, arrangement, design, or method of construction not specifically prescribed by this eCode, provided any such alternate has been approved.

The bBuilding official may approve on a case by case basis, any such alternate, provided that he or she finds ~~that the proposed design is satisfactory and complies with the provisions of this code, and finds that the material, appliance, installation, device, arrangement, design, or method of construction or work offered is,~~ for the purpose intended, at least the equivalent of that prescribed in this eCode in quality, strength, effectiveness, fire resistance, and other life-safety factors, durability, planning and design, energy, material resource efficiency and conservation, environmental air quality, performance, water, and sanitation.

...

104.2.9 Tests.

...

~~Copies of the results of all such tests shall be retained for a period of not less than two years after the acceptance of the structure.~~ Reports of such test shall be

retained by the Building Official in accordance with the County's guidelines for the retention of public records.

...

104.3 Definitions.

...

FIRE DEPARTMENT shall mean the Los Angeles County Fire Department.

GREEN BUILDING STANDARDS CODE shall mean Title 31 of the Los Angeles County Code.

...

PLUMBING CODE shall mean Title 28 of the Los Angeles County Code.

RESIDENTIAL CODE shall mean Title 30 of the Los Angeles County Code.

...

105 APPEALS BOARDS

105.1 Building Board of Appeals.

105.1.1 General. Unless otherwise provided for below, in order to conduct the hearings provided for in this Code ~~and also to determine the suitability of alternate materials and types of construction and to provide for reasonable interpretations of the provisions of this Code,~~ there shall be a Building Board of Appeals consisting of five members who are qualified by experience and training to pass upon matters pertaining to building construction. One member shall be a practicing architect, one a competent builder, one a lawyer, and two shall be structural engineers, each of whom shall have had at least 10 years' experience as an architect, builder, lawyer, or

structural engineer. The Building Official shall be an ex officio member and shall act as secretary to the bBoard. The members of the Building Board of Appeals shall be appointed by the Board of Supervisors and shall hold office at its pleasure. The Building Board of Appeals shall adopt reasonable rules and regulations for conducting its investigations. Each member of the Board shall be compensated for each meeting attended as provided from time to time by the County Code.

~~The Board shall establish that the approval for alternate materials and/or the modifications granted for individual cases are in conformity with the intent and purpose of this Code and that such alternate material, modification or method of work offered is at least the equivalent of that prescribed in this Code in quality, strength, effectiveness, fire resistance, durability, safety and sanitation and does not lessen any fire protection requirements or any degree of structural integrity. The Building Board of Appeals shall document all decisions and findings in writing to the Building Official with a duplicate copy to the applicant, and the Board may recommend to the Board of Supervisors such new legislation as is consistent therewith. Each member of the Board shall be compensated for each meeting attended as provided from time to time by the County Code.~~

105.1.2 ~~Limitations~~Scope of authority.

Except as provided below, the Building Board of Appeals shall have the authority to hear appeals regarding any action of the Building Official, including actions taken by the Building Official in connection with Section 104.2.7 or Section 104.2.8. The Building

Board of Appeals shall also be authorized to recommend to the Board of Supervisors such new legislation as it deems appropriate.

The Building Board of Appeals shall have no authority relative to interpretation of the administrative portions of this Code, other than Section 102.4, nor shall the Board be empowered to waive requirements of this Code.

The Building Board of Appeals shall document all decisions and findings in writing to the Building Official with a duplicate copy to the applicant.

...

106 PERMITS

106.1 Permits Required. No person shall erect, construct, enlarge, alter, repair, move, improve, remove, connect, convert, demolish, or equip any building, structure, or portion thereof, or automatic fire protection system regulated by Chapter 9, perform any grading, or perform landscaping as regulated by Chapter 742.7 of Division 2 of Title 23 of the California Code of Regulations (Model Water Efficient Landscape Ordinance) or perform landscaping on slopes requiring planting in conformance with Section J110, or cause the same to be done, without first obtaining a separate permit for each such building, structure, automatic fire protection system, grading, or landscaping from the Building Official.

...

106.2 Unpermitted Structures.

...

For the purposes of this Code, "Unpermitted Structure" shall be defined as any structure, or portion thereof, that was erected, constructed, enlarged, altered, repaired, moved, improved, removed, connected, converted, demolished, or equipped, at any point in time, without the required permit(s) having first been obtained from the Building Official, pursuant to ~~Subsection~~Section 106.1, ~~supra~~or any unfinished work for which a permit has expired.

106.3 Work Exempted.

...

7. Ground mounted Radio and television antennae towers which do not exceed 45 feet (13,716 mm) in height and ground supported dish antennas not exceeding 15 feet (4,572 mm) in height above finished grade in any position.

...

11. Canopies or awnings, completely supported by the exterior wall, attached to a Group R-3 or U Occupancy and extending not more than 54 inches (1,372 mm) from the exterior wall of the building.

...

16. Prefabricated swimming pools and other bodies of water accessory to a Group R-3 Occupancy ~~in which the pool walls are entirely above the adjacent grade and if the capacity that are less than 18 inches deep,~~ does not exceed 5,000 gallons (18,927 L), and are installed entirely above adjacent grade. Fences, gates, door-alarms, and other protection devices that are accessory to the prefabricated swimming pool ~~are not exempt from permit requirements.~~

...

106.4 Application for Permits.

106.4.1 Application. To obtain a permit, the applicant shall first file an application therefor in writing on a form furnished for that purpose. Every such application shall:

...

2. Describe the land on which the proposed work is to be done, by lot, block, tract, and house and street address, or similar description that will readily identify and definitely locate the proposed building or work;

...

106.4.1.1 Expiration of Application. When no permit is issued within one year following the date of the application therefor, the application shall automatically expire. Plans and specifications previously submitted may thereafter be returned to the applicant or destroyed by the Building Official. ~~Prior to the expiration of an application,~~ ~~the~~ Building Official may grant up to two extensions not exceeding 180 days per extension, beyond the initial one-year limit upon written request by the applicant showing that circumstances beyond the control of the applicant have prevented action from being taken and upon the payment of an extension fee equal as determined by the Building Official, not to exceed 25 percent of the plan check fee.

...

106.5 Permits.

...

106.5.4 Expiration.

...

Any permittee holding an unexpired permit may apply for an extension of time within which work may commence under that permit. The Building Official may extend the time for action by the permittee for a period not exceeding 180 days on written request and payment of a fee in an amount determined by the Building Official, equal not to exceed 25 percent of the permit fee. No permit shall be extended more than twice.

...

106.5.6 Combined building permit. A combined building permit may be issued for new one-family or two-family dwellings and attached garages which will include all building, electrical, plumbing, heating, ventilating, and air-conditioning work, but will not include grading and landscape which require permits ~~under Chapter 71 or Appendix J~~ pursuant to any provision of this Code; or sewer connections. The combined building permit shall be subject to the requirements of this Code, the Residential Code, the Electrical Code, the Plumbing Code, and the Mechanical Code, and the Green Building Standards Code, except that the fee for the combined building permit shall be as provided in Section 107.1 of this Code.

107 FEES

...

107.9 Other Fees.

...

- 14. For processing of 45-day-notice pursuant to Section 103.4 \$423.90

...

109 USE AND OCCUPANCY

109.1 General. No building or structure or portion thereof shall be

used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the Building Official has approved the building or structure or portion thereof for such use or occupancy as evidence by the issuance of a certificate of occupancy or a temporary certificate of occupancy. A building of Group R-1, R-2, R-2.1, or Group R-3, R-3.1, or R-4 Occupancy, if erected on a site where grading has been performed pursuant to a grading permit issued under provisions of this Code, shall not be occupied, nor shall gas or electric utilities be connected thereto, unless the grading has been completed in accordance with Appendix J or the Building Official has found, should the grading not be so completed, that the site conditions will pose no hazard to health, safety, or welfare of occupants and/or occupants of adjacent properties, and that a temporary certificate of occupancy has been issued.

...

109.5 Posting.

...

109.5.1 Live loads posted. A durable sign that indicates the "live

load" shall be required in commercial or industrial buildings where the floor or roof or portion thereof is or has been designed with a live load that exceeds 50 psf. The live load sign shall be posted on that part of each story or roof to which it applies, in a

conspicuous place. The live load sign shall be posted as a condition precedent to the issuance of a certificate of occupancy. It shall be unlawful to remove or deface any such sign.

110 PROHIBITED USES OF BUILDING SITES

110.1 Flood Hazard.

110.1.1

...

The placement of the building and other structures (including walls and fences) on the building site shall be such that water or mud flow will not be a hazard to the building or adjacent property. Subject to the conditions of ~~Subsection~~Section 110.1.2, this prohibition shall not apply when provision is made to eliminate such hazard to the satisfaction of the Department of Public Works by providing adequate drainage facilities by protective walls, suitable fill, raising the floor level of the building, a combination of these methods, or by other means. The Department of Public Works, in the application of this ~~Subsection~~Section for buildings, structures, and grading located in whole or in part in flood hazard areas, shall enforce, as a minimum, the current Federal Flood Plain Management Regulations defined in Title 44, Code of Federal Regulations, Section 60.3, and may require the applicant or property owner to provide the following information and/or comply with the following provisions:

1. Delineation of flood hazard areas, floodway boundaries and flood zones, and the design flood elevation, as appropriate;

2. The elevation of the proposed lowest floor, including basement, in areas of shallow flooding (AO Zones), and the height of the proposed lowest floor, including basement, above the highest adjacent grade;

3. The elevation of the bottom of the lowest horizontal structural member in coastal high hazard areas (V Zone);

4. If the design flood elevations are not included on the community's Flood Insurance Rate Map (FIRM), then the applicant shall obtain and reasonably utilize any design flood elevation and floodway data available from other sources, as approved by the Building Official; and

5. During construction, upon placement of the lowest floor, including basement, and prior to further vertical construction, the permittee shall provide to the Building Official documentation, prepared and sealed by a registered design professional, certifying the elevation of the lowest floor, including basement.

...

110.2 Geotechnical Hazards.

...

110.2.2 Except as provided in Section 110.2.3, work requiring a building or grading permit by this Code is not permitted in an area determined by the Building Official to be subject to hazard from landslide, settlement, or slippage. ~~These hazards include, but shall not be limited to, loose debris, slopewash and the potential for mud flows from natural slopes or graded slopes. For the purpose of this s~~Section,

landslide, settlement, or slippage does not include surface displacement due to the earthquake faults.

...

110.2.3

...

110.2.3.1 When the applicant has submitted an engineering geology and/or soils engineering report or reports complying with the provisions of Section 111 such that said reports show to the satisfaction of the Building Official that the hazard will be eliminated prior to the use or occupancy of the land or structures ~~by modification of topography, reduction of subsurface water, buttressing, a combination of these methods, or by other means.~~

110.2.3.2 When the applicant has submitted ~~a geological an~~ engineering geology and/or geotechnical soils engineering report or reports, that comply with the provisions of Section 111, and ~~contain sufficient data to show that demonstrate,~~ to the satisfaction of the Building Official, that the site is safe for the intended use.

110.2.3.3

...

2. Record in the office of the Department of Registrar-Recorder, a statement that the owner is aware that the records of the Building Official indicate that the property is potentially subject to a physical hazard of a geotechnical nature from landslide, settlement, or slippage.

3. Record in the office of the Department of Registrar-Recorder, an agreement relieving the County and all officers and employees thereof of any liability for any damage or loss which may result from issuance of such a permit. This agreement shall provide that it is binding on all successors in interest of the owner and shall continue in effect until the Building Official records in the office of the Department of Registrar-Recorder a statement that the Building Official has determined that such hazard from landslide, settlement or slippage no longer exists. The Rrepair work shall consist of restoring the original construction. The Building Official may require that provisions be made in anticipation of future settlement. For the purposes of this Section 110.2.3.3, "alteration" does not include an addition or additions.

110.2.3.4

...

3. Record in the office of the Department of Registrar-Recorder an agreement relieving the County and all officers and employees thereof of any liability for any damage or loss which may result from the issuance of such a permit. This agreement shall provide that it is binding on all successors in interest of the owner and shall continue in effect until the Building Official records in the office of the Department of Registrar-Recorder a statement that the Building Official has determined that a hazard from landslide, settlement, or slippage no longer exists.

110.2.3.5 When the proposed work involves the repair of a single-family residence or accessory buildingsstructures where the cost of such repair exceeds 25 percent of the current market value of the existing building. The scope of the repair

work shall be subject to the approval of the Building Official. Before a permit may be issued pursuant to this sSection, the owner shall do all of the following:

...

2. Record in the office of the Department of Registrar-Recorder a statement by the owner acknowledging that the records of the Building Official indicate that the property is potentially subject to a ~~physical hazard of a geotechnical nature~~from landslide, settlement, or slippage.

3. Record in the office of the Department of Registrar-Recorder an agreement relieving the eCounty and all officers and employees thereof of any liability for any damage or loss which may result from issuance of such a permit. This agreement shall provide that it is binding on all successors in interest of the owner and shall continue in effect until the Building Official records in the office of the Department of Registrar-Recorder a statement that the Building Official has determined that such hazard from landslide, settlement, or slippage no longer exists.

110.2.3.6 When the proposed work involves the replacement of structures destroyed by causes other than landslide, settlement, or slippage, and the permit applicant was the owner of the property at the time of the loss, their immediate heir(s), or their authorized representative, and the application for a permit under this Section is filed no later than ten (10) years following the date of the loss. The replacement structure(s) shall not exceed the area, number of stories, load, or number of fixtures and bedrooms of the structure that was destroyed. No change in occupancy

type shall be permitted. Before a permit may be issued pursuant to this sSection, the owner shall do all of the following:

...

3. Record in the office of the Department of Registrar-Recorder a statement by the owner acknowledging that the owner is aware that the records of the Building Official indicate that the property is potentially subject to a ~~physical hazard of a~~ geotechnical nature from landslide, settlement, or slippage.

4. Record in the office of the Department of Registrar-Recorder an agreement relieving the County and all officers and employees thereof of any liability for any damage or loss which may result from issuance of such a permit. This agreement shall provide that it is binding on all successors in interest of the owner and shall continue in effect until the Building Official records in the office of the Department of Registrar-Recorder a statement that the Building Official has determined that such hazard from landslide, settlement, or slippage no longer exists.

110.2.3.7

...

1. Record in the office of the Department of Registrar-Recorder a statement by the owner acknowledging that the owner is aware that the records of the Building Official indicate that the property is potentially subject to a ~~physical hazard of a~~ geotechnical nature from landslide, settlement, or slippage.

2. Record in the office of the Department of Registrar-Recorder an agreement relieving the County and all officers and employees thereof of any liability for

any damage or loss which may result from issuance of such a permit. This agreement shall provide that it is binding on all successors in interest of the owner and shall continue in effect until the Building Official records in the office of the Department of Registrar-Recorder a statement that the Building Official has determined that such hazard from landslide, settlement, or slippage no longer exists.

110.2.3.8 When the Building Official determines that the hazard from landslide, settlement, or slippage is based solely on the fact that the area has been identified as a potentially liquefiable area in a seismic hazard zone (pursuant to Public Resources Code section 2690 et seq.) and a foundation investigation is performed in connection with the work in accordance with Section ~~4804~~1806 of this Code.

110.2.3.9 Notwithstanding any other provisions of this Section, the Building Official may, at his or her discretion, deny a permit for any building, structure, or grading subject to ~~a hazard of a geotechnical nature~~from landslide, settlement, or slippage, which cannot be mitigated and may endanger the health or safety of the occupants, adjoining property, or the public.

...

TABLE 1-F CODE ENFORCEMENT FEES

...

6.	For processing a 45-day letter (<u>written notice</u>)	\$423.90
7.	For processing (<u>recording</u>) a Notice of Violation	\$336.90

...

SECTION 3. Section 701A.1 is hereby amended to read as follows:

701A.1 **Scope.** This eChapter applies to building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located, and to additions, alterations, or repairs made to existing buildings, erected, constructed, or moved within a Wildland-Urban Interface Fire Area as defined in Section 702A.

SECTION 4. Section 701A.3 is hereby amended to read as follows:

701A.3. **Application.** New buildings, and any additions, alterations, or repairs made to existing buildings located in or moved within any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area designated by the enforcing agency Los Angeles County Fire Department constructed after the application date shall comply with the provisions of this eChapter.

EXCEPTIONS:

...

~~4. Additions to and remodels of buildings originally constructed prior to the applicable application date.~~

SECTION 5. Section 701A.3.1 is hereby amended to read as follows:

701A.3.1 **Application date and where required.** New buildings for which an application for a building permit is submitted on or after July 1, 2008, and any additions, alterations, or repairs made to existing buildings for which an application for a building permit is submitted on or after January 1, 2011, located in any Fire Hazard

Severity Zone or Wildland Interface Fire Area shall comply with all sSections of this eChapter, including all of the following areas:

...

EXCEPTIONS:

1. New bBuildings located in any Fire Hazard Severity Zone within State Responsibility Areas, for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sSections of this eChapter.

2. New bBuildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland Interface Fire Area designated by cities and other local agencies for which an application for a building permit is submitted on or after December 1, 2005, but prior to July 1, 2008, shall only comply with the following sSections of this eChapter:

...

SECTION 6. Section 701A.4 is hereby amended to read as follows:

701A.4 Inspection and certification.

...

1. Building permit issuance. The ~~local~~ bBuilding eOfficial shall, prior to construction, provide the owner or applicant a certification that the building as proposed to be built complies with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this eChapter. Issuance of a building permit by the ~~local~~ bBuilding eOfficial for the proposed building shall be considered as complying with this sSection.

2. Building permit final. The local Building Official shall, upon completion of construction, provide the owner or applicant with a copy of the final inspection report that demonstrates the building was constructed in compliance with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this Chapter. Issuance of a certificate of occupancy by the local Building Official for the proposed building shall be considered as complying with this Section.

SECTION 7. Section 702A is hereby amended to read as follows:

702A DEFINITIONS

...

FIRE PROTECTION PLAN is a document prepared for a specific project or development proposed for a Wildland-Urban Interface Fire Area. It describes ways to minimize and mitigate potential for loss from wildfire exposure.

The Fire Protection Plan shall be in accordance with this Chapter and the California Los Angeles County Fire Code Title 32, Chapter 949. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted. ~~Only locally adopted ordinances that have been filed with the California Building Standards Commission or the Department of Housing and Community Development in accordance with Section 1.1.8 shall apply.~~

FIRE HAZARD SEVERITY ZONES are geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very

High Fire Hazard Severity Zones designated pursuant to California Government Code Sections 51175 through 51189. See California Los Angeles County Fire Code, Article 86 Chapter 49.

...

WILDLAND-URBAN INTERFACE FIRE AREA is a geographical area identified by the state as a "Fire Hazard Severity Zone" in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the ~~enforcing agency~~ Los Angeles County Fire Department to be at a significant risk from wildfires. See Section 706A for the applicable referenced Sections of the Government Code and the Public Resources Code.

SECTION 8. Section 703A.2 is hereby amended to read as follows:

703A.2 Qualification by Testing. Material and material assemblies tested in accordance with the requirements of Section 703A shall be accepted for use when the results and conditions of those tests are met. Product evaluation testing of material and material assemblies shall be approved or listed by the State Fire Marshal, the Building Official, or identified in a current report issued by an approved agency.

SECTION 9. Section 703A.5.2 is hereby amended to read as follows:

703A.5.2 Weathering. ~~Fire-retardant-treated wood and fire-retardant-treated wood shingles and shakes~~ shall meet the fire test performance requirements of this Chapter after being subjected to the weathering conditions contained in the following standards, as applicable to the materials and the conditions of use.

SECTION 10. Section 703A.5.2.2 is hereby deleted in its entirety.

~~**703A.5.2.2 Fire-retardant-treated wood shingles and shakes.** Fire-retardant-treated wood shingles and shakes shall be approved and listed by the State Fire Marshal in accordance with Section 208(c), Title 19 California Code of Regulations.~~

SECTION 11. Section 703A.6 is hereby amended to read as follows:

703A.6 Alternates for materials, design, tests, and methods of construction. The enforcing agency is permitted to modify the provisions of this Chapter for site-specific conditions in accordance with Chapter 1, Section 4.11.2.4104.2.7. When required by the enforcing agency Building Official for the purposes of granting modifications, a fire protection plan shall be submitted in accordance with the California Los Angeles County Fire Code, Chapter 49.

SECTION 12. Section 704A.3 is hereby amended to read as follows:

704A.3 Alternative methods for determining Ignition-resistant material.

...

~~3. Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes, as defined in section 1505.6 and listed by State Fire Marshal for use as "Class B" roof covering, shall be accepted as an Ignition-resistant wall covering material when installed over solid sheathing.~~

SECTION 13. Section 705A.2 is hereby amended to read as follows:

705A.2 Roof coverings.

Roof coverings shall be Class A as specified in Section 1505.2. Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be firestopped with approved materials or have one layer of minimum 72 pound (32.4 kg) mineral-surfaced non-perforated cap sheet complying with ASTM D 3909 installed over the combustible decking. Wood shingles and wood shakes are prohibited in any Fire Hazard Severity Zones regardless of classification.

SECTION 14. Section 706A.3 is hereby amended to read as follows:

706A.3 Ventilation openings on the underside of eaves and cornices.

...

EXCEPTIONS:

1. ~~The enforcing agency~~Building Official may accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.

...

SECTION 15. Section 710A.3.2 is hereby amended to read as follows:

710A.3.2 When required by the ~~enforcing agency~~Building Official, detached accessory structures within 50 feet of an applicable building shall comply with the requirements of this ~~s~~Section.

SECTION 16. Section 710A.4 is hereby amended to read as follows:

710A.4. Requirements.

When required by the ~~enforcing agency~~Building Official, accessory structures shall be constructed of noncombustible or ignition-resistant materials.

SECTION 17. Section 1029.4 is hereby amended to read as follows:

1029.4 Operational constraints.

...

Where security bars (burglar bars) are installed on emergency egress and rescue windows or doors, ~~on or after July 1, 2000~~, such devices shall comply with California Building Standards Code, Part 12, Chapter 12-3 and other applicable provisions of Part 2.

...

SECTION 18. Section 1207.1 is hereby amended to read as follows:

1207.1 Purpose and scope.

The purpose of this ~~s~~Section is to establish uniform minimum noise insulation performance standards to protect persons within hotels, motels, dormitories, long-term care facilities, apartment houses, ~~and dwellings~~, private schools, and places of worship ~~other than detached single-family dwellings~~ from the effects of excessive noise, including, but not limited to, hearing loss or impairment and interference with speech and sleep. This ~~s~~Section shall apply to all buildings for which applications for building permits were made subsequent to August 22, 1974.

SECTION 19. Section 1207.11.1 is hereby amended to read as follows:

1207.11.1 Application.

Consistent with local land-use standards, ~~residential~~ all structures identified in Section 1207.1 located in noise critical areas, such as proximity to highways, county roads, city streets, railroads, rapid transit lines, airports or industrial areas, shall be designed to prevent the intrusion of exterior noises beyond prescribed levels. Proper design shall include, but shall not be limited to, orientation of the ~~residential~~ structure, setbacks, shielding, and sound insulation of the building itself.

SECTION 20. Section 1207.11.2 is hereby amended to read as follows:

1207.11.2 Allowable interior noise levels.

Interior noise levels attributable to exterior sources shall not exceed 45 db in any habitable rooms, classrooms, and all rooms used in patient care and worship. The noise metric shall be either the day-night average sound level (Ldn) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan.

...

SECTION 21. Section 1207.11.3 is hereby amended to read as follows:

1207.11.3 Airport noise sources.

Residential structures to ~~be~~ and all other structures identified in Section 1207.1, located where the annual Ldn or CNEL (as defined in Title 21, Division 2.5, Chapter 6, Article 1, ~~S~~ section 5001, California Code of Regulations) exceeds 60 db and 65 db,

respectively, shall require an acoustical analysis showing that the proposed design will achieve prescribed allowable interior level.

EXCEPTION: New single-family detached dwellings and all non-residential noise-sensitive structures located outside the noise impact boundary of 65 db CNEL are exempt from Section 1207.

Alterations or additions to all noise-sensitive structures, within the 65 db and greater CNEL shall comply with Section 1207. If the addition or alteration cost exceeds 75 percent of the replacement cost of the existing structure, then the entire structure must comply with Section 1207.

For public-use airports or heliports, the Ldn or CNEL shall be determined from the ~~airport land-use plan~~Aircraft Noise Impact Area Map prepared by the county wherein the ~~airport is located~~Airport Authority. For military bases, the Ldn shall be determined from the facility Air Installation Compatible Use Zone (AICUZ) plan. For all other airports or heliports, or public-use airports or heliports for which a land-use plan has not been developed, the Ldn or CNEL shall be determined from the noise element of the general plan of the local jurisdiction.

...

SECTION 22. Section 1207.11.4 is hereby amended to read as follows:

1207.11.4 Other noise sources.

~~Residential~~All structures ~~to be~~identified in Section 1207 located where the Ldn or CNEL exceeds 60 db shall require an acoustical analysis showing that the proposed design will limit exterior noise to the prescribed allowable interior level. The noise

element of the local general plan shall be used to the greatest extent possible to identify sites with noise levels potentially greater than 60 db.

SECTION 23. Section 1207.12 is hereby amended to read as follows:

1207.12 Compliance.

Evidence of compliance shall consist of submittal of an acoustical analysis report, prepared under the supervision of a person experienced in the field of acoustical engineering, with the application for a building permit for all structures identified in Section 1207 or the use of prescriptive standards. The report shall show topographical relationships of noise sources and dwelling sites, identification of noise sources and their characteristics, predicted noise spectra, and levels at the exterior of the proposed dwelling structure considering present and future land usage, basis for the prediction (measured or obtained from published data), noise attenuation measures to be applied, and an analysis of the noise insulation effectiveness of the proposed construction showing that the prescribed interior noise level requirements are met.

If interior allowable noise levels are met by requiring that windows be unopenable or closed, the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment. The ventilation system must not compromise the ~~dwelling unit or guest~~interior room noise reduction.

SECTION 24. Section 1403.3 is hereby amended to read as follows:

1403.3 Structural.

Exterior walls, and the associated openings, shall be designed and constructed to resist safely the superimposed loads required by Chapter 16.

In no case shall veneer be considered as part of the wall in computing strength of deflection nor shall it be considered a part of the required thickness of the wall.

Deflection of lateral support of veneer, including wood studs, shall be no greater than h/500.

SECTION 25. Section 1405.7 is hereby amended to read as follows:

1405.7 Masonry or Stone veneer.

~~Stone veneer units not exceeding 10 inches (254 mm) in thickness shall be anchored directly to masonry, concrete or to stud construction by one of the following methods:~~
Support of masonry and stone veneer shall be designed by a registered design professional, unless the masonry or stone veneer complies with the following:

~~1. With concrete or masonry backing, anchor ties shall be not less than 0.1055-inch (2.68 mm) corrosion-resistant wire, or approved equal, formed beyond the base of the backing. The legs of the loops shall be not less than 6 inches (152 mm) in length bent at right angles and laid in the mortar joint, and spaced so that the eyes or loops are 12 inches (305 mm) maximum on center (o.c.) in both directions. There shall be provided not less than a 0.1055-inch (2.68 mm) corrosion-resistant wire tie, or approved equal, threaded through the exposed loops for every 2 square feet (0.2 m²) of stone veneer. This tie shall be a loop having legs not less than 15 inches (381 mm) in length bent so that it will lie in the stone veneer mortar joint. The last 2 inches (51 mm) of each wire leg shall have a right-angle bend. One inch (25 mm) minimum thickness of cement grout shall be placed between the backing and the stone veneer.~~

~~2. With stud backing, a 2-inch by 2-inch (51 by 51 mm) 0.0625-inch (1.59 mm) corrosion-resistant wire mesh with two layers of water-resistive barrier in accordance with Section 1404.2 shall be applied directly to wood studs spaced a maximum of 16 inches (406 mm) o.c. On studs, the mesh shall be attached with 2-inch long (51 mm) corrosion-resistant steel wire furring nails at 4 inches (102 mm) o.c. providing a minimum 1.125-inch (29 mm) penetration into each stud and with 8d common nails at 8 inches (203 mm) o.c. into top and bottom plates or with equivalent wire ties. There shall be not less than a 0.1055-inch (2.68 mm) corrosion-resistant wire, or approved equal, looped through the mesh for every 2 square feet (0.2 m²) of stone veneer. This tie shall be a loop having legs not less than 15 inches (381 mm) in length, so bent that it will lie in the stone veneer mortar joint. The last 2 inches (51 mm) of each wire leg shall have a right-angle bend. One inch (25 mm) minimum thickness of cement grout shall be placed between the backing and the stone veneer.~~

1405.7.1 Masonry and stone units [5 inches (127 mm) maximum in thickness].

Masonry and stone veneer not exceeding 5 inches (127 mm) in thickness may be anchored directly to structural masonry, concrete, or studs in one of the following manners:

1. Wall ties conforming to the following requirements. Wall ties shall be corrosion resistant, made of sheet metal, shall have a minimum thickness of .0785 inch (2.00 mm) (No. 14 galvanized sheet gauge) by 1 inch (25.4 mm), and shall be attached to the backing, as the veneer is laid, by minimum #10 hex head galvanized

screws with penetration of at least 2 inches (51 mm) into the framing member, placed not more than 1/4 inch (6.35 mm) above the extended leg of the angle tie. Wall ties shall be spaced so as to support not more than 2 square feet (0.19 m²) of wall area but shall not be more than 24 inches (610 mm) on center horizontally. For Seismic Design Categories D, E, and F, wall ties shall have a lip or hook on the extended leg that will engage or enclose a horizontal joint reinforcement wire having a diameter of 0.148 inch (3.76 mm) (No. 9 B.W. gauge) or equivalent. The joint reinforcement shall be continuous with butt splices between ties permitted.

When applied over wood stud construction, the studs shall be spaced a maximum of 16 inches (406 mm) on center and approved paper, a minimum 30# fiberglass felt, 4 inch (102 mm) minimum on horizontal laps and 6 inch (152 mm) minimum on end laps, shall first be applied over minimum 15/32 inch (12 mm) plywood sheathing except as otherwise provided in Section 1403.2, and an air space of at least 1-inch (25 mm) shall be maintained between the backing and the veneer. Spot bedding at all ties shall be of cement mortar.

2. Veneer conforming to the following requirements. Veneer applied with 1-inch-minimum (25 mm) grouted backing space which is reinforced by not less than 2-inch by 2-inch (51 mm by 51 mm) 0.065 inch (1.65 mm) thick (No. 16 B.W. gauge) galvanized wire mesh placed over waterproof paper backing and anchored directly to stud construction. Such construction shall be allowed to a height not to exceed 4 feet (1219 mm) above grade.

The stud spacing shall not exceed 16 inches (406 mm) on center. The galvanized wire mesh shall be anchored to wood studs by galvanized steel wire furring nails at 4 inches (102 mm) on center or by barbed galvanized nails at 6 inches (152 mm) on center with a 1¹/₈-inch-minimum (29 mm) penetration. The galvanized wire mesh may be attached to steel studs by equivalent wire ties. If this method is applied over solid sheathing, the mesh must be furred for embedment in grout. The wire mesh must be attached at the top and bottom with not less than 8d (64 mm) common wire nails. The grout fill shall be placed to fill the space intimately around the mesh and veneer facing.

1405.7.2 Stone units [10 inches (254 mm) maximum in thickness].

Stone veneer units not exceeding 10 inches (254 mm) in thickness may be anchored directly to structural masonry or concrete. Anchor ties shall not be less than 0.109 inch (2.77 mm) (No. 12 B.W. gage) galvanized wire, or approved equal, formed as an exposed eye and extending not less than 1/2 inch (3 mm) beyond the face of the backing. The legs of the loops shall not be less than 6 inches (152 mm) in length bent at right angles and laid in the masonry mortar joint and spaced so that the eyes or loops are 12 inches (254 mm) maximum on center in both directions. There shall be provided not less than a 0.109 inch (2.77 mm) (No. 12 B.W. gauge) galvanized wire tie, or approved equal, threaded through the exposed loops for every 2 square feet (0.19 m²) of stone veneer. This tie shall be a loop having legs not less than 15 inches (381 mm) in length bent so that it will lie in the stone veneer mortar joint. The last 2 inches (51

mm) of each wire leg shall have a right angle bend. One inch (25 mm) of cement grout shall be placed between the backing and the stone veneer.

SECTION 26. Section 1507.3.1 is hereby amended to read as follows:

1507.3.1 Deck requirements.

Concrete and clay tile shall be installed only over solid sheathing or spaced structural sheathing boards.

SECTION 27. Table 1507.3.7 is hereby amended to read as follows:

**TABLE 1507.3.7
CLAY AND CONCRETE TILE ATTACHMENT ^{a, b, c}**

GENERAL – CLAY OR CONCRETE ROOF TILE				
Maximum basic wind speed (mph)	Mean roof height (feet)	Roof slope up to <3:12	Roof slope 3:12 and over	
85	0 - 60	<i>Minimum slope: 2.5:12</i>	Two fasteners per tile. Only one fastener on slopes of 7:12 and less for tiles with installed weight exceeding 7.5 lbs/sq. ft. having a width no greater than 16 inches.	
100	0 - 40	One fastener per tile. Flat tile without vertical laps. Two fasteners per tile.		
INTERLOCKING CLAY OR CONCRETE ROOF TILE WITH PROJECTING ANCHOR LUGS ^{d, e} (Installations on spaced/solid sheathing with battens or spaced sheathing)				
Maximum basic wind speed (mph)	Mean roof height (feet)	Roof slope up to <5:12	Roof slope 5:12 < 12:12	Roof slope 12:12 and over
85	0 - 60	Fasteners are not required. Tiles with installed weight less than 9 lbs/sq. ft. require a minimum of <u>e</u> Minimum slope is 4:12. <u>e</u> One fastener per tile.	One fastener per tile every other row. All perimeter tiles require one fastener. Tiles with installed weight less than 9 lbs/sq. ft. require a minimum of one fastener per tile.	One fastener required for every tile. Tiles with installed weight less than 9 lbs./sq. ft. require a minimum of one fastener per tile.
100	0 - 40			
INTERLOCKING CLAY OR CONCRETE ROOF TILE WITH PROJECTING ANCHOR LUGS (Installations on solid sheathing without battens)				
Maximum basic wind speed (mph)	Mean roof height (feet)	<u>All</u> Minimum roof slopes <u>4 units vertical in 12 units horizontal</u> <u>Maximum slope 7 units vertical in 12 units horizontal</u>		

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s, 1 pound per square foot = 4.882 kg/m².

^a Minimum fastener size. Hot dipped galvanized ring shank or other Corrosion-resistant nails not less than No. 11 gage with 5/16-inch head. Fasteners shall be long enough to penetrate into the sheathing 0.75 inch or through the thickness of the sheathing, whichever is less. Attaching wire for clay and concrete tile shall not be smaller than 0.083 inch and shall be copper, brass or stainless steel.

...

SECTION 28. Section 1613.6.7 is hereby amended to read as follows:

1613.6.7 Minimum distance for building separation.

...

$$\delta_M = \frac{C_d \delta_{max}}{I} \quad \text{(Equation 16-44)}$$

where:

C_d = Deflection amplification factor in Table 12.2-1 of ASCE 7.

δ_{max} = Maximum displacement defined in Section 12.8.4.3 of ASCE 7.

~~I = Importance factor in accordance with Section 11.5.1 of ASCE 7.~~

...

SECTION 29. Section 1613.8 is hereby added to read as follows:

1613.8 Modifications to ASCE 7.

The text of ASCE 7 shall be modified as indicated in Sections 1613.8.1 through 1613.8.4.

1613.8.1 ASCE 7, Table 12.8-2.

Modify ASCE 7, Table 12.8-2, by adding the following:

Structure Type	C _t	x
Eccentrically-braced steel frames and buckling-restrained braced frames	0.03 (0.0731) ^a	0.75

1613.8.2 ASCE 7, 12.2.3.1, Exception 3.

Modify ASCE 7, Section 12.2.3.1, Exception 3, to read as follows:

3. Detached one- and two-family dwellings up to two stories in height of light frame construction.

1613.8.3 ASCE 7, Section 12.8.7.

Modify ASCE 7, Section 12.8.7, by amending Equation 12.8-16 to read as follows:

$$\theta = \frac{P_x \Delta I}{V_x h_{sx} C_d} \quad (12.8-16)$$

1613.8.4 ASCE 7, Section 12.11.2.2.3.

Modify ASCE 7, Section 12.11.2.2.3, to read as follows:

12.11.2.2.3 Wood diaphragms. In wood diaphragms, the continuous ties shall be in addition to the diaphragm sheathing. Anchorage shall not be accomplished by use of toe nails or nails subject to withdrawal nor shall wood ledgers or framing be used in cross-grain bending or cross-grain tension. The diaphragm

sheathing shall not be considered effective as providing ties or struts required by this Section.

For structures assigned to Seismic Design Category D, E, or F, wood diaphragms supporting concrete or masonry walls shall comply with the following:

1. The spacing of continuous ties shall not exceed 40 feet. Added chords of diaphragms may be used to form subdiaphragms to transmit the anchorage forces to the main continuous crossties.

2. The maximum diaphragm shear used to determine the depth of the subdiaphragm shall not exceed 75 percent of the maximum diaphragm shear.

SECTION 30. Section 1613.9 is hereby added to read as follows:

1613.9 **Seismic design provisions for hillside buildings.**

1613.9.1 **Purpose.** The purpose of this Section is to establish minimum regulations for the design and construction of new buildings and additions to existing buildings when constructing such buildings on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent). These regulations establish minimum standards for seismic force resistance to reduce the risk of injury or loss of life in the event of earthquakes.

1613.9.2 **Scope.** The provisions of this Section shall apply to the design of the lateral-force-resisting system for hillside buildings at and below the base level diaphragm. The design of the lateral-force-resisting system above the base level diaphragm shall be in accordance with the provisions for seismic and wind design as required elsewhere in this Chapter.

EXCEPTIONS:

1. Non-habitable accessory buildings and decks not supporting or supported from the main building are exempt from these regulations.
2. Additions to existing buildings that do not exceed 10 percent of the existing floor area provided that the addition is being supported completely by the existing foundation.

1613.9.3 Definitions. For the purposes of this Section certain terms are defined as follows:

BASE LEVEL DIAPHRAGM is the floor at, or closest to, the top of the highest level of the foundation.

DIAPHRAGM ANCHORS are assemblies that connect a diaphragm to the adjacent foundation at the uphill diaphragm edge.

DOWNHILL DIRECTION is the descending direction of the slope approximately perpendicular to the slope contours.

FOUNDATION is concrete or masonry which supports a building, including footings, stem walls, retaining walls, and grade beams.

FOUNDATION EXTENDING IN THE DOWNHILL DIRECTION is a foundation running downhill and approximately perpendicular to the uphill foundation.

HILLSIDE BUILDING is any building or portion thereof constructed on or into a slope steeper than one unit vertical in three units horizontal (33.3 percent). If only a portion of the building is supported on or into the slope, these regulations apply to the entire building.

PRIMARY ANCHORS are diaphragm anchors designed for and providing a direct connection as described in Sections 1613.9.5 and 1613.9.7.3 between the diaphragm and the uphill foundation.

SECONDARY ANCHORS are diaphragm anchors designed for and providing a redundant diaphragm to foundation connection, as described in Sections 1613.9.6 and 1613.9.7.4.

UPHILL DIAPHRAGM EDGE is the edge of the diaphragm adjacent and closest to the highest ground level at the perimeter of the diaphragm.

UPHILL FOUNDATION is the foundation parallel and closest to the uphill diaphragm edge.

1613.9.4 Analysis and design.

1613.9.4.1 General. Every hillside building within the scope of this Section shall be analyzed, designed, and constructed in accordance with the provisions of this Chapter. When the code-prescribed wind design produces greater effects, the wind design shall govern, but detailing requirements and limitations prescribed in this Section and all referenced Sections shall be followed.

1613.9.4.2 Base level diaphragm-downhill direction. The following provisions shall apply to the seismic analysis and design of the connections for the base level diaphragm in the downhill direction.

1613.9.4.2.1 Base for lateral force design defined. For seismic forces acting in the downhill direction, the base of the building shall be the floor at, or closest to, the top of the highest level of the foundation.

1613.9.4.2.2 Base shear. In developing the base shear for seismic design, the response modification coefficient (R) shall not exceed 5 for bearing wall and building frame systems. The total base shear shall include the forces tributary to the base level diaphragm including forces from the base level diaphragm.

1613.9.5 Base shear resistance-primary anchors.

1613.9.5.1 General. The base shear in the downhill direction shall be resisted through primary anchors from diaphragm struts provided in the base level diaphragm to the foundation.

1613.9.5.2 Location of primary anchors. A primary anchor and diaphragm strut shall be provided in line with each foundation extending in the downhill direction. Primary anchors and diaphragm struts shall also be provided where interior vertical lateral-force-resisting elements occur above and in contact with the base level diaphragm. The spacing of primary anchors and diaphragm struts or collectors shall in no case exceed 30 feet (9,144 mm).

1613.9.5.3 Design of primary anchors and diaphragm struts. Primary anchors and diaphragm struts shall be designed in accordance with the requirements of Section 1613.9.8.

1613.9.5.4 Limitations. The following lateral-force-resisting elements shall not be designed to resist seismic forces below the base level diaphragm in the downhill direction:

1. Wood structural panel wall sheathing;
2. Cement plaster and lath;

3. Gypsum wallboard; and
4. Tension-only braced frames.

Braced frames designed in accordance with the requirements of Section 2205.2.2 may be used to transfer forces from the primary anchors and diaphragm struts to the foundation provided lateral forces do not induce flexural stresses in any member of the frame or in the diaphragm struts. Deflections of frames shall account for the variation in slope of diagonal members when the frame is not rectangular.

1613.9.6 Base shear resistance-secondary anchors.

1613.9.6.1 General. In addition to the primary anchors required by Section 1613.9.5, the base shear in the downhill direction shall be resisted through secondary anchors in the uphill foundation connected to diaphragm struts in the base level diaphragm.

Exception: Secondary anchors are not required where foundations extending in the downhill direction spaced at not more than 30 feet (9,144 mm) on center extend up to and are directly connected to the base level diaphragm for at least 70 percent of the diaphragm depth.

1613.9.6.2 Secondary anchor capacity and spacing. Secondary anchors at the base level diaphragm shall be designed for a minimum force equal to the base shear, including forces tributary to the base level diaphragm, but not less than 600 pounds per lineal foot (8.76 kN/m). The secondary anchors shall be uniformly

distributed along the uphill diaphragm edge and shall be spaced a maximum of four feet (1,219 mm) on center.

1613.9.6.3 **Design.** Secondary anchors and diaphragm struts shall be designed in accordance with Section 1613.9.8.

1613.9.7 **Diaphragms below the base level-downhill direction.**

The following provisions shall apply to the lateral analysis and design of the connections for all diaphragms below the base level diaphragm in the downhill direction.

1613.9.7.1 **Diaphragm defined.** Every floor level below the base level diaphragm shall be designed as a diaphragm.

1613.9.7.2 **Design force.** Each diaphragm below the base level diaphragm shall be designed for all tributary loads at that level using a minimum seismic force factor not less than the base shear coefficient.

1613.9.7.3 **Design force-resistance-primary anchors.** The design force described in Section 1613.9.7.2 shall be resisted through primary anchors from diaphragm struts provided in each diaphragm to the foundation. Primary anchors shall be provided and designed in accordance with the requirements and limitations of Section 1613.9.5.

1613.9.7.4 **Design force-resistance-secondary anchors.**

1613.9.7.4.1 **General.** In addition to the primary anchors required in Section 1613.9.7.3, the design force in the downhill direction shall be resisted through secondary anchors in the uphill foundation connected to diaphragm struts in each diaphragm below the base level.

Exception: Secondary anchors are not required where foundations extending in the downhill direction, spaced at not more than 30 feet (9,144 mm) on center, extend up to and are directly connected to each diaphragm below the base level for at least 70 percent of the diaphragm depth.

1613.9.7.4.2 Secondary anchor capacity. Secondary anchors at each diaphragm below the base level diaphragm shall be designed for a minimum force equal to the design force but not less than 300 pounds per lineal foot (4.38 kN/m). The secondary anchors shall be uniformly distributed along the uphill diaphragm edge and shall be spaced a maximum of four feet (1,219 mm) on center.

1613.9.7.4.3 Design. Secondary anchors and diaphragm struts shall be designed in accordance with Section 1613.9.8.

1613.9.8 Primary and secondary anchorage and diaphragm strut design. Primary and secondary anchors and diaphragm struts shall be designed in accordance with the following provisions:

1. Fasteners. All bolted fasteners used to develop connections to wood members shall be provided with square plate washers at all bolt heads and nuts. Washers shall be minimum 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Nuts shall be tightened to finger tight plus one half (1/2) wrench turn prior to covering the framing.

2. Fastening. The diaphragm to foundation anchorage shall not be accomplished by the use of toenailing, nails subject to withdrawal, or wood in cross-grain bending or cross-grain tension.

3. Size of Wood Members. Wood diaphragm struts, collectors, and other wood members connected to primary anchors shall not be less than three-inch (76 mm) nominal width. The effects of eccentricity on wood members shall be evaluated as required per Item 9.

4. Design. Primary and secondary anchorage, including diaphragm struts, splices, and collectors shall be designed for 125 percent of the tributary force.

5. Allowable Stress Increase. The one-third allowable stress increase permitted under Section 1605.3.2 shall not be taken when the working (allowable) stress design method is used.

6. Steel Element of Structural Wall Anchorage System. The strength design forces for steel elements of the structural wall anchorage system, with the exception of anchor bolts and reinforcing steel, shall be increased by 1.4 times the forces otherwise required.

7. Primary Anchors. The load path for primary anchors and diaphragm struts shall be fully developed into the diaphragm and into the foundation. The foundation must be shown to be adequate to resist the concentrated loads from the primary anchors.

8. Secondary Anchors. The load path for secondary anchors and diaphragm struts shall be fully developed in the diaphragm but need not be developed beyond the connection to the foundation.

9. Symmetry. All lateral force foundation anchorage and diaphragm strut connections shall be symmetrical. Eccentric connections may be permitted when

demonstrated by calculation or tests that all components of force have been provided for in the structural analysis or tests.

10. Wood Ledgers. Wood ledgers shall not be used to resist cross-grain bending or cross-grain tension.

1613.9.9 Lateral-force-resisting elements normal to the downhill direction.

1613.9.9.1 General. In the direction normal to the downhill direction, lateral-force-resisting elements shall be designed in accordance with the requirements of this Section.

1613.9.9.2 Base shear. In developing the base shear for seismic design, the response modification coefficient (R) shall not exceed 5 for bearing wall and building frame systems.

1613.9.9.3 Vertical distribution of seismic forces. For seismic forces acting normal to the downhill direction the distribution of seismic forces over the height of the building using Section 12.8.3 of ASCE 7 shall be determined using the height measured from the top of the lowest level of the building foundation.

1613.9.9.4 Drift limitations. The story drift below the base level diaphragm shall not exceed 0.007 times the story height at strength design force level. The total drift from the base level diaphragm to the top of the foundation shall not exceed 3/4 inch (19 mm). Where the story height or the height from the base level diaphragm to the top of the foundation varies because of a stepped footing or story offset, the height shall be measured from the average height of the top of the

foundation. The story drift shall not be reduced by the effect of horizontal diaphragm stiffness.

1613.9.9.5 Distribution of lateral forces.

1613.9.9.5.1 General. The design lateral force shall be distributed to lateral-force-resisting elements of varying heights in accordance with the stiffness of each individual element.

1613.9.9.5.2 Wood structural panel sheathed walls. The stiffness of a stepped wood structural panel shear wall may be determined by dividing the wall into adjacent rectangular elements, subject to the same top of wall deflection. Deflections of shear walls may be estimated by AF&PA SDPWS Section 4.3.2. Sheathing and fastening requirements for the stiffest section shall be used for the entire wall. Each section of wall shall be anchored for shear and uplift at each step. The minimum horizontal length of a step shall be eight feet (2438 mm) and the maximum vertical height of a step shall be two feet, eight inches (813 mm).

1613.9.9.5.3 Reinforced concrete or masonry shear walls.

Reinforced concrete or masonry shear walls shall have forces distributed in proportion to the rigidity of each section of the wall.

1613.9.9.6 Limitations. The following lateral force-resisting-elements shall not be designed to resist lateral forces below the base level diaphragm in the direction normal to the downhill direction:

1. Cement plaster and lath;
2. Gypsum wallboard; and

3. Tension-only braced frames.

Braced frames designed in accordance with the requirements of Section 2205.2.2 of this Code may be designed as lateral-force-resisting elements in the direction normal to the downhill direction, provided lateral forces do not induce flexural stresses in any member of the frame. Deflections of frames shall account for the variation in slope of diagonal members when the frame is not rectangular.

1613.9.10 Specific design provisions.

1613.9.10.1 Footings and grade beams. All footings and grade beams shall comply with the following:

1. Grade beams shall extend at least 12 inches (305 mm) below the lowest adjacent grade and provide a minimum 24-inch (610 mm) distance horizontally from the bottom outside face of the grade beam to the face of the descending slope.
2. Continuous footings shall be reinforced with at least two No. 4 reinforcing bars at the top and two No. 4 reinforcing bars at the bottom.
3. All main footing and grade beam reinforcement steel shall be bent into the intersecting footing and fully developed around each corner and intersection.
4. All concrete stem walls shall extend from the foundation and be reinforced as required for concrete or masonry walls.

1613.9.10.2 Protection against decay and termites. All wood to earth separation shall comply with the following:

1. Where a footing or grade beam extends across a descending slope, the stem wall, grade beam, or footing shall extend up to a minimum 18 inches (457 mm) above the highest adjacent grade.

Exception: At paved garage and doorway entrances to the building, the stem wall need only extend to the finished concrete slab, provided the wood framing is protected with a moisture proof barrier.

2. Wood ledgers supporting a vertical load of more than 100 pounds per lineal foot (1.46 kN/m) and located within 48 inches (1219 mm) of adjacent grade are prohibited. Galvanized steel ledgers and anchor bolts, with or without wood nailers, or treated or decay resistant sill plates supported on a concrete or masonry seat, may be used.

1613.9.10.3 Sill plates. All sill plates and anchorage shall comply with the following:

1. All wood framed walls, including nonbearing walls, when resting on a footing, foundation, or grade beam stem wall, shall be supported on wood sill plates bearing on a level surface.

2. Power-driven fasteners shall not be used to anchor sill plates except at interior nonbearing walls not designed as shear walls.

1613.9.10.4 Column base plate anchorage. The base of isolated wood posts (not framed into a stud wall) supporting a vertical load of 4000 pounds (17.8 kN) or more and the base plate for a steel column shall comply with the following:

1. When the post or column is supported on a pedestal extending above the top of a footing or grade beam, the pedestal shall be designed and reinforced as required for concrete or masonry columns. The pedestal shall be reinforced with a minimum of four No. 4 bars extending to the bottom of the footing or grade beam. The top of exterior pedestals shall be sloped for positive drainage.

2. The base plate anchor bolts or the embedded portion of the post base, and the vertical reinforcing bars for the pedestal, shall be confined with two No. 4 or three No. 3 ties within the top five inches (127 mm) of the concrete or masonry pedestal. The base plate anchor bolts shall be embedded a minimum of 20 bolt diameters into the concrete or masonry pedestal. The base plate anchor bolts and post bases shall be galvanized and each anchor bolt shall have at least two galvanized nuts above the base plate.

1613.9.10.5 Steel beam to column supports. All steel beam to column supports shall be positively braced in each direction. Steel beams shall have stiffener plates installed on each side of the beam web at the column. The stiffener plates shall be welded to each beam flange and the beam web. Each brace connection or structural member shall consist of at least two 5/8 inch (15.9 mm) diameter machine bolts.

SECTION 31. Section 1704.1 is hereby amended to read as follows:

...

EXCEPTIONS:

...

~~3. Unless otherwise required by the building official, special inspections are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.~~

43. [HCD 1] The provisions of Health and Safety Code Division 13, Part 6 and the California Code of Regulations, Title 25, Division 1, Chapter 3, commencing with Section 3000, shall apply to the construction and inspection of factory-built housing as defined in Health and Safety Code Section 19971.

SECTION 32. Section 1704.1.1 is hereby amended to read as follows:

1704.1.1 Statement of special inspections.

The applicant shall submit a statement of special inspections prepared by the registered design professional in responsible charge in accordance with Section 107.4 Chapter 1, Division II 106.4.2, as a condition for permit issuance. This statement shall be in accordance with Section 1705.

...

SECTION 33. Section 1704.4 is hereby amended to read as follows:

1704.4 Concrete Construction.

...

EXCEPTIONS: Special inspection 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, not 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.

...

~~4. Concrete foundation walls constructed in accordance with Table 1807.1.6.2.~~

~~54. Concrete patios, driveways and sidewalks, on grade.~~

SECTION 34. Section 1704.8 is hereby amended to read as follows:

1704.8 **Driven deep foundations and connection grade beams.**

Special inspections shall be performed during installation and testing of driven deep foundation elements as required by Table 1704.8. Special inspections shall be performed for connection grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E, or F. The approved geotechnical report, and the construction documents prepared by the registered design professionals, shall be used to determine compliance.

SECTION 35. Section 1704.9 is hereby amended to read as follows:

1704.9 **Cast-in-place deep foundations and connection grade beams.**

Special inspections shall be performed during installation and testing of cast-in-place deep foundation elements as required by Table 1704.9. Special inspections shall be performed for connection grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E, or F. The approved geotechnical

report, and the construction documents prepared by the registered design professionals, shall be used to determine compliance.

SECTION 36. Section 1705.3 is hereby amended to read as follows:

1705.3 Seismic resistance.

...

Exception: Seismic requirements are permitted to be excluded from the statement of special inspections for structures designed and constructed in accordance with the following:

...

3. Detached one- or two-family dwellings not exceeding two stories above grade plane, provided the structure is not assigned to Seismic Design Category D, E, or F and does not have any of the following plan or vertical irregularities in accordance with Section 12.3.2 of ASCE 7:

...

SECTION 37. Section 1710.1 is hereby amended to read as follows:

1710.1 General.

Where required by the provisions of Section 1710.2 or 1710.3, the owner shall employ a ~~registered design professional~~ structural observer to perform structural observations as defined in Section 1702. The structural observer shall be one of the following individuals:

1. The registered design professional responsible for the structural design, or

2. A registered design professional designated by the registered design professional responsible for the structural design.

...

~~At the conclusion of the work included in the permit, the structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies that, to the best of the structural observer's knowledge, have not been resolved.~~

The owner or owner's representative shall coordinate and call a preconstruction meeting between the structural observer, contractors, affected subcontractors, and special inspectors. The structural observer shall preside over the meeting. The purpose of the meeting shall be to identify the major structural elements and connections that affect the vertical and lateral load resisting systems of the structure and to review scheduling of the required observations. A record of the meeting shall be included in the report submitted to the Building Official.

Observed deficiencies shall be reported in writing to the owner or owner's representative, special inspector, contractor, and the Building Official. Upon the form prescribed by the Building Official, the structural observer shall submit to the Building Official a written statement at each significant construction stage stating that the site visits have been made and identifying any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved. A final report by the structural observer which states that all observed deficiencies have been resolved is required before acceptance of the work by the Building Official.

SECTION 38. Section 1710.2 is hereby amended to read as follows:

1710.2 Structural observations for seismic resistance.

...

3. ~~The structure is assigned to Seismic Design Category E,~~ is classified as Occupancy Category I or II in accordance with Table 1604.5, and ~~is greater than two-stories one-stories above grade plane~~ a lateral design is required for the structure or portion thereof.

Exception: One-story wood framed Group R-3 and Group U Occupancies less than 2000 square feet in area, provided the adjacent grade is not steeper than 1 unit vertical in 10 units horizontal (10 percent sloped), assigned to Seismic Design Category D.

...

SECTION 39. Section 1807.1.4 is hereby amended to read as follows:

1807.1.4 Permanent wood foundations systems.

Permanent wood foundation systems shall be designed and installed in accordance with AF&PA PWF. Lumber and plywood shall be treated in accordance with AWPA U1 (Commodity Specification A, Use Category 4B and Section 5.2) and shall be identified in accordance with Section 2303.1.8.1. Permanent wood foundation systems shall not be used for structures assigned to Seismic Design Category D, E, or E.

SECTION 40. Section 1807.1.6 is hereby amended to read as follows:

1807.1.6 Prescriptive design of concrete and masonry foundation walls.

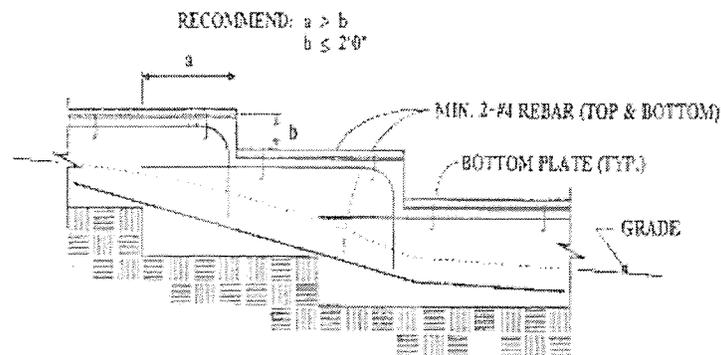
Concrete and masonry foundation walls that are laterally supported at the top and bottom shall be permitted to be designed and constructed in accordance with this Section. Prescriptive design of foundation walls shall not be used for structures assigned to Seismic Design Category D, E, or F.

SECTION 41. Section 1809.3 is hereby amended to read as follows:

1809.3 Stepped footings.

...

For structures assigned to Seismic Design Category D, E, or F, the stepping requirement shall also apply to the top surface of grade beams supporting walls.
Footings shall be reinforced with four 1/2-inch diameter (12.7 mm) deformed reinforcing bars. Two bars shall be placed at the top and bottom of the footings as shown in Figure 1809.3.



STEPPED FOUNDATIONS

FIGURE 1809.3

STEPPED FOOTING

SECTION 42. Section 1809.7 is hereby amended to read as follows:

1809.7 Prescriptive footings for light-frame construction.

Where a specific design is not provided, concrete or masonry-unit footings supporting walls of light-frame construction shall be permitted to be designed in accordance with Table 1809.7. Prescriptive footings in Table 1809.7 shall not exceed one story above grade plane for structures assigned to Seismic Design Category D, E, or F.

SECTION 43. Table 1809.7 is hereby amended to read as follows:

TABLE 1809.7

**PRESCRIPTIVE FOOTINGS SUPPORTING WALLS OF
LIGHT-FRAME CONSTRUCTION ^{a, b, c, d, e}**

...

~~c. Interior stud-bearing walls shall be permitted to be supported by isolated footings. The footing width and length shall be twice the width shown in this table, and footings shall be spaced not more than 6 feet on center. [Reserved].~~

...

~~g. Plain concrete footings for Group R-3 occupancies shall be permitted to be 6 inches thick.~~

SECTION 44. Section 1809.12 is hereby amended to read as follows:

1809.12 Timber footings.

Timber footings shall be permitted for buildings of Type V construction and as otherwise approved by the Building Official. Such footings shall be treated in accordance with AWPA U1 (Commodity Specification A, Use Category 4B). Treated timbers are not required where placed entirely below permanent water level, or where used as capping for wood piles that project above the water level over submerged or marsh lands. The compressive stresses perpendicular to grain in untreated timber footing supported upon treated piles shall not exceed 70 percent of the allowable stresses for the species and grade of timber as specified in the AF&PA NDS. Timber footings shall not be used in structures assigned to Seismic Design Category D, E, or F.

SECTION 45. Section 1908.1 is hereby amended to read as follows:

1908.1 General.

The text of ACI 318 shall be modified as indicated in Sections 1908.1.1 through ~~1908.1.10~~1908.1.14.

SECTION 46. Section 1908.1.2 is hereby amended to read as follows:

1908.1.2 ACI 318, Section 21.1.1.

Modify ACI 318, Sections 21.1.1.3, and 21.1.1.7 as follows:

...

All special moment frames and special structural walls shall also satisfy 21.1.3 through 21.1.7. Concrete tilt-up wall panels classified as intermediate precast structural

wall systems shall satisfy 21.9 in addition to 21.4.2 and 21.4.3 for structures assigned to Seismic Design Category D, E, or F.

SECTION 47. Section 1908.1.3 is hereby amended to read as follows:

1908.1.3 ACI 318, Section 21.4.

Modify ACI 318, Section 21.4, by renumbering Section 21.4.3 to become 21.4.4 and adding new Sections 21.4.3, 21.4.5, 21.4.6, and 21.4.7 to read as follows:

...

21.4.5 – [BSC] Wall piers in Seismic Design Category D, E, or F shall comply with Section 1908.1.4 of this eCode. The requirement shall be applicable to all buildings.

...

SECTION 48. Section 1908.1.8 is hereby amended to read as follows:

1908.1.8 ACI 318, Section 22.10.

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

...

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) ~~Structural plain concrete basement, foundation or other walls below the base are permitted in detached one- and two-family dwellings three stories or less in height constructed with stud-bearing walls. In dwellings assigned to Seismic Design Category D or E, the height of the wall shall not exceed 8 feet (2438 mm), the thickness shall not be less than 7½ inches (190 mm), and the wall shall retain no more than 4 feet~~

(1219 mm) of unbalanced fill. Walls shall have reinforcement in accordance with ~~22.6.6.5. Concrete used for fill with a minimum cement content of two (2) sacks of Portland cement per cubic yard.~~

(b) 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 dwellings 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.~~

(c) Plain concrete footings 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. For footings that exceed 8 inches (203 mm) in thickness, 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.

Exceptions:

4. ~~—In detached one- and two-family dwellings three stories or less in height and constructed with stud-bearing walls, plain concrete footings without longitudinal reinforcement supporting walls are permitted~~ 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.

~~2. For foundation systems consisting of a plain concrete footing and a plain concrete stemwall, a minimum of one bar shall be provided at the top of the stemwall and at the bottom of the footing.~~

~~3. Where a slab on ground is cast monolithically with the footing, one No. 5 bar is permitted to be located at either the top of the slab or bottom of the footing.~~

SECTION 49. Section 1908.1.11 is hereby added to read as follows:

1908.1.11 **ACI 318, Section 21.6.4.1.** Modify ACI 318,

Section 21.6.4.1, to read as follows:

Where the calculated point of contraflexure is not within the middle half of the member clear height, provide transverse reinforcement as specified in ACI 318, Sections 21.6.4.1, Items (a) through (c), over the full height of the member.

SECTION 50. Section 1908.1.12 is hereby added to read as follows:

1908.1.12 **ACI 318, Section 21.6.4.** Modify ACI 318, Section 21.6.4,

by adding Section 21.6.4.8 to read as follows:

21.6.4.8 – At any section where the design strength, ϕP_n , of the column is less than the sum of the shears V_e computed in accordance with ACI 318 Sections 21.5.4.1 and 21.6.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Sections 21.6.4.1 through 21.6.4.3 shall be provided. For beams framing into opposite sides of the column, the moment components may be assumed to be of opposite sign. For the determination of the design strength, ϕP_n , of the column, these moments may be assumed to result from the deformation of the frame in any one principal axis.

SECTION 51. Section 1908.1.13 is hereby added to read as follows:

1908.1.13 **ACI 318, Section 21.9.4.** Modify ACI 318, Section 21.9.4,

by adding Section 21.9.4.6 to read as follows:

21.9.4.6 – Walls and portions of walls with $P_u > 0.35P_o$ shall not be considered to contribute to the calculated strength of the structure for resisting earthquake-induced forces. Such walls shall conform to the requirements of ACI 318 Section 21.13.

SECTION 52. Section 1908.1.14 is hereby added to read as follows:

1908.1.14 **ACI 318, Section 21.11.6.** Modify ACI 318, Section 21.11.6,

by adding the following:

Collector and boundary elements in topping slabs placed over precast floor and roof elements shall not be less than 3 inches (76 mm) or $6 d_b$ thick, where d_b is the diameter of the largest reinforcement in the topping slab.

SECTION 53. Section 1909.4 is hereby amended to read as follows:

1909.4 **Design.**

...

Exception: For Group R-3 occupancies and buildings or other occupancies less than two stories above grade plane of light-frame construction, the required edge thickness of ACI 318 is permitted to be reduced to 6 inches (152 mm), provided that the footing does not extend more than 4 inches (102 mm) on either side of the supported wall. This exception shall not apply to structural elements designed to resist seismic lateral forces for structures assigned to Seismic Design Category D, E, or F.

SECTION 54. Section 2204.1.1 is hereby added to read as follows:

2204.1.1 Consumables for welding.

2204.1.1.1 Seismic force resisting system (SFRS) welds. All welds used in members and connections in the SFRS shall be made with filler metals meeting the requirements specified in AWS D1.8, Clause 6.3. AWS D1.8, Clauses 6.3.5, 6.3.6, 6.3.7, and 6.3.8 shall apply only to demand critical welds.

2204.1.1.2 Demand critical welds. Where welds are designated as demand critical, they shall be made with filler metals meeting the requirements specified in AWS D1.8, Clause 6.3.

SECTION 55. Section 2304.9.1 is hereby amended to read as follows:

2304.9.1 Fastener requirements.

Connections for wood members shall be designed in accordance with the appropriate methodology in Section 2301.2. The number and size of fasteners connecting wood members shall not be less than that set forth in Table 2304.9.1. Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E, or F.

Exception: Staples may be used to resist or transfer seismic forces when the allowable shear values are substantiated by cyclic testing and approved by the Building Official.

SECTION 56. Table 2304.9.1 is hereby amended to read as follows:

TABLE 2304.9.1
FASTENING SCHEDULE

...

q. Staples shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E, or F.

SECTION 57. Section 2304.11.7 is hereby amended to read as follows:

2304.11.7 Wood used in retaining walls and cribs.

Wood installed in retaining or crib walls shall be preservative treated in accordance with AWPA U1 (Commodity Specifications A or F) for soil and fresh water use. Wood shall not be used in retaining or crib walls for structures assigned to Seismic Design Category D, E, or F.

SECTION 58. Section 2305.4 is hereby added to read as follows:

2305.4 Quality of nails.

In Seismic Design Category D, E, or F, mechanically driven nails used in wood structural panel shear walls shall meet the same dimensions as that required for hand-driven nails, including diameter, minimum length, and minimum head diameter. Clipped head or box nails are not permitted in new construction. The allowable design value for clipped head nails in existing construction may be taken at no more than the nail-head-area ratio of that of the same size hand-driven nails.

SECTION 59. Section 2305.5 is hereby added to read as follows:

2305.5 Hold-down connectors.

In Seismic Design Category D, E, or F, hold-down connectors shall be designed to resist shear wall overturning moments using approved cyclic load values or 75 percent of the allowable seismic load values that do not consider cyclic loading of the product. Connector bolts into wood framing shall require steel plate washers on the post on the opposite side of the anchorage device. Plate size shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Hold-down connectors shall be tightened to finger tight plus one-half (1/2) wrench turn just prior to covering the wall framing.

SECTION 60. Section 2306.2.1 is hereby amended to read as follows:

2306.2.1 Wood structural panel diaphragms.

Wood structural panel diaphragms shall be designed and constructed in accordance with AF&PA SDPWS. Wood structural panel diaphragms are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.2.1(1) or 2306.2.1(2). For structures assigned to Seismic Design Category D, E, or F, the allowable shear capacities shall be set forth in Table 2306.2.1(3) or 2306.2.1(4). The allowable shear capacities in Table 2306.2.1(1) or 2306.2.1(2) are permitted to be increased 40 percent for wind design.

Wood structural panel diaphragms fastened with staples shall not be used to resist seismic forces in structures assigned to Seismic Design Category D, E, or F.

Exception: Staples may be used for wood structural panel diaphragms when the allowable shear values are substantiated by cyclic testing and approved by the Building Official.

Wood structural panel diaphragms used to resist seismic forces in structures assigned to Seismic Design Category D, E, or F shall be applied directly to the framing members.

Exception: A wood structural panel diaphragm is permitted to be fastened over solid lumber planking or laminated decking, provided the panel joints and lumber planking or laminated decking joints do not coincide.

SECTION 61. Table 2306.2.1(3) is hereby added to read as follows:

TABLE 2306.2.1(3)

ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL DIAPHRAGMS WITH

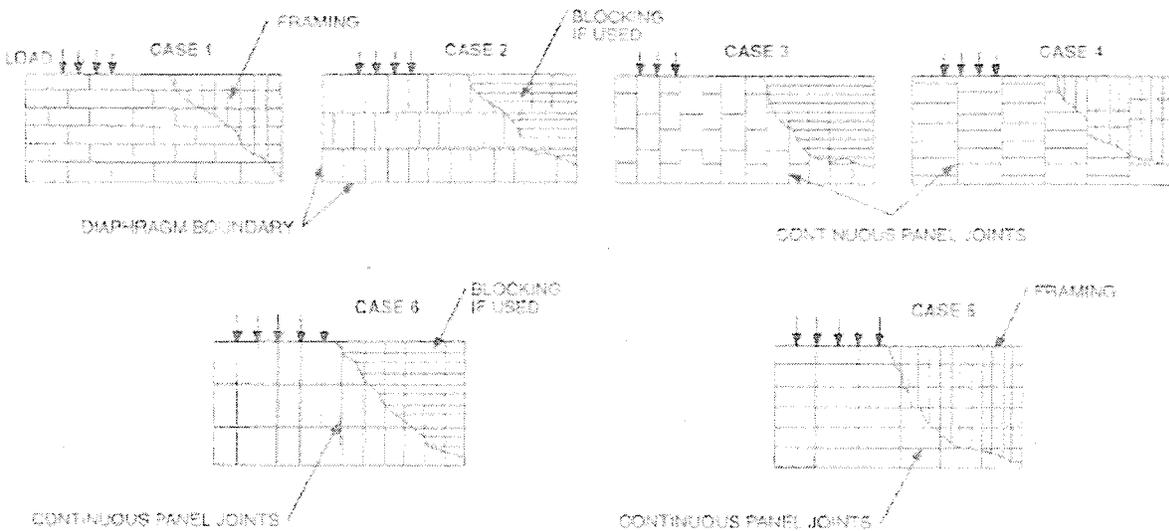
FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE^a FOR SEISMIC LOADING^f

FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E, OR F

PANEL GRADE	COMMON NAIL SIZE	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM NOMINAL WIDTH OF FRAMING MEMBERS AT ADJOINING PANEL EDGES AND BOUNDARIES ^g (inches)	BLOCKED DIAPHRAGMS						UNBLOCKED DIAPHRAGMS		
					Fastener spacing (inches) at diaphragm boundaries (all cases) at continuous panel edges parallel to load (Cases 3,4), and at all panel edges (Cases 5, 6) ^b						Fastener spaced 6" max. at supported edges ^b		
					6	4	2 1/2 ^c	2 ^c	Fastener spacing (inches) at other panel edges (Cases 1,2,3 and 4) ^b		Case 1 (No unblocked edges or continuous joints parallel to load)	All other configurations (Cases 2, 3, 4, 5 and 6)	
Structural I Grades	8d (2 1/2" x 0.131")	1 3/8	3/8	2	6	4	2 1/2 ^c	2 ^c	6	4	3	240	180
					300	400	600	675	600	675	265	200	
	10d ^d (3" x 0.148")	1 1/2	15/32	3	6	4	2 1/2 ^c	2 ^c	640	730	285	215	
					360	480	720	820	320	240			
	6d ^e (2" x 0.113")	1 1/4	3/8	2	6	4	2 1/2 ^c	2 ^c	250	375	420	165	125
					210	280	420	475	480	545	185	140	
8d (2 1/2" x 0.131")	1 3/8	7/16	3	6	4	2 1/2 ^c	2 ^c	320	480	540	215	160	
				270	360	540	610	240	180				
8d (2 1/2" x 0.131")	1 3/8	15/32	2	6	4	2 1/2 ^c	2 ^c	255	340	505	230	170	
				285	380	570	645	255	190				
8d (2 1/2" x 0.131")	1 3/8	19/32	3	6	4	2 1/2 ^c	2 ^c	270	360	530	240	180	
				300	400	600	675	265	200				
10d ^d (3" x 0.148")	1 1/2	19/32	2	6	4	2 1/2 ^c	2 ^c	290	385	575	255	190	
				324	430	650	735	290	215				
10d ^d (3" x 0.148")	1 1/2	19/32	3	6	4	2 1/2 ^c	2 ^c	320	425	640	285	215	
				360	480	720	820	320	240				

TABLE 2306.2.1(3)—continued

ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL
DIAPHRAGMS WITH FRAMING OF DOUGLAS FIR-LARCH, OR SOUTHERN PINE^a
FOR SEISMIC LOADING^f FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN
CATEGORY D, E, OR F



For SI: 1 inch = 25.4 mm, 1 pound per foot = 14.5939 N/m.

a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS; (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = $[1-(0.5-SG)]$, where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.

b. Space fasteners maximum 12 inches o.c. along intermediate framing members (6 inches o.c. where supports are spaced 48 inches o.c.).

c. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails at all panel edges shall be staggered where panel edge nailing is specified at 2 ½ inches o.c. or less.

d. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails at all panel edges shall be staggered where both of the following conditions are met: (1) 10d nails having penetration into framing of more than 1 ½ inches and (2) panel edge nailing is specified at 3 inches o.c. or less.

e. The minimum nominal width of framing members not located at boundaries or adjoining panel edges shall be 2 inches.

f. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.

SECTION 62. Table 2306.2.1(4) is hereby added to read as follows:

TABLE 2306.2.1(4)

**ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL
BLOCKED DIAPHRAGMS UTILIZING MULTIPLE ROWS OF FASTENERS (HIGH
LOAD DIAPHRAGMS) WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN
PINE^a FOR SEISMIC LOADING^{b,f,g}**
FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E, OR F

PANEL GRADE ^c	COMMON NAIL SIZE	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM NOMINAL WIDTH OF FRAMING MEMBERS AT ADJOINING PANEL EDGES AND BOUNDARIES ^e (inches)	LINES OF FASTENERS	BLOCKED DIAPHRAGMS			
						Cases 1 and 2 ^d			
						Fastener Spacing Per Line at Boundaries (inches)			
						4		2 1/2	
						Fastener Spacing Per Line at Other Panel Edges (inches)			
6	4	4	3						
Structural I grades	10d common nails	1 1/2	15/32	3	2	605	815	875	1,150
				4	2	700	915	1,005	1,290
				4	3	875	1,220	1,285	1,395
			19/32	3	2	670	880	965	1,255
				4	2	780	990	1,110	1,440
				4	3	965	1,320	1,405	1,790
			23/32	3	2	730	955	1,050	1,365
				4	2	855	1,070	1,210	1,565
				4	3	1,050	1,430	1,525	1,800
Sheathing, single floor and other grades covered in DOC PS1 and PS2	10d common nails	1 1/2	15/32	3	2	525	725	765	1,010
				4	2	605	815	875	1,105
				4	3	765	1,085	1,130	1,195
			19/32	3	2	650	860	935	1,225
				4	2	755	965	1,080	1,370
				4	3	935	1,290	1,365	1,485
			23/32	3	2	710	935	1,020	1,335
				4	2	825	1,050	1,175	1,445
				4	3	1,020	1,400	1,480	1,565

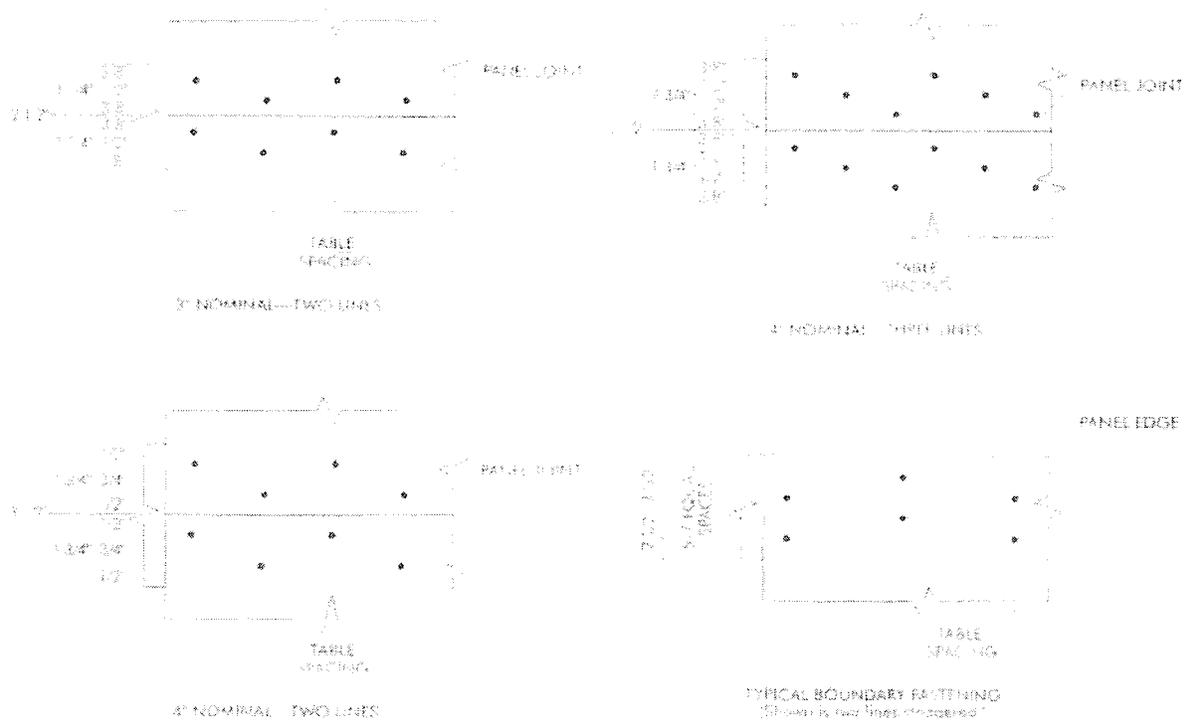
For SI: 1 inch = 25.4 mm, 1 pound per foot = 14.5939 N/m.

- a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS; (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = [1-(0.5-SG)], where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.

- b. Fastening along intermediate framing members: Space fasteners a maximum of 12 inches on center, except 6 inches on center for spans greater than 32 inches.
- c. Panels conforming to PS1 or PS 2.
- d. This table gives shear values for Cases 1 and 2 as shown in Table 2306.2.1(3). The values shown are applicable to Cases 3, 4, 5, and 6 as shown in Table 2306.2.1(3), providing fasteners at all continuous panels edges are spaced in accordance with the boundary fastener spacing.
- e. The minimum nominal depth of framing members shall be three inches nominal. The minimum nominal width of framing members not located at boundaries or adjoining panel edges shall be two inches.
- f. High load diaphragms shall be subject to special inspection in accordance with Section 1704.6.1.
- g. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.

TABLE 2306.2.1(4)–continued

ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL
BLOCKED DIAPHRAGMS UTILIZING MULTIPLE ROWS OF FASTENERS (HIGH
LOAD DIAPHRAGMS) WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN
PINE^a FOR SEISMIC LOADING^{b,f,g} FOR STRUCTURES ASSIGNED TO SEISMIC
DESIGN CATERGORY D, E, OR F



NOTE: SPACE PANEL END AND EDGE JOINT 1/8-INCH. REDUCE SPACING BETWEEN LINES OF NAILS AS NECESSARY TO MAINTAIN MINIMUM 3/8-INCH FASTENER EDGE MARGINS, MINIMUM SPACING BETWEEN LINES IS 3/8-INCH.

SECTION 63. Section 2306.3 is hereby amended to read as follows:

2306.3 Wood structural panel shear walls.

Wood structural panel shear walls shall be designed and constructed in accordance with AF&PA SDPWS. Wood structural panel shear walls are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.3(1). For structures assigned to Seismic Design Category D, E or F, the allowable shear capacities shall be set forth in Table 2306.3(2). Allowable shear capacities in Table 2306.3(1) are permitted to be increased 40 percent for wind design.

Wood structural panel shear walls used to resist seismic forces in structures assigned to Seismic Design Category D, E, or F shall not be less than 4 feet by 8 feet (1219 mm by 2438 mm), except at boundaries and at changes in framing. Wood structural panel thickness for shear walls shall not be less than 3/8 inch thick and studs shall not be spaced at more than 16 inches on center.

The maximum allowable shear value for three-ply plywood resisting seismic forces in structures assigned to Seismic Design Category D, E, or F is 200 pounds per foot (2.92 kN/m). Nails shall be placed not less than 1/2 inch (12.7 mm) in from the panel edges and not less than 3/8 inch (9.5mm) from the edge of the connecting members for shear greater than 350 pounds per foot (5.11kN/m). Nails shall be placed not less than 3/8 inch (9.5 mm) from panel edges and not less than 1/4 inch (6.4 mm) from the edge of the connecting members for shears of 350 pounds per foot (5.11kN/m) or less.

Wood structural panel shear walls fastened with staples shall not be used to resist seismic forces in structures assigned to Seismic Design Category D, E, or F.

Exception: Staples may be used for wood structural panel shear walls when the allowable shear values are substantiated by cyclic testing and approved by the Building Official.

Wood structural panel shear walls used to resist seismic forces in structures assigned to Seismic Design Category D, E, or F shall be applied directly to the framing members.

SECTION 64. Table 2306.3 is hereby amended to read as follows:

TABLE 2306.3(1)

**ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL
SHEAR WALLS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE^a
FOR WIND OR SEISMIC LOADING^{b, h, i, j, l, m}**

...

SECTION 65. Table 2306.3(2) is hereby added to read as follows:

TABLE 2306.3(2)

**ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL
SHEAR WALLS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE^a
FOR SEISMIC LOADING^{b, h, j, k, l} FOR STRUCTURES ASSIGNED TO SEISMIC
DESIGN CATEGORY D, E, OR F**

PANEL GRADE	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	ALLOWABLE SHEAR VALUE FOR SEISMIC FORCES PANELS APPLIED DIRECTLY TO FRAMING				
			COMMON NAIL SIZE	Fastener spacing at panel edges (inches)			
				6	4	3	2 ^e
Structural I sheathing	3/8	1 3/8	8d (2½"x0.131" common)	200	200	200	200
	7/16	1 3/8	8d (2½"x0.131" common)	255	395	505	670
	15/32	1 3/8	8d (2½"x0.131" common)	280	430	550	730
		1 1/2	10d (3"x0.148" common)	340	510	665 ^f	870
Sheathing, plywood siding ^g except Group 5 Species	3/8 ^e	1 3/8	8d (2½"x0.113")	160	200	200	200

For SI: 1 inch = 25.4 mm, 1 foot = 25.4 mm, 1 pound per foot = 14.5939 N/m.

a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS; (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity

Adjustment Factor = $[1-(0.5-SG)]$, where SG = Specific Gravity of the framing lumber.

This adjustment factor shall not be greater than 1.

b. Panel edges backed with 2-inch nominal or thicker framing. Install panels either horizontally or vertically. Space fasteners maximum 6 inches on center along intermediate framing members for 3/8-inch and 7/16-inch panels installed on studs spaced 24 inches on center. For other conditions and panel thickness, space fasteners maximum 12 inches on center on intermediate supports.

c. Three-eighth (3/8)-inch panel thickness or siding with a span rating of 16 inches on center is the minimum recommended where applied direct to framing as exterior siding. For grooved panel siding, the nominal panel thickness is the thickness of the panel measured at the point of nailing.

d. Allowable shear values are permitted to be increased to values shown for 15/32-inch sheathing with same nailing provided (a) studs are spaced a maximum of 16 inches on center, or (b) panels are applied with long dimension across studs.

e. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails shall be staggered where nails are spaced 2 inches on center or less.

f. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails shall be staggered where both of the following conditions are met:

(1) 10d (3"x0.148") nails having penetration into framing of more than 1-1/2 inches; and

(2) nails are spaced 3 inches on center or less.

g. Values apply to all-veneer plywood. Thickness at point of fastening on panel edges governs shear values.

h. Where panels applied on both faces of a wall and nail spacing is less than 6 inches o.c. on either side, panel joints shall be offset to fall on different framing members. Or framing shall be 3-inch nominal or thicker at adjoining panel edges and nails at all panel edges shall be staggered.

i. Where shear design values exceed 350 pounds per linear foot, all framing members receiving edge nailing from abutting panels shall not be less than a single 3-inch nominal member, or two 2-inch nominal members fastened together in accordance with Section 2306.1 to transfer the design shear value between framing members. Wood structural panel joint and sill plate nailing shall be staggered at all panel edges. See Section 4.3.6.1 and 4.3.6.4.3 of AF&PA SDPWS for sill plate size and anchorage requirements.

j. Galvanized nails shall be hot dipped or tumbled.

k. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.

l. The maximum allowable shear value for three-ply plywood resisting seismic forces is 200 pounds per foot (2.92 kn/m).

SECTION 66. Section 2306.7 is hereby amended to read as follows:

2306.7 Shear walls sheathed with other materials.

Shear walls sheathed with portland cement plaster, gypsum lath, gypsum sheathing, or gypsum board shall be designed and constructed in accordance with AF&PA SDPWS. Shear walls sheathed with these materials are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.7. Shear walls sheathed with portland cement plaster, gypsum lath, gypsum sheathing, or gypsum board shall not be used to resist seismic forces in structures assigned to Seismic Design Category E or F.

Shear walls sheathed with lath, plaster, or gypsum board shall not be used below the top level in a multi-level building for structures assigned to Seismic Design Category D.

...

SECTION 67. Section 2308.3.4 is hereby amended to read as follows:

2308.3.4 Braced wall line support.

...

Exception: For structures with a maximum plan dimension not over 50 feet (15,240 mm), continuous foundations are required at exterior walls only for structures not assigned to Seismic Design Category D, E, or F.

SECTION 68. Section 2308.12.2 is hereby amended to read as follows:

2308.12.2 Concrete or masonry.

...

Exception: Stone and masonry veneer is permitted to be used in the first story above grade plane in Seismic Design Category D, provided the following criteria are met:

...

5. Anchored masonry and stone wall veneer shall not exceed 5 inches (127 mm) in thickness, shall conform to the requirements of Chapter 14, and shall not extend more than 5 feet (1524 mm) above the first story finished floor.

SECTION 69. Section 2308.12.4 is hereby amended to read as follows:

2308.12.4 Braced wall line sheathing.

Braced wall lines shall be braced by one of the types of sheathing prescribed by Table 2308.12.4 as shown in Figure 2308.9.3. The sum of lengths of braced wall panels at each braced wall line shall conform to Table 2308.12.4. Braced wall panels shall be distributed along the length of the braced wall line and start at not more than 8 feet (2438 mm) from each end of the braced wall line. Panel sheathing joints shall occur over studs or blocking. Sheathing shall be fastened to studs, top and bottom plates, and at panel edges occurring over blocking. Wall framing to which sheathing used for bracing is applied shall be nominal 2-inch-wide [actual 1¹/₂ inch (38 mm)] or larger members and spaced a maximum of 16 inches on center.

~~Cripple walls having a stud height exceeding 14 inches (356 mm) shall be considered a story for the purpose of this section and shall be braced as required for braced wall lines in accordance with Table 2309.12.4. Where interior braced wall lines occur without a continuous foundation below, the length of parallel exterior cripple wall~~

~~bracing shall be one and one-half times the lengths required by Table 2308.12.4. Where the cripple wall sheathing type used is Type S-W and this additional length of bracing cannot be provided, the capacity of Type S-W sheathing shall be increased by reducing the spacing of fasteners along the perimeter of each piece of sheathing to 4 inches (102 mm) o.c.~~

Exception: Braced wall panels required by Section 2308.12.4 may be eliminated when all of the following requirements are met:

1. One story detached Group U occupancies not more than 25 feet in depth or length.

2. The roof and three enclosing walls are solid sheathed with 15/32 inch nominal thickness wood structural panels with 8d common nails placed 3/8 inches from panel edges and spaced not more than 6 inches on center along all panel edges and 12 inches on center along intermediate framing members. Wall openings for doors or windows are permitted provided a minimum 4-foot-wide wood structural braced panel with minimum height to length ratio of 2 to 1 is provided at each end of the wall line and that the wall line be sheathed for 50 percent of its length.

Wood structural panel sheathing shall be a minimum of 15/32 inch thick nailed with 8d common nails placed 3/8 inches from panel edges and spaced not more than 6 inches on center and 12 inches on center along intermediate framing members.

Braced wall panel construction types shall not be mixed within a braced wall line.

SECTION 70. Table 2308.12.4 is hereby amended to read as follows:

TABLE 2308.12.4

WALL BRACING IN SEISMIC DESIGN CATEGORIES D AND E

(Minimum Length of Wall Bracing per each 25 Linear Feet of Braced Wall Line ^{a)})

...

a. Minimum length of panel bracing of one face of the wall for S-W sheathing shall be at least 4'-0" long or both faces of the wall for G-P sheathing shall be at least 8'-0" long; h/w ratio shall not exceed 2:1. For S-W panel bracing of the same material on two faces of the wall, the minimum length is permitted to be one-half the tabulated value but the h/w ratio shall not exceed 2:1 and design for uplift is required.

b. G-P = gypsum board, ~~fiberboard, particleboard, lath and portland cement,~~ plaster, or gypsum sheathing boards; S-W = wood structural panels ~~and diagonal wood sheathing.~~

c. Nailing as specified below shall occur at all panel edges at studs, at top and bottom plates and, where occurring, at blocking:

For 1/2-inch gypsum board, 5d (0.113 inch diameter) cooler nails at 7 inches on center;

For 5/8-inch gypsum board, No 11 gage (0.120 inch diameter) cooler nails at 7 inches on center;

For gypsum sheathing board, 1-3/4 inches long by 7/16-inch head, diamond point galvanized nails at 4 inches on center;

For gypsum lath, No. 13 gage (0.092 inch) by 1-1/8 inches long, 19/64-inch head, plasterboard at 5 inches on center;

For Portland cement plaster, No. 11 gage (0.120 inch) by 1¹/₂ inches long, 7/16-inch head at 6 inches on center;

~~For fiberboard and particleboard, No. 11 gage (0.120 inch) by 1¹/₂ inches long, 7/16-inch head, galvanized nails at 3 inches on center.~~

d. S-W sheathing shall be a minimum of 15/32" thick nailed with 8d common nails placed 3/8 inches from panel edges and spaced not more than 6 inches on center and 12 inches on center along intermediate framing members.

SECTION 71. Section 2308.12.5 is hereby amended to read as follows:

2308.12.5 Attachment of sheathing.

Fastening of braced wall panel sheathing shall not be less than that prescribed in Table 2308.12.4 or 2304.9.1. Wall sheathing shall not be attached to framing members by adhesives. Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E, or F.

Exception: Staples may be used to resist or transfer seismic forces when the allowable shear values are substantiated by cyclic testing and approved by the Building Official.

All braced wall panels shall extend to the roof sheathing and shall be attached to parallel roof rafters or blocking above with framing clips (18 gauge minimum) spaced at maximum 24 inches (6096 mm) on center with four 8d nails per leg (total eight 8d nails per clip). Braced wall panels shall be laterally braced at each top corner and at

maximum 24 inch (6096 mm) intervals along the top plate of discontinuous vertical framing.

SECTION 72. Section 3401.8 is hereby added to read as follows:

3401.8 **Parapets and appendages.**

3401.8.1 Whenever the Building Official determines by inspection that, as a result of inadequate construction or bracing to resist horizontal forces, an existing parapet or appendage attached to and supported by an exterior wall of a building is likely to become a hazard to life or property in the event of earthquake disturbance, and such parapet or appendage is not an immediate hazard or danger as described in Section 102 of this Code, the Building Official may provide the owner of the building or other person or agent in control of the building where such parapet or other appendage exists, with a written notice specifying the hazards and the inadequacies of construction or bracing. The owner of the building or other person or agent in control of the building shall, within 12 months from the date of such written notice, eliminate the hazard as set forth below. Any person receiving notice as set out in this Section may appeal, in the manner provided by Section 102.4 of this Code, to the building Board of Appeals.

3401.8.2 The parapet or appendage shall be removed and the remainder of the wall anchored at the roof line, or it shall be reconstructed so that it will conform structurally as near as it is practicable to do so with requirements of Chapter 16 of this Code, or it shall be otherwise braced and strengthened in a manner satisfactory to the Building Official, so that it will resist a reasonable degree of horizontal forces without becoming dislodged with danger of falling.

3401.8.3 Where, in the opinion of the Building Official, it is necessary to open a portion of roof, wall, or ceiling of a building in order to determine the structural condition of any parapet or appendage, the Building Official may order the owner to make such opening and the owner shall comply with said order at the owner's sole cost and expense.

SECTION 73. Section 3401.9 is hereby added to read as follows:

3401.9 Existing glass.

Whenever the Building Official determines by inspection that an existing glass installation in rooms having an occupant load of more than 100 persons or a means of egress serving an occupant load of more than 100 persons, as determined by Chapter 10, is likely to become a hazard in the event of accidental human impact as described in Section 2406.4 and such installation does not comply with the provisions of this Code for glazing in such locations, the Building Official may provide the owner of the building or other person or agent in control of the building where such glazing exists with a written notice of such condition. The owner of the building or other person or agent in control of the building shall, within 90 days after receiving said notice, replace such glass or otherwise cause the installation to conform with the requirements of this Code.

SECTION 74. Section 6502.6 is hereby amended to read as follows:

6502.6 Materials.

...

EXCEPTION: Surfaces of signs not more than 55 feet (16764 mm) above grade may be of approved plastic material which has a flame-spread rating of 25 or less when tested in accordance with Standard 8-1, of the Uniform Building Code, 1997 Edition, as published by the International Conference of Building Officials, in the way intended for use.

SECTION 75. Section 6503 is hereby amended to read as follows:

6503 Ground Signs.

...

Approved plastic as defined in Chapter 26 and ~~Section 217~~ may be used for surface of signs exceeding 55 feet (16 764 mm) in height providing the sign is constructed of noncombustible materials.

SECTION 76. Section 6602.1 is hereby amended to read as follows:

6602.1 General.

Amusement devices or structures shall be regulated by this Section. Amusement devices or structures located within amusement buildings must also comply with the requirements of Sections 411, and ~~903.2.4~~903.2.11.6.

SECTION 77. Section 6703 is hereby amended to read as follows:

6703 LIMITATIONS

No provisions of this ~~e~~Chapter shall require or be construed to require devices on exit doors or on sleeping room emergency exits contrary to the requirements specified in Section ~~4026~~1029.

SECTION 78. Section 6709.2 is hereby amended to read as follows:

6709.2

...

EXCEPTIONS:

...

4. In residential occupancies, doors not required by Section ~~4026~~1029 or 1008 may be equipped with security-type hardware which requires a key to release from the interior side of the door if the sleeping rooms are protected with a fire-warning system as set forth in Section ~~903.2.7~~903.2.8.

SECTION 79. Section 6710 is hereby amended to read as follows:

6710 DOORS--SLIDING GLASS DOORS

...

Locking devices installed on sliding glass doors providing the exit required by Section 1003 or providing for the emergency escape or rescue required by Section ~~4026~~1029 shall be releasable from the inside without the use of a key, tool, or excessive force.

SECTION 80. Section 6715.1 is hereby amended to read as follows:

6715.1 Locking devices installed on windows providing the emergency egress required by Section ~~4026~~1029 shall be releasable from the inside without use of a key, tool, or excessive force.

SECTION 81. Section 9506.3 is hereby amended to read as follows:

9506.3 Development of Anchor Loads into the Diaphragm.

Development of anchor loads into roof and floor diaphragms shall comply with Section ~~1633.2.9, item 49506.10~~ of this Code.

...

In wood diaphragms, anchorage shall not be accomplished by use of toenails or nails subject to withdrawal, nor shall wood ledgers, top plates, or framing be used in cross-grain bending or cross-grain tension. The continuous ties required by Section ~~1633.2.9, item 49506.10~~ shall be in addition to the diaphragm sheathing.

...

SECTION 82. Section 9506.10 is hereby added to read as follows:

9506.10 Diaphragms.

Diaphragms supporting concrete walls shall have continuous ties or struts between diaphragm chords to distribute the anchorage forces specified in Section 12.11 of ASCE 7. The spacing of continuous ties shall not exceed 25 feet (7620 mm). Added chords of subdiaphragms may be used to form subdiaphragms to transmit the anchorage forces to the main continuous crossties. The maximum diaphragm shear used to determine the depth of the subdiaphragms shall not exceed 300 pounds per foot (4.38 kN/m). The maximum length-to-width ratio of the wood structural subdiaphragm shall be 2 ½:1.

SECTION 83. Chapter 96 is hereby added to read as follows:

CHAPTER 96

EARTHQUAKE HAZARD REDUCTION FOR EXISTING UNREINFORCED MASONRY

BEARING WALL BUILDINGS

9601 PURPOSE

This Chapter promotes public safety and welfare by reducing the risk of death or injury otherwise resulting from earthquake damage to certain buildings constructed before March 20, 1933, which have insufficient resistance to moderate or strong earthquakes.

The provisions of this Chapter constitute minimum standards for structural seismic resistance established primarily to reduce the risk of loss of life and injury. Compliance with these standards will not necessarily prevent loss of life or injury or prevent earthquake damage to an existing building. This Chapter shall not require existing electrical, plumbing, mechanical, or fire safety systems to be altered unless they constitute a hazard to life or property.

This Chapter provides systematic procedures and standards for identification and classification of these buildings based on their present use. Priorities, time periods, and standards are also established under which these buildings are required to be structurally analyzed and anchored. Where the analysis identifies deficiencies, this Chapter requires the building to be strengthened or demolished.

9602 SCOPE

The provisions of this Chapter shall apply to buildings which, prior to March 20, 1933, were constructed or were under construction and which have unreinforced masonry bearing walls as defined herein. This Chapter shall also apply to buildings for which a building permit was issued prior to March 20, 1933, and which have unreinforced masonry bearing walls as defined herein.

EXCEPTION: This Chapter shall not apply to dwellings and lodging houses defined as Group R-3 Occupancies nor to accessory buildings defined as Group U Occupancies.

9603 DEFINITIONS

For the purposes of this Chapter, the applicable definitions contained in this Code and the following definitions shall apply:

ESSENTIAL BUILDING. An essential building under the scope of this Chapter is defined as any building conforming to the definition of essential facilities as set forth in this Code.

HIGH-RISK BUILDING. A high-risk building is any building, other than an essential building, having an occupant load of 100 or more as determined by Chapter 10 of this Code.

EXCEPTION: A high-risk building shall not include the following:

1. Any building having exterior walls braced with masonry crosswalls or woodframe crosswalls spaced less than 40 feet (12192 mm) apart in each story.

Crosswalls shall be full-story height with a minimum length of 1-1/2 times the story height.

2. Any building used for its intended purpose, as determined by the building official, for less than 20 hours per week.

HISTORICAL BUILDING. A historical building is any building designated as a historical building by the federal, state, or County government or an agency thereof.

LOW-RISK BUILDING. A low-risk building is any building, other than an essential building, having an occupant load of less than 20 as determined by Chapter 10 of this Code.

MEDIUM-RISK BUILDING. A medium-risk building is any building, not classified as a high-risk building or an essential building, having an occupant load of 20 or more as determined by Chapter 10 of this Code.

9604 RATING CLASSIFICATIONS

The rating classifications identified in Table 96-A are hereby established and each building within the scope of this Chapter shall be placed in one such rating classification by the Building Official. The total occupant load of the entire building as determined by Chapter 10 of this Code shall be used to determine the rating classification.

EXCEPTION: For purposes of this Chapter, portions of buildings constructed to act independently when resisting seismic forces may be placed in separate rating classifications.

9605 GENERAL REQUIREMENTS

9605.1 Time limitations.

The owner of each building within the scope of this Chapter shall, upon service of an order and within the time limits set forth in this Chapter, cause a structural analysis to be made of the building by a licensed civil or structural engineer or architect. If the building does not comply with standards specified in this Chapter and Appendix Chapter A1 of Part 10, Title 24 of the California Code of Regulations, then the owner shall cause the building to be structurally altered to conform to such standards or shall cause the building to be demolished.

The owner of a building within the scope of this Chapter shall comply with the requirements set forth above by submitting plans that comply with the requirements of Section 9608 to the Building Official for review within the stated time limits of the following items:

1. Within 270 days after service of the order, a structural analysis, which is subject to approval by the Building Official and which shall demonstrate that the building meets the minimum requirements of this Chapter; or
2. Within 270 days after service of the order, the structural analysis and plans for structural alterations of the building to comply with this Chapter; or
3. Within 120 days after service of the order, plans for the installation of wall anchors in accordance with the requirements specified in Appendix Chapter A1 of Part 10, Title 24 of the California Code of Regulations; or
4. Within 270 days after service of the order, plans for the demolition of the building.

9605.2 Time limitations to obtain building permit, commence and complete work.

After plans are submitted and approved by the Building Official, the owner shall obtain a building permit and then commence and complete the required alteration or demolition within the time limits set forth in Table 96-B. These time limits shall begin to run from the date the order is served in accordance with Section 9606.2, except that the time limit to commence structural alterations or demolition shall begin to run from the date the building permit is issued.

An owner electing to comply with Item 3 of Section 9605.1 is also required to comply with Item 2 or 4 of Section 9605.1 provided, however, that the 270-day period provided for in Item 2 or 4 of Section 9605.1 and the time limits for obtaining a building permit and to complete structural alterations or building demolition set forth in Table 96-B shall be extended in accordance with Table 96-C. Each such extended time limit shall begin to run from the date the order is served in accordance with Section 9606, except that the time limit to commence structural alterations or demolition shall begin to run from the date the building permit is issued.

9606 ADMINISTRATION

9606.1 Order--service.

The Building Official shall, in accordance with the priorities set forth in Table 96-C, issue an order as provided in this Section to the owner of each building within the scope of this Chapter.

Prior to the service of an order as set forth in Table 96-C, a bulletin may be issued to the owner as shown upon the last equalized assessment roll of a building considered by the Building Official to be within the scope of this Chapter. The bulletin may contain information the Building Official deems appropriate. The bulletin may be issued by mail or in person.

9606.2 Order--priority of service.

Priorities for the service of the order for buildings within the scope of this Chapter shall be in accordance with the rating classification as shown in Table 96-C. Within each separate rating classification, the priority of the order shall normally be based on the occupant load of the building. The owner of buildings housing the largest occupant loads shall be served first. The minimum time period prior to the service of the order as shown in Table 96-C shall be measured from the effective date of this Chapter. The Building Official may, upon receipt of a written request from the owner, order such owner to bring the building into compliance with this Chapter prior to the normal service date for such building set forth in this Chapter.

9606.3 Order--contents.

The order shall be in writing and shall be served either personally or by certified or registered mail upon the owner as shown on the last equalized assessment roll of the building. The order shall specify that the building has been determined by the Building Official to be within the scope of this Chapter and, therefore, is required to meet the minimum seismic standards of this Chapter. The order shall specify the rating

classification of the building and shall be accompanied by a copy of Section 9605 which sets forth the owner's alternatives and time limits for compliance.

9606.4 Appeal from order.

The owner of the building may appeal the Building Official's initial determination that the building is within the scope of this Chapter to the Building Board of Appeals established by Section 105. Such appeal shall be filed with the Board within 60 days from the service date of the order described in Section 9606.3. Any such appeal shall be decided by the Board no later than 90 days after the date that the appeal is filed. Such appeal shall be made in writing and the grounds thereof shall be stated clearly and concisely. Appeals or requests for modifications from any other determinations, orders or actions by the building official pursuant to this Chapter shall be made in accordance with the procedures established in Sections 104.2.7 and 105.

9606.5 Recordation.

At the time that the Building Official serves the aforementioned order, the Building Official shall also file with the office of the County Recorder a certificate stating that the subject building is within the scope of this Chapter and is a potentially earthquake hazardous building. The certificate shall also state that the owner thereof has been ordered to structurally analyze the building and to structurally alter or demolish the building where compliance with this Chapter has not been demonstrated.

If the building is either demolished, found not to be within the scope of this Chapter, or is structurally capable of resisting minimum seismic forces required by this Chapter as a result of structural alterations or an analysis, the Building Official shall file

with the office of the County Recorder a form terminating the status of the subject building as being classified within the scope of this Chapter.

9606.6 Abatement orders.

If the owner of the subject building fails to comply with any order issued by the Building Official pursuant to this Chapter within any of the time limits set forth in Section 9605, then the Building Official shall verify that the record owner of this building has been properly served. If the order has been served on the record owner, then the Building Official may order that the entire building be vacated and that the building remain vacated until such order has been complied with. If compliance with such order has not been accomplished within 90 days after the date the building has been ordered vacated or such additional time as may have been granted by the Building Board of Appeals, then the Building Official may order its demolition in accordance with the provisions of Section 102.1 of this Code.

9606.7 Hearing.

An owner who has been served with an abatement order as described in Section 9606.6 may request a hearing before the Building Board of Appeals to request postponement of County action leading to demolition, vacation of building, or other abatement procedure. All such requests shall be accompanied by a rehearing fee as specified in Section 105. At such a rehearing, the Board will consider all evidence submitted and after such consideration may find that a postponement is warranted and so order, or may find that further postponement is unwarranted and order any abatement work considered necessary to be performed by a specified date after which

date the Building Official shall cause such work to be performed or completed without further notice. Nothing in this Section shall prevent the Board itself or the Building Official from bringing any matter before the Board for rehearing.

9606.8 Violation.

It shall be unlawful to own, use, occupy, maintain, or be in control of a building for which an order requiring compliance with this Chapter has been served where said order has not been complied with.

9606.9 Prosecution.

In case the owner shall fail, neglect, or refuse to comply with the directions in the Order (if neither the owner nor any other person requests a hearing) or with any order of the Building Board of Appeals, the owner shall be guilty of a misdemeanor and the Building Official may cause such owner of the building or property to be prosecuted as a violator of this Code.

9606.10 Other abatement procedures.

The provisions of this Chapter shall not in any manner limit or restrict the County or the District Attorney from enforcing County Ordinances or abating public nuisances in any other manner provided by law.

9607 HISTORICAL BUILDINGS

9607.1 General.

The standards and procedures established by this Chapter shall apply in all aspects to a historical building except that as a means to preserve original architectural

elements and facilitate restoration, a historical building may, in addition, comply with the special provisions set forth in this Section.

9607.2 Unburned clay masonry or adobe.

Existing walls of adobe construction shall conform with the following:

9607.2.1 Unreinforced adobe masonry walls shall not exceed a height or length-to-thickness ratio of five for exterior-bearing walls and must be provided with a reinforced bond beam at the top, interconnecting all walls. Minimum beam depth shall be 6 inches (152 mm) and a minimum width of 8 inches (203 mm) less than the wall width. Minimum wall thickness shall be 18 inches (457 mm) for exterior-bearing walls and 10 inches (254 mm) for adobe partitions. No adobe structures shall exceed one story in height unless the historic evidence indicates a two-story height. In such cases, the height-to-thickness ratio shall be the same as above for the first floor based on the total two-story height, and the second floor wall thickness shall not exceed the ratio five by more than 20 percent. Bond beams shall be provided at the roof and second-floor levels.

9607.2.2 Foundation footings shall be reinforced concrete under newly reconstructed walls and shall be 50 percent wider than the wall above, soil conditions permitting, except that the foundation wall may be 4 inches (102 mm) less in width than the wall above if a rock, burned brick, or stabilized adobe facing is necessary to provide authenticity.

9607.2.3 Existing unstabilized brick and adobe brick masonry shall have an average compressive strength of 225 pounds per square inch (1551 kPa) when

tested in accordance with ASTM C 67. One sample out of five may have a compressive strength of not less than 188 pounds per square inch (1296 kPa). Unstabilized brick may be used where existing bricks are unstabilized and where the building is not susceptible to flooding conditions or direct exposure. Adobe may be allowed a maximum value of 3 pounds per square inch (21 kPa) for shear with no increase for lateral forces.

9607.2.4 Mortar may be of the same soil composition and stabilization as the brick in lieu of cement mortar.

9607.2.5 Nominal tension stresses due to seismic forces normal to the wall may be neglected if the wall meets thickness requirements and shear values allowed by this Section.

9607.3 **Archaic materials.**

Allowable stresses for archaic materials not specified in this Code shall be based on substantiating research data or engineering judgment, subject to the Department's satisfaction.

9607.4 **Alternative materials and state historical building code advisory review.**

Alternative materials, design, or methods of construction will be considered as set forth in Section 104.2.8. In addition, when a request for an alternative proposed design, material, or method of construction is being considered, the Department may file a written request for an opinion to the State Historical Building Code Advisory Board for

its consideration, advice or findings in accordance with the State Historical Building Code.

9608 INFORMATION REQUIRED ON PLANS

9608.1 General.

In addition to the seismic analysis required elsewhere in this Chapter, the licensed engineer or architect responsible for the seismic analysis of the building shall determine and record the information required by this Section and shall provide a complete set of plans, which show in detail compliance with all the requirements of this Chapter and Appendix Chapter A1 of Part 10, Title 24 of the California Code of Regulations.

9608.2 Construction details.

The following requirements with appropriate construction details shall be made part of the submitted plans.

9608.2.1 All unreinforced masonry walls shall be anchored at the roof and all floor levels as specified in Appendix Chapter A1 of Part 10, Title 24 of the California Code of Regulations, or by an approved equivalent method.

9608.2.2 Diaphragm chord stresses of horizontal diaphragms shall be developed in existing materials or by addition of new materials.

9608.2.3 Where trusses and beams other than rafters or joists are supported on masonry, independent secondary columns shall be installed to support vertical loads of the roof or floor members.

9608.2.4 Parapets and exterior wall appendages not capable of resisting the forces specified in this Chapter shall be removed, stabilized, or braced to ensure that the parapets and appendages remain in their original position.

9608.2.5 All deteriorated mortar joints in unreinforced masonry walls shall be pointed with Type S or N mortar. Prior to any pointing, the wall surface must be raked and cleaned to remove loose and deteriorated mortar. Pointing shall be done under the continuous inspection of a registered special masonry or concrete inspector. At the conclusion of the project, the inspector shall submit a written report to the Building Official setting forth the portion of work inspected.

9608.2.6 Repair details of any cracked or damaged unreinforced masonry wall required to resist forces specified in this Chapter.

9608.3 Existing construction.

The following existing construction information shall be made part of the approved plans:

1. The type and dimensions of existing walls and the size and spacing of floor and roof members.
2. The extent and type of existing wall anchorage to floors and roof.
3. The extent and type of parapet corrections which were performed in accordance with Chapter 34 of this Code.
4. Accurately dimensioned floor plans and masonry wall elevations showing dimensioned openings, piers, wall thickness, and heights.

5. The location of cracks or damaged portions or unreinforced masonry walls requiring repairs.

6. The type of interior wall surfaces and ceilings, and if reinstallation or anchoring of existing plaster is necessary.

7. The general condition of the mortar joints and if the joints need pointing.

9609 INTERPRETATION OF THIS CHAPTER

Removal and replacement of unreinforced masonry interior or exterior walls with materials and construction conforming to the requirements of this Code for new buildings constitutes compliance with this Chapter. Upon completion of such work, the remainder of the structure is, therefore, subject to the provisions of Chapter 34, "Existing Structures." Nothing in this Section shall be construed to mean that a building within the scope of this Chapter is not subject to Section 102, "Unsafe Buildings," or to Chapter 99 of this Code.

**TABLE 96-A
RATING CLASSIFICATIONS**

TYPE OF BUILDING	CLASSIFICATION
Essential building	I
High-risk building	II
Medium-risk building	III
Low-risk building	IV

**TABLE 96-B
TIME LIMITS FOR COMPLIANCE**

REQUIRED ACTION BY OWNER	OBTAIN BUILDING PERMIT WITHIN ¹	COMMENCE ALTERATION WITHIN	COMPLETE ALTERATION WITHIN ¹
Structural alterations or building demolition	1 year	180 days ²	3 years
Wall anchor	180 days	270 days ¹	1 year

¹ Measured from date of service of the order.

² Measured from date of building permit issuance.

**TABLE 96-C
EXTENSIONS OF TIME AND SERVICE PRIORITIES**

RATING CLASSIFICATION	OCCUPANT LOAD	EXTENSION OF TIME IF WALL ANCHORS ARE INSTALLED	MINIMUM TIME PERIODS FOR SERVICE OF ORDER
I (Highest priority)	Any	1 year	90 days
II	100 or more	1 year	180 days
III-A	100 or more	1 year	1 year
III-B	More than 50, but less than 100	1 year	2 years
III-C	More than 19, but less than 51	1 year	3 years
IV (Lowest priority)	Less than 20	1 year	4 years

SECTION 84. Chapter 98 is hereby added to read as follows:

CHAPTER 98

UNOCCUPIED BUILDINGS, STRUCTURES, AND SPECIAL HAZARDS

9801 SCOPE

9801.1 General.

The provisions of this Chapter shall apply to all unoccupied buildings or structures that are not properly secured, locked or closed and that are accessible, and to Special Hazards, as defined in Section 9802.

9802 DEFINITIONS

The following words and terms shall, for the purpose of this Chapter, and as used elsewhere in this Code, have the meanings shown herein:

SPECIAL HAZARD. Any swimming pool (greater than 18 inches in depth), and any mine shaft, test hole, well, pit, or similar excavation that exceeds 6 inches in any lateral dimension and 3 feet in depth and that is accessible.

9803 ORDER TO SECURE BUILDINGS, STRUCTURES OR SPECIAL HAZARDS

9803.1 Order to secure buildings or structures.

When the Building Official determines that any unoccupied building or structure is not properly secured, locked, or closed and is accessible to juveniles, transients, and undesirables and is a health, fire, or safety hazard to the adjacent community, the Building Official shall be authorized to serve the record owner and (if not the owner) the person having control of such building or structure with an order to secure or close the same forthwith so as to prevent unauthorized persons from gaining access thereto.

9803.2 Order to secure special hazards.

When the Building Official determines that any Special Hazard is a health or safety hazard to the adjacent community, the Building Official shall be authorized to serve the record owner and (if not the owner) the person having control of such property with an order to remove, backfill, or secure the same forthwith so as to prevent unauthorized persons from gaining access thereto.

9803.3 Contents of order.

In addition to ordering that the building or structure be secured or closed, or the Special Hazard be removed, backfilled, or secured, the Order by the Building Official shall contain the following:

1. Notice that the record owner or (if not the owner) the persons having control of such building, structure, or Special Hazard may request a hearing to review the Building Official's Order, by submitting a written request therefor to the Building Official not later than 10 days after receipt of the Order.

2. Notice that, if the required work is not performed within 10 days after service of notice, and if a timely demand for hearing has not been made, then the County may perform the work at the expense of the said owner.

9804 NOTIFICATION TO OTHER PERSONS

The Building Official may, but is not required to, send copies of any order provided for in Section 9803 to the holder of any mortgage, trust deed, or other liens or encumbrance, the holder or owner of any lease, or the holder of any other estate or interest in or to the building or structure or the land upon which it is located.

9805 POSTING

A copy of any order provided for in Section 9803 shall be posted in a conspicuous place on the building, structure, or property which is the subject of the order. Such order shall remain posted until the building is lawfully occupied or the Special Hazard is sufficiently removed, secured, closed, covered, fenced, backfilled, or provided with some equivalent protection to the satisfaction of the Building Official. No person shall remove such order without the written permission of the Building Official. No person, other than a person having the right of occupancy, shall enter the building.

Further, the Building Official may cause to be posted on such building a sign or signs to read:

VACATED BUILDING, DO NOT ENTER OR DAMAGE BY ORDER OF THE
DEPARTMENT OF PUBLIC WORKS, BUILDING AND SAFETY DIVISION,
COUNTY OF LOS ANGELES

9806 SERVICE

Proper service of any order or notice required by this Chapter shall be by personal service or by first-class mail upon the record owner and (if not the owner) the person having control of such building, structure, or property.

In the event the Building Official is unable to serve any order or notice on any person as specified above, proper service on such person shall be by posting the notice in a conspicuous place on the building, structure, or property.

The failure of any owner or other person to receive an order or notice shall not affect in any manner the validity of any proceedings under this Chapter.

9807 REQUEST FOR HEARING

Within 10 days after service upon the record owner of an order pursuant to Section 9803, the said record owner or any other person deeming himself or herself aggrieved may request a hearing.

9808 NOTICE OF HEARING

Upon receiving a request for hearing, the Building Official shall set the matter for hearing before the Building Rehabilitation Appeals Board or the Code Enforcement Appeals Board and shall serve notice not less than 10 days prior thereto, upon the person requesting such hearing and upon every person upon whom the order provided for in Section 9803 was served.

building or structure or abate the Special Hazard. The record owner and any other person on whom the order described in Section 9803 was served shall be liable for the costs incurred by the County in performing such work.

9811 COUNTY DEPARTMENTS

9811.1 Internal services department.

At the request of the Building Official, the Director of the Internal Services Department shall sufficiently secure, close, cover, fence, or provide with some equivalent protection any building, structure, or Special Hazard subject to the provisions of Section 9810, so as to limit unauthorized access thereto. The Director of Internal Services shall keep an accurate record of the cost of such work.

9811.2 Road maintenance division.

At the request of the Building Official, the Road Maintenance District Engineer shall backfill or provide with some equivalent protection any Special Hazard subject to the provisions of Section 9810, so as to limit unauthorized access thereto. The Road Maintenance District Engineer shall keep an accurate record of the cost of such work.

9812 NOTIFICATION OF COSTS

Whenever the County incurs costs in connection with removing, securing, closing, covering, fencing, backfilling, or providing some equivalent protection for any building, structure, or Special Hazard pursuant to this Chapter, the Building Official shall notify the record owner and (if not the owner) the person having control of such building, structure, or property, in writing, of the amount of said costs. The record owner and (if not the owner) the person having control of the building, structure, or property, shall pay

performed pursuant to Section 9814 within 10 days after the building is secured or within 10 days after receiving notice of such work.

SECTION 85. Section 9901 is hereby amended to read as follows:

9901 SCOPE

9901.1 General.

The provisions of this Chapter shall apply to all substandard buildings, substandard structures, and substandard property, as defined in this Chapter.

9901.2 Existing Buildings.

Occupancies in existing buildings may be continued as ~~provided in Section 3401~~ except in such structures as are found to be substandard as defined in this Chapter and ordered vacated or as are found to be unsafe as defined in Section 102 accordance with this Code.

SECTION 86. Section 9902 is hereby amended to read as follows:

9902 DEFINITIONS

...

9902.4 DEMOLITION

Whenever the word "demolish" or "demolishment" is used in this Chapter, it shall include the removal of the resulting debris from such demolition and the protection by filling of excavations exposed by such demolition and abandonment of sewer or other waste disposal facilities as may be required by this Code or other applicable codes, Ordinances, or laws.

...

9902.7 PUBLIC NUISANCE

A public nuisance is one which affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.

SECTION 87. Section 9903 is hereby amended to read as follows:

9903 DEFINITION OF SUBSTANDARD BUILDING

...

~~9903.2 Any unfinished building or structure which has been in the course of construction an unreasonable time, in no event less than five years, and where the appearance and other conditions of said unfinished building or structure are such that the unfinished structure substantially detracts from the appearance of the immediate neighborhood or reduces the value of property in the immediate neighborhood, or is otherwise a nuisance, shall be deemed and hereby is declared to be a substandard building.~~

SECTION 88. Section 9904 is hereby amended to read as follows:

9904 SUBSTANDARD CONDITIONS

Substandard building conditions shall include, but are not limited to, the following, when found in buildings or structures which are vacant or occupied by unauthorized persons.

9904.1 Inadequate Sanitation.

9904.1.1 Lack of hot and cold running water to plumbing fixtures in a hotel or dwelling unit.

...

~~9904.1.5~~ Violation of any applicable provision of Ordinance No. 7583, an Ordinance adopting a Health Code, adopted August 25, 1959, as determined and reported to the Building Official by the health officer.

...

9904.3 Inadequate or Hazardous Wiring.

~~9904.3.1~~ Lack of required electrical lighting or convenience outlets. In existing residential occupancies, every habitable room is required to contain at least two supplied electric convenience outlets or one such convenience outlet and one supplied electric fixture. Every water closet compartment, bathroom, laundry room, furnace room and public hallway in such occupancies is required to contain at least one supplied electric fixture. All wiring except that which conformed with all applicable laws in effect at the time of installation and which has been maintained in good condition and is being used in a safe manner.

...

9904.5 Inadequate or Faulty Mechanical Equipment.

~~9904.5.1~~ Lack of safe, adequate heating facilities in a dwelling, apartment house or hotel.

...

9904.14 Abandoned Buildings.

Abandoned buildings are All buildings or portions thereof which are abandoned, open, or vandalized or both.

~~9904.15 Unfinished Moved Buildings or Structures.~~

~~Buildings or structures or portions thereof as described in Section 3404.~~

SECTION 89. Section 9905 is hereby amended to read as follows:

9905 SUBSTANDARD PROPERTY

...

~~9905.6 Trailers, campers, boats and other mobile equipment stored for unreasonable periods in yard areas contiguous to streets or highways and causing depreciation of nearby property values.~~

~~9905.7 Inoperable or abandoned motor vehicles, trailers, campers, boats and other mobile equipment stored for unreasonable periods on the premises and causing depreciation of nearby property values.~~

9905.87 Attractive nuisances dangerous to children in the form of:

1. Abandoned and broken equipment, or
2. Neglected machinery; or
3. Swimming pools, mine shafts, test holes, wells, pits, or similar excavations

that are not properly secured, locked, covered, closed, or rendered inaccessible.

9905.98 Broken or discarded furniture and household equipment left in yard areas for unreasonable periods.

9905.409 Clothesline in front yard areas.

9905.4110 Garbage cans stored in front or side yards and visible from a public street except when placed in places of collection at the times permitted ~~and in full~~

~~compliance with Section 1707 of Ordinance No. 5860, entitled The License Ordinance, adopted November 7, 1951.~~

9905.4211 Packing boxes and other debris stored in yards and visible from public streets for unreasonable periods.

~~9905.13 Neglect of premises:~~

~~1. To spite neighbors, or~~

~~2. To influence zone changes, granting of exceptions or special use permits,~~

~~or~~

~~3. To cause detrimental effect upon nearby property or property values.~~

9905.4412 Maintenance of premises in such condition as to be detrimental to the public health, safety, or general welfare or in such manner as to constitute a public nuisance as defined by Civil Code Section 3480.

9905.4513 Property, including, but not limited to, building exteriors which are maintained in such condition as to become so defective, unsightly, or in such condition of deterioration or disrepair that the same causes appreciable diminution of the property values of surrounding property or is materially detrimental to proximal properties and improvements. This includes, but is not limited to, the keeping or disposing of or the scattering over the property or premises of any of the following:

1. Lumber, junk, trash or debris;

2. Abandoned, discarded, or unused objects of equipment such as automobiles, furniture, stoves, refrigerators, freezers, cans, or containers,

3. Stagnant water, or excavations; or

4. Any device, decoration, design, fence, structure, clothesline, or vegetation which is unsightly by reason of its condition or its inappropriate location.

9905.1614 Maintenance of premises so out of harmony or conformity with the maintenance standards of adjacent properties as to cause substantial diminution of the enjoyment, use, or property values of such adjacent properties.

~~9905.17 Property maintained (in violation of the rights of others) so as to establish a prevalence of depreciated values, impaired investments, and social and economic maladjustments to such an extent that the capacity to pay taxes is reduced and tax receipts from such particular area are inadequate for the cost of public services rendered therein.~~

9905.1815 Grading which does not meet the minimum standards set forth in Appendix J of this Code or which is done in violation of this Code or any other County or State law regulating grading.

SECTION 90. Section 9908 is hereby amended to read as follows:

9908 DETERMINATION BY BUILDING OFFICIAL

Whenever the Building Official determines by inspection that any existing building or portion thereof is substandard or any lot or other premises is substandard, or both, as defined in this Chapter, such building or premises, or both, are hereby declared a public nuisance, and the Building Official shall order the abatement of the nuisance by demolition, repair, or rehabilitation of the substandard building or portion thereof or, at the option of the party concerned, by demolition or demolishment thereof. The order also may require that the building be vacated if found to be unsafe in accordance with

Section 102 of Chapter 1. If the premises are substandard, the Building Official also may order that the substandard conditions be removed.

SECTION 91. Section 9910 is hereby amended to read as follows:

9910 NOTICE OF SUBSTANDARD BUILDING

...

The notice may require the owner or person in charge of the building or premises to complete the required repairs, improvements, demolition, or removal of the building or portions thereof within 30 days, or such other time limit as the Building Official may stipulate. Such notice may also require the building, or portion thereof, to be vacated if found to be unsafe in accordance with Section 102 of Chapter 1, and not reoccupied until the required repairs and improvements are completed, inspected, and approved by the Building Official. A person notified to vacate a substandard building by the Building Official shall vacate within the time specified in the order.

...

SECTION 92. Section 9914 is hereby amended to read as follows:

9914 OTHER INTERESTED PARTIES

If the Notice of Substandard Building or Property requires the repair or demolition of any building and if the demolition or other work necessary to remove the substandard conditions set forth in such notice is not completed within the time specified in such notice and the Building Official intends to directly proceed to demolish the substandard building or portions thereof, or cause such other work to be done to the extent necessary to eliminate the hazard or other substandard conditions which have been

found to exist and, by a document recorded in the office of the Registrar-Recorder/County Clerk prior to the recordation of the Declaration of Substandard Building or Property, whether such document describes the property or not, it appears that a person other than a party concerned has any right, title, lien, or interest in the property or any portion thereof, and such person has not previously been notified of the substandard building or property conditions or previously been served a copy of the Notice of Substandard Building or Property and the address of such person is known to the Building Official or can be ascertained by the exercise of due diligence, then the Building Official shall serve a copy of the Notice of Substandard Building or Property on such person as provided in this Chapter. Such person may request a hearing before the Building Rehabilitation Appeals Board. The request must be made in writing to the Board within 10 days of the receipt of the copy of the notice of substandard building or property. If a Notice of Substandard Property does not require the repair or demolition of any building, then no notice need be given to any person other than a party concerned.

SECTION 93. Section 9923 is hereby amended to read as follows:

9923 ORDER: SUBSTANDARD BUILDING

9923.1 When the Building Rehabilitation Appeals Board finds that the building is a substandard building, it is hereby declared a public nuisance and, based on its findings, the said Board shall order the abatement of this nuisance by barricading, demolition, repair, or rehabilitation of the substandard building or portion thereof or at the option of the party concerned, by the demolition or demolishment

thereof. The order also may require that the substandard building be vacated if found to be unsafe in accordance with Section 102 of Chapter 1.

...

SECTION 94. Section 9931 is hereby amended to read as follows:

9931 INTERFERENCE PROHIBITED

A person shall not obstruct, impede, or interfere with the Building Official or any representative of the Building Official, or with any person who owns or holds any interest or estate in a substandard building which has been ordered by the Building Official or by the Building Rehabilitation Appeals Board to be barricaded, repaired, vacated and repaired, or vacated and demolished or removed, or in any substandard property whenever the Building Official or such owner is engaged in barricading, repairing, vacating and repairing, or demolishing any such substandard building or removing any substandard conditions, pursuant to this Chapter, Section 102 of Chapter 1, or in the performance of any necessary act preliminary to or incidental to such work, or authorized or directed pursuant hereto.

SECTION 95. Section J101 is hereby amended to read as follows:

J101 GENERAL

J101.1 Scope.

The provisions of this eChapter apply to grading, excavation, and earthwork construction, including fills and embankments. ~~Where conflicts occur between the technical requirements of this chapter and the geotechnical report, the geotechnical~~

report shall govern and the control of storm water runoff from graded sites, including erosion sediments and construction-related pollutants.

The purpose of this chapter is to safeguard life, limb, property, and the public welfare by regulating grading on private property.

J101.2 Flood hazard areas.

The provisions of this eChapter shall not apply to grading, excavation, and earthwork construction, including fills and embankments, in floodways designated in Chapter 11.60 of Title 11 of the Los Angeles County Code or in floodways within flood hazard areas established in Section 1612.3 or in flood hazard areas where design flood elevations are specified but floodways have not been designated, unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed work will not result in any increase in the level of the base flood.

J101.3 General hazards.

Whenever the Building Official determines that any existing excavation, embankment, or fill on private property has become a hazard to life and limb, or endangers property, or adversely affects the safety, use, or stability of a public way or drainage channel, the Building Official may give written notice thereof to the owner of the property upon which the excavation, embankment, or fill is located, or other person or agent in control of said property. Upon receipt of said notice, the owner or other person or agent in control of the property shall repair or eliminate such excavation,

embankment, or fill so as to eliminate the hazard, in conformance with the requirements of this Code, within the period specified in said notice.

J101.4 Safety precautions.

If at any stage of the work the Building Official determines by inspection that further grading as authorized is likely to endanger any public or private property or result in the deposition of debris on any public way or interfere with any existing drainage course, the Building Official may order the work stopped by notice in writing served on any persons engaged in doing or causing such work to be done, and any such person shall immediately stop such work. The Building Official may authorize the work to proceed if the Building Official finds adequate safety precautions can be taken or corrective measures incorporated in the work to avoid likelihood of such danger, deposition, or interference.

If the grading work as done has created or resulted in a hazardous condition, the Building Official shall give written notice requiring correction thereof as specified in section J101 of this Code.

J101.5 Protection of utilities. Both the permittee and the owner of the property on which the grading is performed shall be responsible for the prevention of damage to any public utilities or services.

J101.6 Protection of adjacent property. Both the permittee and owner of the property on which the grading is performed shall be responsible for the prevention of damage to adjacent property. No person shall excavate on land sufficiently close to the property line to endanger any adjoining public street, sidewalk,

alley, or other public or private property without taking adequate measures to support and protect such property from settling, cracking, or other damage that might result from the proposed work. Any person performing any grading that involves imported or exported materials shall take special precautions, as approved by the Building Official, to prevent such materials from being deposited on adjacent properties, any public way and/or any drainage course.

J101.7 Storm water control measures. The permittee and the owner of the property on which the grading is performed shall put into effect and maintain all precautionary measures necessary to protect adjacent water courses and public or private property from damage by erosion, flooding, and deposition of mud, debris, and construction-related pollutants originating from the site during grading and related construction activities.

J101.8 Maintenance of protective devices and rodent control. All drainage structures and other protective devices and all burrowing rodent control measures, as shown on the grading plans approved by the Building Official, shall be maintained in a good condition and, when necessary, promptly repaired by the permittee or the owner of the property on which grading has been performed or by any other person or agent in control of such property.

J101.9 Correlation with other sections. The provisions of this Chapter are independent of the provisions of Chapter 99 of this Code relating to building and property rehabilitation. This Section may be applied even though the same facts

have been used to determine that there is substandard property subject to the provisions of Chapter 99.

J101.10 **Conditions of approval.** In granting any permit under this code, the Building Official may include such conditions as may be reasonably necessary to prevent creation of a nuisance or hazard to public or private property. Such conditions may include, but shall not be limited to:

1. Improvement of any existing grading to comply with the standards of this Code.

2. Requirements for fencing of excavations or fills which would otherwise be hazardous.

SECTION 96. Section J102.1 is hereby amended to read as follows:

J102.1 **Definitions.** For the purposes of this aAppendix eChapter, the terms, phrases, and words listed in this sSection and their derivatives shall have the indicated meanings.

APPROVAL. When the proposed work or completed work conforms to this Chapter, as determined by and to the satisfaction of the Building Official.

AS-BUILT. See Section J105.12.

BEDROCK. The relatively solid, undisturbed rock in place either at the ground surface or beneath superficial deposits of alluvium, colluvium and/or soil.

BENCH. A relatively level step excavated into earth material on which fill is to be placed.

BEST MANAGEMENT PRACTICE (BMP). Practices, prohibitions of practices, or other activities to reduce or eliminate the discharge of pollutants to surface waters. BMPs include structural and nonstructural controls, management practices, operation and maintenance procedures, and system, design, and engineering methods."

BORROW. Earth material acquired from an off-site location for use in grading on a site.

CIVIL ENGINEER. A professional engineer registered in the State of California to practice in the field of civil works.

CIVIL ENGINEERING. The application of the knowledge of the forces of nature, principles of mechanics, and the properties of materials to the evaluation, design, and construction of civil works.

COMPACTION. The densification of a fill by mechanical means.

CUT. See Excavation.

DESILTING BASINS. Physical structures, constructed for the removal of sediments from surface water runoff.

DESIGN ENGINEER. The Civil Engineer responsible for the preparation of the grading plans for the site grading work.

DOWN DRAIN. A device for collecting water from a swale or ditch located on or above a slope, and safely delivering it to an approved drainage facility.

EARTH MATERIAL. Any rock, natural soil, or fill or any combination thereof.

ENGINEERING GEOLOGIST. A geologist experienced and knowledgeable in engineering geology shall mean a person holding a valid certificate of registration as a

geologist in the specialty of engineering geology issued by the State of California under the applicable provisions of the Geologist and Geophysicist Act of the Business and Professions Code.

ENGINEERING GEOLOGY. The application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

EROSION. The wearing away of the ground surface as a result of the movement of wind, water, or ice.

EXCAVATION. The removal of earth material by artificial means, also referred to as a cut.

FIELD ENGINEER. The Civil Engineer responsible for performing the functions as set forth in Section J105.3.

FILL. Deposition of earth materials by artificial means.

GEOTECHNICAL ENGINEER. See Soils Engineer.

GEOTECHNICAL HAZARD. An adverse condition due to landslide, settlement, and/or slippage. These hazards include, but are not limited to, loose debris, slopewash, and mud flows from natural or graded slopes.

GRADE. The vertical location of the ground surface.

GRADE, EXISTING. The grade prior to grading.

GRADE, FINAL. See Section J105.7.

GRADE, FINISHED. The grade of the site at the conclusion of all grading efforts.

GRADE, INITIAL. See Section J105.7.

GRADE, ROUGH. See Section J105.7.

GRADING. An excavation or fill or combination thereof.

KEY. A compacted fill placed in a trench excavated in earth material beneath generally constructed at the toe of a slope.

LANDSCAPE ARCHITECT. A person who holds a certificate to practice landscape architecture in the State of California under the applicable landscape architecture provisions of Division 3, Chapter 3.5 of the Business and Professions Code.

LINE. The horizontal location of the ground surface.

PERMITTEE. See Section J105.6.

PRIVATE SEWAGE DISPOSAL SYSTEM. A septic tank with effluent discharging into a subsurface disposal field, into one or more seepage pits or into a combination of subsurface disposal field and seepage pit or of such other facilities as may be permitted in accordance with the procedures and requirements set forth in Title 28 of the Los Angeles County Code.

PROJECT CONSULTANTS. The professional consultants required by this Code which may consist of the design engineer, Field Engineer, Geotechnical Engineer, Engineering Geologist, and landscape architect as applicable to this Chapter.

PROFESSIONAL INSPECTION. The inspection required by this Code to be performed by the Project Consultants. Such inspections shall be sufficient to form an opinion relating to the conduct of the work.

SITE. A lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

SLOPE. An inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

SOIL. Naturally occurring superficial deposits overlying parent bedrock.

SOILS ENGINEER (GEOTECHNICAL ENGINEER). A civil engineer experienced and knowledgeable in the practice of soils engineering.

SOILS ENGINEERING (GEOTECHNICAL ENGINEERING). The application of the principals of soils mechanics in the investigation, evaluation, and design of civil works involving the use of earth materials and the inspection or testing of construction thereof.

STORM DRAIN SYSTEM. A conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, and man-made channels, designed or used for collecting and conveying storm water.

STORM WATER POLLUTION PREVENTION PLAN. A site drawing with details, notes, and related documents that identify the measures proposed by the permittee to: (1) control erosion and prevent sediment and construction-related pollutants from being carried offsite by storm water, and (2) prevent non-storm water discharges from entering the storm drain system.

SURFACE DRAINAGE. Flows over the ground surface.

SOIL TESTING AGENCY. An agency regularly engaged in the testing of soils and rock under the direction of a Civil Engineer experienced in soil testing.

TERRACE. A relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

SECTION 97. Section J103 is hereby amended to read as follows:

J103 PERMITS REQUIRED

J103.1 Permits required. Except as exempted in Section J103.2, no grading shall be performed without first having obtained a permit therefor from the ~~Building~~ Building Official. A grading permit does not include the construction of retaining walls or other structures. A separate permit shall be obtained for each site and may cover both excavations and fills. Any Engineered Grading as described in Section J104 shall be performed by a contractor licensed by the State of California to perform the work described hereon. Regular Grading less than 5,000 cubic yards may require a licensed contractor if the Building Official determines that special conditions or hazards exist.

J103.2 Exemptions. A grading permit shall not be required for the following:

1. When approved by the Building Official, Ggrading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.

...

7. Exploratory excavations performed under the direction of a registered design professional Geotechnical Engineer or Engineering Geologist. This shall not exempt grading of access roads or pads created for exploratory excavations.

Exploratory excavations must not create a hazardous condition to adjacent properties or

the public in accordance with Section J101.3. Exploratory excavations must be restored to existing conditions, unless otherwise approved by the Building Official.

8. An excavation that does not exceed 50 cubic yards (38.3 m³) and complies with one of the following conditions:

(a) Is less than 2 feet (610 mm) in depth.

(b) Does not create a cut slope greater than 5 feet (1524 mm)

measured vertically upward from the cut surface to the surface of the natural grade and is not steeper than 2 units horizontal to 1 unit vertical (50 percent slope).

9. A fill not intended to support a structure that does not obstruct a drainage course and complies with one of the following conditions:

(a) Is less than 1 foot (0.3 m) in depth and is placed on natural terrain with a slope flatter than 5 units horizontal to 1 unit vertical (20 percent slope).

(b) Is less than 3 feet (915 mm) in depth at its deepest point measured vertically upward from natural grade to the surface of the fill, does not exceed 50 cubic yards, and creates a fill slope no steeper than 2 units horizontal to 1 unit vertical (50 percent slope).

(c) Is less than 5 feet (1524 mm) in depth at its deepest point measured vertically upward from natural grade to the surface of the fill, does not exceed 20 cubic yards, and creates a fill slope no steeper than 2 units horizontal to 1 unit vertical (50 percent slope).

EXCAVATIONS		FILLS	
AN EXCAVATION WHICH IS LESS THAN 2 FT IN DEPTH AND DOES NOT EXCEED 50 CY		FILL PLACED ON NATURAL GRADE NOT STEEPER THAN 5:1 AND LESS THAN 1 FT DEEP	
AN EXCAVATION WHICH CREATES A CUT SLOPE NOT GREATER THAN 5 FT IN HEIGHT NOT STEEPER THAN 2:1, AND DOES NOT EXCEED 50 CY		FILL LESS THAN 5 FT DEEP AT ITS DEEPEST POINT THAT DOES NOT EXCEED 50 CY	
		FILL LESS THAN 5 FT DEEP AT ITS DEEPEST POINT THAT DOES NOT EXCEED 20 CY	

Figure J103.2

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

J103.3 Unpermitted grading. A person shall not own, use, occupy, or maintain any site containing unpermitted grading. For the purposes of this Code, unpermitted grading shall be defined as either of the following: (1) Grading that was performed, at any point in time, without the required permit(s) having first been obtained from the Building Official, pursuant to Section J103.1; or (2) Grading for which a permit was obtained pursuant to this Section, but which was not completed, pursuant to Section J105, prior to the expiration of the permit, pursuant to Section 106.5.4.

J103.4 Availability of permit at site. No person shall perform any grading that requires a permit under this Chapter unless a copy of the grading permit

and approved grading plans are in the possession of a responsible person and available at the site for the Building Official's reference.

J103.5 **Grading fees.** Fees shall be assessed in accordance with the provisions of this Section. The amount of the fees shall be as specified in Section 107 of this Code.

1. Plan Review Fees. When a plan or other data are required to be submitted, a plan review fee shall be paid at the time of submitting plans and specifications for review. Separate plan review fees shall apply to retaining walls or major drainage structures as required elsewhere in this Code. For excavation and fill on the same site, the fee shall be based on the volume of excavation or fill, whichever is greater.

2. Permit Fees. A fee for each grading permit shall be paid to the Building Official at the time of issuance of the permit. Separate permits and fees shall apply to retaining walls or major drainage structures as required elsewhere in this Code.

3. Site Inspection Fee. When the Building Official finds that a visual inspection of the site is necessary to establish drainage requirements for the protection of property, existing buildings, or the proposed construction, a site inspection shall be made during plan check of grading plans. A fee for such inspection shall be paid to the Building Official at the time of submitting plans and specifications for review.

J103.6 **Compliance with zoning code.** The Building Official may refuse to issue a grading permit for work on a site if either the proposed grading or the proposed land use for the site shown on the grading plan application does not comply

with the provisions of Title 22, entitled Planning and Zoning, of the Los Angeles County Code.

J103.7 Grading Security.

J103.7.1 Scope and Purpose. The Building Official may require a permittee or the owner(s) of the property on which the grading is proposed to occur to provide security, as a condition of the issuance of a grading permit for any grading involving more than 1,000 cubic yards (764.6 m³). Where unusual conditions or special hazards exist, the Building Official may require security for grading involving less than 1,000 cubic yards (764.6 m³). The purpose of the security shall be to guarantee the permittee's obligation to mitigate any hazardous conditions, including flood and geotechnical hazards, that may be created if the grading is not completed in accordance with the approved plans and specifications, and to complete any work that the Building Official determines is necessary to bring the property into compliance with this Chapter.

Security required by this Section may include incidental off-site grading on property contiguous with the site to be developed, provided written consent of the owner of such contiguous property is filed with the Building Official.

The Building Official may waive the requirements for a security for the following:

1. Grading being done by or for a governmental agency.
2. Grading necessary to remove a geotechnical hazard, where such work is covered by an agreement and security posted pursuant to the provisions of Title 21, entitled Subdivision Ordinance, of the Los Angeles County Code.

3. Grading on a site, not exceeding a slope of three horizontal to one vertical, provided such grading as determined by the Building Official will not affect drainage from or to adjacent properties.

4. Filling of holes or depressions, provided such grading will not affect the drainage from or to adjacent properties.

J103.7.2 Form of security. The security referred to in

Section J103.7.1 shall be in one of the following forms:

1. A bond furnished by a corporate surety authorized to do business in this state.

2. Cash.

3. Savings and loan certificates or shares deposited and assigned to the County as provided in Chapter 4.36 of Title 4 of the Los Angeles County Code.

4. An instrument of credit from a financial institution subject to regulation by the state or federal government and pledging that funds in the amount required by the Building Official are on deposit and guaranteed for payment, or a letter of credit issued by such a financial institution.

J103.7.3 Amount of security. The amount of security shall be based on the number of cubic yards of material in either excavation or fill, whichever is greater, and the cost of all drainage or other protective devices or work necessary to eliminate potential geotechnical hazards. That portion of the security valuation based on the volume of material in either excavation or fill shall be computed as follows:

100,000 cubic yards or less - 50 percent of the estimated cost of grading work.

Over 100,000 cubic yards - 50 percent of the cost of the first 100,000 cubic yards plus 25 percent of the estimated cost of that portion in excess of 100,000 cubic yards.

When the rough grading has been completed in conformance with the requirements of this Code, the Building Official may, at his or her discretion, consent to a proportionate reduction of the security to an amount estimated to be adequate to ensure completion of the grading work, site development or planting remaining to be performed. The costs referred to in this section shall be as estimated by the Building Official.

J103.7.4 **Conditions.** All security shall include the conditions that the principal shall:

1. Comply with all of the provisions of this Code, applicable laws, and ordinances;

2. Comply with all of the terms and conditions of the grading permit;

3. Complete all of the work authorized by the permit.

J103.7.5 **Term of Security.** The term of each security shall begin upon the filing with the Building Official and the security shall remain in effect until the work authorized by the grading permit is completed and approved by the Building Official.

J103.7.6 **Default Procedures.** In the event that a permittee fails to comply with any provision of this Code or any grading for which a permit has been issued is not completed in accordance with the approved plans and specifications for said work or with all terms and conditions of the grading permit, the Building Official may

declare that a default has occurred. The Building Official shall give notice thereof to the principal and surety or financial institution executing the security, or to the owner in the case of a cash bond or assignment.

The Building Official may thereafter determine the work that is necessary to mitigate any hazardous or unsafe conditions on the site and cause such work to be performed.

Where the security consists of a bond or instrument of credit, the surety, or financial institution executing the security shall be responsible for the payment of all costs and expenses incurred by the Building Official in causing such work to be performed, up to the full amount of the security. In the case of cash security or assignment, the Building Official may pay all costs and expenses incurred in causing such work to be performed from the funds deposited, and return any unused portion of such deposit or funds to the person making said deposit or assignment.

J103.7.7 **Right of entry.** The Building Official or the authorized representative of any surety company or financial institution furnishing a security shall have access to the premises described in the permit for the purpose of inspecting the work.

In the event of default, as described in Section J103.7.6, the surety or financial institution furnishing the security or the Building Official, or any person employed or engaged on the behalf of any of these parties, shall have the right to go upon the premises to perform the mitigation work, as described in Section J103.7.6.

Neither the permittee, owner, or any other person shall interfere with or obstruct the ingress into or egress from any such premises, of any authorized representative of the surety or financial institution executing the security or the Building Official engaged to perform the mitigation work, as described in Section J103.7.6.

SECTION 98. Section J104 is hereby amended to read as follows:

J104 PERMIT APPLICATION AND SUBMITTALS

J104.1 Submittal requirements. In addition to the provisions of Section ~~405.3~~106, the applicant shall state the following:

1. _____ †The estimated quantities of excavation and fill.
2. _____ The proposed land use for the site on which the grading is to be performed.

J104.2 Site plan requirements. In addition to the provisions of Section ~~407~~106, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this eCode. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this eCode.

J104.2.1 Grading designation. Grading in excess of 5,000 cubic yards (3,825 m³) or that is proposed to support any structure shall be designated as "engineered grading." All engineered grading shall be performed in accordance with an approved grading plan and specifications prepared by a Civil Engineer, unless otherwise required by the Building Official.

Grading involving less than 5,000 cubic yards (3,825 m³) and that will not support any structure shall be designated "regular grading" unless the permittee chooses to have the grading be designated as engineered grading, or the Building Official determines that, due to the existence of special conditions or unusual hazards, the grading should be designated as engineered grading.

J104.2.2 Regular grading requirements. In addition to the provisions of Section 106, and Section J104.2, an application for a regular grading permit shall be accompanied by two sets of plans in sufficient clarity to indicate the nature and extent of the work. The plans shall give the location of the work, the name of the owner, and the name of the person who prepared the plan. The plan shall include the following information:

1. General vicinity of the proposed site.
2. Limits and depths of cut and fill.
3. Location of any buildings or structures where work is to be performed, and the location of any buildings or structures within 15 feet (4572 mm) of the proposed grading.
4. Contours, flow areas, elevations, or slopes which define existing and proposed drainage patterns.
5. Storm water provisions in accordance with the requirements of Section 106.4.3 of this Code. See Section J111 for specific requirements.
6. Location of existing and proposed utilities, drainage facilities, and recorded public and private easements and restricted use areas.

7. Location of all recorded floodways as established by Chapter 11.60 of Title 11 of the Los Angeles County Code.

8. Location of all Special Flood Hazard Areas as designated and defined in Title 44, Code of Federal Regulations.

J104.2.3 Engineered grading requirements. In addition to the provisions of Section 106 and Section J104.2, an application for a permit for engineered grading shall be accompanied by four sets of plans and specifications, and supporting data consisting of a soils engineering report and engineering geology report.

Specifications shall contain information covering construction and material requirements. Plans shall be drawn to scale upon substantial paper or cloth and shall be of sufficient clarity to indicate the nature and extent of the work proposed and shall show in detail that the proposed work will conform to the provisions of this Code and all relevant laws, ordinances, rules, and regulations. The first sheet of each set of plans shall depict the location of the proposed work, the name and address of the owner, and the person by whom they were prepared.

The plans shall include or be accompanied by the following information:

1. General vicinity of the proposed site.
2. Property limits and accurate contours of existing ground and details of terrain and area drainage.
3. Limiting dimensions, elevations, or finish contours to be achieved by the grading, proposed drainage channels, and related construction.

4. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams, and other protective devices to be constructed with, or as a part of, the proposed work. A map showing the drainage area and the estimated runoff of the area served by any drains shall also be provided.

5. Location of any existing or proposed buildings or structures located on the property on which the work is to be performed and the location of any buildings or structures on adjacent properties that are within 15 feet (4572 mm) of the property or that may be affected by the proposed grading operations.

6. Recommendations in the geotechnical report and the engineering geology report shall be incorporated into the grading plans or specifications. When approved by the Building Official, specific recommendations contained in the soils engineering report and the engineering geology report, that are applicable to grading, may be included by reference.

7. The dates of the geotechnical and engineering geology reports together with the names, addresses, and phone numbers of the firms or individuals who prepared the reports.

8. A statement of the quantities of material to be excavated and/or filled. Earth work quantities shall include quantities for geotechnical and geological remediation. In addition, a statement of the quantities of material to be imported or exported from the site.

9. A statement of the estimated starting and completion dates for proposed work.

10. A statement signed by the owner, acknowledging that a Field Engineer, Geotechnical Engineer, and Engineering Geologist, when appropriate, will be employed to perform the services required by this Code, when the Building Official requires that such professional persons be so employed. These acknowledgments shall be on a form furnished by the Building Official.

11. Storm water provisions are required to be shown on the grading plan in accordance with the requirement of Section 106.4.3 of the Code. See Section J1111 for specific requirements.

12. A drainage plan for those portions of property proposed to be utilized as a building site (building pad), including elevations of floors with respect to finish site grade and locations of proposed stoops, slabs, and fences that may affect drainage.

13. Location and type of any proposed private sewage disposal system, including the location of the expansion area.

14. Location of existing and proposed utilities, drainage facilities, and recorded public and private easements and restricted use areas.

15. Location of all recorded floodways as established by Chapter 11.60 of Title 11 of the Los Angeles County Code.

16. Location of all Special Flood Hazard Areas as designated and defined in Title 44, Code of Federal Regulations.

J104.3 Geotechnical and engineering geology reports. A-

~~geotechnical report prepared by registered design professionals shall be provided. The report shall contain at least the following:~~

- ~~1. The nature and distribution of existing soils;~~
- ~~2. Conclusions and recommendations for grading procedures;~~
- ~~3. Soil design criteria for any structures or embankments required to accomplish the proposed grading; and~~
- ~~4. Where necessary, slope stability studies, and recommendations and conclusions regarding site geology.~~

The geotechnical report required by Section J104.2.3 shall include data regarding the nature, distribution, and strength of existing soils, conclusions, and recommendations for grading procedures and design criteria for corrective measures, including buttress fills, when necessary, and an opinion on the adequacy for the intended use of sites to be developed by the proposed grading as affected by soils engineering factors, including the stability of slopes. All reports shall conform with the requirements of Section 111 and shall be subject to review by the Building Official. Supplemental reports and data may be required as the Building Official may deem necessary. Recommendations included in the reports and approved by the Building Official shall be incorporated in the grading plan or specifications.

The engineering geology report required by Section J104.2.3 shall include an adequate description of the geology of the site, conclusions, and recommendations regarding the effect of geologic conditions on the proposed development, and an opinion on the adequacy for the intended use of sites to be developed by the proposed grading, as affected by geologic factors. The engineering geology report shall include a geologic map and cross sections utilizing the most recent grading plan as a base. All

reports shall conform with the requirements of Section 111 and shall be subject to review by the Building Official. Supplemental reports and data may be required as the Building Official may deem necessary. Recommendations included in the reports and approved by the Building Official shall be incorporated in the grading plan or specifications.

EXCEPTION: A geotechnical or engineering geology report is not required where the bBuilding eofficial determines that the nature of the work applied for is such that a report is not necessary.

J104.4 Liquefaction study. For sites with mapped maximum considered earthquake spectral response accelerations at short periods (S_e) greater than 0.5g as determined by Section 1613, a study of the liquefaction potential of the site shall be provided, and the recommendations incorporated in the plans. A geotechnical investigation will be required when the proposed work is a "Project" as defined in California Public Resources Code section 2693, and is located in an area designated as a "Seismic Hazard Zone" as defined in Title 14 of the California Code of Regulations section 3722 on Seismic Hazard Zone Maps issued by the State Geologist under Public Resources Code section 2696.

EXCEPTION: 1. A liquefaction study is not required where the bBuilding eofficial determines from established local data that the liquefaction potential is low.

~~2. [OSHPD 1, 2, & R] Exception 1 not permitted by OSHPD.~~

SECTION 99. Section J105 is hereby amended to read as follows:

J105 INSPECTION

J105.1 General. Grading inspections shall be governed by Section 109, Chapter 1, division II of this code 108 and as indicated herein. Grading operations for which a permit is required shall be subject to inspection by the Building Official. In addition, professional inspection of grading operations shall be performed by the Field Engineer, Geotechnical Engineer, and the Engineering Geologist retained to provide such services in accordance with this Section for engineered grading and as required by the Building Official for regular grading.

J105.2 Special and supplemental inspections. The special inspection requirements of Section 1704.7 shall apply to work performed under a grading permit where required by the Building Official. In addition to the called inspections specified in Section J105.7, the Building Official may make such other inspections as may be deemed necessary to determine that the work is being performed in conformance with the requirements of this Code. The Building Official may require investigations and reports by an approved soil testing agency, Geotechnical Engineer and/or Engineering Geologist, and Field Engineer. Inspection reports shall be provided when requested in writing by the Building Official.

The Building Official may require continuous inspection of drainage devices by the Field Engineer in accordance with this Section when the Building Official determines that the drainage devices are necessary for the protection of the structures in accordance with Section 110.

J105.3 **Field engineer.** The Field Engineer shall provide professional inspection of those parts of the grading project within such engineer's area of technical specialty, oversee and coordinate all field surveys, set grade stakes, and provide site inspections during grading operations to ensure the site is graded in accordance with the approved grading plan and the appropriate requirements of this Code. During site grading, and at the completion of both rough grading and final grading, the Field Engineer shall submit statements and reports as required by Sections J105.11 and J105.12. If revised grading plans are required during the course of the work, they shall be prepared by a Civil Engineer and approved by the Building Official.

J105.4 **Geotechnical engineer.** The Geotechnical Engineer shall provide professional inspection of those parts of the grading project within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The Geotechnical Engineer shall provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this Chapter. If conditions differing from the approved Geotechnical Engineering and engineering geology reports are encountered during grading, the Geotechnical Engineer shall provide revised recommendations to the permittee, the Building Official and the Field Engineer.

J105.5 **Engineering geologist.** The Engineering Geologist shall provide professional inspection of those parts of the grading project within such

engineer's area of technical specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. If conditions differing from the approved engineering geology report are encountered, the Engineering Geologist shall provide revised recommendations to the Geotechnical Engineer.

J105.6 Permittee. The permittee shall be responsible for ensuring that the grading is performed in accordance with the approved plans and specifications and in conformance with the provisions of this Code. The permittee shall engage project consultants, if required under the provisions of this Code, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the project consultants, the contractor, and the Building Official. In the event of changed conditions, the permittee shall be responsible for informing the Building Official of such change and shall provide revised plans for approval.

J105.7 Required inspections. The permittee shall call for an inspection by the Building Official at the following various stages of work and shall obtain the approval of the Building Official prior to proceeding to the next stage of work:

Pre-grade. Before any construction or grading activities occur at the site. Permittee shall schedule a pregrade inspection with the Building Official. The permittee shall ensure that all project consultants are present at the pre-grade inspection.

Initial. When the site has been cleared of vegetation and unapproved fill and has been scarified, benched, or otherwise prepared for fill. No fill shall have been placed prior to this inspection.

Rough. When approximate final elevations have been established, drainage terraces, swales, and other drainage devices necessary for the protection of the building sites from flooding have been installed, berms have been installed at the top of the slopes, and the statements required by Section J105.12 have been received.

Final. When grading has been completed, all drainage devices necessary to drain the building pad have been installed, slope planting has been established, irrigation systems have been installed, and the as-built plans and required statements and reports have been submitted.

J105.8 **Notification of noncompliance.** If, in the course of fulfilling their respective duties under this Chapter, the Field Engineer, the Geotechnical Engineer, or the Engineering Geologist determines that the work is not being done in conformance with this Chapter or the approved grading plans, the Field Engineer, Geotechnical Engineer, or the Engineering Geologist shall immediately report, in writing, the discrepancies and the recommended corrective measures to the permittee and to the Building Official.

J105.9 **Transfer of responsibility.** If the Field Engineer, the Geotechnical Engineer, or the Engineering Geologist of record is changed at any time after the grading plans required pursuant to Section J104.2.2 or J104.2.3 have been approved by the Building Official, the permittee shall immediately provide written notice of such change to the Building Official. The Building Official may stop the grading from commencing or continuing until the permittee has identified a replacement and the

replacement has agreed in writing to assume responsibility for those parts of the grading project that are within the replacement's area of technical competence.

J105.10 Non-inspected grading. No person shall own, use, occupy, or maintain any non-inspected grading. For the purposes of this Code, non-inspected grading shall be defined as any grading for which a grading permit was first obtained, pursuant to Section J103, supra, but which has progressed beyond any point requiring inspection and approval by the Building Official without such inspection and approval having been obtained.

J105.11 Routine field inspections and reports. Unless otherwise directed by the Building Official, the Field Engineer for all engineered grading projects shall prepare routine inspection reports and shall file these reports with the Building Official as follows:

1. Bi-weekly during all times when grading of 400 cubic yards or more per week is occurring on the site;
2. Monthly, at all other times; and
3. At any time when requested in writing by the Building Official.

Such reports shall certify to the Building Official that the Field Engineer has inspected the grading site and related activities and has found them in compliance with the approved grading plans and specifications, the building code, all grading permit conditions, and all other applicable ordinances and requirements. The reports shall conform to a standard "Report of Grading Activities" form which shall be provided by the Building Official.

J105.12 **Completion of work.** Upon completion of the rough grading work and at the final completion of the work, the following reports and drawings and supplements thereto are required for engineered grading or when professional inspection is otherwise required by the Building Official:

1. An "As-built" grading plan prepared by the Field Engineer retained to provide such services in accordance with Section J105.3 showing all plan revisions as approved by the Building Official. This shall include original ground surface elevations, as-built ground surface elevations, lot drainage patterns, and the locations and elevations of surface drainage facilities and the outlets of subsurface drains. As-built locations, elevations, and details of subsurface drains shall be shown as reported by the Geotechnical Engineer.

The As-built grading plan shall be accompanied by a certification by the Field Engineer that to the best of his or her knowledge, the work within the Field Engineer's area of responsibility was done in accordance with the final approved grading plan.

2. A report prepared by the Geotechnical Engineer retained to provide such services in accordance with Section J105.4, including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved soils engineering investigation report. The report shall include a certification by the Geotechnical Engineer that, to the best of his or her knowledge, the work within the Geotechnical Engineer's area of responsibility is in accordance with the approved soils engineering report and applicable provisions of this

Chapter. The report shall contain a finding regarding the safety of the completed grading and any proposed structures against hazard from landslide, settlement, or slippage.

3. A report prepared by the Engineering Geologist retained to provide such services in accordance with Section J105.5, including a final description of the geology of the site and any new information disclosed during the grading and the effect of such new information, if any, on the recommendations incorporated in the approved grading plan. The report shall contain a certification by the Engineering Geologist that, to the best of his or her knowledge, the work within the Engineering Geologist's area of responsibility is in accordance with the approved engineering geology report and applicable provisions of this Chapter. The report shall contain a finding regarding the safety of the completed grading and any proposed structures against hazard from landslide, settlement, or slippage. The report shall contain a final as-built geologic map and cross-sections depicting all the information collected prior to and during grading.

4. The grading contractor shall certify, on a form prescribed by the Building Official, that the grading conforms to said as-built plan and the approved specifications.

J105.13 Notification of completion. The permittee shall notify the Building Official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved grading plan, and all required reports have been submitted and approved.

J105.14 Change of ownership. Unless otherwise required by the Building Official, when a grading permit has been issued on a site and the owner sells the property prior to final grading approval, the new property owner shall be required to obtain a new grading permit.

SECTION 100. Section J106 is hereby amended to read as follows:

J106 **EXCAVATIONS**

J106.1 **Maximum cut slope.** The slope of cut surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than two units horizontal to one unit vertical (50-percent slope) unless the owner or authorized agent furnishes a geotechnical or an engineering geology report, or both justifying a steeper slope. The reports must contain a statement by the Geotechnical Engineer or Engineering Geologist that the site was investigated and an opinion that a steeper slope will be stable and will not create a hazard to public or private property, in conformance with the requirements of Section 111. The Building Official may require the slope of the cut surfaces to be flatter in slope than 2 units horizontal to 1 unit vertical if the Building Official finds it necessary for the stability and safety of the slope.

EXCEPTIONS:

1. A cut surface may be at a slope of 1.5 units horizontal to one unit vertical (67 percent) provided that all the following are met:
 - 1.1 It is not intended to support structures or surcharges.
 - 1.2 It is adequately protected against erosion.
 - 1.3 It is no more than 8 feet (2438 mm) in height.

1.4 It is approved by the ~~b~~Building code ~~o~~Official.

1.5 Ground water is not encountered.

~~2. A cut surface in bedrock shall be permitted to be at a slope of 1 horizontal to 1 vertical (100 percent).~~

J106.2 ~~Earth Retaining Shoring, [OSHPD 1 & 4]~~Drainage.

Drainage, including drainage terraces and overflow protection, shall be provided as required by Section J109.

~~J106.2.1 General. The requirements of this section shall apply to temporary and permanent earth retaining shoring using soldier piles and lagging with or without tie-back anchors in soil or rock, only when existing or new OSHPD 1 or 4 facilities are affected. Shoring used as construction means and methods only, which does not affect existing or new OSHPD 1 or 4 facilities, are not regulated by OSHPD and shall satisfy the requirements of the authorities having jurisdiction. Design, construction, testing and inspection shall satisfy the requirements of this code except as modified in Sections J106.2.2 through J106.2.8.~~

~~J106.2.2 Duration. Shoring shall be considered temporary when elements of the shoring will be exposed to site conditions for a period of less than one (1) year, and shall be considered permanent otherwise. Permanent shoring shall account for the increase in lateral soil pressure due to earthquake. At the end of the construction period, the existing and new structures shall not rely on the temporary shoring for support in anyway. Wood components shall not be used for permanent shoring lasting more than two (2) years. Wood components of the temporary shoring~~

that may affect the performance of permanent structure shall be removed after the shoring is no longer required.

All components of the shoring shall have corrosion protection or preservative treatment for their expected duration.

Wood components of the temporary shoring that will not be removed shall be treated in accordance with AWPA

U1 (Commodity Specification A, Use Category 4B and Section 5.2), and shall be identified in accordance with Section 2303.1.8.1.

~~J106.2.3~~ ~~Surcharge.~~ Surcharge pressure due to footings, traffic or other sources shall be considered in design. If the footing surcharge is located within the semicircular distribution or bulb of earth pressure (when shoring is located close to a footings), lagging shall be designed for lateral earth pressure due to footing surcharge. Soil arching effects may be considered in the design of lagging. Underpinning of the footing may be used in lieu of designing the shoring and lagging for surcharge pressure. Alternatively, continuously contacting drilled pier shafts near the footings shall be permitted. The lateral surcharge design pressure shall be derived using Boussinesq equations modified for the distribution of stresses in an elastic medium due to a uniform, concentrated or line surface load as appropriate and soil arching effects.

~~J106.2.4~~ ~~Design and testing.~~ Except for the modifications as set forth in Sections J106.2.4.1 and J106.2.4.2 below, all prestressed rock and soil tie-back anchors shall be designed and tested in accordance with PTI Recommendations for Prestressed Rock and Soil Anchors (PTI-2004).

~~J106.2.4.1 Geotechnical requirements. The geotechnical report for the earth retaining shoring shall address the following:~~

- ~~1. Minimum diameter and minimum spacing for the anchors including consideration of group effects.~~
- ~~2. Maximum unbonded length and minimum bonded length of the tie-back anchors.~~
- ~~3. Maximum recommended anchor tension capacity based upon the soil or rock strength/grout bond and anchor depth/spacing.~~
- ~~4. Allowable bond stress at the ground / grout interface and applicable factor of safety for ultimate bond stress for the anchor. For permanent anchors, a minimum factor of safety of 2.0 shall be applied to ground soil interface as required by PTI-2004 Section 6.6.~~
- ~~5. Minimum grout pressure for installation and postgrout pressure for the anchor. The presumptive postgrout pressure of 300 psi may be used for all soil type.~~
- ~~6. Class f Corrosion Protection is required for all permanent anchors. The geotechnical report shall specify the corrosion protection recommendations for temporary anchors.~~
- ~~7. Performance test for the anchors shall be at a minimum of two (2) times the design loads and shall not exceed 80 percent of the specified minimum tensile strength of the anchor rod. A creep test is required for all prestressed anchors that are performance tested. All production anchors shall be tested at 150 percent of design~~

~~loads and shall not be greater than 70 percent of the specified minimum tensile strength of the anchor rod.~~

~~8. Earth pressure, surcharge pressure and the seismic increment of earth pressure loading, when applicable.~~

~~9. Maximum recommended lateral deformation at the top of the soldier pile, at the tie-back anchor locations and the drilled pier concrete shafts at the lowest grade level.~~

~~10. Allowable vertical soil bearing pressure, friction resistance and lateral passive soil resistance for the drilled pier concrete shafts and associated factors of safety for these allowable capacities.~~

~~11. Soil-pier shaft/pile interaction assumptions and lateral soil stiffness to be used in design for drilled pier concrete shaft or pile lateral loads.~~

~~12. Acceptable drilling methods.~~

~~13. Geotechnical observation and monitoring recommendations.~~

~~**J106.2.4.2 Structural requirements:**~~

~~1. Tendons shall be thread-bar anchors conforming to ASTM A-722.~~

~~2. Anchor design loads shall be based upon the load combinations in Section 1605A.3.1 and shall not exceed 60 percent of the specified minimum tensile strength of the tendons.~~

~~3. The anchor shall be designed to fail in grout bond to the soil or rock before pullout of the soil wedge.~~

~~4. Design of shoring system shall account for as-built locations of soil anchors considering all specified construction tolerances in Section J106.2.8.~~

~~5. Design of shoring system shall account for both short and long term deformation.~~

~~**J106.2.4.3 Testing of tie-back anchors:**~~

~~1. The geotechnical engineer shall keep a record at job site of all test loads and total anchor movement, and report their accuracy.~~

~~2. If a tie-back anchor initially fails the testing requirements, the anchor shall be permitted to be regouted and retested. If anchor continues to fail, the followings steps shall be taken:~~

~~a. The contractor shall determine the cause of failure — variations of the soil conditions, installation methods, materials, etc.~~

~~b. Contractor shall propose a solution to remedy the problem. The proposed solution will need to be reviewed and approved by the geotechnical engineer, shoring design engineer and building official.~~

~~3. After a satisfactory test, each anchor shall be locked off in accordance with Section 8.4 of PTI-2004.~~

~~4. The shoring design engineer shall specify design loads for each anchor.~~

~~**J106.2.5 Construction.** The construction procedure shall address the following:~~

~~1. Holes drilled for piles/tie-back anchors shall be done without detrimental loss of ground, sloughing or caving of materials and without endangering previously installed shoring members or existing foundations.~~

~~2. Drilling of earth anchor shafts for tie-backs shall occur when the drill bench reaches two to three feet below the level of the tie-back pockets.~~

~~3. Casing or other methods shall be used where necessary to prevent loss of ground and collapse of the hole.~~

~~4. The drill cuttings from earth anchor shaft shall be removed prior to anchor installation.~~

~~5. Unless tremie methods are used, all water and loose materials shall be removed from the holes prior to installing piles/tie-backs.~~

~~6. Tie-back anchor rods with attached centralizing devices shall be installed into the shaft or through the drill casing. Centralizing device shall not restrict movement of the grout.~~

~~7. After lagging installation, voids between lagging and soil shall be backfilled immediately to the full height of lagging.~~

~~8. The soldier piles shall be placed within specified tolerances in the drilled hole and braced against displacement during grouting. Fill shafts with concrete up to top of footing elevation, rest of the shaft can generally be filled with lean concrete. Excavation for lagging shall not be started until concrete has achieved sufficient strength for all anticipated loads as determined by the shoring design engineer.~~

~~9. Where boulders and/or cobbles have been identified in the geotechnical reports, contractor shall be prepared to address boulders and/or cobbles that may be encountered during the drilling of soldier piles and tie-back anchors.~~

~~10. The grouting equipment shall produce grout free of lumps and indispensed cement. The grouting equipment shall be sized to enable the grout to be pumped in continuous operation. The mixer shall be capable of continuously agitating the grout.~~

~~11. The quantity of grout and grout pressure shall be recorded. The grout pressure shall be controlled to prevent excessive heave in soils or fracturing rock formations.~~

~~12. If postgrouting is required, postgrouting operation shall be performed after initial grout has set for 24 hours in the bond length only. Tie-backs shall be grouted over a sufficient length (anchor bond length) to transfer the maximum anchor force to the anchor grout.~~

~~13. Testing of anchors may be performed after postgrouting operations provided grout has reached strength of 3,000 psi as required by PTI-2004 Section 6.11.~~

~~14. Anchor rods shall be tensioned straight and true. Excavation directly below the anchors shall not continue before those anchors are tested.~~

~~**J106.2.6 Inspection, survey monitoring and observation.**~~

~~1. The shoring design engineer or his designee shall make periodic inspections of the job site for the purpose of observing the installation of shoring system, testing of tie-back anchors and monitoring of survey.~~

~~2. Testing, inspection and observation shall be in accordance with testing, inspection and observation requirements approved by the building official. The following activities and materials shall be tested, inspected, or observed by the special inspector and geotechnical engineer:~~

- ~~a. Sampling and testing of concrete in soldier pile and tie-back anchor shafts~~
- ~~b. Fabrication of tie-back anchor pockets on soldier beams~~
- ~~c. Installation and testing of tie-back anchors~~
- ~~d. Survey monitoring of soldier pile and tie-back load cells~~
- ~~e. Survey monitoring of existing buildings~~

~~3. A complete and accurate record of all soldier pile locations, depths, concrete strengths, tie-back locations and lengths, tie-back grout strength, quantity of concrete per pile, quantity of grout per tie-back and applied tie-back loads shall be maintained by the special inspector and geotechnical engineer. The shoring design engineer shall be notified of any unusual conditions encountered during installation.~~

~~4. Calibration data for each test jack, pressure gauge and master pressure gauge shall be verified by the special inspector and geotechnical engineer. The calibration tests shall be performed by an independent testing laboratory and within 120 calendar days of the data submitted.~~

~~5. Monitoring points shall be established at the top and at the anchor heads of selected soldier piles and at intermediate intervals as considered appropriate by the geotechnical engineer.~~

~~6. Control points shall be established outside the area of influence of the shoring system to ensure the accuracy of the monitoring readings.~~

~~7. The periodic basis of shoring monitoring, as a minimum, shall be as follows:~~

~~a. Initial monitoring shall be performed prior to any excavation.~~

~~b. Once excavation has begun, the periodic readings shall be taken weekly until excavation reaches the estimated subgrade elevation and the permanent foundation is complete.~~

~~c. If performance of the shoring is within established guidelines, shoring design engineer may permit the periodic readings to be bi-weekly. Once initiated, bi-weekly readings shall continue until the building slab at ground floor level is completed and capable of transmitting lateral loads to the permanent structure. Thereafter, readings can be monthly.~~

~~d. Where the building has been designed to resist lateral earth pressures, the periodic monitoring of the soldier piles and adjacent structure can be discontinued once the ground floor diaphragm and subterranean portion of the structure is capable of resisting lateral soil loads and approved by the shoring design engineer, geotechnical engineer and building official.~~

~~e. Additional readings shall be taken when requested by the special inspector, shoring design engineer, geotechnical engineer or building official.~~

~~8. Monitoring reading shall be submitted to the shoring design engineer, engineer in responsible charge, and the building official within three working days after~~

they are conducted. Monitoring readings shall be accurate to within 0.01 feet. Results are to be submitted in tabular form showing at least the initial date of monitoring and reading, current monitoring date and reading and difference between the two readings.

9. If the total cumulative horizontal or vertical movement (from start of construction) of the existing buildings reaches 1/2 inch or soldier piles reaches 1 inch all excavation activities shall be suspended. The geotechnical and shoring design engineer shall determine the cause of movement, if any, and recommend corrective measures, if necessary, before excavation continues.

10. If the total cumulative horizontal or vertical movement (from start of construction) of the existing buildings reaches 3/4 inch or soldier piles reaches 1 1/2 inches all excavation activities shall be suspended until the causes, if any, can be determined. Supplemental shoring shall be devised to eliminate further movement and the building official shall review and approve the supplemental shoring before excavation continues.

11. Monitoring of tie-back anchor loads:

a. Load cells shall be installed at the tie-back heads adjacent to buildings at maximum interval of 50 feet, with a minimum of one load cells per wall.

b. Load cell readings shall be taken once a day during excavation and once a week during the remainder of construction.

c. Load cell readings shall be submitted to the geotechnical engineer, shoring design engineer, engineer in responsible charge and the building official.

d. ~~Load cell readings can be terminated once the temporary shoring no longer provides support for the buildings.~~

~~J106.2.7 Monitoring of existing OSHPD 1 and 4 structures.~~

1. ~~The contractor shall complete a written and photographic log of all existing OSHPD 1 and 4 structures within 100 feet or three times depth of shoring, prior to construction. A licensed surveyor shall document all existing substantial cracks in adjacent existing structures.~~

2. ~~Contractor shall document existing condition of wall cracks adjacent to shoring walls prior to start of construction.~~

3. ~~Contractor shall monitor existing walls for movement or cracking that may result from adjacent shoring.~~

4. ~~If excessive movement or visible cracking occurs, contractor shall stop work and shore/reinforce excavation and contact shoring design engineer and the building official.~~

5. ~~Monitoring of the existing structure shall be at reasonable intervals as required by the registered design professional subject to approval of the building official. Monitoring shall be performed by a licensed surveyor and shall consist of vertical and lateral movement of the existing structures. Prior to starting shoring installation a preconstruction meeting shall take place between the contractor, shoring design engineer, surveyor, geotechnical engineer and the building official to identify monitoring locations on existing buildings.~~

~~6. If in the opinion of the building official or shoring design engineer, monitoring data indicate excessive movement or other distress, all excavation shall cease until the geotechnical engineer and shoring design engineer investigates the situation and makes recommendations for remediation or continuing.~~

~~7. All reading and measurements shall be submitted to the building official and shoring design engineer.~~

~~**J106.2.8** Tolerances. Following tolerances shall be specified on the construction documents.~~

~~1. Soldier piles:~~

~~i. Horizontal and vertical construction tolerances for the soldier pile locations.~~

~~ii. Soldier pile plumbness requirements (angle with vertical line).~~

~~2. Tie back anchors:~~

~~i. Allowable deviation of anchor projected angle from specified vertical and horizontal design projected angle.~~

~~ii. Anchor clearance to the existing/new utilities and structures.~~

SECTION 101. Section J107 is hereby amended to read as follows:

J107 **FILLS**

J107.1 **General.** Unless otherwise recommended in the geotechnical report, fills shall comply with the provisions of this sSection.

EXCEPTION: The Building Official may permit a deviation from the provisions of this Chapter for minor fills not intended to support structures, where no soils engineering report has been prepared.

J107.2 **Surface Preparation of ground.** Fill slopes shall not be constructed on natural slopes steeper than 2 units horizontal to 1 unit vertical (50 percent slope). The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials (including any existing fill that does not meet the requirements of this chapter), and scarifying the ground to provide a bond with the fill material.

Subdrains shall be provided under all fills placed in natural drainage courses and in other locations where seepage is evident, except where the Geotechnical Engineer or Engineering Geologist recommends otherwise. Such sub-drainage systems shall be of a material and design approved by the Geotechnical Engineer and acceptable to the Building Official. The Geotechnical Engineer shall provide continuous inspection during the process of subdrain installations. The location of the subdrains shall be shown on a plan prepared by the Soils Engineer. Excavations for the subdrains shall be inspected by the Engineering Geologist when such subdrains are included in the recommendations of the Engineering Geologist.

J107.3 **Benching.** Where existing grade is at a slope steeper than 5 units horizontal to one unit vertical (20-percent) and the depth of the fill exceeds 5 feet (1,524 mm) benching shall be provided into sound bedrock or other competent material as determined by the Geotechnical Engineer. The ground preparation shall be in

accordance with Figure J107.3 or as determined by the Geotechnical Engineer. When fill is to be placed over a cut, Aa key shall be provided which is at least 10 feet (3,048 mm) in width and 2 feet (610 mm) in depth. The area beyond the toe of fill shall be sloped for sheet overflow or a paved drain shall be constructed thereon. The Geotechnical Engineer or Engineering Geologist or both shall inspect and approve the cut as being suitable for the foundation and placement of fill material before any fill material is placed on the excavation.

J107.4 **Fill material.** Fill material shall not include organic, frozen, or other deleterious materials. Unless approved by the Building Official, Nno rock or similar irreducible material greater than 12 inches (304.8mm) in any dimension shall be included in fills.

EXCEPTION: The Building Official may permit placement of larger rock when the Geotechnical Engineer properly devises and recommends a method of placement, and continuously inspects the placement and approves the fill stability. The following requirements shall also apply:

1. Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan.
2. Rock sizes greater than 12 inches (304.8 mm) in maximum dimension shall be 10 feet (3048 mm) or more below grade, measured vertically.
3. Rocks shall be placed so as to assure filling of all voids with well-graded soil.

4. The reports submitted by the Geotechnical Engineer shall acknowledge the placement of the oversized material and whether the work was performed in accordance with the engineer' s recommendations and the approved plans.

5. The location of oversized rock dispersal areas shall be shown on the as-built plan.

J107.5 Compaction. All fill material shall be compacted to a minimum of 90 percent of maximum density as determined by ASTM D 1557, Modified Proctor, in lifts not exceeding 12 inches (305mm) in depth within 40 feet (12192 mm) below finished grade and 93 percent of maximum dry density deeper than 40 feet (12192 mm) below finished grade, unless a lower relative compaction (not less than 90 percent of maximum dry density) is justified by the Geotechnical Engineer and approved by the Building Official. Where ASTM D 1557, Modified Proctor is not applicable, a test acceptable to the Building Official shall be used.

Field density shall be determined by a method acceptable to the Building Official. However, not less than ten percent of the required density tests, uniformly distributed, shall be obtained by the Sand Cone Method.

Fill slopes steeper than 2 units horizontal to 1 unit vertical (50 percent slope) shall be constructed by the placement of soil a sufficient distance beyond the proposed finish slope to allow compaction equipment to operate at the outer surface limits of the final slope surface. The excess fill is to be removed prior to completion or rough grading. Other construction procedures may be utilized when it is first shown to the

satisfaction of the Building Official that the angle of slope, construction method, and other factors will comply with the intent of this Section.

J107.6 **Maximum fill slope.** The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes steeper than two units horizontal to one unit vertical (50 percent) shall be justified by a geotechnical engineering reports or engineering data conforming with the requirements of Section 111, containing a statement by the Soils Engineer that the site has been investigated and an opinion that a steeper fill slope will be stable and will not create a hazard to public or private property. Substantiating calculations and supporting data may be required where the Building Official determines that such information is necessary to verify the stability and safety of the proposed slope. The Building Official may require the fill slope to be constructed with a face flatter in slope than 2 units horizontal to 1 unit vertical (50 percent slope) if the Building Official finds it necessary for stability and safety of the slope.

J107.7 **Slopes to receive fill.** Where fill is to be placed above the top of an existing slope steeper than 3 units horizontal to 1 unit vertical (33 percent slope), the toe of the fill shall be set back from the top edge of the existing slope a minimum distance of 6 feet (1829 mm) measured horizontally or such other distance as may be specifically recommended by a Geotechnical Engineer or Engineering Geologist and approved by the Building Official.

J107.8 **Inspection of fill.** For engineered grading, the Geotechnical Engineer shall provide sufficient inspections during the preparation of the natural ground

and the placement and compaction of the fill to ensure that the work is performed in accordance with the conditions of plan approval and the appropriate requirements of this Chapter. In addition to the above, the Geotechnical Engineer shall provide continuous inspection during the entire fill placement and compaction of fills that will exceed a vertical height or depth of 30 feet (9144 mm) or result in a slope surface steeper than 2 units horizontal to 1 unit vertical (50 percent slope).

J107.9 Testing of fills. Sufficient tests of the fill soils shall be made to determine the density and to verify compliance of the soil properties with the design requirements. This includes soil types and shear strengths in accordance with Section J112 Referenced Standards.

SECTION 102. Figure J107.3 is hereby amended to read as follows:

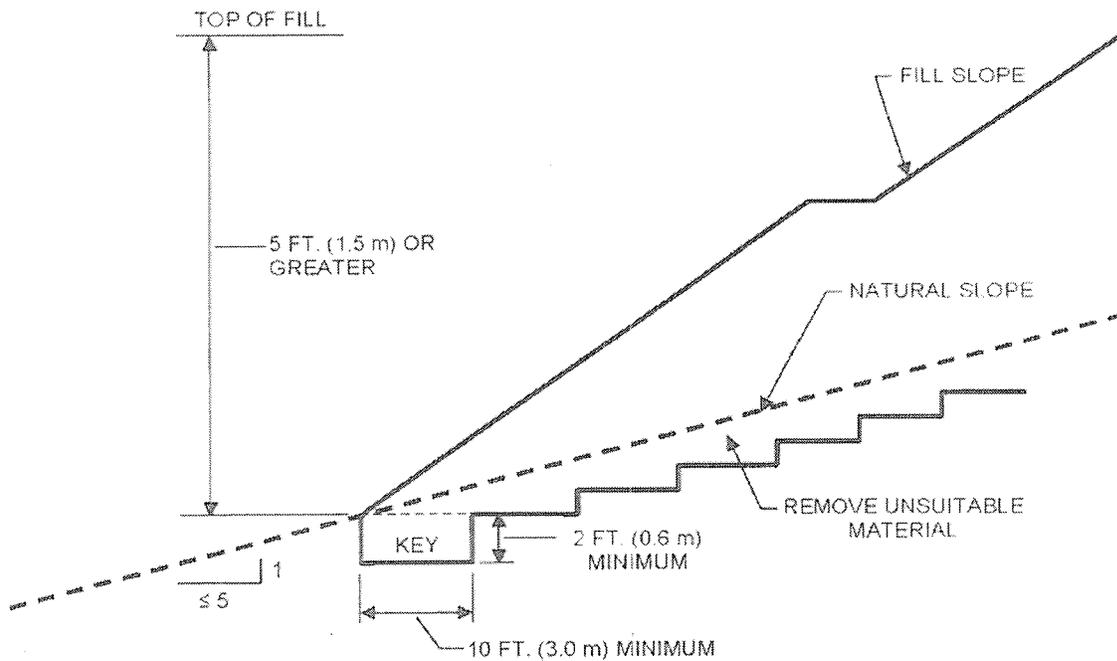


FIGURE J107.3

BENCHING DETAILS

SECTION 103. Section J108 is hereby amended to read as follows:

J108 SETBACKS

J108.1 General. Cut and fill slopes shall be set back from the property lines in accordance with this sSection. Setback dimensions shall be horizontal distances measured perpendicular to the property line and shall be as shown in Figure J108.1, unless substantiating data is submitted justifying reduced setbacks and reduced setbacks are recommended in a geotechnical engineering and engineering geology report approved by the Building Official.

J108.2 Top of slope. The setback at the top of a cut slope shall not be less than that shown in Figure J108.1, or than is required to accommodate any required interceptor drains, whichever is greater. For graded slopes the property line between adjacent lots shall be at the apex of the berm at the top of the slope. Property lines between adjacent lots shall not be located on a graded slope steeper than 5 units horizontal to 1 unit vertical (20 percent slope).

J108.3 ~~Slope protection~~ Toe of fill slope. The setback from the toe of a fill slope shall not be less than that shown by figure J108.1. Where required to protect adjacent properties at the toe of a slope from adverse effects of the grading, additional protection, approved by the bBuilding official, shall be included. Such protection may include but shall not be limited to:

1. Setbacks greater than those required by Figure J108.1.
2. Provisions for retaining walls or similar construction.

3. Erosion protection of the fill slopes.
4. Provision for the control of surface waters.

J108.4 Alternate setbacks. The Building Official may approve alternate setbacks if he or she determines that no hazard to life or property will be created or increased. The Building Official may require an investigation and recommendation by a qualified engineer or Engineering Geologist to justify any proposed alternate setback.

SECTION 104. Figure J108.1 is hereby amended to read as follows:

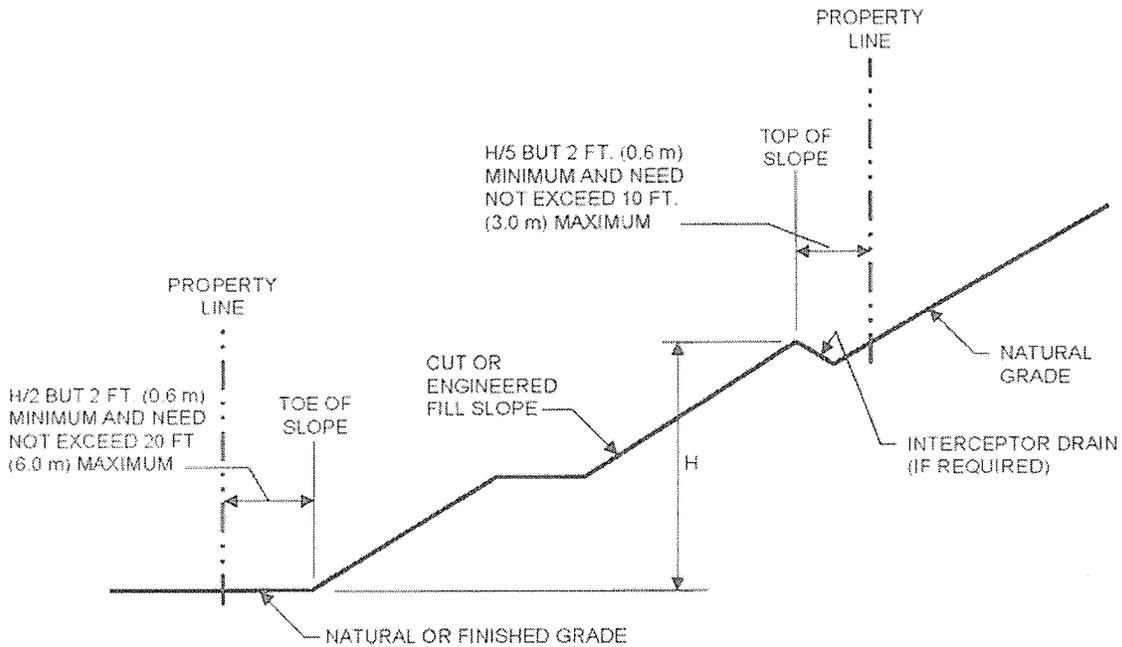


FIGURE J108.1
DRAINAGE SETBACK DIMENSIONS

SECTION 105. Section J109 is hereby amended to read as follows:

J109 DRAINAGE AND TERRACING

J109.1 General. Unless otherwise recommended by a registered design professional Civil Engineer and approved by the Building Official, drainage facilities and terracing shall be provided in accordance with the requirements of this Section J109.2 for all cut and fill slopes steeper than 3 units horizontal to 1 unit vertical (33 percent slope).

EXCEPTION: ~~Drainage facilities and terracing need not be provided where the ground slope is not steeper than 3 horizontal to 1 vertical (33 percent).~~

For slopes flatter than 3 units horizontal to 1 unit vertical (33 percent slope) and steeper than 5 units horizontal to 1 unit vertical (20 percent slope) a paved swale or ditch shall be installed at 30 foot (9144 mm) vertical intervals to control surface drainage and debris. Swales shall be sized based on contributory area and have adequate capacity to convey intercepted waters to the point of disposal as defined in Section J109.5. Swales must be paved with reinforced concrete not less than 3 inches (76.2 mm) in thickness, reinforced with 6-inch (152.4 mm) by 6-inch (152.4 mm) No. 10 by No. 10 welded wire fabric or equivalent reinforcing centered in the concrete slab or an equivalent approved by the Building Official. Swales must have a minimum flow line depth of 1-foot (304.8 mm) and a minimum paved width of 18 inches (457.2 mm). Swales shall have a minimum gradient of not less than 5 percent. There shall be no reduction in grade along the direction of flow unless the velocity of flow is such that slope debris will remain in suspension on the reduced grade.

J109.2

Drainage Terraces. Terraces at least 6 feet (1829 mm) in

~~width shall be established at not more than 30-foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris. Suitable access shall be provided to allow for cleaning and maintenance.~~

~~Where more than two terraces are required, one terrace, located at approximately mid-height, shall be at least 12 feet (3658 mm) in width.~~

~~Swales or ditches shall be provided on terraces. They shall have a minimum gradient of 20 horizontal to 1 vertical (5 percent) and shall be paved with concrete not less than 3 inches (76 mm) in thickness, or with other materials suitable to the application. They shall have a minimum depth of 12 inches (305 mm) and a minimum width of 5 feet (1524 mm).~~

~~A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (1256 m²) (projected) without discharging into a down-drain.~~
Drainage terraces at least 8 feet (2438 mm) in width shall be established at not more than 30-foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris. When only one terrace is required, it shall be at midheight. For cut or fill slopes greater than 100 feet (30480 mm) and up to 120 feet (36576 mm) in vertical height, one terrace at approximately midheight shall be 20 feet (6096 mm) in width. Terrace widths and spacing for cut and fill slopes greater than 120 feet (36,576 mm) in height shall be designed by the Civil Engineer and approved by the Building Official. Suitable access shall be provided to permit proper cleaning and maintenance.

Drainage swales on terraces shall have a longitudinal grade of not less than 5 percent nor more than 12 percent and a minimum depth of 1-foot (305 mm) at the flow line. There shall be no reduction in grade along the direction of flow unless the velocity of flow is such that slope debris will remain in suspension on the reduced grade. Drainage swales must be paved with reinforced concrete not less than 3 inches (77 mm) in thickness, reinforced with 6-inch (153 mm) by 6-inch (153 mm) No. 10 by No. 10 welded wire fabric or equivalent reinforcing centered in the concrete slab or an approved equal paving. Drainage swales shall have a minimum depth at the deepest point of 1 foot (305 mm) and a minimum paved width of 5 feet (1524 mm). Drainage terraces exceeding 8 feet (2439 mm) in width need only be so paved for a width of 8 feet (2439 mm) provided such pavement provides a paved swale at least 1 foot (305 mm) in depth. Downdrains or drainage outlets shall be provided at approximately 300-foot (91440 mm) intervals along the drainage terrace or at equivalent locations. Downdrains and drainage outlets shall be of approved materials and of adequate capacity to convey the intercepted waters to the point of disposal as defined in Section J109.5.

J109.3 **Interceptor drains and overflow protection.** Berms, interceptor drains, swales, or other devices shall be provided at the top of cut or fill slopes to prevent surface waters from overflowing onto and damaging the face of a slope. Berms used for slope protection shall not be less than 12 inches (305 mm) above the level of the pad and shall slope back at least 4 feet (1220 mm) from the top of the slope.

Interceptor drains shall be installed along the top of outgraded slopes greater than 5 feet in height receiving drainage from a slope with a tributary width greater than 40 feet (12 192 mm)30 feet (9144 mm), measured horizontally. They shall have a minimum depth of 1 foot (305 mm) and a minimum width of 3 feet (915 mm). The slope shall be approved by the bBuilding eOfficial, but shall not be less than 50 units horizontal to 1 unit vertical (2 percent). The drain shall be paved with concrete not less than 3 inches (76mm) in thickness, or by other materials suitable to the application and reinforced as required for drainage terraces. Discharge from the drain shall be accomplished in a manner to prevent erosion and shall be approved by the bBuilding eOfficial.

...

J109.5 Disposal. All drainage facilities shall be designed to convey waters to the nearest practicable street, storm drain, or natural watercourse or drainage way approved by the Building Official or other appropriate governmental agency provided that the discharge of such waters at that location will not create or increase a hazard to life or property. Erosion of the ground in the area of discharge shall be prevented by installation of non-erosive down drains or other devices. Desilting basins, filter barriers, or other methods, as approved by the Building Official, shall be utilized to remove sediments from surface waters before such waters are allowed to enter streets, storm drains, or natural watercourses. If the drainage device discharges onto natural ground, riprap, or a similar energy dissipator may be required.

Building pads shall have a minimum drainage gradient of 2 percent toward an approved drainage facility or a public street unless otherwise directed by the Building Official. A lesser slope may be approved by the Building Official for sites graded in relatively flat terrain, or where special drainage provisions are made, when the Building Official finds such modification will not result in a hazard to life or property.

SECTION 106. Section J110 is hereby amended to read as follows:

J110 **SLOPE PLANTING AND EROSION CONTROL**

J110.1 **General.** The faces of cut and fill slopes shall be prepared and maintained to control erosion. This control shall be permitted to consist of effective planting, erosion control blankets, soil stabilizers, or other means as approved by the Building Official.

EXCEPTION: Erosion control measures need not be provided on cut slopes not subject to erosion due to the erosion-resistant character of the materials as approved by the Project Consultants, to the satisfaction of the Building Official.

...

J110.3 **Planting.** The surface of all cut slopes more than 5 feet (1524 mm) in height and fill slopes more than 3 feet (915 mm) in height shall be protected against damage from erosion by planting with grass or ground cover plants. Slopes exceeding 15 feet (4572 mm) in vertical height shall also be planted with shrubs, spaced at not to exceed 10 feet (3048 mm) on centers, or trees, spaced at not to exceed 20 feet (6096 mm) on centers; or a combination of shrubs and trees at an equivalent spacing, in addition to the grass or ground cover plants. The plants selected

and planting methods used shall be suitable for the soil and climatic conditions of the site.

Plant material shall be selected which will produce a coverage of permanent planting to effectively control erosion. Consideration shall be given to deep-rooted plant material needing limited watering, maintenance, high root to shoot ratio, wind susceptibility, and fire-retardant characteristics. All plant materials must be approved by the Building Official.

Planting may be modified for the site if specific recommendations are provided by both the Geotechnical Engineer and a Landscape Architect. Specific recommendations must consider soils and climatic conditions, irrigation requirements, planting methods, fire-retardant characteristics, water efficiency, maintenance needs, and other regulatory requirements. Recommendations must include a finding that the alternative planting will provide a permanent and effective method of erosion control. Modifications to planting must be approved by the Building Official prior to installation.

J110.4 Irrigation. Slopes required to be planted by Section J110.3 shall be provided with an approved system of irrigation that is designed to cover all portions of the slope. Irrigation system plans shall be submitted to and approved by the Building Official prior to installation. A functional test of the system may be required.

For slopes less than 20 feet (6096 mm) in vertical height, hose bibs to permit hand watering will be acceptable if such hose bibs are installed at conveniently accessible locations where a hose no longer than 50 feet (15240 mm) is necessary for irrigation.

Irrigation requirements may be modified for the site if specific recommendations are provided by both the Geotechnical Engineer and a Landscape Architect. Specific recommendations must consider soils and climatic conditions, plant types, planting methods, fire-retardant characteristics, water efficiency, maintenance needs, and other regulatory requirements. Recommendations must include a finding that the alternative irrigation method will sustain the proposed planting and provide a permanent and effective method of erosion control. Modifications for irrigation systems must be approved by the Building Official prior to installation.

J110.5 Plans and specifications. Planting and irrigation plans shall be submitted for slopes required to be planted and irrigated pursuant to Sections J110.3 and J110.4. Except as otherwise required by the Building Official for minor grading, the plans for slopes 20 feet (6096 mm) or more in vertical height shall be prepared and signed by a Civil Engineer or landscape architect. If requested by the Building Official, planting and irrigation details shall be included on the grading plan.

J110.6 Rodent control. Fill slopes shall be protected from potential slope damage by a preventative program of rodent control.

J110.7 Release of security. The planting and irrigation systems required by this Section shall be installed as soon as practical after rough grading. Prior to final approval of grading and before the release of the grading security, the planting shall be well established and growing on the slopes and there shall be evidence of an effective rodent control program.

J110.8 National Pollutant Discharge Elimination System

(NPDES) compliance.

J110.8.1 General. All grading plans and permits and the owner of any property on which such grading is performed shall comply with the provisions of this Section for NPDES compliance.

All best management practices shall be installed before grading begins or as instructed in writing by the Building Official for unpermitted grading as defined by Section J103.3. As grading progresses, all best management practices shall be updated as necessary to prevent erosion and to control construction-related pollutants from discharging from the site. All best management practices shall be maintained in good working order to the satisfaction of the Building Official until final grading approval has been granted by the Building Official and all permanent drainage and erosion control systems, if required, are in place. Failure to comply with this Section is subject to "Noncompliance Penalties" pursuant to Section J110.8.5. Payment of a penalty shall not relieve any persons from fully complying with the requirements of this Code in the execution of the work.

J110.8.2 Storm Water Pollution Prevention Plan (SWPPP). The Building Official may require a SWPPP. The SWPPP shall contain details of best management practices, including desilting basins or other temporary drainage or control measures, or both, as may be necessary to control construction-related pollutants which originate from the site as a result of construction-related activities. When the Building

Official requires a SWPPP, no grading permit shall be issued until the SWPPP has been submitted to and approved by the Building Official.

For unpermitted grading as defined by Section J103.3 upon written request a SWPPP in compliance with the provisions of this Section and Section 106.4.3 for NPDES compliance shall be submitted to the Building Official. Failure to comply with this Section is subject to "Noncompliance Penalties" per Section J110.8.5. Payment of a penalty shall not relieve any persons from fully complying with the requirements of this Code in the execution of the work.

J110.8.3 Wet Weather Erosion Control Plans (WWECP). Where a grading permit is issued and the Building Official determines that the grading will not be completed prior to November 1, the owner of the site on which the grading is being performed shall, on or before October 1, file or cause to be filed with the Building Official a WWECP. The WWECP shall include specific best management practices to minimize the transport of sediment and protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. The best management practices shown on the WWECP shall be installed on or before October 15. The plans shall be revised annually or as required by the Building Official to reflect the current site conditions.

The WWECP shall be accompanied by an application for plan checking services and plan-checking fees in an amount determined by the Building Official, up to but not exceeding 10 percent of the original grading permit fee.

Failure to comply with this Section is subject to "Noncompliance Penalties" pursuant to Section J110.8.5. Payment of a penalty shall not relieve any persons from fully complying with the requirements of this Code in the execution of the work.

J110.8.4 Storm Water Pollution Prevention Plan (SWPPP), effect of noncompliance. Should the owner fail to submit the SWPPP or the WVECP as required by Section J110.8 or fails to install the best management practices, it shall be deemed that a default has occurred under the conditions of the grading permit security. The Building Official may thereafter enter the property for the purpose of installing, by County forces or by other means, the drainage, erosion control, and other devices shown on the approved plans, or if there are no approved plans, as the Building Official may deem necessary to protect adjoining property from the effects of erosion, flooding, or the deposition of mud, debris, or constructed-related pollutants.

The Building Official shall also have the authority to impose and collect the penalties imposed by Section J110.8.5. Payment of a penalty shall not relieve any persons from fully complying with the requirements of this Code in the execution of the work.

J110.8.5 Noncompliance penalties. The amount of the penalties shall be as follows:

1. If a SWPPP or a WVECP is not submitted as prescribed in Sections J110.8.2 and J110.8.3:

<u>Grading Permit Volume</u>	<u>Penalty</u>
<u>1-10,000 cubic yards (1-7645.5 m³)</u>	<u>\$50.00 per day</u>
<u>10,001-100,000 cubic yards (7646.3-76455 m³)</u>	<u>\$250.00 per day</u>
<u>More than 100,000 cubic yards (76455 m³)</u>	<u>\$500.00 per day</u>

2. If the best management practices for storm water pollution prevention and wet weather erosion control, as approved by the Building Official, are not installed as prescribed in this Section J110.8:

<u>Grading Permit Volume</u>	<u>Penalty</u>
<u>1-10,000 cubic yards (1-7645.5 m³)</u>	<u>\$100.00 per day</u>
<u>10,001-100,000 cubic yards (7646.3-76455 m³)</u>	<u>\$250.00 per day</u>
<u>More than 100,000 cubic yards (76455 m³)</u>	<u>\$500.00 per day</u>

NOTE: See Section 108 for inspection request requirements.

SECTION 107. Section J111 is hereby amended to read as follows:

J111 REFERENCED STANDARDS

ASTM D 1557-e01 Test Method for Laboratory Compaction J107.6
~~Characteristics of Soil Using Modified Effort~~
~~[56,000 ft-lb/ft³ (2,700kN-m/m³)].~~

These regulations establish minimum standards and are not intended to prevent the use of alternate materials, methods, or means of conforming to such standards, provided such alternate has been approved.

The Building Official shall approve such an alternate provided he or she determines that the alternate is, for the purpose intended, at least the equivalent of that prescribed in this Code in quality, strength, effectiveness, durability, and safety.

The Building Official shall require that sufficient evidence or proof be submitted to substantiate any claims regarding the alternate.

The standards listed below are recognized standards. Compliance with these recognized standards shall be prima facie evidence of compliance with the standards set forth in Section J107.

<u>ASTM D 1557</u>	<u>Laboratory Characteristics Compaction of Soil Using Modified Effort</u>
<u>ASTM D 1556</u>	<u>Density and Unit Weight of Soils In Place by the Sand Cone Method</u>
<u>ASTM D 2167</u>	<u>Density and Unit Weight of Soils In Place by the Rubber-Balloon Method</u>
<u>ASTM D 2937</u>	<u>Density of Soils in Place by the Drive-Cylinder Method</u>
<u>ASTM D 2922</u>	<u>Density of Soil and Soil Aggregate In Place by Nuclear Methods</u>
<u>ASTM D 3017</u>	<u>Water Content of Soil and Rock in Place by Nuclear Methods</u>

SECTION 108. The provisions of this ordinance contain various changes, modifications, and additions to the 2010 California Building Code. Some of those changes are administrative in nature in that they do not constitute changes or

modifications to requirements contained in the building standards published in the California Building Standard Code.

Pursuant to California Health and Safety Code sections 17958.5, 17958.7, and 18941.5, the Board of Supervisors hereby expressly finds that all of the changes and modifications to requirements contained in the building standards published in the California Building Standards Code, contained in this ordinance, which are not administrative in nature, are reasonably necessary because of local climatic, geological, or topographical conditions in the County of Los Angeles as more particularly described in the table set forth below.

BUILDING CODE AMENDMENTS

Code Section	Condition	Explanation of Amendment
701A.1	Climatic	Clarifies the application of Chapter 7A to include additions, alterations, and/or relocated buildings. Many areas of the County have been designated as Fire Hazard Severity Zones due to low humidity, strong winds, and dry vegetation. Additions, alterations, and/or relocated buildings have the same fire risk as new buildings.
701A.3	Climatic	Clarifies the application of Chapter 7 A to include additions, alterations, and/or relocated buildings. Many areas of the County have been designated as Fire Hazard Severity Zones due to the increased risk of fire caused by low humidity, strong winds, and dry vegetation. Additions, alterations, and/or relocated buildings have the same fire risk as new buildings.
701A.3.1	Climatic	Clarifies the application of Chapter 7 A to include additions, alterations, and/or relocated buildings. Many areas of the County have been designated as Fire Hazard Severity Zones due to the increased risk of fire caused by low humidity, strong winds, and dry vegetation. Additions, alterations, and/or relocated buildings have the same fire risk as new buildings.
703A.5.2 & 703A.5.2.2	Climatic	Disallows the use of wood-shingle/wood-shake roofs due to the increased risk of fire in the County caused by low humidity, strong winds, and dry vegetation.
704A.3	Climatic	Disallows the use of wood-shingle/wood-shake roofs due to the increased risk of fire in the County caused by low humidity, strong winds, and dry vegetation in high fire severity zones.
705A.2	Climatic	Disallows the use of wood-shingle/wood-shake roofs and requires the use of Class A roof covering due to the increased risk of fire in the County caused by low humidity, strong winds, and dry vegetation in high fire severity zones.
1029.4	Geological	The greater Los Angeles/Long Beach region is a densely populated area having buildings constructed over and near a vast array of earthquake fault systems capable of producing major earthquakes, including but not limited to the recent

Code Section	Condition	Explanation of Amendment
		1994 Northridge Earthquake. The proposed amendment is intended to prevent occupants from being trapped in a building and to allow rescue workers to easily enter after an earthquake.
1207.1, 1207.11, 1207.12	Climatic and Topographic	Sound Transmission – "Soundproofing" buildings adjacent to Airport (LAX). The purpose of this section is to establish uniform minimum noise insulation performance standards to protect persons from the effects of excessive noise (sound), hearing loss or impairment, and interference with speech and sleep. The amendment requires other types of buildings, such as, long-term care facilities, single-family dwellings, private schools, and places of worship to be "soundproofed." Based on the local topographic conditions in the Los Angeles Basin, which includes the surrounding hills and mountains, such as the Santa Monica Mountains, and the climatic conditions of local wind blowing off shore, such as the Santa Ana winds, many planes are required to land and take off near the airports (LAX) to fly over areas where there are buildings including single family home, long-term care facilities, private schools and places of worship and other residential buildings, apartment houses, hotels, etc. The noise from these planes creates a hardship for the citizens, therefore, requiring the buildings to be "soundproofed."
1403.3	Climatic Geological	Section amended to limit the deflection of lateral support of veneer and prohibit its usage as part of the structural design strength of walls, due to the increased risk of significant earthquakes in the County. The Structural Engineers Association of Southern California (SEAOSC) and LA City Post Northridge Earthquake committee discovered significant loss of veneer from buildings due to inadequate design and construction. As deflection limitation in out-of-plane directions is not covered in this Code, this amendment will prevent loosening and spalling of veneer in a significant earthquake.
1405.7 through 1405.7.2	Geological	Section amended to require proper anchorage of masonry or stone veneer, due to the increased risk of significant earthquakes in the County. Investigations following the Northridge earthquake discovered numerous cases where veneer pulled away from wood stud framing. Most of it was due to corrosion and weakness in the anchor ties and mesh connections to the framing. Where sheathing was beneath the veneer, nail attachments were often not attached to the wall framing below. SEAOSC/LA City Post Northridge Earthquake committee findings indicated significant loss of veneer from buildings due to inadequate design and construction. Therefore, additional reinforcement for heavy veneer, stone and masonry veneer is needed to minimize such occurrences in the event of future significant earthquakes.
1507.3.1	Geological	Section amended to require concrete and clay tiles to be installed over solid structural sheathing boards only, due to the increased risk of significant earthquakes in the County. The changes in Section 1507.3.1 are needed because there were numerous observations of tile roofs pulling away from wood framed buildings following the 1994 Northridge Earthquake. Where sheathing beneath the tile roofs was not nailed adequately or the nails were not attached on each side of each tile or the nail just pulled out over a period of time because the shank of the nails were smooth. Northridge SEAOSC/LA City Post Northridge Earthquake committee findings indicated significant problems with tile roof due to inadequate design and/or construction. Therefore, the amendment is needed to needed to minimize such occurrences in the event of future significant earthquakes.
Table 1507.3.7	Geological	Table amended to require proper anchorage for clay or concrete tiles from sliding or rotating due to the increased risk of significant earthquakes in the County. Design provisions developed based on detailed study of the 1994 Northridge and the 1971

Code Section	Condition	Explanation of Amendment
1613.6.7	Geological	<p>Sylmar earthquakes need to be incorporated into the local building code.</p> <p>The inclusion of the importance factor in this equation has the unintended consequence of reducing the minimum seismic separation distance for important facilities such as hospital, school, police, and fire station, etc., from adjoining structures. The deletion of the importance factor from Equation 16-44 will ensure that a safe seismic separation distance is provided. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.</p>
1613.8 through 1613.8.1	Geological	<p>The steel Buckling Restrained Braced Frame (BRBF) system was first approved for use in the 2003 NEHRP Provisions. The values for the approximate period perimeters C_1 and x were also approved as part of that original BSSC Proposal 6-6R (2003). It was an oversight that these parameters were not carried forward into the 2005 Edition of the ASCE 7. Currently, these two factors can be found in Appendix R of AISC 341-05. There, they function only as a placeholder that will be removed in the next version upon approval by ASCE 7 Task Committee on Seismic. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.</p>
1613.8.2	Geological	<p>Observed damages to one- and two-family dwellings of light frame construction after the Northridge Earthquake may have been partially attributed to vertical irregularities common to this type of occupancy and construction. In an effort to improve quality of construction and incorporate lessons learned from studies after the Northridge Earthquake, the modification to ASCE 7-05 Section 12.2.3.1 by limiting the number of stories and height of the structure to two stories will significantly minimize the impact of vertical irregularities and concentration of inelastic behavior from mixed structural systems. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.</p>
1613.8.3	Geological	<p>The importance factor, I, was dropped from equation 12.8-16 by mistake while transcribing it from NEHRP Recommended Provisions (2003) equation 5.2-16. For buildings with importance factor, I, higher than 1.0, stability coefficient should include the importance factor. The modification is consistent with the provisions adopted by OSPHD and DSA-SS as reflected in Section 1615.10.7 of the 2010 California Building Code. SEAOSC Steel Committee had supported the proposed modification during the 2007 code adoption process. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.</p>

Code Section	Condition	Explanation of Amendment
1613.8.4	Geological	A joint Structural Engineers Association of Southern California (SEAOSC), Los Angeles County, and Los Angeles City Task Force investigated the performance of concrete and masonry construction with flexible wood diaphragm failures after the Northridge earthquake. It was concluded at that time that continuous ties are needed at specified spacing to control cross grain tension in the interior of the diaphragm. Additionally, subdiaphragm shears need to be limited to control combined orthogonal stresses within the diaphragm. Recognizing the importance and need to continue the recommendation made by the task force, but also taking into consideration the improved performance and standards for diaphragm construction today, a proposal to increase the continuous tie spacing limit to 40 ft in lieu of 25 ft and to use 75 percent of the allowable code diaphragm shear to determine the depth of the sub-diaphragm in lieu of the 300 plf is deemed appropriate and acceptable. The Los Angeles region is within a very active geological location. The various jurisdictions within this region have taken additional steps to prevent roof or floor diaphragms from pulling away from concrete or masonry walls. This decision was made due to the frequency of this type of failure during the past significant earthquakes. This amendment is a continuation of an amendment adopted during previous code adoption cycles.
1613.9 through 1613.9.10.5	Geological Topographical	Section is added to improve seismic safety of buildings constructed on or into hillsides. Due to the local topographical and geological conditions of the sites within the Los Angeles region and their probabilities for earthquakes, this technical amendment is required to address and clarify special needs for buildings constructed on hillside locations. A joint Structural Engineers Association of Southern California (SEAOSC) and both the Los Angeles County and Los Angeles City Task Force investigated the performance of hillside building failures after the Northridge earthquake. Numerous hillside failures resulted in loss of life and millions of dollars in damage. These criteria were developed to minimize the damage to these structures and have been in use by both the City and County of Los Angeles for several years with much success. This amendment is a continuation of an amendment adopted during previous code adoption cycles.
1704.1	Geological Topographical	Section amended to remove the exemption of Group U from special inspection requirements. One of the significant problems discovered from the studies after the Northridge Earthquake was the extent of poor quality in construction, especially for residential wood frame accessory structures. The provisions to require that special inspectors be provided for work listed under Section 1704 to observe the actual construction will ensure that acceptable standards of workmanship are provided.
1704.4	Geological	Results from studies after the 1994 Northridge Earthquake indicated that a significant portion of the damages were attributable to lack of quality control during construction resulting in poor performance of the building or structure. Therefore, the amendment restricts the exceptions to the requirement for special inspection. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.

Code Section	Condition	Explanation of Amendment
1704.8	Geological	Studies after the Northridge Earthquake revealed that great confusion exists in the field over what is required by the Code in the way of special inspection beyond just piles and caissons. Connecting grade beams used in driven deep foundations will generally act like concrete beams and should not be treated like typical footings. Section 1704.4 requires concrete beams to have special inspection, but exempts the footings of buildings three stories or less in height. This amendment clarifies that the grade beams that connect driven deep foundations are not exempt from special inspection even if they are used as part of the foundation system. They are an essential part of the driven deep foundation system and should receive the same level of inspection, particularly since this type of system must resist the higher demand of seismic loads in this region. The amendment is necessary due to the increased risk of significant earthquakes in the County.
1704.9	Geological	Studies after the Northridge Earthquake revealed that great confusion exists in the field over what is required by the Code in the way of special inspection beyond just piles and caissons. Connecting grade beams used in cast-in-place deep foundations will generally act like concrete beams and should not be treated like typical footings. Section 1704.4 requires concrete beams to have special inspection, but exempts the footings of buildings three stories or less in height. This amendment clarifies that the grade beams that connect cast-in-place deep foundations are not exempt from special inspection even if they are used as part of the foundation system. They are an essential part of the cast-in-place deep foundation system and should receive the same level of inspection, particularly since this type of system must resist the higher demand of seismic loads in this region. The amendment is necessary due to the increased risk of significant earthquakes in the County.
1705.3	Geological	In Southern California, very few detached one- or two-family dwellings not exceeding two stories above grade plane are built as "box-type" structures, specially for those in hillside areas and near the oceanfront. Many with steel moment frames or braced frames, and or cantilevered columns can still be shown as "regular" structures by calculations. With the higher seismic demand placed on buildings and structures in this region, the language in Sections 1705.3 Item 3 of the California Building Code would permit many detached one- or two-family dwellings not exceeding two stories above grade plane with complex structural elements to be constructed without the benefit of special inspections. By requiring special inspections, the quality of major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. The exception should only be allowed for detached one- or two-family dwellings not exceeding two stories above grade plane assigned to Seismic Design category A, B, and C.
1710.1	Geological	The language in Sections 1710.1 of the California Building Code permits the owner to employ any registered design professional to perform structural observations with minimum guidelines. However, it is important to recognize that the registered design professional responsible for the structural design has thorough knowledge of the building he/she designed. By requiring the registered design professional responsible for the structural design or their designee who were involved with the design to observe the construction, the quality of the observation for major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. Additional requirements are provided to help clarify the role and duties of the structural observer and the method of reporting and correcting observed deficiencies to the building official. This

Code Section	Condition	Explanation of Amendment
		amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.
1710.2	Geological	With the higher seismic demand placed on buildings and structures in this region, the language in Sections 1710.2 Item 3 of the California Building Code would permit many low-rise buildings and structures with complex structural elements to be constructed without the benefit of a structural observation. By requiring a registered design professional to observe the construction, the quality of the observation for major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. An exception is provided to permit simple structures and buildings to be excluded. This amendment is a continuation of an amendment adopted during previous Code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.
1807.1.4	Climatic Geological	No substantiating data has been provided to show that a wood foundation is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood retaining walls, when they are not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic events and wet applications. The proposed amendment takes the necessary precautionary steps to reduce or eliminate potential problems that may result by using wood foundations that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. This amendment is a continuation of an amendment adopted during previous Code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.
1807.1.6	Geological	With the higher seismic demand placed on buildings and structures in this region, it is deemed necessary to take precautionary steps to reduce or eliminate potential problems that may result by following prescriptive design provisions that do not take into consideration the surrounding environment. Plain concrete performs poorly in withstanding the cyclic forces resulting from seismic events. In addition, no substantiating data has been provided to show that under-reinforced foundation walls are effective in resisting seismic loads and may potentially lead to a higher risk of failure. It is important that the benefit and expertise of a registered design professional be obtained to properly analyze the structure and take these issues into consideration. This amendment is a continuation of an amendment adopted during previous Code adoption cycles.
1809.3	Geological	With the higher seismic demand placed on buildings and structures in this region, it is deemed necessary to take precautionary steps to reduce or eliminate potential problems that may result for under-reinforced footings located on sloped surfaces. Requiring minimum reinforcement for stepped footings is intended to address the problem of poor performance of plain or under-reinforced footings during a seismic event. This amendment is a continuation of an amendment adopted during previous Code adoption cycles.

Code Section	Condition	Explanation of Amendment
1809.7 and Table 1809.7	Geological	No substantiating data has been provided to show that under-reinforced footings are effective in resisting seismic loads and may potentially lead to a higher risk of failure. Therefore, this amendment requires minimum reinforcement in continuous footings to address the problem of poor performance of plain or under-reinforced footings during a seismic event. With the higher seismic demand placed on buildings and structures in this region, it is deemed necessary to take precautionary steps to reduce or eliminate potential problems that may result by following prescriptive design provisions for footings that do not take into consideration the surrounding environment. It was important that the benefit and expertise of a registered design professional be obtained to properly analyze the structure and take these factors into consideration. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force that investigated the poor performance observed in the 1994 Northridge Earthquake. This amendment is a continuation of an amendment adopted during previous code adoption cycles.
1809.12	Climatic Geological	No substantiating data has been provided to show that timber footings are effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effects of constant moisture in the soil and wood-destroying organisms. Timber footings, when they are not properly treated and protected against deterioration, have performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic events and wet applications. The proposed amendment takes the necessary precautionary steps to reduce or eliminate potential problems that may result by using timber footings that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. This amendment is a continuation of an amendment adopted during previous Code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.
1908.1 and 1908.1.11 through 1908.1.14	Geological	This amendment is intended to carry over critical provisions for the design of concrete columns in moment frames from the UBC. Increased confinement is critical to the integrity of such columns and these modifications ensure that it is provided when certain thresholds are exceeded. In addition, this amendment carries over from the UBC a critical provision for the design of concrete shear walls. It essentially limits the use of very highly gravity-loaded walls from being included in the seismic load resisting system, since their failure could have catastrophic effect on the building. Furthermore, this amendment was incorporated in the code based on observations from the 1994 Northridge Earthquake. Rebar placed in very thin concrete topping slabs has been observed in some instances to have popped out of the slab due to insufficient concrete coverage. This modification ensures that critical boundary and collector rebars are placed in sufficiently thick slabs to prevent buckling of such reinforcements. This amendment is a continuation of an amendment adopted during previous Code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.

Code Section	Condition	Explanation of Amendment
1908.1.2	Geological	<p>By virtue of ACI 318 Section 21.1.1.7(d), intermediate precast structural walls designed under Section 21.4, material requirements intended under provisions 21.1.4, 21.1.5, 21.1.6, and 21.1.7 would be excluded for structures assigned to Seismic Design Category D, E, or F. The amendments to ACI 318 Chapter 21 are needed to ensure that structural walls designed under ASCE 7 Table 12.2-1 using the intermediate wall panel category would conform to ductility requirements comparable to special structural walls; and conformance to the long standing practice of ACI 318 to impose special requirements for high seismic design regions. This amendment gives explicit requirements under which design and detailing need to conform to special structural wall system provisions in ACI-318 Section 21.9, which covers both cast-in-place as well as precast. This amendment further gives building officials the tools to enforce minimum life safety building performance under earthquake forces in Seismic Design Category D, E, or F. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.</p>
1908.1.3	Geological	<p>The design provision for wall pier detailing was originally introduced by SEAOC in 1987 to legacy Uniform Building Code (UBC) and was included in the 1988 UBC through the 1997 UBC (2002 CBC). The wall pier detailing provision prescribed under Section 1908.1.4 was intended for high seismic zones equivalent to current Seismic Design Category D, E, or F. Section 1908.1.3 was added as a complement of wall pier detailing in Seismic Design Category C (formerly seismic zones 2A and 2B under the legacy model code). ACI 318 Commentary R 21.1.1 emphasized "it is essential that structures assigned to higher Seismic Design Categories possess a higher degree of toughness," and further encourages practitioners to use special structural wall systems in regions of high seismic risk. ASCE 7 Table 12.2-1 permits intermediate precast structural wall system in Seismic Design Category D, E, or F. Current Section 1908.1.3 is not limited to just structures assigned to Seismic Design Category C. The required shear strength under 21.3.3, referenced in current Section 21.4.5, is based on V_u under either nominal moment strength or two times the code prescribed earthquake force. The required shear strength in 21.6.5.1, referenced in Section 21.9.10.2 (IBC 1908.1.4), is based on the probable shear strength, V_e under the probable moment strength, M_{pr}. In addition, the spacing of required shear reinforcement is 8 inches on center under current Section 21.4.5 instead of 6 inches on center with seismic hooks at both ends under Section 21.9.10.2. Requirement of wall pier under Section 21.9.10.2 would enhance better ductility. The current practice in commercial buildings constructed using precast panel wall systems is to have large window and door openings and/or narrow wall piers. Wall panels varying up to three stories high with openings resembles a wall frame which is not currently recognized under any of the defined seismic-force resisting systems other than consideration of structural wall systems. Conformance to special structural wall system design and detailing of wall piers ensures minimum life safety performance in resisting earthquake forces for structures in Seismic Design Category D, E, or F. The modification separates wall piers designed for structures assigned to Seismic Design Category C from those assigned to Seismic Design Category D, E, or F. This modification is consistent with the amendment adopted by DSA-SS as reflected in Section 1916.4.4 of the 2010 Edition of the California Building Code. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.</p>

Code Section	Condition	Explanation of Amendment
1908.1.8	Geological	This amendment requires minimum reinforcement in continuous footings to address the problem of poor performance of plain or under-reinforced footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.
1909.4	Geological	With the higher seismic demand placed on buildings and structures in this region, it is deemed necessary to take precautionary steps to reduce or eliminate potential problems that may result by permitting a reduced edge thickness of the footing that support walls without taking into consideration the surrounding environment. In addition, no substantiating data has been provided to show that the reduced edge thickness is effective in resisting seismic loads and may potentially lead to a higher risk of failure. It is important that the benefit and expertise of a registered design professional be obtained to properly analyze the structure and take these issues into consideration. This amendment is a continuation of an amendment adopted during previous code adoption cycles.

Code Section	Condition	Explanation of Amendment																																																	
204.1.1	Geological	<p>A number of significant technical modifications have been made since the adoption of AISC 341-05. One such change incorporates AWS D1.8/D1.8M by reference for welding related issues. This change will be included in AISC 341-10 which is to be incorporated by reference into the 2012 Edition of the International Building Code. This proposed amendment is consistent with actions taken by both DSA-SS and OSHPD to incorporate such language in the 2010 Edition of the California Building Code. AWS D1.8/D1.8M requires that all seismic force resisting system welds are to be made with filler metals classified using AWS A5 standards that achieve the following mechanical properties:</p> <table border="1"> <thead> <tr> <th colspan="3">Mechanical Properties for Demand Critical Welds</th> </tr> <tr> <th rowspan="2">Property</th> <th colspan="2">Classification</th> </tr> <tr> <th>70 ksi (480 MPa)</th> <th>80 ksi (550 MPa)</th> </tr> </thead> <tbody> <tr> <td>Yield Strength, ksi (MPa)</td> <td>58 (400) min.</td> <td>68 (470) min.</td> </tr> <tr> <td>Tensile Strength, ksi (MPa)</td> <td>70 (480) min.</td> <td>80 (550) min.</td> </tr> <tr> <td>Elongation (%)</td> <td>22 min.</td> <td>19 min.</td> </tr> <tr> <td>CVN Toughness, ft-lbf (J)</td> <td colspan="2">40 (54) min. @ 70 °F (20 °C) ^{b, c}</td> </tr> <tr> <td colspan="3">^b For LAST of +50 °F (+10 °C). For LAST less than + 50 °F (+10 °C), see AWS D1.8/D1.8M Clause 6.3.6.</td> </tr> <tr> <td colspan="3">^c Tests conducted in accordance to AWS D1.8/D1.8M Annex A meeting 40 ft-lbf (54 J) min. at a temperature lower than +70 °F (20 °C) also meet this requirement.</td> </tr> </tbody> </table> <p>In addition to the above requirements, AWS D1.8/D1.8M requires, unless otherwise exempted from testing, that all demand critical welds are to be made with filler metals receiving Heat Input Envelope Testing that achieve the following mechanical properties in the weld metal:</p> <table border="1"> <thead> <tr> <th colspan="3">Filler Metal Classification Properties for Seismic Force Resisting System Welds</th> </tr> <tr> <th rowspan="2">Property</th> <th colspan="2">Classification</th> </tr> <tr> <th>70 ksi (480 MPa)</th> <th>80 ksi (550 MPa)</th> </tr> </thead> <tbody> <tr> <td>Yield Strength, ksi (MPa)</td> <td>58 (400) min.</td> <td>68 (470) min.</td> </tr> <tr> <td>Tensile Strength, ksi (MPa)</td> <td>70 (480) min.</td> <td>80 (550) min.</td> </tr> <tr> <td>Elongation, %</td> <td>22 min.</td> <td>19 min.</td> </tr> <tr> <td>CVN Toughness, ft-lbf (J)</td> <td colspan="2">20 (27) min. @ 0 °F (-18 °C) ^a</td> </tr> <tr> <td colspan="3">^a Filler metals classified as meeting 20 ft-lbf (27 J) min. at a temperature lower than 0 °F (-18 °C) also meet this requirement.</td> </tr> </tbody> </table> <p>The amendment is necessary due to the increased risk of significant earthquakes in the County.</p>	Mechanical Properties for Demand Critical Welds			Property	Classification		70 ksi (480 MPa)	80 ksi (550 MPa)	Yield Strength, ksi (MPa)	58 (400) min.	68 (470) min.	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Code Section	Condition	Explanation of Amendment
2304.9.1 and Table 2304.9.1	Geological	<p>Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this proposed local amendment limits the use of staple fasteners in resisting or transferring seismic forces. In September 2007, limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as nailed wood structural shear panels. The test results of stapled wood structural shear panels appeared much lower in strength and drift than nailed wood structural shear panel test results. Therefore, the use of staples as fasteners to resist or transfer seismic forces shall not be permitted without being substantiated by cyclic testing. This amendment is a continuation of a similar amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.</p>
2304.11.7	Climatic Geological	<p>No substantiating data has been provided to show that wood used in retaining or crib walls is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood used in retaining or crib walls, when it is not properly treated and protected against deterioration, has performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic events and wet applications. The proposed amendment takes the necessary precautionary steps to reduce or eliminate potential problems that may result by using wood in retaining or crib walls that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.</p>
2305.4	Geological	<p>The overdriving of nails into the structural wood panels still remains a concern when pneumatic nail guns are used for wood structural panel shear wall nailing. Box nails were observed to cause massive and multiple failures of the typical 3/8-inch thick plywood during the 1994 Northridge Earthquake. The use of clipped head nails continues to be restricted from use in wood structural panel shear walls where the minimum nail head size must be maintained in order to minimize nails from pulling through sheathing materials. Clipped or mechanically driven nails used in wood structural panel shear wall construction were found to perform much worse in previous wood structural panel shear wall testing done at the University of California Irvine. The existing test results indicated that, under cyclic loading, the wood structural panel shear walls were less energy absorbent and less ductile. The panels reached ultimate load capacity and failed at substantially less lateral deflection than those using same size hand-driven nails. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.</p>

Code Section	Condition	Explanation of Amendment
2305.5	Geological	<p>Many of the hold-down connectors currently in use do not have any acceptance report based on dynamic testing protocol. This amendment continues to limit the allowable capacity to 75% of the acceptance report value to provide an additional factor of safety for statically tested anchorage devices. Cyclic forces imparted on buildings and structures by seismic activity cause more damage than equivalent forces which are applied in a static manner. Steel plate washers will reduce the additional damage which can result when hold-down connectors are fastened to wood framing members. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in the 1994 Northridge Earthquake. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.</p>
2306.2.1 and Tables 2306.2.1(3) through 2306.2.1(4)	Geological	<p>The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with staples are based on monotonic testing and do not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as wood structural panels fastened with common nails. The test result revealed that wood structural panels fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic testing. Furthermore, the cities and unincorporated areas within the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of shear walls and diaphragms designed for high levels of seismic forces by requiring wood sheathing be applied directly over the framing members and prohibiting the use of panels placed over gypsum sheathing. This amendment is intended to prevent the undesirable performance of nails when gypsum board softens due to cyclic earthquake displacements and the nail ultimately does not have any engagement in a solid material within the thickness of the gypsum board. This amendment continues the previous amendment adopted during the 2007 code adoption cycle.</p>

Code Section	Condition	Explanation of Amendment
2306.3 and Tables 2306.3 through 2306.3(2)	Geological	<p>The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with stapled nails are based on monotonic testing and do not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with stapled nails would exhibit the same behavior as wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with stapled nails appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of stapled nail as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic testing. Furthermore, the cities and unincorporated areas within the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of shear walls and diaphragms designed for high levels of seismic forces by requiring wood sheathing be applied directly over the framing members and prohibiting the use of panels placed over gypsum sheathing. This amendment is intended to prevent the undesirable performance of nails when gypsum board softens due to cyclic earthquake displacements and the nail ultimately does not have any engagement in a solid material within the thickness of the gypsum board. This amendment continues the previous amendment adopted during the 2007 code adoption cycle, and is necessary due to the increased risk of significant earthquakes in the County.</p>
2306.7	Geological	<p>Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this amendment limits the location where shear walls sheathed with lath, plaster or gypsum board are used in multi-level buildings. The poor performance of such shear walls sheathed with other materials in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force and formed the basis for this amendment. Considering that shear walls sheathed with lath, plaster or gypsum board are less ductile than steel moment frames or wood structural panel shear walls, the cities and unincorporated areas of the Los Angeles region have taken the necessary measures to limit the potential structural damage that may be caused by the use of such walls at the lower level of multi-level building that are subject to higher levels of seismic loads. This amendment is a continuation of an amendment adopted during previous code adoption cycles.</p>

Code Section	Condition	Explanation of Amendment
2308.3.4	Geological	With the higher seismic demand placed on buildings and structures in this region, interior walls can easily be called upon to resist over half of the seismic loading imposed on simple buildings or structures. Without a continuous foundation to support the braced wall line, seismic loads would be transferred through other elements such as non-structural concrete slab floors, wood floors, etc. The purpose of this amendment is to limit the use of the exception to structures assigned to Seismic Design Category A, B or C where lower seismic demands are expected. Requiring interior braced walls be supported by continuous foundations is intended to reduce or eliminate the poor performance of buildings or structures. This amendment is a continuation of an amendment adopted during previous code adoption cycles.
2308.12.2	Geological	Additional weight attributed to the use of heavy veneer substantially increases loads to conventionally braced walls in an earthquake. Moreover, normal to greater than normal wall loads that occur in an earthquake can seriously overstress wood bearing walls in combined seismic/gravity load combinations. Numerous conventionally framed veneer covered structures sustained serious damages in the Northridge Earthquake as a result of the heavy weight of the veneer. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.
2308.12.4 and Table 2308.12.4	Geological	This amendment specifies minimum sheathing thickness and nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands placed on buildings or structure in this region. This proposed amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This amendment is a continuation of an amendment adopted during previous code adoption cycles, and is necessary due to the increased risk of significant earthquakes in the County.
2308.12.5	Geological	Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this amendment limits the use of staple fasteners in resisting or transferring seismic forces. In September 2007, limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as nailed wood structural shear panels. The test results of stapled wood structural shear panels appeared much lower in strength and drift than nailed wood structural shear panel test results. Therefore, the use of staples as fasteners to resist or transfer seismic forces shall not be permitted without being substantiated by cyclic testing. This amendment is a continuation of a similar amendment adopted during previous code adoption cycles.
3401.8.1 to 3401.8.3	Geological	The greater Los Angeles/Long Beach region is a densely populated area having buildings constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The purpose of the amendments is to prevent inadequate construction or bracing to resist horizontal forces, thus becoming a hazard to life or property in the event of an earthquake.

Code Section	Condition	Explanation of Amendment
3401.9	Geological	The greater Los Angeles/Long Beach region is a densely populated area having buildings constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The purpose of the amendment is to save lives in the event of an earthquake when panics occur and glass shatters.
J101.1	Geological Topographical Climate	This section is revised to include erosion and sediment control measures to address the complex and diverse set of soil types and geologic conditions that exist in the Los Angeles County region.
J103.1 – J103.2	Geological Topographical Climate	This section is revised to provide adequate control of grading operations typical to the Los Angeles County region due to the complex and diverse set of soil types, climates, and geologic conditions that exist in the Los Angeles County region.
J104.2.1 – J104.4	Geological Topographical Climate	Sections revised or added to provide adequate control of grading operations typical to the Los Angeles County region due to the complex and diverse set of soil types, climates, and geologic conditions that exist in the Los Angeles County region.
J105.1- J105.14	Geological Topographical Climate	Sections revised or added to provide adequate control of grading operations typical to the Los Angeles County region due to the complex and diverse set of soil types, climates, and geologic conditions that exist in the Los Angeles County region.
J106.1	Geological Topographical Climate	Section revised to require more stringent cut slope ratios to address the complex and diverse set of soil types and geologic conditions that exist in the Los Angeles County region.
J106.2	Geological Topographical Climate	Section added to require drainage terraces to address the complex and diverse set of soil types, climates, and geologic conditions which exist in the Los Angeles County region.
J107.1- J107.7	Geological Topographical Climate	Sections revised to provide more stringent fill requirements for slope stability, and settlement due to the complex and diverse set of soil types, climates, and geologic conditions which exist in the Los Angeles County region.
J107.8 – J107.9	Geological Topographical Climate	Sections revised to provide more stringent inspection and testing requirements for fill slope stability due to the complex and diverse set of soil types, climates, and geologic conditions which exist in the Los Angeles County region.
J108.1 – J108.4	Geological Topographical Climate	Sections revised to provide more stringent slope setback requirements to address the complex and diverse set of soil types, climates, and geologic conditions which exist in the Los Angeles County region.
J109.1 – J109.3	Geological Topographical Climate	Sections revised to provide more stringent drainage and terracing requirements to address the complex and diverse set of soil types, climates, and geologic conditions which exist in the Los Angeles County region.
J109.5	Geological Topographical Climate	Subsection added to provide for adequate outlet of drainage flows due to the diverse set of soil types, climates, and geologic conditions which exist in the Los Angeles County region.
J110 - J110.8.5	Geological Topographical Climate	Sections revised or added to provide for State requirements of storm water pollution prevention and more stringent slope planting, and slope stability requirements to control erosion due to the complex and diverse set of soil types, climates, and geologic conditions that exist in the Los Angeles County region.
J111	Geological Topographical Climate	Section revised to reference additional standards for soils testing due to the complex and diverse set of soil types, climates, and geologic conditions that exist in the Los Angeles County region.

SECTION 109. This ordinance shall become operative on January 1, 2011.

[TITLE26MYCC]

HOA.738871.4

SECTION 110. This ordinance shall be published in The Daily Commerce a newspaper printed and published in the County of Los Angeles.



Gloria Molina
Chair

ATTEST:

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that at its meeting of November 23, 2010 the foregoing ordinance was adopted by the Board of Supervisors of said County of Los Angeles by the following vote, to wit:

<u>Ayes</u>		<u>Noes</u>	
Supervisors	<u>Mark Ridley-Thomas</u>	Supervisors	<u>None</u>
	<u>Zev Yaroslavsky</u>		
	<u>Don Knabe</u>		
	<u>Michael D. Antonovich</u>		
	<u>Gloria Molina</u>		

Effective Date: December 23, 2010

Operative Date: January 1, 2011

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that pursuant to Section 25103 of the Government Code, delivery of this ordinance has been made.

SAC -
Executive Officer
Clerk of the Board of Supervisors

By [Signature]
Deputy



APPROVED AS TO FORM:
ANDREA SHERIDAN ORDIN
County Counsel

By [Signature]
Leela Kapur
Chief Deputy County Counsel

ANALYSIS

This ordinance repeals those provisions of Title 27 - Electrical Code of the Los Angeles County Code, which had incorporated portions of the 2007 Edition of the California Electrical Code by reference, and replaces them with provisions incorporating by reference portions of the 2010 California Electrical Code, published by the California Building Standards Commission, with certain changes and modifications. Unless deleted or modified herein, the previously enacted provisions of Title 27 continue in effect.

State law requires that the County's Electrical Code impose the same requirements as are contained in the building standards published in the most recent edition of the California Electrical Code except for changes or modifications deemed reasonably necessary by the County because of local climatic, geologic, or topographic conditions.

The changes and modifications to requirements contained in the building standards published in the 2010 California Electrical Code which are contained in this ordinance are based upon express findings contained in the ordinance, that such changes are reasonably necessary due to local climatic, geologic, or topographic conditions. This ordinance also makes certain modifications to the administrative provisions of Title 27.

ANDREA SHERIDAN ORDIN
County Counsel

BY: 
MARK T. YANAI
Principal Deputy County Counsel
Property Division

MTY:vn

07/08/10 (Requested)

10/06/10 (Revised)

HOA.716089.6

ORDINANCE NO. 2010-0054

An ordinance amending Title 27 - Electrical Code of the Los Angeles County Code by adopting portions of the 2010 California Electrical Code, by reference, with certain changes and modifications, and making other revisions thereto.

The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. Sections 89.102 through 89.114 of Article 89, Article 90, and Chapters 1 through 9, including Section 690.19, which incorporate by reference and modify portions of the 2007 California Electrical Code, are hereby repealed.

SECTION 2. Article 80 is hereby amended to read as follows:

Sec. 80-1.5. California Electrical Code (CEC) Adoption by Reference.

Except as hereinafter changed or modified, Sections 89.102 through 89.114 of Article 89, Article 90, ~~and Chapters 1 through 9, and Annexes A, B, C, D, E, F, G, and H~~ of that certain Electrical Code known and designated as the ~~2007~~2010 California Electrical Code as published by the California Building Standards Commission are adopted by reference and incorporated into this Title 27 of the Los Angeles County Code as if fully set forth below, as Sections 89.102 through 89.114 of Article 89, Article 90, ~~and Chapters 1 through 9, and Annexes A, B, C, D, E, F, G and H~~ of Title 27 of the Los Angeles County Code.

A copy of the ~~2007~~2010 California Electrical Code, hereinafter referred to as the CEC shall be at all times maintained by the Chief Electrical Inspector for use and examination by the public.

SECTION 3. Section 82-4 is hereby amended to read as follows:

Sec. 82-4. Application for Electrical Permits.

...

(f) **Expiration of Application.** ~~An applications for permits for which no permit is issued within one year following the date of application shall expire by limitation. Plans and specifications previously submitted may thereafter be returned to the applicant or destroyed by the Chief Electrical Inspector. The Chief Electrical Inspector may extend the time for action by the applicant for a period not exceeding~~ grant up to two extensions of up to 180 days per extension beyond the initial one-year limit upon written request by the applicant showing that circumstances beyond the control of the applicant have prevented action from being taken and upon payment of an extension fee ~~equal to~~ an amount determined by the Chief Electrical Inspector, not to exceed 25 percent of the plan check fee. ~~No permit application shall be extended more than once.~~

Once an application and any extension(s) have expired, the applicant shall resubmit plans and specifications and pay a new plan checking or review fee.

SECTION 4. Section 83-3 is hereby amended to read as follows:

Sec. 83-3. Alternate Materials and Methods.

~~Nothing in this Code is~~ The provisions of this Code are not intended to prevent the use of any material, appliance, installation, device, arrangement method, design, or method of construction not specifically prescribed by this Code, provided any such alternate has been approved by the Chief Electrical Inspector.

The Chief Electrical Inspector may approve on a case-by-case basis any such alternate that is found to be satisfactory and does not lessen provisions for safety or health required by this Code.

...

SECTION 5. Section 690.19 is hereby added to Article 690 to read as follows:

Sec. 690.19 Disconnecting Means for Multiple Arrays.

Where more than one array is combined to form a single output, a disconnecting means rated for the output shall be installed immediately adjacent to the combiner box on the output side.

EXCEPTION 1: If the combiner box is located adjacent to the inverter(s), the disconnecting means as stated above shall not be required.

EXCEPTION 2: For a single-family dwelling with PV system rated up to 10 KW.

SECTION 6. The provisions of this ordinance contain additions to the 2010 Edition of the California Electrical Code.

Pursuant to California Health and Safety Code sections 17958.5, 17958.7, and 18941.5, the Board of Supervisors hereby expressly finds that the additions to requirements contained in the building standards published in the California Electrical Code contained in this ordinance are reasonably necessary because of local climatic, geological, or topographical conditions in the County of Los Angeles as more particularly described in the table set forth below.

ELECTRICAL CODE AMENDMENTS

CODE SECTION	CONDITION	EXPLANATION
690.19	Geological	Emergency situations caused by seismic events may require the disconnection of electrical power in a building. Presently, the CEC does not require a disconnecting means for conductors for multi-arrayed solar photovoltaic systems.

SECTION 7. This ordinance shall become operative on January 1, 2011.

[TITLE27MYCC]

SECTION 8. This ordinance shall be published in The Daily Commerce a newspaper printed and published in the County of Los Angeles.



Gloria Molina
Chair

ATTEST:

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that at its meeting of November 23, 2010 the foregoing ordinance was adopted by the Board of Supervisors of said County of Los Angeles by the following vote, to wit:

<u>Ayes</u>		<u>Noes</u>	
Supervisors	<u>Mark Ridley-Thomas</u>	Supervisors	<u>None</u>
	<u>Zev Yaroslavsky</u>		
	<u>Don Knabe</u>		
	<u>Michael D. Antonovich</u>		
	<u>Gloria Molina</u>		

Effective Date: December 23, 2010

Operative Date: January 1, 2011

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that pursuant to Section 25103 of the Government Code, delivery of this ordinance has been made.

SACHI A. HAMAI
Executive Officer
Clerk of the Board of Supervisors

By [Signature]
Deputy



APPROVED AS TO FORM:
ANDREA SHERIDAN ORDIN
County Counsel

By [Signature]
Leela Kapur
Chief Deputy County Counsel

ANALYSIS

This ordinance repeals those provisions of Title 29 - Mechanical Code of the Los Angeles County Code, which had incorporated portions of the 2007 Edition of the California Mechanical Code by reference and replaces them with provisions incorporating portions of the 2010 California Mechanical Code, published by the California Building Standards Commission, with certain changes and modifications. Unless deleted or modified herein, the previously enacted provisions of Title 29 continue in effect.

State law requires that the County's Mechanical Code contain the same requirements as are contained in the building standards published in the most recent edition of the California Mechanical Code. State law allows the County to change or modify these requirements only if it determines that such changes or modifications are reasonably necessary because of local climatic, geological, or topographical conditions. The changes and modifications to the requirements contained in the building standards published in the 2010 California Mechanical Code, which are contained in this ordinance, are based upon express findings, contained in the ordinance, that such changes are reasonably necessary due to local climatic, geological, or topographical conditions.

This ordinance also makes certain modifications to the administrative provisions of Title 29.

ANDREA SHERIDAN ORDIN
County Counsel

By 
MARK T. YANAI
Principal Deputy County Counsel
Property Division

MTY:vn

07/08/10 (Requested)

10/05/10 (Revised)

HOA.716090.5

ORDINANCE NO. 2010-0056

An ordinance amending Title 29 - Mechanical Code of the Los Angeles County Code, by adopting portions of the 2010 California Mechanical Code, by reference, with certain changes and modifications, and making other revisions thereto.

The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. Section 120 through 132 of Chapter 1, Chapters 2 through 17, and Appendices A, B, C, and D, which incorporate by reference and modify portions of the 2007 California Mechanical Code, are hereby repealed.

SECTION 2. Section 100 is hereby amended to read as follows:

100 -- CMCADOPTION BY REFERENCE

Except as hereinafter changed or modified, Sections ~~1021.2~~ through ~~4441.14~~ of Chapter 1, Division I of that certain Mechanical Code known and designated as the ~~2007~~2010 California Mechanical Code (CMC)-as published by the California Building Standards Commission are adopted by reference and incorporated into this Title 29 of the Los Angeles County Code as if fully set forth below, and shall be known as Sections ~~120119.1.2~~ through ~~132119.1.14~~, respectively, of Chapter 1 of Title 29 of the Los Angeles County Code.

Except as hereinafter changed or modified, Chapters 2 through 17, and Appendices A, B, C, and D of that certain Mechanical Code known and designated as the ~~2007~~2010 California Mechanical Code (CMC)-as published by the California Building Standards Commission are adopted by reference and incorporated into this Title 29 of the Los Angeles County Code as if fully set forth below, and shall be known

as Chapters 2 through 17, and Appendices A, B, C, and D of Title 29 of the Los Angeles County Code.

A copy of the 2010 California Mechanical Code shall be at all times maintained by the Chief Mechanical Inspector for use and examination by the public.

SECTION 3. Section 107 is hereby amended to read as follows:

107 -- ALTERNATE MATERIALS AND METHODS OF

CONSTRUCTION

~~The provisions of this Code are not intended to prevent the use of any materials or methods of construction not specifically prescribed by this Code, provided any such alternate has been approved.~~

~~The Chief Mechanical Inspector may approve any such alternate provided he finds that the proposed design is satisfactory and complies with the provisions of this Code, and that the material, method, or work offered is, for the purpose intended, at least the equivalent of that prescribed in this Code in quality, strength, effectiveness, fire resistance, durability, and safety.~~

~~The Chief Mechanical Inspector shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use.~~

107.1 Purpose and Intent. Nothing in this Code is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this Code. Technical documentation shall be submitted to the Authority Having Jurisdiction to demonstrate equivalency. The Authority Having Jurisdiction shall have

the authority to approve or disapprove the system, method, or device for the intended purpose.

However, the exercise of this discretionary approval by the Authority Having Jurisdiction shall have no effect beyond the jurisdictional boundaries of said Authority Having Jurisdiction. Any alternate material or method of construction so approved shall not be considered as conforming to the requirement and/or intent of this Code for any purpose other than that granted by the Authority Having Jurisdiction.

107.2 **Application.** Application for useapproval of an alternate material or method of construction shall be submitted in writing to the Chief Mechanical Inspector together with a filing fee of \$210.20. When actual staff review exceeds two hours, an additional fee of \$105.10 per hour shall be charged for each hour or fraction thereof in excess of two hours.

107.3 **Testing.** The Authority Having Jurisdiction may require any applicant to perform testing, in support of its application, in accordance with the following:

107.3.1 Tests shall be made in accordance with approved testing standards by an approved testing agency at the expense of the applicant. In the absence of such standards, the Authority Having Jurisdiction shall have the authority to specify the test procedure.

107.3.2 The Authority Having Jurisdiction may require tests to be made or repeated if, at any time, the Authority Having Jurisdiction has reason to believe that any previously approved alternate material or device no longer conforms to the requirements on which its approval was based.

SECTION 4. Section 109 is hereby amended to read as follows:

109 -- BOARD OF APPEALS

~~In order to determine the suitability of alternate materials and types of construction and to provide for reasonable interpretations of the provisions of this Code~~hear and decide appeals of orders, decisions, or determinations made by the Authority Having Jurisdiction relative to the application and interpretations of this Code,
the Board of Examiners of Plumbers provided for in Section 105.3 of Title 28 of the Los Angeles County Code, known as the Plumbing Code, shall act as a Board of Appeals. The Board shall adopt reasonable rules and regulations for conducting its investigations, which may be separate and distinct from, or may be a part of, the rules and regulations, if any, of the Board of Examiners of Plumbers. The Board shall render all decisions and findings in writing.

...

SECTION 5. Section 111.2 is hereby amended to read as follows:

111.2 Permits Application.

...

Applications for permits for which no permit is issued within one year following the date of application shall expire by limitation. Plans and specifications previously

submitted may thereafter be returned to the applicant or destroyed by the Chief Mechanical Inspector. The Chief Mechanical Inspector may ~~extend the time for action by the applicant for a period not exceeding~~ grant up to two extensions of up to 180 days per extension beyond the initial one-year limit upon written request by the applicant showing that circumstances beyond the control of the applicant have prevented action from being taken and upon the payment of an extension fee ~~equal to an amount~~ determined by the Chief Mechanical Inspector, not to exceed 25 percent of the plan check fee. ~~No permit application shall be extended more than once.~~

...

SECTION 6. Section 204.0 is hereby amended to read as follows:

204.0 - B -

...

~~BUILDING CODE – The building code that is adopted by this jurisdiction. [HCD1, HCD 2, and SFM] "Building Code" shall mean the California Building Code, Title 24, Part 2~~ most recent edition of Title 26 of the Los Angeles County Code.

...

SECTION 7. Section 207.0 is hereby amended to read as follows:

207.0 - E -

...

~~ELECTRICAL CODE – The National Electrical Code promulgated by the National Fire Protection Association, as adopted by this jurisdiction. [HCD 1 and HCD 2]. Whenever the term "Electrical Code" is used in this code, it shall mean the California~~

~~Electrical Code, Title 24, Part 3~~ most recent edition of Title 27 of the Los Angeles County Code.

...

SECTION 8. Section 218.0 is hereby amended to read as follows:

218.0 - P -

...

~~PLUMBING CODE – The Uniform Plumbing Code promulgated by the International Association of Plumbing and Mechanical Officials, as adopted by this jurisdiction. [HCD 1 and HCD 2]. Whenever the term "Plumbing Code" is used in this code, it shall mean the California Plumbing Code, Title 24, Part 5~~ most recent edition of Title 28 of the Los Angeles County Code.

...

SECTION 9. Section 501.0 is hereby amended to read as follows:

501.0 **Scope.**

This ~~e~~Chapter includes requirements for environmental air ducts, product conveying systems, and commercial hoods and kitchen ventilation. Ventilation systems installed to control occupational health hazards shall comply with the requirements of the Health Officer.

SECTION 10. Section 508.4.1.5 is hereby amended to read as follows:

508.4.1.5 Type I hoods where the cooking equipment includes low-temperature appliances such as medium-to-low temperature ranges, roasters, roasting

ovens, pastry ovens, pizza ovens, and equipment approved for use under a Type II hood, ~~such as pizza ovens~~:

...

SECTION 11. Section 510.1.7 is hereby amended to read as follows:

510.1.7 Duct bracing and supports shall be of noncombustible material, securely attached to the structure, not less than the gauge required for grease duct construction, and designed to carry gravity and lateral loads within the stress limitations of the Building Code. Bolts, screws, rivets, and other mechanical fasteners shall not penetrate duct walls.

SECTION 12. Section 604.2 is hereby amended to read as follows:

604.2 Metal Ducts.

...

Supports for rectangular ducts as set forth in the ANSI/SMACNA 006-2006 HVAC Duct Construction Standards – Metal and Flexible or another approved duct construction standard, when suspended from above, shall be installed on two opposite sides of each duct and shall be welded, riveted, bolted, or metal screwed to each side of the duct at not more than the intervals specified.

...

SECTION 13. Section 1119.4 is hereby added to Section 1119.0 to read as follows:

1119.4. Approvals Required.

The method of discharge of systems containing other than group A1 refrigerants shall comply with the pertinent requirements of Title 32-Fire Code and Division 2 of Title 20 - Sanitary Sewer and Industrial Waste of the Los Angeles County Code. Where applicable, Section 1120 may be used with prior approval of Authority Having Jurisdiction.

SECTION 14. The provisions of this ordinance contain various changes, modifications, and additions to the 2010 Edition of the California Mechanical Code. Some of these changes are administrative in nature in that they do not constitute changes or modifications to requirements contained in the building standards published in the California Building Standards Code.

Pursuant to California Health and Safety Code sections 17958.5, 17958.7, and 18941.5, the Board of Supervisors hereby expressly finds that all of the changes and modifications to requirements contained in the building standards published in the California Building Standards Code, contained in this ordinance, which are not administrative in nature, are reasonably necessary because of local climatic, geological, or topographical conditions in the County of Los Angeles as more particularly described in the table set forth below.

TABLE

MECHANICAL CODE AMENDMENTS		
CODE SECTION	CONDITION	EXPLANATION
501	Climatic	Additional Health Department requirements are necessary due to local air quality concerns.
510.1.7	Geological	To reduce damage during a seismic event.
604.2	Geological	To reduce damage during a seismic event.
1119.4	Geological	To reduce the potential for release of toxic refrigerant caused by shifting equipment during a seismic event.

SECTION 15. This ordinance shall become operative on January 1, 2011.

[TITLE29MYCC]

SECTION 16. This ordinance shall be published in The Daily Commerce a newspaper printed and published in the County of Los Angeles.



Gloria Molina
Chair

ATTEST:

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that at its meeting of November 23, 2010 the foregoing ordinance was adopted by the Board of Supervisors of said County of Los Angeles by the following vote, to wit:

<u>Ayes</u>		<u>Noes</u>	
Supervisors	<u>Mark Ridley-Thomas</u>	Supervisors	<u>None</u>
	<u>Zev Yaroslavsky</u>		
	<u>Don Knabe</u>		
	<u>Michael D. Antonovich</u>		
	<u>Gloria Molina</u>		

Effective Date: December 23, 2010
Operative Date: January 1, 2011

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that pursuant to Section 25103 of the Government Code, delivery of this ordinance has been made.

SAC:
Executive Officer
Clerk of the Board of Supervisors

By [Signature]
Deputy



APPROVED AS TO FORM:
ANDREA SHERIDAN ORDIN
County Counsel

By [Signature]
Leela Kapur
Chief Deputy County Counsel

ANALYSIS

This ordinance repeals those provisions of Title 28 - Plumbing Code of the Los Angeles County Code, which had incorporated portions of the 2007 Edition of the California Plumbing Code by reference, and replaces them with provisions incorporating by reference portions of the 2010 California Plumbing Code, published by the California Building Standards Commission, with certain changes and modifications. Unless deleted or modified herein, the previously enacted provisions of Title 28 continue in effect.

State law requires that the County's Plumbing Code impose the same requirements as are contained in the building standards published in the most recent edition of the California Plumbing Code except for changes or modifications deemed reasonably necessary by the County because of local climatic, geologic, or topographic conditions.

The changes and modifications to requirements contained in the building standards published in the 2010 California Plumbing Code which are contained in this ordinance are based upon express findings contained in the ordinance, that such changes are reasonably necessary due to local climatic, geologic, or topographic conditions.

This ordinance also makes certain modifications to the administrative provisions of Title 28.

ANDREA SHERIDAN ORDIN
County Counsel

BY 
MARK T. YANAI
Principal Deputy County Counsel
Property Division

MTY:vn

07/08/10 (Requested)

10/12/10 (Revised)

HOA.730522.3

ORDINANCE NO. 2010-0055

An ordinance amending Title 28 - Plumbing Code of the Los Angeles County Code by adopting portions of the 2010 California Plumbing Code, by reference, with certain changes and modifications, and making other revisions thereto.

The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. Sections 120 through 132 of Chapter 1, Chapters 2 through 15, and Appendices A, B, D, G, I, and K, which incorporate by reference and modify portions of the 2007 California Plumbing Code, are hereby repealed.

SECTION 2. Chapter 1 is hereby amended to read as follows:

CHAPTER 1

ADMINISTRATION

100 ADOPTION BY REFERENCE.

Except as hereinafter changed or modified, Sections ~~4021.2~~ through ~~4441.14~~ of Chapter 1, Division I of that certain Plumbing Code known and designated as the ~~2007~~2010 California Plumbing Code as published by the California Building Standards Commission, are adopted by reference and incorporated into this Title 28 of the Los Angeles County Code as if fully set forth below, and shall be known as Sections ~~420119.1.2~~ through ~~432119.1.14~~, respectively, of Chapter 1 of Title 28 of the Los Angeles County Code.

Except as hereinafter changed or modified, Chapters 2 through ~~4516A~~ and Appendices A, B, D, G, I, and K of that certain Plumbing Code known and designated as the ~~2007~~2010 California Plumbing Code as published by the California Building

Standards Commission, are adopted by reference and incorporated into this Title 28 of the Los Angeles County Code as if fully set forth below, and shall be known as Chapters 2 through ~~4516A~~, and Appendices A, B, D, G, I, and K of Title 28 of the Los Angeles County Code.

A copy of the 2010 California Plumbing Code shall be at all times maintained by the Chief Plumbing Inspector for use and examination by the public.

101.0 General provisions.

...

101.5 Use of terms. Whenever the term "Chief Plumbing Inspector," or "Plumbing Inspector" ~~or "Authority Having Jurisdiction"~~ is used in this Code, other than in Section 101.4, such term shall be construed to mean the "Director of the Department of Public Works" of the County of Los Angeles or his or her authorized representative.

Whenever the term "Authority Having Jurisdiction" is used in this Code, such term shall be construed to mean the following:

1. For purposes of administering the requirements of Title 28, Appendix K relating to the plan approval of private sewage disposal systems or plan approval of any construction activity impacting a private sewage disposal system, the Authority Having Jurisdiction shall be the Health Officer;

2. For purposes of administering the provisions of Chapter 1, Section 101.3.1 of this Code solely to the extent that the Authority Having Jurisdiction has discretion to approve deviations from the provisions of this Code for alterations, repairs, or

renovations of existing private sewage disposal systems, the Authority Having

Jurisdiction shall be the Health Officer;

3. For purpose of administering the provisions of Chapter 1,

Section 101.3.3 of this Code solely to the extent that the Authority Having Jurisdiction

has authority to determine that a private sewage disposal system is dangerous, unsafe,

insanitary, or a nuisance and a menace to life, health, or property, the Authority Having

Jurisdiction shall be the Health Officer;

4. For all other purposes, the term "Authority Having Jurisdiction," when it is used in this Code, shall be construed to mean the Chief Plumbing Inspector.

...

101.9 Board of Appeals.

...

Appeals shall be made in writing to the Chief Plumbing Inspector, no later than 60 days from the date of the action being appealed from. and ~~the~~ appellant may appear in person before the Board or be represented by an attorney and may introduce evidence to support his claims. Appeals shall be heard at reasonable times at the convenience of the Board ~~but not later than 30 days after receipt thereof.~~

...

103.0 Permits.

...

103.9 Application for permit.

...

~~An Applications for a permits for which shall expire if~~ no permit is issued within one year following the date of application shall be deemed withdrawn and the Chief Plumbing Inspector shall take no further action thereon. Plans and specifications previously submitted may thereafter be returned to the applicant or destroyed by the Chief Plumbing Inspector. The Chief Plumbing Inspector may ~~extend this period for an additional period not exceeding~~ grant up to two extensions of up to 180 days per extension, beyond the initial one year period upon written request by the applicant showing that circumstances beyond the control of the applicant have prevented the applicant from taking the actions requested by the Chief Plumbing Inspector and upon the payment of an extension fee equal as determined by the Chief Plumbing Inspector, not to exceed 25 percent of the plan check fee. ~~No permit application shall be extended more than once.~~ Once an application and any extension thereof have expired, the applicant shall resubmit plans and specifications and pay a new plan checking or review fee.

...

103.12 Investigation Fee.

...

103.12.2 Alternate Materials and Method of Construction.

In compliance with Section 301.2 of this Code regarding the use of an alternate material or method of construction, an application shall be submitted in writing to the Chief Plumbing Inspector together with a filing fee of \$210.20. When actual staff review

exceeds two hours, an additional fee of \$105.10 per hour shall be charged for each hour or fraction thereof in excess of two hours.

...

SECTION 3. Section 609.7 is hereby amended to read as follows:

Nothing contained in this eCode shall be construed to prohibit the use of all or part of an abutting or adjacent lot or lots to:

...

SECTION 4. Section 713.1 is hereby amended to read as follows:

713.1 Every building in which plumbing fixtures are installed and every premises having drainage piping thereon shall have a connection to a public or private sewer, except as provided in Sections ~~401.4.1.3~~101.3.3, 713.2, and 713.4.

SECTION 5. Section 721.0 is hereby amended to read as follows:

...

721.3 If the public sewer does not extend to a point from which each building on a lot or parcel of land large enough to permit future subdivision can be independently served, the property owner shall construct a public sewer as required by the Los Angeles County Sanitary Sewer and Industrial Waste Ordinance to provide adequate sewerage for each such possible parcel.

Exception: When the Authority Having Jurisdiction finds that the character of a lot is such that no further subdivision can be reasonably anticipated, or the use is such as to preclude subdivision, or where the owner has executed a covenant stating that the lot or parcel of land together with all improvements thereon will be maintained as a unit

and that before any subdivision is made or any portion of said lot is transferred to another owner, separate sewerage facilities as hereinbefore required in this Section will be installed, the drainage system of all buildings may be connected to a common building sewer or private sewage disposal system. The covenant shall be recorded, by the owner, in the office of the Department of Registrar-Recorder as part of the conditions of ownership of said property. Such agreement shall be binding on all heirs, successors, and assigns to said property.

This exception shall apply only while the whole of such lot remains in one undivided ownership. Upon the transfer of any portion of such lot other than the whole thereof, to another owner, whether such transfer is made before or after the operative date of the ordinance adding this provision, the exception shall cease and a person shall not use or maintain any building or structure except in compliance with the provisions of this Code. As used in this Section, a sale, foreclosure, or contract to sell by the terms of which the purchaser is given the right of possession shall be deemed a transfer.

SECTION 6. Section 728.0 is hereby added to read as follows:

728.0 Building Sewer Connection Requirements.

728.1 Size. That portion of the building sewer extending from the public sewer to the property line shall be not less than four (4) inches (100 mm) in internal diameter.

728.2 Depth. When laid within the limits of any public thoroughfare when the public sewer is sufficiently deep, no building sewer shall be less

than six (6) feet (1.8 m) below grade. Whenever practicable, the alignment and grade of each building sewer shall be straight from the public sewer to the property line.

728.3 Taps and saddles. Whenever it becomes necessary to connect a building sewer to a public sewer at a point where no branch fitting has been installed in the public sewer, such connection shall be made as required by the Los Angeles County Sanitary Sewer and Industrial Waste Ordinance.

728.4 Connection to trunks. Whenever required, an approved-type unvented running trap shall be installed in each building sewer which is connected directly to a trunk sewer by any means whatsoever. Each such running trap shall be installed in the building sewer between the house drain or drains and the connection to the trunk sewer. A T-type cleanout shall be installed in the building sewer immediately below the running trap. This cleanout need not be extended to grade. Every running trap and cleanout shall be located on the lot served by the building sewer.

728.5 Street widening. Where a future street or road-widening area has been established by the master plan of highways or in any other manner, all work installed in such area shall conform to the requirements established in this or other related ordinances for work on public property.

728.6 Main line required. Building sewer construction shall conform to the requirements of main line sewers as set forth in the Los Angeles County Sanitary Sewer and Industrial Waste Ordinance when either of the following conditions exist:

1. Where the Authority Having Jurisdiction requires such construction because of the character or quantity of the sewage or industrial waste to be discharged.

2. Where the sewer is designed to be, or proposed to be, dedicated to the County of Los Angeles at the present or any future time.

SECTION 7. Section K 3.0 of Appendix K is hereby amended to read as follows:

K 3.0 Area of Disposal Fields and Seepage Pits.

...

(3) No excavation for a leach line or leach bed shall extend within ~~five (5) feet (1,524 mm)~~ ten (10) feet (3048 mm) of the ground water table nor to a depth where sewage may contaminate the underground water stratum ~~that is useable for domestic purposes.~~

Exception: ~~In areas where the records or data indicate that the ground waters are grossly degraded, the five (5) foot (1524 mm) separation requirement may be reduced by the Authority Having Jurisdiction.~~ When approved by the Authority Having Jurisdiction, this distance may be reduced to five (5) feet (1.5 m) from ocean water. The applicant shall supply evidence of ground water depth to the satisfaction of the Authority Having Jurisdiction.

(4) The minimum effective absorption area in any seepage pit shall be calculated as the excavated side wall area below the inlet exclusive of any hardpan, rock, clay, or other impervious formations. The minimum required area of porous formation shall be provided in one or more seepage pits. No excavation shall extend

within ten (10) feet (3048 mm) of the ground water table nor to a depth where sewage may contaminate underground water stratum ~~that is useable for domestic purposes.~~

Exception: ~~In areas where the records or data indicate that the ground waters are grossly degraded, the ten (10) foot (3048 mm) separation requirement may be reduced by the Authority Having Jurisdiction~~ When approved by the Authority Having Jurisdiction, this distance may be reduced to five (5) feet (1.5 m) from ocean water.

...

SECTION 8. Section K 4.0 of Appendix K is hereby amended to read as follows:

K4.0 Percolation Test.

...

(C) When a percolation test is required, the proposed system shall have the capability to absorb a quantity of clear water in a 24-hour period equal to at least five times the liquid capacity of the proposed septic tank. ~~n~~ No private disposal system shall be permitted to serve a building if that test shows the absorption capacity of the soil is less than 0.83 gallons per square foot (33.8 L/m²) or more than 5.12 gallons per square foot (208 L/m²) of leaching area per 24 hours. If the percolation test shows an absorption rate greater than 5.12 gallons per square foot (208 L/m²) per 24 hours, a private disposal system may be permitted if the site does not overlie ground waters protected for drinking water supplies, a minimum thickness of two (2) feet (610 mm) of the native soils below the entire proposed system is replaced by loamy sand, and the system design is based on percolation tests made in the loamy sand.

SECTION 9. Section K 6.0 of Appendix K is hereby amended to read as follows:

K6.0 Disposal Fields.

...

(E) Where two (2) or more drain lines are installed, an approved distribution box of sufficient size to receive lateral lines shall be installed at the head of each disposal field. The inverts of all outlets shall be level, and the invert of the inlet shall be at least one (1) inch (25.4 mm) above the outlets. Distribution boxes shall be designed to ensure equal flow and shall be installed on a level concrete slab in natural or compacted soil.

Distribution boxes shall be coated on the inside with a bituminous coating or other approved method acceptable to the Authority Having Jurisdiction.

...

~~(H) When the quantity of sewage exceeds the amount that can be disposed in five hundred (500) lineal feet (152.4 m) of leach line, a dosing tank shall be used. Dosing tanks shall be equipped with an automatic siphon or pump that discharges the tank once every three (3) or four (4) hours. The tank shall have a capacity equal to sixty (60) to seventy five (75) percent of the interior capacity of the pipe to be dosed at one time. Where the total length of pipe exceeds one thousand (1000) lineal feet (304.8 m), the dosing tank shall be provided with two (2) siphons or pumps dosing alternately and each serving one half (1/2) of the leach field. Automatic syphon or dosing tanks shall be installed when required or as permitted by the Authority Having Jurisdiction.~~

...

SECTION 10. Section K 7.0 of Appendix K is hereby amended to read as follows:

K7.0 Seepage Pits.

...

(B) Multiple seepage pit installations shall be served through an approved distribution box or be connected in series ~~by means of a water tight connection laid on undisturbed or compacted soil; the outlet from the pit shall have.~~ When connected in series, the effluent shall leave each pit through an approved vented leg fitting extending at least twelve (12) inches (305 mm) below the inlet fitting downward into such existing pit and having its outlet flow line at least six (6) inches below the inlet. All pipe between pits shall be laid with approved watertight joints.

SECTION 11. Section K 10.0 of Appendix K is hereby amended to read as follows:

K 10.0 Inspection and Testing.

(A) **Inspection.**

(1) Applicable provisions of Section ~~403.5~~104.0 of this eCode and this appendix shall be complied with. Plans may be required per Section ~~404.3~~102.1 of this eCode.

...

(5) Disposal fields and seepage pits shall not be installed in uncompact fill.

SECTION 12. Section K 11.0 of Appendix K is hereby amended to read as follows:

K 11.0 Abandoned Sewers and Sewage Disposal Facilities.

...

(F) No excavation for an abandoned sewer or sewage facility shall be left unattended at any time unless the permittee shall have first provided a suitable and adequate barricade to assure public safety.

SECTION 13. Table K-2 of Appendix K is hereby amended to read as follows:

**TABLE K-2
CAPACITY OF SEPTIC TANKS***

Single-family dwellings** Number of Bedrooms	Multiple Dwelling Units or Apartments- -One Bedroom Each	Other Uses: Maximum Fixture Units Served Per Table 7-3	Minimum Septic Tanks Capacity in Gallons (liters)
...

...

** Applies to mobile homes not installed in a mobile home park.

SECTION 14. Table K-3 of Appendix K is hereby amended to read as

follows:

TABLE K-3
ESTIMATED WASTE/SEWAGE FLOW RATES

...

Type of Occupancy	Unit Gallons (liters) Per Day
...	...
11. Laundries, self service (minimum 10 hours per day) Commercial	50 (189.3) per wash cycle <u>300 per machine</u> Per manufacturer's specifications
...	...
14. Parks, mobile homes picnic parks (toilets only) recreational vehicles -- without water hookup with water and sewer hookup	250 (946.3) per space 20 (75.7) per parking space 75 (283.9) per space 100 (378.5) per space
15. Restaurants – cafeterias — toilet — kitchen waste — add for garbage disposal — add for cocktail lounge — kitchen waste — Disposal service	20 (75.7) per employee <u>50 (189.3) per seat</u> 7 (26.5) per customer 6 (22.7) per meal 4 (3.8) per meal 2 (7.6) per customer 2 (7.6) per meal
...	...

~~(A) Recommended Design Criteria. Sewage disposal systems sized using the estimated waste/sewage flow rates should be calculated as follows:~~

~~(1) Waste/sewage flow, up to 1,500 gallons/day (5,677.5 L/day)~~

~~Flow x 1.5 = septic tank size.~~

~~(2) Waste/sewage flow, over 1,500 gallons/day (5,677.5 L/day)~~

~~Flow x 0.75 + 1,125 = septic tank size.~~

~~(3) Secondary system shall be sized for total flow per 24 hours.~~

~~(B) Also see Section K-2 of this appendix.~~

SECTION 15. Table K-4 of Appendix K is hereby amended to read as

follows:

TABLE K-4

DESIGN CRITERIA OF FIVE TYPICAL SOILS

Type of Soil	Required sq. ft. of leaching area/100 gals. (m ² /L)	Maximum absorption capacity in gals/sq. ft. of leaching area for a 24 hr. period (L/m ²)
...
Sandy loam or Sandy-clay	40 (0.010)	2.5 (101.8)
<u>Sandy clay</u>	<u>60 (0.015)</u>	<u>1.66 (67.9)</u>
Clay with considerable sand or gravel

SECTION 16. Table K-5 of Appendix K is hereby amended to read as

follows:

TABLE K-5

Require Sq. Ft. of Leaching Area/100 Gals. Septic Tank Capacity	Maximum Septic Tank Size Allowable	Gallons	(Liters)
	(m ² /L)		
...
40
<u>60</u>	<u>(0.015)</u>	<u>3,500</u>	<u>(13,247.5)</u>
90	(0.022)	3,500 3000	(13,249) 11,355.0
...

SECTION 17. The provisions of this ordinance contain various changes, modifications, and additions to the 2010 Edition of the California Plumbing Code. Some of these changes are administrative in nature in that they do not constitute changes or modifications to requirements contained in the building standards published in the California Building Standard Code.

Pursuant to California Health and Safety Code sections 17958.5, 17958.7, and 18941.5, the Board of Supervisors hereby expressly finds that all of the changes and modifications to requirements contained in the building standards published in the California Building Standards Code, contained in this ordinance, which are not administrative in nature, are reasonably necessary because of local climatic, geological, or topographical conditions in the County of Los Angeles as more particularly described in the table set forth below.

Plumbing Code Amendments

CODE SECTION	CONDITION	EXPLANATION
K3.0	Geological, Topographical,	To establish more restrictive requirements for protection of local groundwater due to local soil conditions.
K4.0(C)	Geological, Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions.
K6.0(E)	Geological, Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions.

CODE SECTION	CONDITION	EXPLANATION
K6.0(H)	Geological, Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions.
K7.0(B)	Geological, Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions.
K10.0(A)(5)	Geological	To establish more restrictive requirements to prevent earth movement based on local soil and seismic conditions.
K11.0(F)	Geological	To establish more restrictive requirements to prevent earth movement based on local soil and seismic conditions.
Table K-3	Geological, Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions, sewer capacity, and sewage treatment.
Table K-4	Geological, Topographical	To establish consistency with requirements of the County Health Department, for sewer capacity, and sewage treatment due to local soil conditions.
Table K-5	Geological, Topographical	To establish consistency with requirements of the County Health Department for sewer capacity, and sewage treatment, due to local soil conditions.

SECTION 18. This ordinance shall become operative on January 1, 2011.

[TITLE28MYCC]

SECTION 19. This ordinance shall be published in The Daily Commerce a newspaper printed and published in the County of Los Angeles.



Gloria Molina
Chair

ATTEST:

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that at its meeting of November 23, 2010 the foregoing ordinance was adopted by the Board of Supervisors of said County of Los Angeles by the following vote, to wit:

<u>Ayes</u>		<u>Noes</u>	
Supervisors	<u>Mark Ridley-Thomas</u>	Supervisors	<u>None</u>
	<u>Zev Yaroslavsky</u>		
	<u>Don Knabe</u>		
	<u>Michael D. Antonovich</u>		
	<u>Gloria Molina</u>		

Effective Date: December 23, 2010

Operative Date: January 1, 2011

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that pursuant to Section 25103 of the Government Code, delivery of this ordinance has been made.

SAC: _____
Executive Officer
Clerk of the Board of Supervisors

By Chris Talar
Deputy



APPROVED AS TO FORM:
ANDREA SHERIDAN ORDIN
County Counsel

By Leela Kapur
Leela Kapur
Chief Deputy County Counsel

ANALYSIS

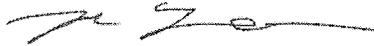
This ordinance adds new Title 30 - Residential Code to the Los Angeles County Code. Title 30 incorporates by reference portions of the 2010 California Residential Code, published by the California Building Standards Commission, with certain changes and modifications.

State law requires that the County adopt ordinances that contain the same requirements as are contained in the building standards published in the California Residential Code. State law allows the County to change or modify these requirements only if it determines that such changes or modifications are reasonably necessary because of local climatic, geological, or topographical conditions.

The changes and modifications to requirements contained in the building standards published in the 2010 California Residential Code which are contained in this ordinance are based upon express findings, contained in the ordinance, that such changes are reasonably necessary due to local climatic, geological, or topographical conditions.

Title 30 also incorporates by reference certain administrative provisions contained in Title 26 - Building Code.

ANDREA SHERIDAN ORDIN
County Counsel

By 
MARK T. YANAI
Principal Deputy County Counsel
Property Division

MTY:vn

03/10/10 (Requested)

10/18/10 (Revised)

ORDINANCE NO. 2010-0057

An ordinance adding Title 30 – Residential Code to the Los Angeles County Code, relating to the adoption of the 2010 California Residential Code by reference, with certain changes and modifications.

The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. Title 30 is hereby added to read as follows:

TITLE 30

RESIDENTIAL CODE

CHAPTER 1

ADMINISTRATION

R100 ADOPTION BY REFERENCE

Except as hereinafter changed or modified, Sections 102 through 119 of Chapter 1, Section 1207 of Chapter 12, Chapters 34, 67, 69, 98, 99, and Appendix J of Title 26 of the Los Angeles County Code are adopted by reference and incorporated into this Title 30 as if fully set forth below, and shall be known as Sections 102 through 119 of Chapter 1, Section 1207 of Chapter 12, Chapters 34, 67, 69, 98, 99, and Appendix J of Title 30 of the Los Angeles County Code.

Except as hereinafter changed or modified, Chapters 2 through 10, Chapter 44, and Appendix H of that certain code known and designated as the 2010 California Residential Code as published by the California Building Standards Commission are adopted by reference and incorporated into this Title 30 as if fully set forth below, and

shall be known as Chapters 2 through 10, Chapter 44, and Appendix H of Title 30 of the Los Angeles County Code.

A copy of the 2010 California Residential Code shall be at all times maintained by the Building Official for use and examination by the public.

R101 TITLE, PURPOSE, AND INTENT

R101.1 Title. Title 30 of the Los Angeles County Code shall be known as the "Residential Code For One And Two Family Dwellings," may be cited as such, and will be referred to herein as "these regulations" or "these building standards" or "this Code."

R101.2 Purpose and Intent. The purpose of this Code is to provide minimum standards to preserve the public safety, health, and welfare by regulating the design, construction, installation, quality of materials, use, occupancy, location, and maintenance of all buildings, structures, grading, and certain equipment as specifically set forth herein. Consistent with this purpose, the provisions of this Code are intended to confer a benefit on the community as a whole and are not intended to establish a duty of care toward any particular person.

This Code shall not be construed to hold the County of Los Angeles or any officer, employee, or agent thereof responsible for any damage to persons or property by reason of any inspection authorized herein or by reason of the issuance or non-issuance of any permit authorized herein, and/or for any action or omission in connection with the application and/or enforcement of this Code. By adopting the provisions of this Code, the County does not intend to impose on itself, its employees,

or agents any mandatory duties of care toward persons and property within its jurisdiction so as to provide a basis of civil liability for damages.

This Section is declaratory of existing law and is not to be construed as suggesting that such was not the purpose and intent of previous Code adoptions.

R101.3 **Scope.** The provisions of this Code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal, demolition, and grading of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures within the unincorporated territory of the County of Los Angeles and to such work or use by the County of Los Angeles in any incorporated city.

Exception: Live/work units complying with the requirements of Section 419 of Title 26 of the Los Angeles County Building Code shall be permitted to be built as one- and two-family dwellings or townhouses. Fire suppression otherwise required by Section 419.5 of Title 26 of the Los Angeles County Building Code for buildings and structures constructed under this Code shall conform to Section 903.3.1.3 of Title 26 of the Los Angeles County Building Code.

Additions, alterations, repairs, and changes of use or occupancy in all buildings and structures to which this Title 30 applies shall comply with the provisions for new buildings and structures except as otherwise provided in Section 109 and Chapter 34 of Title 26 of the Los Angeles County Building Code.

R101.4 APPLICABILITY

R101.4.1 General.

Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in any specific case, different Sections of this Code specify different materials, methods of construction, or other requirements, the most restrictive shall govern.

R101.4.2 Other laws.

The provisions of this Code shall not be deemed to nullify any provisions of local, state, or federal law.

R101.4.3 Referenced codes and standards.

The codes and standards referenced in this Code shall be considered part of the requirements of this Code to the prescribed extent of each such reference. Where differences occur between provisions of this Code and referenced codes and standards, the provisions of this Code shall apply.

SECTION 2. Section R301.1.3.2 is hereby amended to read as follows:

R301.1.3.2 ~~Woodframe structures greater than two stories.~~

The bBuilding eOfficial shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of woodframe construction more than two stories and basement in height located in Seismic Design Category A, B, or C. Notwithstanding other sections, the law establishing these provisions is found in Business and Professions Code sections 5537 and 6737.1.

The Building Official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of wood frame construction more than one story in height or with a basement located in Seismic Design Category D₀, D₁, or D₂.

SECTION 3. Section R301.1.4 is hereby added to read as follows:

R301.1.4 Seismic design provisions for buildings constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope).

The design and construction of new buildings and additions to existing buildings when constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope) shall comply with Section 1613.9 of the 2011 County of Los Angeles Building Code.

SECTION 4. Section R301.2 is hereby amended to read as follows:

R301.2 Climatic and geographic design criteria.

Buildings shall be constructed in accordance with the provisions of this Code as limited by the provisions of this ~~s~~Section. ~~Additional criteria shall be established by the local jurisdiction and set forth~~Consult with the Building Official regarding additional criteria in Table R301.2(1).

SECTION 5. Section R301.2.2.2.5 is amended to read as follows:

R301.2.2.2.5 Irregular buildings.

...

1. When exterior shear wall lines or braced wall panels are not in one plane vertically from the foundation to the uppermost story in which they are required.

~~Exception: For wood light frame construction, floors with cantilevers or setbacks not exceeding four times the nominal depth of the wood floor joists are permitted to support braced wall panels that are out of plane with braced wall panels below provided that:~~

- ~~1. Floor joists are nominal 2 inches by 10 inches (51 mm by 254 mm) or larger and spaced not more than 16 inches (406 mm) on center.~~
- ~~2. The ratio of the back span to the cantilever is at least 2 to 1.~~
- ~~3. Floor joists at ends of braced wall panels are doubled.~~
- ~~4. For wood frame construction, a continuous rim joist is connected to ends or all cantilever joists. When spliced, the rim joists shall be spliced using a galvanized metal tie not less than 0.058 inch (1.5 mm) (16 gage) and 1 1/2 inches (38 mm) wide fastened with six 16d nails on each side of the splice or a block of the same size as the rim joist of sufficient length to fit securely between the joist space at which the splice occurs fastened with eight 16d nails on each side of the splice; and~~
- ~~5. Gravity loads carried at the end of cantilevered joists are limited to uniform wall and roof loads and the reactions from headers having a span of 18 feet (2438 mm) or less.~~

2. When a section of floor or roof is not laterally supported by shear walls or braced wall lines on all edges.

Exception: Portions of floors that do not support shear walls or braced wall panels above, or roofs, shall be permitted to extend no more than six feet (1829 mm) beyond a shear wall or braced wall line.

3. When the end of a braced wall panel occurs over an opening in the wall below and ends at a horizontal distance greater than 1 foot (305 mm) from the edge of the opening. This provision is applicable to shear walls and braced wall panels offset in plane and to braced wall panels offset out of plane as permitted by the exception to item 1 above.

~~**Exception:** For wood light-frame wall construction, one end of a braced wall panel shall be permitted to extend more than one foot (305 mm) over an opening not more than 8 feet (2438 mm) wide in the wall below provided that the opening includes a header in accordance with the following:~~

~~1. The building width, loading condition and framing member species limitations of Table R502.5(1) shall apply; and~~

~~2. Not less than one 2x12 or two 2x10 for an opening not more than 4 feet (1219 mm) wide; or~~

~~3. Not less than two 2x12 or three 2x10 for an opening not more than 6 feet (1829 mm) wide; or~~

~~4. Not less than three 2x12 or four 2x10 for an opening not more than 8 feet (2438 mm) wide; and~~

~~5. The entire length of the braced wall panel does not occur over an opening in the wall below.~~

4. When an opening in a floor or roof exceeds the lesser of 12 feet (3658 mm) or 50 percent of the least floor or roof dimension.

5. When portions of a floor level are vertically offset.

Exceptions:-

~~1. Framing supported directly by continuous foundations at the perimeter of the building.~~

~~2. For wood light frame construction, floors shall be permitted to be vertically offset when the floor framing is lapped or tied together as required by section R502.6.1.~~

...

SECTION 6. Section R301.2.2.3.5.1 is hereby added to read as follows:

R301.2.2.3.5.1 AISI S230, Section B1. (Modify AISI S230, Section B1 to read as follows:)

Where No. 8 screws are specified, the required number of screws in a steel-to-steel connection shall be permitted to be reduced in accordance with the reduction factors in Table B1-1 when larger screws are used or when the sheets of steel being connected are thicker than 33 mils (0.84 mm). When applying the reduction factor, the resulting number of screws shall be rounded up.

SECTION 7. Section R322.1.4.1 is hereby amended to read as follows:

R322.1.4.1 **Determination of design flood elevations.**

...

2. Determine the design flood elevation in accordance with accepted hydrologic and hydraulic engineering practices used to define special flood hazard areas. Determinations shall be undertaken by a registered ~~design professional~~civil engineer who shall determine that the technical methods used reflect currently accepted engineering practice. Studies, analyses, and computations shall be submitted in sufficient detail to allow thorough review and approval.

SECTION 8. Section R322.2.2 is hereby amended to read as follows:

R322.2.2 **Enclosed area below design flood elevation.** Enclosed areas for attached and detached building and structures, including crawl spaces, that are below the design flood elevation shall:

...

SECTION 9. Section R327 is hereby amended to read as follows:

SECTION R327

MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE

EXPOSURE

NOTE: This Chapter has been amended by Los Angeles County and is applicable to all occupancy groups.

SECTION 10. Section R327.1.1 is hereby amended to read as follows:

R327.1.1 Scope.

This eChapter applies to building materials, systems, and or assemblies used in the exterior design and construction of new buildings, and to additions, alterations, or repairs made to existing buildings, erected, constructed, located, or moved within a Wildland-Urban Interface Fire Area as defined in Section R327.2.

SECTION 11. Section R327.1.3 is hereby amended to read as follows:

R327.1.3. Application.

New buildings, and any additions, alterations, or repairs made to existing buildings located in or moved within any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area designated by the enforcing agency Los Angeles County Fire Department constructed after the application date shall comply with the provisions of this eChapter.

Exceptions:

...

~~4. Additions to and remodels of buildings originally constructed prior to the applicable application date.~~

SECTION 12. Section R327.1.3.1 is hereby amended to read as follows:

R327.1.3.1 Application date and where required.

New buildings for which an application for a building permit is submitted on or after July 1, 2008, and any additions, alterations, or repairs made to existing buildings for which an application for a building permit is submitted on or after January 1, 2011,

located in any Fire Hazard Severity Zone or Wildland Interface Fire Area shall comply with all sSections of this eChapter, including all of the following areas:

...

Exceptions:

1. New bBuildings located in any Fire Hazard Severity Zone within State Responsibility Areas, for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sSections of this eChapter.

2. New bBuildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland Interface Fire Area designated by cities and other local agencies for which an application for a building permit is submitted on or after December 1, 2005, but prior to July 1, 2008, shall only comply with the following sSections of this eChapter:

...

SECTION 13. Section R327.1.4 is hereby amended to read as follows:

R327.1.4 Inspection and certification.

...

1. Building permit issuance. The local bBuilding eOfficial shall, prior to construction, provide the owner or applicant a certification that the building as proposed to be built complies with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this Chapter. Issuance of a building permit by the local bBuilding eOfficial for the proposed building shall be considered as complying with this sSection.

2. Building permit final. The local Building Official shall, upon completion of construction, provide the owner or applicant with a copy of the final inspection report that demonstrates the building was constructed in compliance with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this Chapter. Issuance of a certificate of occupancy by the local Building Official for the proposed building shall be considered as complying with this Section.

SECTION 14. Section R327.2 is hereby amended to read as follows:

SECTION R327.2

DEFINITIONS

...

FIRE PROTECTION PLAN is a document prepared for a specific project or development proposed for a Wildland-Urban Interface Fire Area. It describes ways to minimize and mitigate potential for loss from wildfire exposure. The Fire Protection Plan shall be in accordance with this Chapter and the ~~California~~ Los Angeles County Fire Code Title 32, Chapter 49. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted. ~~Only locally adopted ordinances that have been filed with the California Building Standards Commission or the Department of Housing and Community Development in accordance with Section 4.1.8 shall apply.~~

FIRE HAZARD SEVERITY ZONES are geographical areas designated pursuant to California Public Resources Code Sections 4201 through 4204 and classified as

Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code sections 51175 through 51189. See California Los Angeles County Fire Code, Article-86 Chapter 49.

...

HEAVY TIMBER. A type of construction classification specified in Section 602 of the California Los Angeles County Building Code. For use in this Chapter, heavy timber shall be sawn lumber or glue laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Heavy Timber walls or floors shall be sawn or glue-laminated planks splined, tongue-and-grove, or set close together and well spiked.

...

WILDLAND-URBAN INTERFACE FIRE AREA is a geographical area identified by the state as a "Fire Hazard Severity Zone" in accordance with the Public Resources Code ~~S~~sections 4201 through 4204 and Government Code ~~S~~sections 51175 through 51189, or other areas designated by the enforcing agency Los Angeles County Fire Department to be at a significant risk from wildfires.

SECTION 15. Section R327.3.2 is hereby amended to read as follows:

R327.3.2 Qualification by testing.

Material and material assemblies tested in accordance with the requirements of Section R327.3 shall be accepted for use when the results and conditions of those tests are met. Product evaluation testing of material and material assemblies shall be

approved or listed by the State Fire Marshal, the Building Official or identified in a current report issued by an approved agency.

SECTION 16. Section R327.3.3 is hereby amended to read as follows:

R327.3.3 Approved agency.

Product evaluation testing shall be performed by an approved agency as defined in Section 1702 of the CaliforniaLos Angeles County Building Code. The scope of accreditation for the approved agency shall include building product compliance with eCode.

SECTION 17. Section R327.3.5.2 is hereby amended to read as follows:

R327.3.5.2 Weathering.

~~Fire-retardant-treated wood and Fire-retardant-treated wood shingles and shakes~~ shall meet the fire test performance requirements of this Chapter after being subjected to the weathering conditions contained in the following standards, as applicable to the materials and the conditions of use.

SECTION 18. Section R327.3.5.2.1 is hereby amended to read as follows:

R327.3.5.2.1 Fire-retardant-treated wood.

Fire-retardant-treated wood shall be tested in accordance with ASTM D2898, "Standard Practice for Accelerated Weathering of Fire-Retardant Treated Wood for Fire Testing (Method A)" and the requirements of ~~s~~Section 2303.2 of the CaliforniaLos Angeles County Building Code.

SECTION 19. Section R327.3.5.2.2 is hereby deleted in its entirety.

~~R327.3.5.2.2 Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes shall be approved and listed by the State Fire Marshal in accordance with Section 208(c), Title 19 California Code of Regulations.~~

SECTION 20. Section R327.3.6 is hereby amended to read as follows:

R327.3.6 Alternates for materials, design, tests, and methods of construction.

The enforcing agency is permitted to modify the provisions of this eChapter for site-specific conditions in accordance with Chapter 1, Section 1-11.2-4104.2.7. When required by the enforcing agency Building Official for the purposes of granting modifications, a fire protection plan shall be submitted in accordance with the California Los Angeles County Fire Code, Chapter 49.

SECTION 21. Section R327.4.3 is hereby amended to read as follows:

R327.4.3 Alternative methods for determining Ignition-resistant material.

...

2. Fire-retardant-treated wood. Fire-retardant-treated wood identified for exterior use that complies with the requirements of sSection 2303.2 of the California Los Angeles County Building Code.

~~3. Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes, as defined in section 1505.6 and listed by State Fire-~~

~~Marshal for use as "Class B" roof covering, shall be accepted as an Ignition-resistant wall covering material when installed over solid sheathing.~~

SECTION 22. Section R327.5.2. is hereby amended to read as follows:

R327.5.2 Roof coverings.

Roof coverings shall be Class A as specified in Section 1505.2. Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be firestopped with approved materials or have one layer of minimum 72 pounds (32.4 kg) mineral-surfaced non-perforated cap sheet complying with ASTM D 3909 installed over the combustible decking. Wood shingles and wood shakes are prohibited in any Fire Hazard Severity Zones regardless of classification.

SECTION 23. Section R327.6.1 is hereby amended to read as follows:

R327.6.1 General.

Where provided, ventilation openings for enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, and underfloor ventilation shall be in accordance with Section 1203 of the CaliforniaLos Angeles County Building Code and sSections R327.6.1 through R327.6.3 of this sSection to resist building ignition from the intrusion of burning embers and flame through the ventilation openings.

SECTION 24. Section R327.6.3 is hereby amended to read as follows:

...

Exceptions:

1. The enforcing agency Building Official may accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.

2. Vents complying with the requirements of Section R327.6.2 may be installed on the underside of eaves and cornices in accordance with either one of the following conditions:

2.1. The attic space being ventilated is fully protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 of the California Los Angeles County Building Code or,

...

SECTION 25. Section R327.10.2 is hereby amended to read as follows:

R327.10.2 **Applicability.**

...

Exceptions:

...

2. Awnings and canopies shall comply with the requirements of Section 3105 of the California Los Angeles County Building Code.

SECTION 26. Section R327.10.3.2 is hereby amended to read as follows:

R327.10.3.2 When required by the enforcing agency Building Official, detached accessory structures within 50 feet of an applicable building shall comply with the requirements of this sSection.

SECTION 27. Section R327.10.4 is hereby amended to read as follows:

R327.10.4. Requirements.

When required by the enforcing-agency Building Official, accessory structures shall be constructed of noncombustible or ignition-resistant materials.

SECTION 28. Section R401.1 is hereby amended to read as follows:

R401.1 Application.

...

Wood foundations in Seismic Design Category D₀, D₁, or D₂ shall be ~~designed in accordance with accepted engineering practice~~ not be permitted.

Exception: In non-occupied, single-story, detached storage sheds and similar uses other than carport or garage, provided the gross floor area does not exceed 200 square feet, the plate height does not exceed 12 feet in height above the grade plane at any point, and the maximum roof projection does not exceed 24 inches.

SECTION 29. Section R403.1.2 is hereby amended to read as follows:

R403.1.2 Continuous footing in Seismic Design Categories D₀, D₁, and D₂.

The braced wall panels at exterior walls of buildings located in Seismic Design Categories D₀, D₁, and D₂ shall be supported by continuous footings. All required interior braced wall panels in buildings with ~~plan dimensions greater than 50 feet (15240 mm)~~ shall also be supported by continuous footings.

SECTION 30. Section R403.1.3 is hereby amended to read as follows:

R403.1.3 Seismic reinforcing.

...

Exception: In detached one- and two-family dwellings located in Seismic Design Category A, B, or C which are three stories or less in height and constructed with stud bearing walls, plain concrete footings without longitudinal reinforcement supporting walls, and isolated plain concrete footings supporting columns or pedestals are permitted.

SECTION 31. Section R403.1.5 is hereby amended to read as follows:

R403.1.5 Slope.

The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in 10 units horizontal (10-percent slope).

For structures located in Seismic Design Categories D₀, D₁, or D₂, stepped footings shall be reinforced with two No. 4 deformed reinforcing bars located at the top and bottom of the footings as shown in Figure R403.1.5.

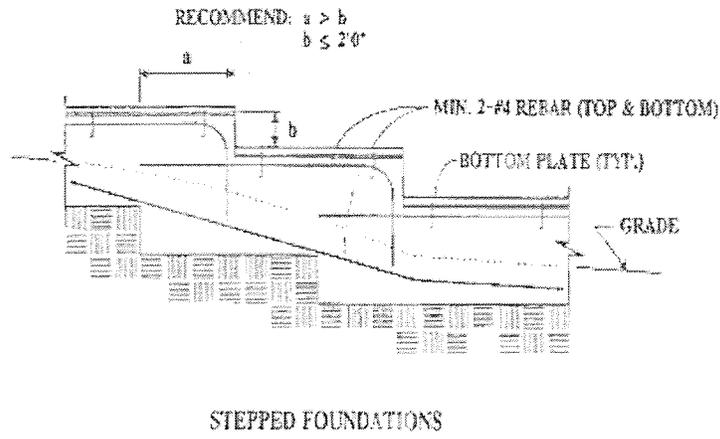


FIGURE R403.1.5

STEPPED FOOTING

SECTION 32. Section R404.2 is hereby amended to read as follows:

R404.2 **Wood foundation walls.**

Wood foundation walls shall be constructed in accordance with the provisions of Sections R404.2.1 through R404.2.6 and with the details shown in Figures R403.1(2) and R403.1(3). Wood foundation walls shall not be used for structures located in Seismic Design Category D₀, D₁, or D₂.

SECTION 33. Section R501.1 is hereby amended to read as follows:

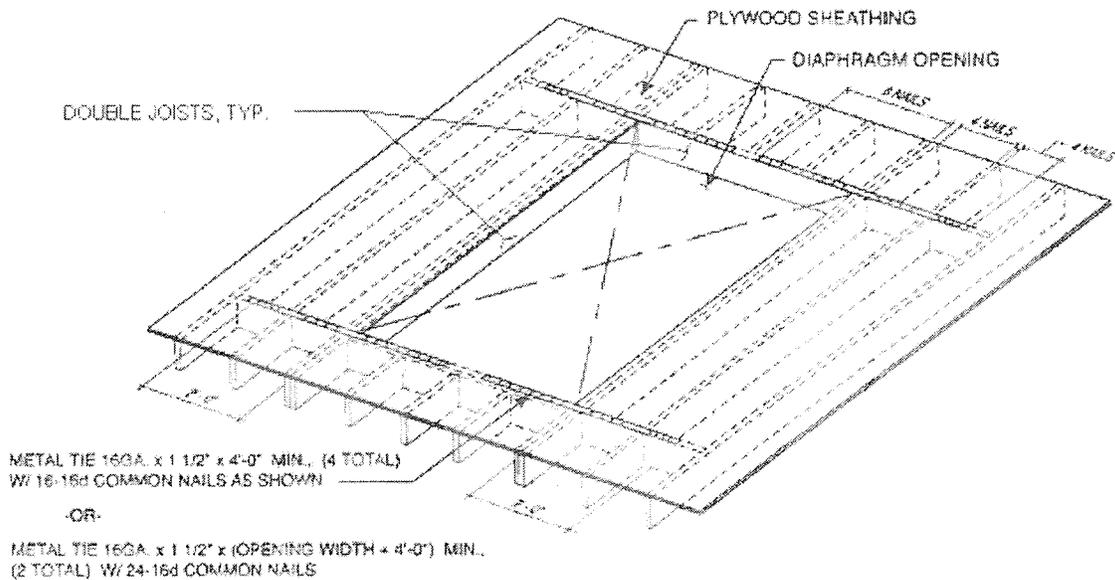
R501.1 **Application.**

The provision of this eChapter shall control the design and construction of the floors for all buildings including the floors of attic spaces used to house mechanical or plumbing fixtures and equipment weighing less than 400 pounds and maximum height of 4 feet above the floor or attic level.

SECTION 34. Section R503.2.4 is hereby added to read as follows:

R503.2.4 Openings in horizontal diaphragms.

Openings in horizontal diaphragms with a dimension perpendicular to the joist that is greater than 4 feet (1.2 m) shall be constructed in accordance with Figure R503.2.4.



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

Figure R503.2.4

- a. Blockings shall be provided beyond headers.
- b. Metal ties not less than 0.058 inch [1.47 mm (16 galvanized gage)] by 1.5 inches (38 mm) wide with eight 16d common nails on each side of the header-joist intersection. The metal ties shall have a minimum yield of 33,000 psi (227 MPa).

c. Openings in diaphragms shall be further limited in accordance with Section R301.2.2.2.5.

SECTION 35. Section R602.3.2 is hereby amended to read as follows:

R602.3.2 Top plate.

...

Exception: In other than Seismic Design Category D₀, D₁, or D₂, a single top plate may be installed in stud walls, provided the plate is adequately tied at joints, corners and intersecting walls by a minimum 3-inch-by-6-inch by a 0.036-inch-thick (76 mm by 152 mm by 0.914 mm) galvanized steel plate that is nailed to each wall or segment of wall by six 8d nails on each side, provided the rafters or joists are centered over the studs with a tolerance of no more than 1 inch (25 mm). The top plate may be omitted over lintels that are adequately tied to adjacent wall sections with steel plates or equivalent as previously described.

SECTION 36. Table R602.3(1) is hereby amended to read as follows:

TABLE R602.3(1)

FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

TABLE R602.3(1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENERS ^{a, b, c}	SPACING OF FASTENERS
Roof			
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2 $\frac{1}{2}$ " \times 0.113")	—
2	Ceiling joists to plate, toe nail	3-8d (2 $\frac{1}{2}$ " \times 0.113")	—
3	Ceiling joists not attached to parallel rafter, laps over partitions, face nail	3-10d	—
4	Collar tie rafter, face nail or 1 $\frac{1}{2}$ " \times 20 gage ridge strap	3-10d (3" \times 0.128")	—
5	Rafter to plate, toe nail	2-16d (3 $\frac{1}{2}$ " \times 0.135")	—
6	Roof rafters to ridge, valley or hip rafters, toe nail face nail	4-16d (3 $\frac{1}{2}$ " \times 0.135") 3-16d (3 $\frac{1}{2}$ " \times 0.135")	— —
Wall			
7	Built-up corner studs	10d (3" \times 0.128")	24" o.c.
8	Built-up header, two pieces with $\frac{1}{2}$ " spacer	16d (3 $\frac{1}{2}$ " \times 0.135")	16" o.c. along each edge
9	Continued header, two pieces	16d (3 $\frac{1}{2}$ " \times 0.135")	16" o.c. along each edge
10	Continues header to stud, toe nail	4-8d (2 $\frac{1}{2}$ " \times 0.113")	—
11	Double studs, face nail	10d (3" \times 0.128")	24" o.c.
12	Double top plates, face nail	10d (3" \times 0.128")	24" o.c.
13	Double top plates, minimum 48-inch offset of end joints, face nail in lapped area	8-16d (3 $\frac{1}{2}$ " \times 0.135")	—
14	Sole plate to joist or blocking, face nail	16d (3 $\frac{1}{2}$ " \times 0.135")	16" o.c.
15	Sole plate to joist or blocking at brace wall panels	3-16d (3 $\frac{1}{2}$ " \times 0.135")	16" o.c.
16	Stud to sole plate, toe nail	3-8d (2 $\frac{1}{2}$ " \times 0.113") or 2-16d (3 $\frac{1}{2}$ " \times 0.135")	— —
17	Top or sole plate to stud, end nail	2-16d (3 $\frac{1}{2}$ " \times 0.135")	—
18	Top plates, laps at corners and intersections, face nail	2-10d (3" \times 0.128")	—
19	1" brace to each stud and plate, face nail	2-8d (2 $\frac{1}{2}$ " \times 0.113") 2 staples 1 $\frac{1}{2}$ "	— —
20	1" \times 6" sheathing to each bearing, face nail	2-8d (2 $\frac{1}{2}$ " \times 0.113") 2 staples 1 $\frac{1}{2}$ "	— —
21	1" \times 8" sheathing to each bearing, face nail	2-8d (2 $\frac{1}{2}$ " \times 0.113") 3 staples 1 $\frac{1}{2}$ "	— —
22	Wider than 1" \times 8" sheathing to each bearing, face nail	3-8d (2 $\frac{1}{2}$ " \times 0.113") 4 staples 1 $\frac{1}{2}$ "	— —
Floor			
23	Joist to sill or girder, toe nail	3-8d (2 $\frac{1}{2}$ " \times 0.113")	—
24	1" \times 6" subfloor or less to each joist, face nail	2-8d (2 $\frac{1}{2}$ " \times 0.113") 2 staples 1 $\frac{1}{2}$ "	— —
25	2" subfloor to joist or girder, blind and face nail	2-16d (3 $\frac{1}{2}$ " \times 0.135")	—
26	Rim joist to top plate, toe nail (roof applications also)	8d (2 $\frac{1}{2}$ " \times 0.113")	6" o.c.
27	2" planks (plank & beam = floor & roof)	2-16d (3 $\frac{1}{2}$ " \times 0.135")	at each bearing
28	Built-up girders and beams, 2-inch lumber layers	10d (3" \times 0.128")	Nail each layer as follows: 32" o.c. at top and bottom and staggered. Two nails at ends and at each splice.
29	Ledger strip supporting joists or rafters	3-16d (3 $\frac{1}{2}$ " \times 0.135")	At each joist or rafter

(continued)

TABLE R602.3(1)—continued
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

ITEM	DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER ^{a, c}	SPACING OF FASTENERS	
			Edges (inches) ^f	Intermediate supports ^{g, h} (inches)
Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing				
30	$\frac{3}{8}$ " - $\frac{1}{2}$ "	6d common (2" × 0.113") nail (subfloor, wall) 8d common (2 $\frac{1}{2}$ " × 0.131") nail (roof)	6	12 ^g
31	$\frac{7}{16}$ " - $\frac{1}{2}$ "	6d common (2" × 0.113") nail (subfloor, wall) 8d common (2 $\frac{1}{2}$ " × 0.131") nail (roof) ^f	6	12 ^g
32	$1\frac{1}{32}$ " - 1"	8d common nail (2 $\frac{1}{2}$ " × 0.131")	6	12 ^g
33	$1\frac{1}{8}$ " - $1\frac{1}{4}$ "	10d common (3" × 0.148") nail or 8d (2 $\frac{1}{2}$ " × 0.131") deformed nail	6	12
Other wall sheathing ^b				
34	$\frac{1}{2}$ " structural cellulose fiberboard sheathing	$\frac{1}{2}$ " galvanized roofing nail, $\frac{3}{16}$ " crown or 1" crown staple 16 ga., 1 $\frac{1}{4}$ " long	3	6
35	$\frac{5}{16}$ " structural cellulose fiberboard sheathing	1 $\frac{1}{4}$ " galvanized roofing nail, $\frac{3}{16}$ " crown or 1" crown staple 16 ga., 1 $\frac{1}{2}$ " long	3	6
36 ^l	$\frac{1}{2}$ " gypsum sheathing ^d	1 $\frac{1}{2}$ " galvanized roofing nail; staple galvanized, 1 $\frac{1}{2}$ " long, 1 $\frac{1}{2}$ screws, Type W or S	7	7
37 ^l	$\frac{5}{8}$ " gypsum sheathing ^d	1 $\frac{3}{4}$ " galvanized roofing nail; staple galvanized, 1 $\frac{3}{4}$ " long, 1 $\frac{1}{2}$ screws, Type W or S	7	7
Wood structural panels, combination subfloor underlayment to framing				
38	$\frac{3}{4}$ " and less	6d deformed (2" × 0.120") nail or 8d common (2 $\frac{1}{2}$ " × 0.131") nail	6	12
39	$\frac{7}{8}$ " - 1"	8d common (2 $\frac{1}{2}$ " × 0.131") nail or 8d deformed (2 $\frac{1}{2}$ " × 0.120") nail	6	12
40	$1\frac{1}{8}$ " - $1\frac{1}{4}$ "	10d common (3" × 0.148") nail or 8d deformed (2 $\frac{1}{2}$ " × 0.120") nail	6	12

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s, 1 ksi = 6.895 MPa.

- All nails are smooth-common box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.
- Staples are 16 gage wire and have a minimum $\frac{3}{16}$ -inch on diameter crown width.
- Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.
- Four-foot-by-8-foot or 4-foot-by-9-foot panels shall be applied vertically.
- Spacing of fasteners not included in this table shall be based on Table R602.3(2).
- For regions having basic wind speed of 110 mph or greater, 8d deformed (2 $\frac{1}{2}$ " × 0.120) nails shall be used for attaching plywood and wood structural panel roof sheathing to framing within minimum 48-inch distance from gable end walls, if mean roof height is more than 25 feet up to 55 feet maximum.
- For regions having basic wind speed of 100 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. When basic wind speed is greater than 100 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch distance from ridges, eaves and gable end walls and 4 inches on center to gable end wall framing.
- Gypsum sheathing shall conform to ASTM C 1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C 208.
- Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at all floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.
- Use of staples in braced wall panels shall be prohibited in Seismic Design Category D0, D1, or D2.

SECTION 37. Table R602.3(2) is hereby amended to read as follows:

TABLE R602.3(2)
ALTERNATE ATTACHMENTS

...

b. Staples shall have a minimum crown width of 7/16-inch on diameter except as noted. Use of staples in roof, floor, subfloor, and braced wall panels shall be prohibited in Seismic Design Category D₀, D₁, or D₂.

...

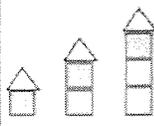
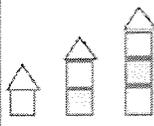
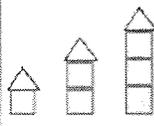
SECTION 38. Table R602.10.1.2(2) is hereby amended to read as follows:

TABLE R602.10.1.2(2)^{a,b,c}
 BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY
 (AS A FUNCTION OF BRACED WALL LINE LENGTH)

SOIL CLASS D ^g WALL HEIGHT ≤ 16 FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING ≤ 25 FT			MINIMUM TOTAL LENGTH ^h OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIB	Methods ² DWB, SFB, GB PBS, POP, HPS	Method WSP	Continuous Sheathing
SDC A and B and Detached Dwellings in C		Exempt from Seismic Requirements Use Table R602.10.1.2(1) for Bracing Requirements				
SDC C		10	2.5	2.5	1.6	1.4
		20	5.0	5.0	3.2	2.7
		30	7.5	7.5	4.8	4.1
		40	10.0	10.0	6.4	5.4
		50	12.5	12.5	8.0	6.8
		10	NP	4.5	3.0	2.6
		20	NP	9.0	6.0	5.1
		30	NP	13.5	9.0	7.7
		40	NP	18.0	12.0	10.2
		50	NP	22.5	15.0	12.8
		10	NP	6.0	4.5	3.8
		20	NP	12.0	9.0	7.7
		30	NP	18.0	13.5	11.5
		40	NP	24.0	18.0	15.3
		50	NP	30.0	22.5	19.1
SDC D ₁ or D ₂		10	NP	3.0 6.0	2.0	1.7
		20	NP	6.0 12.0	4.0	3.4
		30	NP	9.0 18.0	6.0	5.1
		40	NP	12.0 24.0	8.0	6.8
		50	NP	15.0 30.0	10.0	8.5
		10	NP	6.0 NP	4.5	3.8
		20	NP	12.0 NP	9.0	7.7
		30	NP	18.0 NP	13.5	11.5
		40	NP	24.0 NP	18.0	15.3
		50	NP	30.0 NP	22.5	19.1
		10	NP	8.5 NP	6.0	5.1
		20	NP	17.0 NP	12.0	10.2
		30	NP	25.5 NP	18.0	15.3
		40	NP	34.0 NP	24.0	20.4
		50	NP	42.5 NP	30.0	25.5

(continued)

TABLE R602.10.1.2(2)^{a,b,c}—continued
 BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY
 (AS A FUNCTION OF BRACED WALL LINE LENGTH)

SOIL CLASS D ⁴ WALL HEIGHT = 10 FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING ≤ 25 FT			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE				
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIG	METHODS DWB, SFB, GB, PBS, PCP, HPS	Method WSP	Continuous Sheathing	
SDC D ₂		10	NP	4+ 8.0	2.5	2.1	
		20	NP	8+ 16.0	5.0	4.3	
		30	NP	12+ 24.0	7.5	6.4	
		40	NP	16+ 32.0	10.0	8.5	
		50	NP	20+ 40.0	12.5	10.6	
		10	NP	7.5	NP	5.5	4.7
		20	NP	15.0	NP	11.0	9.4
		30	NP	22.5	NP	16.5	14.0
		40	NP	30.0	NP	22.0	18.7
		50	NP	37.5	NP	27.5	23.4
		10	NP	NP	NP	NP	NP
		20	NP	NP	NP	NP	NP
		30	NP	NP	NP	NP	NP
		40	NP	NP	NP	NP	NP
		50	NP	NP	NP	NP	NP

For SI: 1 foot = 304.8 mm, 1 pound per square foot = 47.89 Pa.

- Wall bracing lengths are based on a soil site class "D." Interpolation of bracing lengths between the S_d values associated with the seismic design categories shall be permitted when a site-specific S_d value is determined in accordance with Section 1613.5 of the *California Building Code*.
- Foundation cripple wall panels shall be braced in accordance with Section R602.10.9.
- Methods of bracing shall be as described in Sections R602.10.2, R602.10.4 and R602.10.5.
- Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D0, D1, or D2. Methods DWB, SFB, PBS, and HPS are not permitted in SDC D0, D1, or D2.

SECTION 39.

Table R602.10.2 is hereby amended to read as follows:

TABLE R602.10.2
INTERMITTENT BRACING METHODS^a

METHOD	MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA
LIB	Let-in bracing	1-4 wood or approved metal straps at 45° to 60° angles for maximum 16" stud spacing		Wood: 2-8d nails per stud including top and bottom plate metal per manufacturer
DWB	Diagonal wood boards	3/4" (1" nominal) for maximum 24" stud spacing		2-8d (2 1/2" x 0.131) nails or 2 staples, 13/4" per stud
WSP	Wood structural panel (see Section R604)	3/8" 1500'		For exterior sheathing: 8d common (2 1/2" x 0.131) nails at 5" spacing (panel edges) or 12" spacing (intermediate supports) For interior sheathing: 12d common (2 1/2" x 0.131) nails at 5" spacing (panel edges) or 12" spacing (intermediate supports)
SFB	Structural fiberboard sheathing	1/2" or 3/8" for maximum 16" stud spacing		1 1/2" galvanized roofing nails or 8d common (2 1/2" x 0.131) nails at 3" spacing (panel edges) at 6" spacing (intermediate supports)
GB	Gypsum board	1/2"		Nails or screws at 7" spacing at panel edges including top and bottom plates, for all braced wall panel locations; for exterior sheathing nail or screw size, see Table R602.3.11; for interior gypsum board nail or screw size, see Table R602.3.5
PBS	Particleboard sheathing (see Section R605)	3/8" or 1/2" for maximum 16" stud spacing		1 1/2" galvanized roofing nails or 8d common (2 1/2" x 0.131) nails at 3" spacing (panel edges) at 6" spacing (intermediate supports)
PCP	Portland cement plaster	See Section R703.6 For maximum 16" stud spacing		1 1/2", 11 gage, 3/16" head nails at 6" spacing or 3/8", 16 gage staples at 6" spacing
HPS	Hardboard panel siding	3/8" For maximum 16" stud spacing		0.192" dia., 0.225" head nails with length to accommodate 1 1/2" penetration into studs at 4" spacing (panel edges), at 8" spacing (intermediate supports)
ABW	Alternate braced wall	See Section R602.10.3.2		See Section R602.10.3.2
PFH	Intermittent portal frame	See Section R602.10.3.3		See Section R602.10.3.3
PEG	Intermittent portal frame at garage	See Section R602.10.3.4		See Section R602.10.3.4

a. Methods GB and PCP braced wall panel live loads shall not exceed 1.1 in SDC D0, D1, or D2. Methods LIB, DWB, SFB, PBS, HPS, and PEG are not permitted in SDC D3, D4, and D5.

b. Use of staples in braced wall panels shall be prohibited in SDC D0, D1, or D2.

SECTION 40. Figure R602.10.3.2 is amended to read as follows:

Top plates shall be continuous over a braced wall panel



SECTION 41. Section R602.10.3.3 is hereby amended to read as follows:

R602.10.3.3 Method PFH: Portal frame with hold-downs.

...

1. Each panel shall be fabricated in accordance with Figure R602.10.3.3.

The wood structural panel sheathing shall extend up over the solid sawn or glued-laminated header and shall be nailed in accordance with Figure R602.10.3.3. A spacer, if used with a built-up header, shall be placed on the side of the built-up beam opposite the wood structural panel sheathing. The header shall extend between the inside faces of the first full-length outer studs of each panel. One anchor bolt not less than 5/8-inch-diameter (16 mm) and installed in accordance with Section R403.1.6 shall be provided in the center of each sill plate. The hold-down devices shall be an embedded-strap type, installed in accordance with the manufacturer's recommendations. The panels shall be supported directly on a foundation that is continuous across the entire length of the braced wall line. The foundation shall be reinforced as shown on Figure R602.10.3.2. This reinforcement shall be lapped not less than 1524 inches (381610 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.

...

SECTION 42. Figure R602.10.3.3 is hereby amended to read as follows:

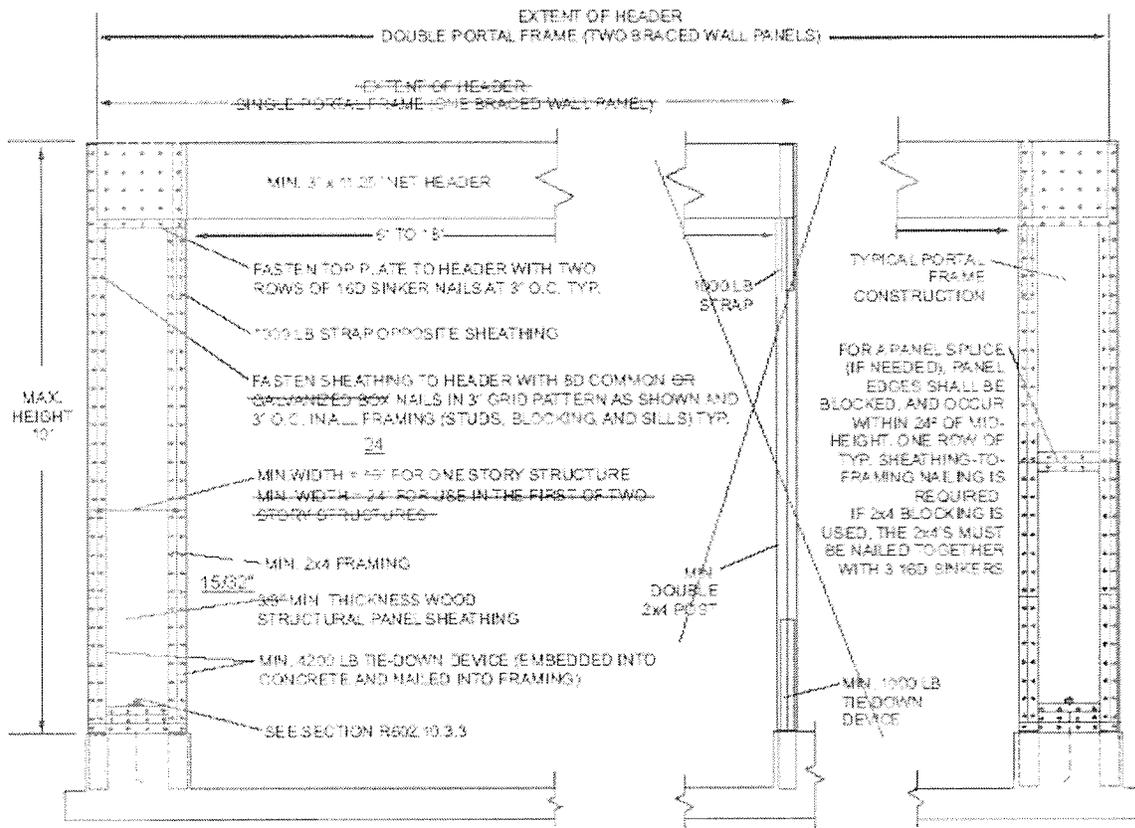


FIGURE R602.10.3.3

METHOD PFH: PORTAL FRAME WITH HOLD-DOWNS AT DETACHED GARAGE

DOOR OPENINGS

SECTION 43. Table R602.10.4.1 is hereby amended to read as follows:

TABLE R602.10.4.1

CONTINUOUS SHEATHING METHODS

TABLE R602.10.4.1
CONTINUOUS SHEATHING METHODS

METHOD	MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA
CS-WSP	Wood structural panel	$\frac{15}{32}''$ $\frac{3}{4}''$		64 common (2" x 0.113") nails at 6" spacing (panel edges) and at 12" spacing (intermediate supports) or 10 ga. 1 1/2" staples at 7" spacing (panel edges) and 6" spacing (intermediate supports). ⁵
CS-G	Wood structural panel adjacent to garage openings and supporting roof load only ^{a,b}	$\frac{15}{32}''$ $\frac{3}{4}''$		See Method CS-WSP
CS-PF	Continuous portal frame	See Section R602.10.4.1.1		See Section R602.10.4.1.1

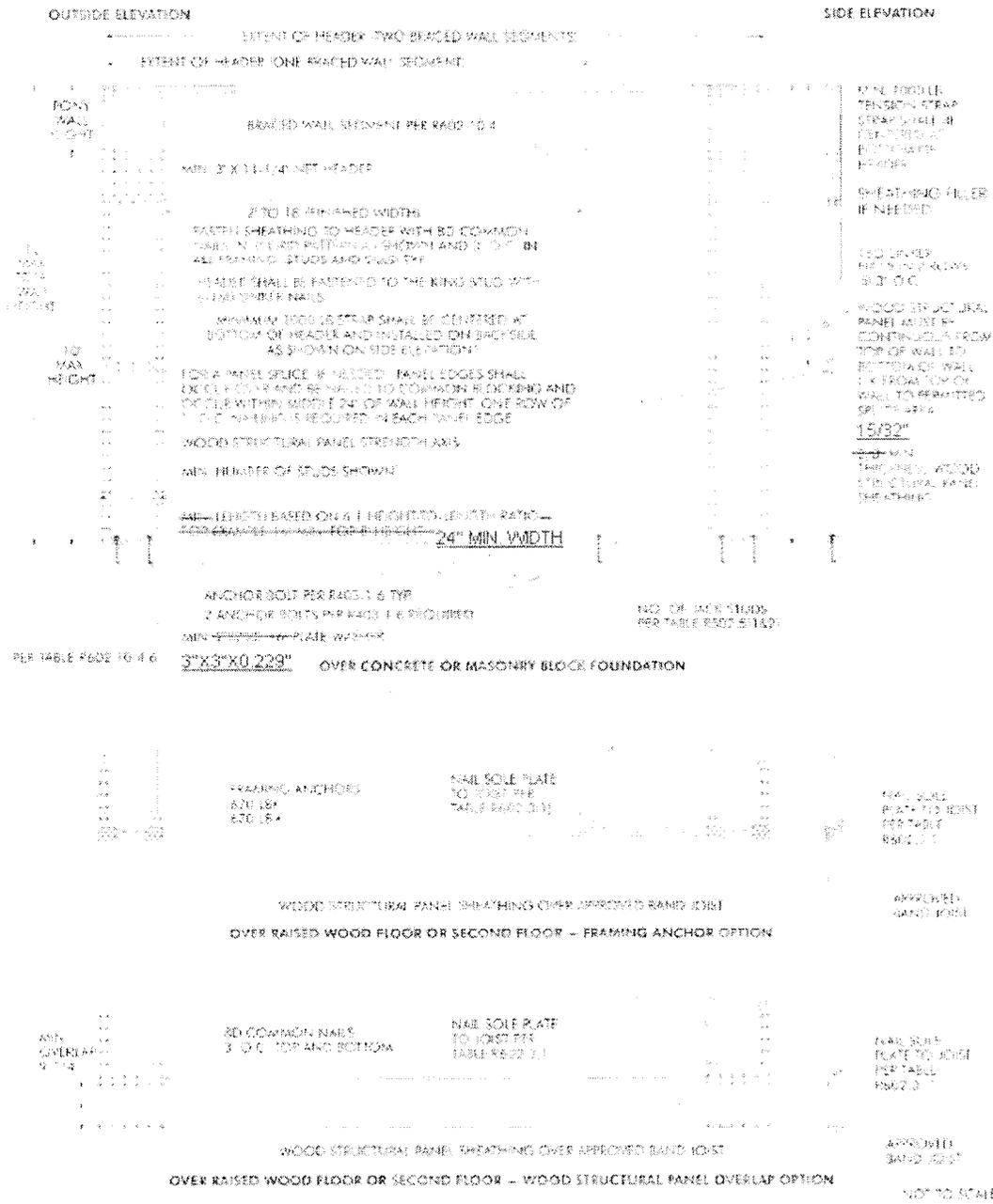
For SI: 1 inch = 25.4 mm, 1 pound per square foot = 47.89 Pa.

a. Applies to one wall of a garage only.

b. Roof covering dead loads shall be 3 psf or less.

c. Use of staples in braced wall panels shall be prohibited in Seismic Design Category D0, D1, or D2.

SECTION 44. Figure R602.10.4.1.1 is hereby amended to read as follows:



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound force = 4.448 N.

FIGURE R602.10.4.1.1
METHOD CS-PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION

...

SECTION 45. Section R602.10.7.1 is hereby deleted in its entirety.

~~**R602.10.7.1 Braced wall panel support for Seismic Design Category D2.** In one-story buildings located in Seismic Design Category D2, braced wall panels shall be supported on continuous foundations at intervals not exceeding 50 feet (15 240 mm). In two-story buildings located in Seismic Design Category D2, all braced wall panels shall be supported on continuous foundations.~~

~~Exception: Two-story buildings shall be permitted to have interior braced wall panels supported on continuous foundations at intervals not exceeding 50 feet (15 240 mm) provided that:~~

- ~~1. The height of cripple walls does not exceed 4 feet (1219 mm).~~
- ~~2. First floor braced wall panels are supported on doubled floor joists, continuous blocking or floor beams.~~
- ~~3. The distance between bracing lines does not exceed twice the building width measured parallel to the braced wall line.~~

SECTION 46. Section R606.2.4 is hereby amended to read as follows:

R606.2.4 Parapet walls.

Unreinforced solid masonry parapet walls shall not be less than 8 inches (203 mm) thick and their height shall not exceed four times their thickness.

Unreinforced hollow unit masonry parapet walls shall be not less than 8 inches (203 mm) thick, and their height shall not exceed three times their thickness. Masonry parapet walls in areas subject to wind loads of 30 pounds per square foot (1.44 kPa) or

located in Seismic Design Category D₀, D₁, or D₂, or on townhouses in Seismic Design Category C shall be reinforced in accordance with Section R606.12.

SECTION 47. Section R802.8 is hereby amended to read as follows:

R802.8 Lateral support.

Roof framing members and ceiling joists having a depth-to-thickness ratio exceeding $\frac{52}{1}$ based on nominal dimensions shall be provided with lateral support at points of bearing to prevent rotation. For roof rafters with ceiling joists attached per Table R602.3(1), the depth-thickness ratio for the total assembly shall be determined using the combined thickness of the rafter plus the attached ceiling joist.

...

SECTION 48. Section R802.10.2 is hereby amended to read as follows:

R802.10.2 Design.

Wood trusses shall be designed in accordance with accepted engineering practice. The design and manufacture of metal-plate-connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered professional where required by the statutes of the jurisdiction in which the project is to be constructed in accordance with Section R106.1.

SECTION 49. Table R802.5.1(9) is hereby amended to read as follows:

TABLE R802.5.1(9)
 RAFTER/CEILING JOIST HEEL JOINT CONNECTIONS^{a, b, c, d, e, f, g, h, i}

RAFTER SLOPE	RAFTER SPACING (inches)	GROUND SNOW LOAD (psf)															
		20 ^g				30				50				70			
		Roof span (feet)															
12	20	28	36	12	20	28	36	12	20	28	36	12	20	28	36		
Required number of 16d common nails ^{a, b} per heel joint splice ^{c, d, e, f}																	
3:12	12	4	6	8	10	4	6	8	11	5	8	12	15	6	11	15	20
	16	5	8	10	13	5	8	11	14	6	11	15	20	8	14	20	26
	24	7	11	15	19	7	11	16	21	9	16	23	30	12	21	30	39
4:12	12	3	5	6	8	3	5	6	8	4	6	9	11	5	8	12	15
	16	4	6	8	10	4	6	8	11	5	8	12	15	6	11	15	20
	24	5	8	12	15	5	9	12	16	7	12	17	22	9	16	23	29
5:12	12	3	4	5	6	3	4	5	7	3	5	7	9	4	7	9	12
	16	3	5	6	8	3	5	7	9	4	7	9	12	5	9	12	16
	24	4	7	9	12	4	7	10	13	6	10	14	18	7	13	18	23
7:12	12	3	4	4	5	3	3	4	5	3	4	5	7	3	5	7	9
	16	3	4	5	6	3	4	5	6	3	5	7	9	4	6	9	11
	24	3	5	7	9	3	5	7	9	4	7	10	13	5	9	13	17
9:12	12	3	3	4	4	3	3	3	4	3	3	4	5	3	4	5	7
	16	3	4	4	5	3	3	4	5	3	4	5	7	3	5	7	9
	24	3	4	6	7	3	4	6	7	3	6	8	10	4	7	10	13
12:12	12	3	3	3	3	3	3	3	3	3	3	3	4	3	3	4	5
	16	3	3	4	4	3	3	3	4	3	3	4	5	3	4	5	7
	24	3	4	4	5	3	3	4	6	3	4	6	8	3	6	8	10

- For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.04791 kPa.
- 40d box nails shall be permitted to be substituted for 16d common nails.
 - Nailing requirements shall be permitted to be reduced 25 percent if nails are clinched.
 - Heel joint connections are not required when the ridge is supported by a load-bearing wall, header or ridge beam.
 - When intermediate support of the rafter is provided by vertical struts or purlins to a load-bearing wall, the tabulated heel joint connection requirements shall be permitted to be reduced proportionally to the reduction in span.
 - Equivalent nailing patterns are required for ceiling joist to ceiling joist lap splices.
 - When rafter ties are substituted for ceiling joists, the heel joint connection requirement shall be taken as the tabulated heel joint connection requirement for two-thirds of the actual rafter slope.
 - Applies to roof live load of 20 psf or less.
 - Tabulated heel joint connection requirements assume that ceiling joists or rafter ties are located at the bottom of the attic space. When ceiling joists or rafter ties are located higher in the attic, heel joint connection requirements shall be increased by the following factors:

H_c/H_R	Heel Joint Connection Adjustment Factor
1/3	1.5
1/4	1.33
1/5	1.25
1/6	1.2
1/10 or less	1.11

where:

- H_c = Height of ceiling joists or rafter ties measured vertically above the top of the rafter support walls.
 H_R = Height of roof ridge measured vertically above the top of the rafter support walls.

i. Edge distances, end distances and spacings for nails shall be sufficient to prevent splitting of the wood.

SECTION 50. Section R803.2.4 is hereby added to read as follows:

R803.2.4 Openings in horizontal diaphragms.

Openings in horizontal diaphragms shall conform with Section R503.2.4.

SECTION 51. Section R1001.3.1 is hereby amended to read as follows:

R1001.3.1 Vertical reinforcing.

For chimneys up to 40 inches (1016 mm) wide, four No. 4 continuous vertical bars adequately anchored into the concrete foundation shall be placed between wythes of solid masonry or within the cells of hollow unit masonry and grouted in accordance with Section R609. Grout shall be prevented from bonding with the flue liner so that the flue liner is free to move with thermal expansion. For chimneys more than 40 inches (1016 mm) wide, two additional No. 4 vertical bars shall be provided for each additional flue incorporated into the chimney or for each additional 40 inches (1016 mm) in width or fraction thereof.

SECTION 52. The provisions of this ordinance contain various changes, modifications, and additions to the 2010 Edition of the California Residential Code. Some of these changes are administrative in nature in that they do not constitute changes or modifications to requirements contained in the building standards published in the California Building Standards Code.

Pursuant to California Health and Safety Code sections 17958.5, 17958.7, and 18941.5, the Board of Supervisors hereby expressly finds that all of the changes and modifications to requirements contained in the building standards published in the California Building Standards Code, contained in this ordinance, which are not

administrative in nature, are reasonably necessary because of local climatic, geological, or topographical conditions in the County of Los Angeles as more particularly described in the table set forth below.

Code Section	Condition	Explanation of Amendment
R301.1.3.2	Geological	<p>After the 1994 Northridge Earthquake, the Wood Frame Construction Joint Task Force recommended that the quality of wood frame construction needs to be greatly improved. One such recommendation identified by the Task Force is to improve the quality and organization of structural plans prepared by the engineer or architect so that plan examiners, building inspectors, contractors, and special inspectors may logically follow and construct the presentation of the seismic force-resisting systems in the construction documents. For buildings or structures located in Seismic Design Category D₀, D₁, D₂, or E that are subject to a greater level of seismic forces, the requirement to have a California licensed architect or engineer prepare the construction documents is intended to minimize or reduce structural deficiencies that may cause excessive damage or injuries in wood frame buildings. Structural deficiencies such as plan and vertical irregularities, improper shear transfer of the seismic force-resisting system, missed details or connections important to the structural system, and the improper application of the prescriptive requirements of the California Residential Code can be readily addressed by a registered design professional.</p>
R301.1.4	Geological Topographical	<p>This technical amendment is for buildings constructed on hillsides. Due to the local topographical and geological conditions of the sites within the greater Los Angeles region and their susceptibility to earthquakes, this amendment is required to address and clarify special needs for buildings constructed on hillside locations. A joint Structural Engineers Association of Southern California (SEAOSC), Los Angeles County, and Los Angeles City Task Force investigated the performance of hillside building failures after the Northridge earthquake. Numerous hillside failures resulted in loss of life and</p>

Code Section	Condition	Explanation of Amendment
		millions of dollars in damage. These criteria were developed to minimize the damage to these structures and have been in use by the City and County of Los Angeles for several years.
R301.2.2.2.5	Geological	Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this local amendment limits the type of irregular conditions as specified in the 2010 California Residential Code. Such limitations are recommended to reduce structural damages in the event of an earthquake. The cities and county of the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of the shear walls and all associated elements when designed for high levels of seismic loads.
R301.2.2.3.5.1	Geological	The term "one" in AISI S230, Section B1 conflicts with Table B1-1, whereas in the table it states the "thinnest connected steel sheet." The term "one" in the AISI S230, Section B1 language can misleadingly be interpreted as though one of the sheets can be 33 mils and the other sheet thicker, but that you still qualify for a reduction factor; this is not the intent of the tables. For example, in a steel-to-steel connection consisting of a 33 mils and 44 mils, and if in any part of the code it is required to provide (4) No. 8 screws; according to Table B1-1 the factor 1.0 would apply to the required number of screws and thus a reduction of screws would not be allowed.
R322.1.4.1	Geological Topographical	This amendment is intended to clarify who should perform studies and analyses for design flood elevations. Based on our vast experience with drainage and grading sites, we have concluded that registered civil engineers are highly equipped to perform such design and analyses.
R327	Climatic	States that Chapter R327 requirements are applicable to all occupancy groups as wildfire exposure impacts all types of buildings and structures. This amendment is needed due to the high-fire severity zones caused by low humidity, strong winds and dry vegetation.
R327.1.1	Climatic	Clarifies the application of Chapter R327 to include additions, alterations, and/or relocated buildings. Additions, alterations, and/or relocated buildings have the same fire risk as new buildings.

Code Section	Condition	Explanation of Amendment
R327.1.3	Climatic	Clarifies the application of Chapter R327 to include additions, alterations, and/or relocated buildings. Additions, alterations, and/or relocated buildings have the same fire risk as new buildings.
R327.1.3.1	Climatic	Clarifies the application of Chapter R327 to include additions, alterations, and/or relocated buildings. Additions, alterations, and/or relocated buildings have the same fire risk as new buildings.
R327.3.5.2	Climatic	Due to low humidity, strong winds, and dry vegetation in high-fire severity zones, the Fire Department could not find sufficient evidence to allow the use of wood-shingle/wood-shake roof.
R327.3.5.2.2	Climatic	Due to low humidity, strong winds and dry vegetation in high-fire severity zones, the Fire Department could not find sufficient evidence to allow the use of wood-shingle/wood-shake roof.
R327.4.3	Climatic	Due to low humidity, strong winds, and dry vegetation in high-fire severity zones, the Fire Department could not find sufficient evidence to allow the use of wood-shingle/wood-shake roof.
R327.5.2	Climatic	Due to low humidity, strong winds, and dry vegetation in high-fire severity zones, the Fire Department could not find sufficient evidence to allow the use of wood-shingle/wood-shake roof and would require the use of Class A roof covering.
R401.1	Geological	Wood foundations, even those that are preservative-treated, encounter a higher risk of deterioration when contacting the adjacent ground. The required seismic anchorage and transfer of lateral forces into the foundation system necessary for 2-story structures and foundation walls could become compromised at varying states of wood decay. In addition, global structure overturning moment and sliding resistance is reduced when utilizing wood foundations as opposed to conventional concrete or masonry systems. However, non-occupied, single-story storage structures pose significantly less risk to human safety and should be able to utilize the wood foundation guidelines specified in this Chapter.
R403.1.2 R403.1.3 R403.1.5	Climatic Geological	This proposed amendment requires minimum reinforcement in continuous footings and stepped footings to address the problem of poor performance of plain or under-reinforced footings during a seismic event. This amendment reflects the recommendations by the

Code Section	Condition	Explanation of Amendment
		<p>Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in the 1994 Northridge Earthquake. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles. Interior walls can easily be called upon to resist over half of the seismic loading imposed on simple buildings or structures. Without a continuous foundation to support the braced wall line, seismic loads would be transferred through other elements such as non-structural concrete slab floors, wood floors, etc. Requiring interior braced walls be supported by continuous foundations is intended to reduce or eliminate the poor performance of buildings or structures.</p>
R404.2	Climatic Geological	<p>No substantiating data has been provided to show that wood foundations are effective in supporting structures and buildings during a seismic event while being subject to deterioration caused by presence of water in the soil as well as other materials detrimental to wood foundations. Wood foundations, when they are not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic events and wet applications. With the higher seismic demand placed on buildings and structures in this region, coupled with the dryer weather conditions here as oppose to the northern and eastern part of the country, it is the intent of this proposal to take the necessary precautionary steps to reduce or eliminate potential problems that may result from the use of wood footings and foundations that does not take into consideration the conditions of this surrounding environment.</p>
R501.1	Geological	<p>There is no limitation for weight of mechanical and plumbing fixtures and equipment in the CRC Code. Requirements of ASCE 7-05 and CBC are necessary that limits equipment weight up to 400 pounds, mounted at 4 feet or less above the floor or attic level without engineering design.</p>

Code Section	Condition	Explanation of Amendment
R503.2.4	Geological	Section R502.10 of the Code does not provide any prescriptive criteria to limit the maximum floor opening size nor does Section R503 provide any details to address the issue of shear transfer near larger floor openings. With the higher seismic demand placed on buildings and structures in this region, it is important to ensure that a complete load path is provided to reduce or eliminate potential damages caused by seismic forces. Requiring blocking with metal ties around larger floor openings and limiting opening size is consistent with the requirements of Section R301.2.2.2.5.
602.3.2	Geological	The cities and county of the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of the shear walls when designed for high levels of seismic loads by eliminating single top plate construction. The performance of modern day braced wall panel construction is directly related to an adequate load path extending from the roof diaphragm to the foundation system.
Table R602.3(1)	Geological	In September 2007, limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as the nailed wood structural shear panels. As a matter of fact, the test results of the stapled wood structural shear panels appeared much lower in strength and drift than the nailed wood structural shear panel test results. Therefore, the use of staples as fasteners for shear walls sheathed with other materials shall not be permitted without being substantiated by cyclic testing. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles for the California Building Code.
Table R602.3(2)	Geological	In September 2007, limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as the nailed wood structural shear panels. As a matter of fact, the test results of the stapled wood structural shear panels appeared much lower in strength and drift than the nailed wood structural shear panel test results. Therefore, the

Code Section	Condition	Explanation of Amendment
		<p>use of staples as fasteners for shear walls sheathed with other materials shall not be permitted without being substantiated by cyclic testing. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles for the California Building Code.</p>
<p>Table R602.10.1.2(2)</p>	<p>Geological</p>	<p>Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this local amendment continues to reduce/eliminate the allowable shear values for shear walls sheathed with lath, plaster, or gypsum board. The poor performance of such shear walls sheathed with other materials in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force. The cities and county of the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of the shear walls when designed for high levels of seismic loads. In addition, this proposed amendment is consistent with the conventional framing provisions of the 2010 California Building Code.</p>
<p>Table R602.10.2</p>	<p>Geological</p>	<p>3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. This proposed amendment specifies minimum WSP sheathing thickness and nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands placed on buildings or structure in this region. This proposed amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles for the California Building Code. In September 2007, cyclic testing data was provided to the structural code committee showing that stapled wood structural shear panels do not exhibit the same behavior as the nailed</p>

Code Section	Condition	Explanation of Amendment
		wood structural shear panels. In addition, the test results of the stapled wood structural shear panels appeared much lower in strength and drift than the nailed wood structural shear panel test results.
Figure R602.10.3.2	Geological	3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. The poor performance of such shear walls sheathed in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3 ply-plywood during the Northridge Earthquake. The cities and county of the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of the shear walls when designed for high levels of seismic loads. The proposal for minimum lap splice requirement is consistent with Section 12.16.1 of ACI 318-05. The performance of modern day braced wall panel construction is directly related to an adequate load path extending from the roof diaphragm to the foundation system. This proposed amendment continues amendments adopted during the previous code cycle for the California Building Code.
R602.10.3.3	Geological	The proposal to change the minimum lap splice requirement is consistent with Section 12.16.1 of ACI 318-05.
Figure R602.10.3.3	Geological	3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. The poor performance of such shear walls sheathed in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force. The cities and county of the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of the shear walls when designed for high levels of seismic loads. Box nails were observed to cause massive and multiple failures of the typical 3/8-inch thick plywood during the Northridge Earthquake. This proposed amendment continues amendments adopted during the previous code cycle for the California Building Code.

Code Section	Condition	Explanation of Amendment
Table R602.10.4.1	Geological	<p>3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. The poor performance of such shear walls sheathed in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force. The cities and county of the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of the shear walls when designed for high levels of seismic loads. This proposed amendment continues the previous amendment adopted during the 2007 code adoption cycle for the California Building Code. In September 2007, limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as the nailed wood structural shear panels. As a matter of fact, the test results of the stapled wood structural shear panels appeared much lower in strength and drift than the nailed wood structural shear panel test results. Therefore, the use of staples as fasteners for shear walls sheathed with other materials shall not be permitted without being substantiated by cyclic testing. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p>
Figure R602.10.4.1.1	Geological	<p>3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. The poor performance of such shear walls sheathed in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force. The cities and county of the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of the shear walls when designed for high levels of seismic loads. This proposed amendment continues the previous amendment adopted during the 2007 code adoption cycle for the California Building Code. The proposal in which "washers shall be a minimum of 0.229 inch by 3 inches by 3 inches in size" is consistent with Section R602.11.1 of the 2010 California Residential Code and Section 2308.12.8 of the 2010 California Building Code.</p>

Code Section	Condition	Explanation of Amendment
R602.10.7.1	Geological	The performance of modern day braced wall panel construction is directly related to an adequate load path extending from the roof diaphragm to the foundation system. Interior braced wall panels, therefore, are also directly dependent upon the adequacy of the foundation system. In addition, the proposed amendment for Section R403.1.2 specifies that all exterior walls and required interior braced wall panels in buildings shall be supported with continuous footings.
R606.2.4	Geological	The addition of the word "or" will prevent the use of unreinforced parapets in Seismic Design Category D ₀ , D ₁ , or D ₂ , or on townhouses in Seismic Design Category C.
Table R802.5.1(9)	Geological	The number of nails required for the heel joint connection per Table R802.5.1(9) can be excessive depending on the rafter slope, spacing, and roof span. This footnote will help to prevent splitting of connecting wood members when large numbers of nail are required as stated in the National Design Specification for Wood Construction (NDS).
R802.8	Geological	This proposed amendment provides provisions to ensure that the ends of wood members and the points of bearing have adequate lateral support to prevent rotation and to help stabilize the members during construction. This proposed amendment is consistent with and similar to requirements contained in the NDS.
R802.10.2	Geological	Wood trusses are engineered structural elements that require engineered design and calculations. This amendment provides clarifications that all wood truss design drawings are to be prepared by a registered professional.
R803.2.4	Geological	Section R802 of the Code does not provide any prescriptive criteria to limit the maximum size of roof openings, nor does Section R803 provide any details to address the issue of shear transfer near larger roof openings. With the higher seismic demand placed on buildings and structures in this region, it is important to ensure that a complete load path is provided to reduce or eliminate potential damage caused by seismic forces. Requiring blocking with metal ties around larger roof openings and limiting the size of openings is consistent with the requirements of Section R301.2.2.2.5.

Code Section	Condition	Explanation of Amendment
R1001.3.1	Geological	The performance of fireplaces/chimneys without anchorage to the foundation has been observed to be inadequate during major earthquakes. The lack of anchorage to the foundation results in overturn or displacement.

SECTION 53. This ordinance shall become operative on January 1, 2011.

[30RESBLDNGMYCC]

SECTION 54. This ordinance shall be published in The Daily Commerce a newspaper printed and published in the County of Los Angeles.



Gloria Molina
Chair

ATTEST:

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that at its meeting of November 23, 2010 the foregoing ordinance was adopted by the Board of Supervisors of said County of Los Angeles by the following vote, to wit:

<u>Ayes</u>	<u>Noes</u>
Supervisors <u>Mark Ridley-Thomas</u>	Supervisors <u>None</u>
<u>Zev Yaroslavsky</u>	_____
<u>Don Knabe</u>	_____
<u>Michael D. Antonovich</u>	_____
<u>Gloria Molina</u>	_____

Effective Date: December 23, 2010
Operative Date: January 1, 2011

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that pursuant to Section 25103 of the Government Code, delivery of this document has been made.

SACHI A. HAMAI
Executive Officer
Clerk of the Board of Supervisors

By Christal
Deputy



APPROVED AS TO FORM:
ANDREA SHERIDAN ORDIN
County Counsel

By Leela Kapur
Leela Kapur
Chief Deputy County Counsel

BUILDING STANDARDS COMMISSION

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



March 1, 2011

Deputy Chief David R. Richardson Jr.
Fire Department, Prevention Services Bureau
County of Los Angeles
1320 North Eastern Avenue
Los Angeles, CA 90063-3294

Dear Mr. Richardson:

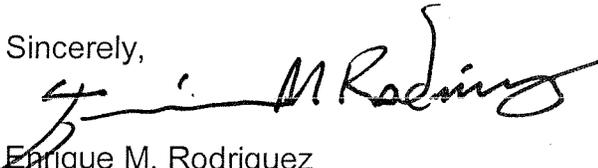
This letter is to acknowledge receipt on January 5, 2011 of the County of Los Angeles submittal pertaining to Ordinance No. 2010-0060 with findings and is acceptable for filing. Your filing attests to your understanding that according to Health and Safety Code Section 17958.7 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

As a reminder, local modifications 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. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

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



COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 881-2461

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

December 29, 2010

Mr. Dave Walls, Executive Director
California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

Dear Mr. Walls:

FILING OF MORE RESTRICTIVE LOCAL BUILDING STANDARDS ADOPTED BY THE COUNTY OF LOS ANGELES AND CONSOLIDATED FIRE PROTECTION DISTRICT OF LOS ANGELES COUNTY

The County of Los Angeles and the Consolidated Fire Protection District of Los Angeles County have amended portions of the 2010 California Fire Code in the adoption of the County Fire Code, Title 32. Pursuant to California Health and Safety Code Section 17958.7 (a), attached is a certified copy of the ordinance which contains the local amendments to the California Fire Code. Section 166 of the ordinance, beginning on page 158, contains the findings in support of the more restrictive building standards on the basis of local climatic, geological and/or topographical conditions existing in the County and in the Fire Protection District. Section 166 of the ordinance also contains a table, beginning on page 161 listing the specific sections of the California Fire Code that have been modified or changed and the specific local finding justifying each amendment.

The ordinance and these local amendments and findings were adopted by the Los Angeles County Board of Supervisors on November 30, 2010. The ordinance provides that these local amendments will become effective on January 1, 2011.

This is being transmitted via certified mail, return receipt requested and we ask that you please provide us with written confirmation that these materials have been received and filed by your office. If there are any questions, please contact Assistant Fire Chief Roy Dull, Fire Marshal, at (323) 890-4144.

Very truly yours,

DEPUTY CHIEF DAVID R. RICHARDSON JR.
PREVENTION SERVICES BUREAU

DRR:mt

Attachment

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

- | | | | | | | | |
|--------------|-----------|------------------|----------------------|-----------|----------------------|-----------------------|------------------|
| AGOURA HILLS | CALABASAS | DIAMOND BAR | HIDDEN HILLS | LA MIRADA | MALIBU | POMONA | SIGNAL HILL |
| ARTESIA | CARSON | DUARTE | HUNTINGTON PARK | LA PUENTE | MAYWOOD | RANCHO PALOS VERDES | SOUTH EL MONTE |
| AZUSA | CERRITOS | EL MONTE | INDUSTRY | LAKEWOOD | NORWALK | ROLLING HILLS | SOUTH GATE |
| BALDWIN PARK | CLAREMONT | GARDENA | INGLEWOOD | LANCASTER | PALMDALE | ROLLING HILLS ESTATES | TEMPLE CITY |
| BELL | COMMERCE | GLENDORA | IRWINDALE | LAWDALE | PALOS VERDES ESTATES | ROSEMEAD | WALNUT |
| BELL GARDENS | COVINA | HAWAIIAN GARDENS | LA CANADA FLINTRIDGE | LOMITA | PARAMOUNT | SAN DIMAS | WEST HOLLYWOOD |
| BELLFLOWER | CUDAHY | HAWTHORNE | LA HABRA | LYNWOOD | PICO RIVERA | SANTA CLARITA | WESTLAKE VILLAGE |
| BRADBURY | | | | | | | WHITTIER |

RECEIVED
CALIFORNIA BUILDING
STANDARDS COMMISSION
2011 JAN -5 P 12:57

PROOF OF SERVICE

STATE OF CALIFORNIA, County of Los Angeles:

Patricia McElwain states:

I am employed in the County of Los Angeles, State of California, over the age of eighteen years and not a party to the within action. I work for the Fire Department and my business address is 5823 Rickenbacker Rd., Commerce, California 90040.

That on December 30, 2010, I served the following three documents:

- 1. A letter to the State of California Department of Housing and Community Development regarding our more restrictive Building Standards;**
- 3. A Certified copy of the 2011 Fire Code Ordinance;**
- 4. A copy of this proof of service**

Upon Ms. Lynn L. Jacobs, Director, California Department of Housing and Community Development, 1800 3rd Street, Room 260, Sacramento, CA 95811, and Mr. Dave Walls, Executive Director, California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833, through the United States Postal Service.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on December 30 2010, at Los Angeles, California.

Patricia McElwain
(NAME OF DECLARANT)


(SIGNATURE OF DECLARANT)

ANALYSIS

This ordinance amends and repeals certain provisions of Title 32 - Fire Code of the Los Angeles County Code, which had incorporated by reference portions of the 2007 Edition of the California Fire Code, and adopts by reference, with certain changes and amendments, the 2010 Edition of the California Fire Code. This ordinance also adopts by reference, with certain changes and amendments, the 2009 Edition of the International Fire Code, which has been incorporated, with certain changes and amendments, into the 2010 Edition of the California Fire Code.

State law allows the County and Consolidated Fire Protection District of Los Angeles County (District) to adopt more restrictive building standards that are reasonably necessary because of local climatic, geological, or topographical conditions. This ordinance contains findings that all of the amendments and modifications that constitute more restrictive building standards are reasonably necessary because of local climatic, geological, or topographical conditions in the County of Los Angeles.

This ordinance further amends Title 32 by renumbering sections to correspond to model code sections, and makes other administrative changes and editorial corrections. Unless deleted or modified herein, the previously enacted provisions of Title 32 continue in effect. This ordinance adopts Title 32 as the Fire Code for the District.

Finally, this ordinance provides that the permit fees for motion picture, television, and commercial production activities shall only be collected upon the implementation of the Fire Department's Field Inspection Program.

ANDREA SHERIDAN ORDIN
County Counsel

By


SCOTT KUHN
Senior Deputy County Counsel,
Property Division

09/02/10 (Requested)

11/4/2010 (Revised)

ORDINANCE NO. 2010-0060

An ordinance amending Title 32 – Fire Code of the Los Angeles County Code, by repealing portions which had incorporated by reference portions of the 2007 Edition of the California Fire Code, and adopting by reference, with certain changes and amendments, the 2010 Edition of the California Fire Code. This ordinance also adopts by reference, with certain changes and amendments, the 2009 Edition of the International Fire Code, which has been incorporated, with certain changes and amendments, into the 2010 Edition of the California Fire Code, and making other revisions thereto. This ordinance adopts Title 32 as the Fire Code for the Consolidated Fire Protection District of Los Angeles County.

The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. The following Chapters of Title 32 are repealed in their entirety:

Chapter 48 (AUTOMOBILE WRECKING YARDS)

Chapter 49 (INFRACTIONS)

Chapter 50 (CONSOLIDATED FIRE PROTECTION DISTRICT CODE)

APPENDIX A (BOARD OF APPEALS)

APPENDIX B (FIRE-FLOW REQUIREMENTS FOR BUILDINGS)

APPENDIX K (MARINAS)

APPENDIX CHAPTER ONE (ADMINISTRATION)

SECTION 2. The following Sections of Title 32 are hereby repealed in their entirety:

Section 101.1 (Title)

Section 101.6 (Conflicting Provisions)

Section 103.3.1.1 (Authority to inspect)

Section 103.4.1.3 (Stopping uses, evacuation)

Section 103.4.5 (Unsafe buildings)

Section 103.4.7 (Violations)

Section 103.4.8 (Responsibility)

Section 103.4.9.1 (Administrative penalty--imposition)

Section 103.4.9.2 (Administrative penalty--enforcement)

Section 103.4.9.3 (Declared parcel)

Section 103.4.9.4 (Undeclared parcel)

Section 103.4.9.5 (Inspection--notice of violations)

Section 103.4.9.6 (Administrative penalty--amount)

Section 103.4.9.7 (Administrative penalty--collection)

Section 103.4.9.8 (Administrative penalty--administrative review and appeal)

Section 104.2 (Investigations)

Section 202 (Definitions)

Section 206-E (EPA ID NUMBER)

Section 304.1.2 (Vegetation)

Section 307.2.1 (Authorization)

Section 308.1.4 (Open-flame cooking devices)

Section 311.5 (Placards)

Section 312.2 (Posts)

Section 314.3 (Highly combustible goods)

Section 316 (PARADE FLOATS)

Section 316.1 (Decorative Material)

Section 316.2 (Fire Protection)

Section 317 (CLEARANCE OF BRUSH AND VEGETATIVE GROWTH)

Section 317.1 (Electrical Transmission Lines)

Section 317.1.1 (Support clearance)

Section 317.1.2 (Line clearance)

Section 317.1.3 (Self-supporting aerial cable)

Section 317.2 (Structures)

Section 317.2.1 (Fuel modification plan in fire hazard severity zones)

Section 317.2.1.1 (Appeals)

Section 317.2.1.2 (Fuel modification, landscape, and mitigation plan check fee schedule)

Section 317.2.2 (Clearances)

Section 317.2.3 (Extra hazard)

Section 317.3 (Notice to correct)

Section 317.3.1 (Contents of notice)

Section 317.3.2 (Compliance with findings)

Section 317.3.3 (Correction by fire code official or commissioner)

Section 317.3.4 (Notice of failure to correct)

Section 317.3.5 (Mailing notice)

Section 317.3.6 (Posting of Notice)

Section 317.3.7 (Publication of notice)

Section 317.4 (Hearing of Protests)

Section 317.4.1 (Appointment of referee)

Section 317.4.2 (Hearing objections)

Section 317.4.3 (Report of referee)

Section 317.4.4 (Decision by board)

Section 317.4.5 (Order for abatement)

Section 317.5 (Right of entry upon private property)

Section 317.6 (Removal before arrival of fire code official or commissioner)

Section 317.7 (Record and report of cost)

Section 317.7.1 (Posting copy of report)

Section 317.7.2 (Hearing on report)

Section 317.7.3 (Report of referee)

Section 317.7.4 (Modification and confirmation of the report)

Section 317.7.5 (Costs of removal)

Section 317.7.6 (Collection of expenses)

Section 317.8 (Joint Proceedings)

Section 317.9 (Prosecution)

Section 317.10 (Roadway clearance)

Section 403.2.2 (Fire safety officers and advisors)

Section 404.3.2 (Fire safety plans)

Section 404.3.3 (Implementation)

Section 502.1 (Definitions)

Section 503.1.2 (Additional access)

Section 503.2.1 (Dimensions)

Section 503.4 (Obstruction of fire apparatus access roads)

Section 505.2 (Street or road signs)

Section 506.1 (Where required)

Section 508.1.1 (Water certificate)

Section 508.3 (Fire flow)

Section 508.5.4 (Obstruction)

Section 607.1 (Required)

Section 608.9 (Smoke detection)

Section 901.7 (Systems out of service)

Section 903.2.10.3 (Buildings over three stories in height)

Section 903.4.2 (Alarms)

Section 905.4 (Location of Class I standpipe hose connections)

Section 905.5.3 (Class II system 1-inch hose)

Section 905.6.1 (Protection)

Section 905.9 (Riser shutoff valve supervision and drain)

Section 907.2.1.1 (System initiation in Group A occupancies with an occupant load of 1,000 or more)

Section 907.3.1.5 (Group R-I hotels and motels)

Section 907.3.1.7 (Group R-2)

Section 910.1 (General)

Section 1007.10.1 (Signage for high-rise buildings)

Section 1009.12 (Storage under stairways)

Section 1102.2.1 (General)

Section 1102.3.2 (Notification)

Section 1114 (Reserved)

Section 1115 (Reserved)

Section 1116 (Reserved)

Section 1117.1.1 (Support clearance)

Section 1117.1.2 (Line clearance--High Tension)

Section 1117.1.3 (Self-supporting aerial cable)

Section 1117.2.1 (Fuel modification plan in Very High Fire Hazard Severity

Zones)

Section 1117.2.1.1 (Appeals)

Section 1117.2.1.2 (Fuel Modification, Landscape and Irrigation Plan Check Fee

Schedule)

Section 1117.2.2 (Clearances)

Section 1117.2.3 (Extra hazard)

Section 1117.3.1 (Contents of notice)

Section 1117.3.2 (Compliance with findings)

Section 1117.3.3 (Correction by chief or commissioner)

Section 1117.3.4 (Notice of failure to correct)

Section 1117.3.5 (Mailing notice)

Section 1117.3.6 (Posting of notice)

Section 1117.3.7 (Publication of notice)

Section 1117.4.1 (Appointment of referee)

Section 1117.4.2 (Hearing objections)

Section 1117.4.3 (Report of referee)

Section 1117.4.4 (Decision by board)

Section 1117.4.5 (Order for abatement)

Section 1117.7.1 (Posting copy of report)

Section 1117.7.2 (Hearing on report)

Section 1117.7.3 (Report of referee)

Section 1117.7.4 (Modification and confirmation of the report)

Section 1117.7.5 (Cost of removal)

Section 1117.7.6 (Collection of expenses)

Section 1303.3.7.1 (Pre-fire plan)

Section 1404.5 (Standby personnel)

Section 1404.8 (Fire-protection plan)

Section 1408.5.1 (Fire-protection systems)

Section 1408.5.2 (Cutting and welding)

Section 1504.2 (Location of spray-finishing operations)

Section 1508.5 (Sources of ignition)

Section 2301.2 (Permits)

Section 2306.2 (GENERAL FIRE PROTECTION AND LIFE SAFETY

REQUIREMENTS)

Section 2308.2.2 (Racks with solid shelving)

Section 2402.1 (TRAINED CROWD MANAGER)

Section 2701.5 (Permits)

Section 2701.5.1 (Hazardous materials business plan)

Section 2701.5.1.1 (Application)

Section 2701.5.2 (Hazardous materials chemical inventory (HMCI))

Section 2701.5.2.1 (Health hazardous materials division authority)

Section 2701.5.2.2 (Reporting)

Section 2701.5.2.3 (Notification)

Section 2702.1 (Definitions)

Section 2703.2.1 (Design and construction of containers, cylinders, and tanks)

Section 2703.2.5 (Empty containers and tanks)

Section 2703.3.1.2 (Preparation)

Section 2703.3.1.3 (Control)

Section 2703.3.1.4 (Responsibility for cleanup)

Section 2703.5 (Identification signs)

Section 2703.9.1.1 (Fire department liaison)

Section 2703.11.3.8 (Floors)

Section 2704.1.1 (Storage conditions)

Section 2704.5 (Fire-extinguishing system)

Section 2705.1 (General)

Section 2705.1.8 (Fire-extinguishing systems)

Section 2705.1.11 (Bulk plant or terminal)

Section 3301.2 (Permits Required)

Section 3301.3 (Prohibited explosives)

Section 3310 (Secondary containment)

Section 3404.2.8.3 (Secondary containment)

Section 3404.2.9.1.1 (Required foam fire protection systems)

Section 3404.2.9.5.1.3 (Location of tanks storing boilover liquids)

Section 3406.3.1 (Location)

Section 3406.4 (Bulk plants or terminals)

Section 3804.4 (Multiple container installation)

Section 3806.1 (Attendants)

Section 3807.4 (Protecting containers from vehicles)

Section 3308.1 (General)

Section 4601.3 (Definitions)

Section 4603.2 (Additional Permits)

Section 4603.2.1 (Permit fees)

Section 4701.2 (Purpose)

Section 4702 (DEFINITIONS)

Section 4702.1 (General)

Section 4705.1 (General)

Section 4705.2 (Construction methods and requirements within established limits)

Section 4705.3 (Establishment of limits)

Section 4708 (MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE)

Section 4708.1.1 (Scope)

Section 4708.1.2 (Purpose)

Section 4708.1.3 (Application)

Section 4708.2 (Alternates for materials, design, tests, and methods of construction)

Section 4708.3 (Inspection and certification)

Section 4710.1.1 (General)

Section 4710.1.2 (Roof coverings)

Section 4710.2.3 (Eave protection)

Section 4714 (STANDARDS OF QUALITY)

Section 4714.1 (General)

Section 4714.2 (Qualification by Testing)

Section 4714.3 (Standards of Quality)

Section 4715 (EXTERIOR WALLS)

Section 4715.1 (General)

Section 4715.1.1 (Exterior wall coverings)

Section 4715.2 (Exterior wall openings)

Section 4715.2.1 (Exterior wall vents)

Section 4715.2.2 (Exterior glazing and window walls)

Section 4715.2.3 (Exterior door assemblies)

Section 4716 (DECKING, FLOORS AND UNDERFLOOR PROTECTION)

Section 4716.1 (Decking)

Section 4716.1.1 (Decking surfaces)

Section 4716.2 (Underfloor and appendages protection)

Section 4716.2.1 (Underside of appendages and floor projections)

Section 4716.2.2 (Unenclosed underfloor protection)

Section 4717 (ANCILLARY BUILDINGS AND STRUCTURES)

Section 4717.1 (Ancillary buildings and structures)

Section 7702.1.9 (Storage with other materials)

Section 7904.3.2.4 (Zoning regulations)

Section 7904.5.1.19 (Liquid transfer)

Section 7904.6.3.14 (Transfer of cargo)

Section 8003.1.6 (Fire-extinguishing systems)

Section 8206.1 (Attendants)

Section 8705.2 (Fire protection systems)

SECTION 3. Section 100 is hereby amended to read as follows:

100 CALIFORNIA FIRE CODE AND INTERNATIONAL FIRE

CODE ADOPTION BY REFERENCE: Except as hereinafter changed and modified, Chapters 1 through ~~4749~~ Appendix Chapter 1, and Appendix B, and C of the ~~2007~~2010 Edition of the California Fire Code, published by the California Building Standards Commission, with errata, and Chapters 1 through ~~457~~, Chapters 9 through 32, Chapters 34 through 45, Chapter 47 and Appendix AJ of the ~~2006~~2009 Edition of the International Fire Code, published by the International Code Council, for sections that were not adopted as part of the 2010 California Fire Code are hereby adopted by reference and incorporated into this Title 32 of the Los Angeles County Code as if set forth fully below, and shall be known as Chapters 1 through ~~4749~~, Appendix Chapter 1, Appendix A, and Appendix B, Appendix C, and Appendix J of Title 32 of the Los Angeles County Code.

A copy of the ~~2007~~2010 Edition of the California Fire Code, with errata, ~~including Appendix Chapter 1, Appendix A and Appendix B,~~ and a copy of the ~~2006~~2009 International Fire Code shall be at all times maintained by the Executive Office of the Board of Supervisors for use and examination by the public.

Unless expressly repealed or amended herein, the previously enacted provisions of Title 32 of the Los Angeles County Code shall remain in full force and effect.

SECTION 4. Section 101.1 is hereby amended to read as follows:

101.1 Title.

~~These regulations~~ Title 32 of the Los Angeles County Code shall be known as the ~~Fire Code of~~ LOS ANGELES COUNTY FIRE CODE, hereinafter referred to as "this code."

SECTION 5. Section 101.2 is hereby amended to read as follows:

101.2 Scope.

This code establishes regulations affecting or relating to structures, processes, premises, and safeguards regarding:

...

6. Fire hydrant systems, water supply, fire equipment access, posting of fire equipment access, parking, lot identification, weed abatement, and combustible brush and vegetation that represents an imminent fire hazard, debris abatement, combustible storage abatement including flammable liquid storage, hazardous material storage and use, open-flame and open-burning, and burglar bars at State-regulated mobile home and special occupancy parks within the jurisdiction of the County of Los Angeles Fire Department as per California Health and Safety code sections 18691 and 18873.5.

SECTION 6. Section 101.2.1 is hereby amended to read as follows:

101.2.1 Appendices.

Provisions in the appendices shall not apply unless specifically adopted. Only Appendix B and Appendix C from the California State Fire Code have been adopted into

this code. This code also adopts Appendix J of the 2009 Edition of the International Fire Code, adds Appendix K, and amends existing Appendix L and Appendix M.

SECTION 7. Section 101.3 is hereby amended to read as follows:

101.3 Intent.

The purpose of this code is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion, or dangerous conditions in new and existing building, structures, and premises and to provide safety to fire fighters and emergency responders during emergency operations. Consistent with this purpose, the provisions of this code are intended, and have always been intended, to confer a benefit on the community as a whole and are not intended to establish a duty of care toward any particular person.

This code shall not be construed to hold the County, the consolidated fire protection district, or any officer, employee, or agent thereof responsible for any damage to persons or property by reason of any inspection authorized herein or by reason of the issuance or non-issuance of any permit authorized herein, and/or for any action or omission in connection with the application and/or enforcement of this code. By adopting the provisions of this code, the County, or any consolidated fire protection district, does not intend to impose on itself, its employees, or agents any mandatory duties of care toward persons and property within its jurisdiction so as to provide a basis of civil liability for damages.

This section is declaratory of existing law and is not to be construed as suggesting that such was not the purpose and intent of previous code adoptions.

SECTION 8. Section 101.6 is hereby added to read as follows:

101.6 Amendments.

When reference is made to a portion of this code or other applicable laws or ordinances, the reference applies to all amendments and additions now or hereafter made. Where there is a conflict between amendments, unless otherwise expressly noted, the most recent amendment shall apply.

SECTION 9. Section 102.5 is hereby amended to read as follows:

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

1. Construction and designed provisions: Provisions of this code pertaining to the exterior of the structure shall apply including, but not limited to, premises identification, fire apparatus access, and water supplies. Provisions of this code pertaining to the interior of the structure shall apply when specifically required by this code including, but not limited to, Section 903.1.2. Where interior or exterior systems or devices are installed, construction permits required by Section 105.7 of this code shall also apply.
2. Administrative, operational, and maintenance provisions: all such provisions of this code shall apply.

SECTION 10. Section 103.2 is hereby amended to read as follows:

103.2 ~~Appointment.~~ ~~The fire code official shall be appointed by the chief appointing authority of the jurisdiction; and the fire code official 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.~~ Fire marshal. An administrative officer of the prevention services bureau shall be appointed the fire marshal by the chief of the fire department from among the chief officers of the fire department.

SECTION 11. Section 103.2.1 is hereby added to read as follows:

103.2.1 Health hazardous materials division and forestry division staff.

The provisions of this code may be enforced by any duly authorized member of the health hazardous materials division or the forestry division of the fire department.

SECTION 12. Section 103.2.2 is hereby added to read as follows:

103.2.2 Agricultural commissioner.

The provisions of Section 325 of this code may be enforced by the agricultural commissioner of the County of Los Angeles.

SECTION 13. Section 103.4 is hereby amended to read as follows:

103.4 Liability. The fire code official, members of the board of appeals, fire code appeals review panel, officer, or employee charged with the enforcement of this code, while acting for the jurisdiction, in good faith and without malice in the discharge of the duties required by this code or other pertinent law or

ordinance, shall not thereby be rendered liable personally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of an act or by reason of an act or omission in the discharge of official duties.

SECTION 14. Section 104.1 is hereby amended to read as follows:

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 implement its provisions or to clarify the application of its provisions. Such interpretations, policies, procedures, rules, and regulations shall be ~~in~~ compliance ~~consistent~~ with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code. A copy of such interpretations, rules, and regulations shall be filed with the executive office of the Board of Supervisors and shall be in effect immediately thereafter.

SECTION 15. Section 104.1.1 is hereby added to read as follows:

104.1.1 Enforcement authority.

Under the fire chief's direction, members of the fire department are authorized to enforce all ordinances of the jurisdiction and the laws of the state pertaining to:

1. The prevention of fires.
2. The suppression or extinguishment of dangerous or hazardous fires.
3. The storage, use, and handling of hazardous materials.
4. The installation and maintenance of automatic, manual, and other private fire alarm systems and fire-extinguishing equipment.

5. The maintenance and regulation of fire escapes.
6. The maintenance of fire protection and the elimination of fire hazards on land and in buildings, structures, and other property, including those under construction.
7. The maintenance of means of egress.
8. The investigation of the cause, origin, and circumstances of fire and unauthorized releases of hazardous materials.
9. Brush clearance.
10. All other matters within the scope of this code.

Note: For authority related to control and investigation of emergency scenes, see Section 104.11.

SECTION 16. Section 104.5.1 is hereby added to read as follows:

104.5.1 Fire and law enforcement personnel.

The fire code official and designated representatives of the fire code official may issue citations for violations of this code, of the regulations authorized by this code, and of the standards as set forth in Chapter 51 of this code.

When requested to do so by the fire code official, the chief of any law enforcement agency is authorized to assign such available law enforcement officers as necessary to assist the fire department in enforcing the provisions of this code.

SECTION 17. Section 104.10 is hereby amended to read as follows:

104.10 Fire investigations. The fire code official, ~~the fire-~~
~~department or other responsible authority~~ or authorized personnel shall have the authority to investigate promptly the cause, origin, and circumstances of any fire,

hazardous material incident, explosion, or other hazardous condition which is of suspicious origin. The investigator is authorized to take immediate charge of all physical evidence relating to the cause of the incident, and to pursue the investigation to its conclusion under the direction of the fire chief or an authorized deputy fire chief, in cooperation with the appropriate law enforcement agency. Information that could be related to trade secrets or processes shall not be made part of the public record except as directed by a court of law.

SECTION 18. Section 104.11.4 is hereby added to read as follows:

104.11.4 Private firefighting resources.

Any private firefighting resource must possess a valid operational permit to conduct firefighting operations, provide fire protection operations, or to apply resistive treatment to structures or vegetation in an emergency area.

104.11.4.1 Requirement to obey orders.

Any private firefighting resource must obey all permit requirements, regulations, and legal orders, including evacuation orders, given by the incident commander or incident commander's designee within an emergency area.

104.11.4.2 Required check-in.

Upon arriving at the emergency area any private firefighting resource shall check-in with the incident commander or incident commander's designee.

104.11.4.3 Permit Required.

A valid operational permit shall be obtained by private firefighting resources as set forth in Section 105.6.

104.11.4.4 Permit display.

Each private firefighting resource vehicle must display a copy of the valid private firefighting resources permit in clear view from the exterior of the vehicle.

SECTION 19. Section 105.4.2 is hereby amended to read as follows:

105.4.2. Information on construction documents.

Construction documents shall be drawn to scale ~~upon suitable material on~~ substantial paper. Electronic media documents are allowed to be submitted when approved by the fire code official. Construction documents shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules, and regulations as determined by the fire code official. The first sheet of each set of plans shall give the street address of the property, the assessor's parcel number, the name and address of the owner, and persons who prepared the plans. Plans shall also include a plot plan showing the location of the proposed building and of every existing building on the property.

SECTION 20. Section 105.4.4.2 is hereby added to read as follows:

105.4.4.2 Expiration of plan approval by fire code official when no permit issued.

A fire code official plan approval necessary for a building permit to be issued, for which the building official ultimately does not issue a building permit, shall expire one year after the date of plan approval by the fire code official. Plans, specifications, and computations previously submitted may thereafter be returned to the applicant or

destroyed by the fire code official. The fire code official may extend the time for action by the applicant for a period of six months beyond the one-year limit upon written request by the applicant showing that circumstances beyond the control of the applicant have prevented action from being taken. No plan approval shall be extended more than once.

Once a plan approval and any extension thereof has expired, the applicant shall resubmit plans, specifications, and computations. Plan approval for which a building permit has been issued and thereafter expired according to the Building Code shall be null and void. In such circumstances, plans, specifications, and computations shall be resubmitted for plan approval.

SECTION 21. Section 105.4.6 is hereby amended to read as follows:

105.4.6 Retention of construction documents.

One set of construction documents shall be retained by the fire code official for a period of not less than ~~180~~90 days from date of completion of the permitted work, or as required by ~~state or local laws~~section 19850 of the California Health and Safety Code. One set of approved construction documents shall be returned to the applicant, and said set shall be kept on the site of the building or work at all times during which the work authorized thereby is in progress.

SECTION 22. Section 105.6. is hereby amended to read as follows:

105.6 Required operational permits. The fire code official is authorized to issue operational permits for the operations set forth in Section 105.6.1 through 105.6.46.

...

105.6.1.1 Activities in hazardous fire areas.

An operational permit is required for any of the activities as described in Section 326.2 of this code.

...

105.6.3.1 Battery system.

An operational permit is required to install or operate stationary lead-acid battery systems having a liquid capacity of more than 100 gallons (378.5 L). See Chapter 6.

105.6.3.2 Bonfires or rubbish fires.

An operational permit is required to kindle or maintain or authorize the kindling or maintenance of bonfires or rubbish fires. See Chapter 3.

...

105.6.9 Covered mall buildings. An operational permit is required

for:

1. The placement of retail fixtures and displays, concession equipment, displays of highly combustible goods, and similar items in the mall.
2. The display of liquid- or gas-fired equipment in the mall.
3. The use of open-flame or flame-producing equipment in the mall.
4. The use of a mall as a place of assembly.

...

105.6.14 Explosives.

An operational permit is required for the manufacture, storage, handling, sale, or use of any quantity of explosives, explosive materials, fireworks, or pyrotechnic special effects within the scope of Chapter 33 of this code, or when a local permit or approval from the fire chief is required by the California Code of Regulations Title 19, Division 1, Chapter 6 – Fireworks, or Chapter 10 – Explosives.

Exceptions: ~~Storage in Group R-3 occupancies of smokeless propellant, black powder, and small arms primers for personal use, not for resale, and in accordance with Section 3306.~~

1. Small arms ammunition of .75 caliber or less, cartridges for propellant-actuated power devices, and cartridges for industrial guns, 20 pounds or less of smokeless powder, 5 pounds or less of black sporting powder providing such smokeless or black sporting powder is for the hand loading of small arms or small arms ammunition.

2. The possession, storage, sales, handling, and use of California State Fire Marshal classified safe and sane fireworks as allowed by state law and local ordinance in accordance with California Health and Safety Code section 12541.1.

...

105.6.16 Flammable and combustible liquids.

An operational permit is required:

...

6. To operate tank vehicles, equipment, tanks, plants, terminals, wells, including natural gas wells, fuel-dispensing stations, refineries, distilleries, and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed, or used. The applicant is required to pay the permit fee amount shown in Section 3406.3.9 prior to permit issuance for a well.

7. To install, alter, remove, abandon, or place temporarily out of service (for more than 90 days) an underground, protected above-ground, or above-ground flammable or combustible liquid tank.

...

12. Allow a tank car to remain on a siding at the point of delivery while connected for transfer operations. Transfer operations shall be in accordance with DOT requirements and this code.

105.6.20 Hazardous materials. An operational permit is required to store, transport on site, dispense, use, or handle hazardous materials in excess of the amount listed in Table 105.6.20. In addition, Unified program facility permits required by Chapters 12.50, 12.52, and 12.64 of the County Code and full payment of permit fees shall be obtained prior to the issuance of any fire code permit required by this code.

...

105.6.22 High-piled combustible storage. An operational permit is required to use any building or portion thereof as a high-piled storage area exceeding 500 square feet (46 m²). In addition to any of the requirements of Chapter 23 of this code, a letter describing the type and amount of material to be stored and the method of

storage, plus a floor plan showing the dimension and location of the stockpiles and aisles shall be submitted with applications for such permits.

...

105.6.27 LP-gas.

An operational permit is required for:

1. Operation of cargo tankers that transport LP-gas.
2. Storage and use of LP-gas.

Exceptions:

1. A permit is not required for individual outdoor containers with a total aggregate water capacity of 500-gallons (1893 L) water capacity or less serving occupancies in Group R-3.
2. Operation of cargo tankers that transport LP-gas. A permit is not required to install or maintain outdoor portable containers of less than 125-gallons (473.2 L) aggregate water capacity.
3. A permit is not require for the storage of portable LP-gas containers awaiting use or resale at a consumer or retail site with individual container capacities not exceeding 2 ½ pounds and the total aggregate capacity of all LG-gas containers does not exceed 200 pounds.

105.6.29.1 Model rockets.

An operational permit is required to operate a model rocket or an experimental high powered rocket as defined in Title 19 California Code of Regulations, section 980.

...

105.6.33.1 Pallet yards.

An operational permit is required to store, manufacture, refurbish, or otherwise handle greater than 200 ft³ of combustible plastic or wood pallets in an outdoor yard.

105.6.33.2 Parade floats.

An operational permit is required to use a parade float for public performance, presentation, spectacle, entertainment, or parade. See Section 324.

...

105.6.34.1 Private fire fighting resources.

An operational permit is required for any private firefighting resource to conduct firefighting operations, provide fire protection operations, or to apply fire resistive treatment to structures or vegetation in an emergency area.

...

105.6.36 Pyrotechnic special effect material.

An operational permit is required for use and handling of pyrotechnic special effects material. For pyrotechnic and special effects used for motion picture, television, and commercial productions. See Section 105.6.47.2.

...

105.6.37.1 Recreational fire.

An operational permit is required for an outdoor fire burning materials other than rubbish, where the fuel is not contained as described in Chapter 3.

...

105.6.39.1 Rifle range.

An operational permit is required to establish, maintain, or operate a rifle range.

...

105.6.43.1 Temporary sales lots.

An operational permit is required prior to operating a Christmas tree or pumpkin sales lot.

...

105.6.47 Additional permits.

In addition to the permits required by Section 105.6, the following permits shall be obtained from the ~~Bureau of~~ fire prevention division prior to engaging in the following activities, operations, practices, or functions:

1. **Production facilities.** To change use or occupancy, or allow the attendance of a live audience, or for wrap parties.
2. **Motion picture, television, commercial, and related production filming - Pyrotechnical and special effects.** To use pyrotechnic special effects, open flame, hotwork, use of flammable or combustible liquids and gases, dust, welding, and the parking of motor vehicles in any building or location used for the purpose of motion picture, television, and commercial production. The applicant is required to pay the permit fee amount shown in Section 4803.4(3) prior to permit issuance.
3. **Live audiences.** To install seating arrangements for live audiences in approved production facilities, production studios, and sound stages. See Chapter 48.

105.6.47.1 Motion picture, television, commercial, and related production filming.

An operational permit is required to conduct motion picture, television, commercials, and related productions outside of an approved production facility. The applicant is required to pay the permit fee amount shown in Section 4803.4(1) prior to permit issuance.

105.6.47.2 Motion picture, television, commercial, and related production filming – Fuel-dispensing trucks and vehicles.

An annual operational permit is required to dispense flammable or combustible liquids, liquefied petroleum gases, or compressed natural gas from trucks or vehicles to equipment and vehicles on motion picture, television, and commercial production locations. The applicant is required to pay the annual permit fee amount shown in Section 4803.4(2) prior to permit issuance.

105.6.47.3 Commercial still photography production with on-site cast and crew numbering fifteen (15) or more persons.

An operational permit is required to take still photographs for commercial purposes outside of an approved production facility and where the on-site cast and crew numbers fifteen (15) or more persons. The applicant is required to pay the permit fee amount shown in Section 4803.4(4) prior to permit issuance.

SECTION 23. Section 105.7.7.1 is hereby added to read as follows:

105.7.7.1 Fuel modification plan review.

When required by this code, by other laws, or by other regulating agencies, fire code official review is required prior to the installation of fire resistive landscaping.

SECTION 24. 105.7.9.1 is hereby added to read as follows:

105.7.9.1 Land development plan review.

When required by law or other agencies, fire code official review and approval is required prior to final approval of the following applications: tract maps, parcel maps, final maps, planned unit developments, conditional use permits, design overlay reviews, environmental impact reviews, road vacations, zone changes, water plan reviews, and gate design review for land development projects.

SECTION 25. Section 105.7.11.1 is hereby added to read as follows:

105.7.11.1 Roof top obstructions.

A construction permit is required for installation of a roof solar photovoltaic system, roof garden, or a landscaped roof when constructed on the roof of a building where the improvement covers more than 50 percent or 10,000 square feet of the total roof surface area of that building, whichever is less.

Exceptions:

1. Buildings that are four or more stories in height and protected with an approved automatic fire extinguishing system throughout.
2. Non-habitable structures as determined by the fire code official, including, but not limited to, shade structures, private carports, and solar trellises.

SECTION 26. Section 107.7 is hereby added to read as follows:

107.7 Occupant count.

When required by the fire code official, the permittee holding a place of assembly operational permit shall use an approved method to maintain an accurate count of the number of occupants present in a place of an assembly room including any accessory areas. If at any time the fire code official determines that an accurate count of occupants is not being maintained by the permittee, the assembly room and accessory areas shall be cleared of occupants until an accurate occupant count can be made.

SECTION 27. Section 108 is hereby amended to read as follows:

108 BOARD OF APPEALS

108.1. Board of Appeals established process.

~~In order to hear and decide appeals of orders, decisions or determinations made by the fire code official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The fire code official shall be an ex-officio member of said board but shall have no vote on any matter before the board. The board shall adopt rules of procedure for conducting its business, and shall render all decisions and findings in writing to the appellant with a duplicate copy to the fire code official.~~

When an applicant seeking an approval from the fire code official disagrees with the decision of the fire code official regarding the conditions, methods of construction, equipment, or operations regulated by this code, the applicant may file a written appeal

to the assistant fire chief of the fire prevention division (fire marshal) pursuant to Section 108.2 of this code. A written appeal must be submitted no later than thirty (30) days after the applicant has notice of the decision being appealed. The fire marshal, after considering all the facts presented, including any communication from the general public regarding the matter appealed, shall provide a written decision responding to the appeal.

If the applicant is not satisfied with the decision of the fire marshal, the applicant shall, within 10 days of receipt of the fire marshal's decision, request in writing that the decision be reviewed by a fire code appeals review panel, a three-person panel consisting of the following individuals: the deputy chief of prevention, the deputy chief of operations, and the County's superintendant of building. The fire code appeals review panel shall transmit its written decision on the appeal to the applicant. The fire code appeals review panel shall be the final authority in the appeals process.

SECTION 28. Section 108.2 is hereby amended to read as follows:

108.2 Limitations on authority.

An ~~application~~applicant's ~~for~~ appeal shall be based on a claim that the intent of this code or the ~~rules-legally~~regulations adopted hereunder have been incorrectly interpreted, that the provisions of this code do not ~~fully~~ apply, or that an equivalent method of protection or safety ~~is~~was proposed by the applicant and was denied by the fire code official. ~~The board shall have no authority~~appeals process shall not be used to waive requirements of this code.

For an appeal regarding fuel modification plan requirements, an applicant must use the appeals process as per Section 4908.2.

SECTION 29. Section 108.3 is hereby amended to read as follows:

108.3 Qualifications.

~~The board of fire code appeals review panel shall consist of members who are qualified by experience and training to pass on matters pertaining to hazards of fire, explosions, hazardous conditions or fire protection systems and are not employees of the jurisdiction.~~ the deputy chief of prevention, the deputy chief of operations, and the County's superintendant of building.

SECTION 30. Section 109.3 is hereby amended to read as follows:

109.3 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof, or who shall erect, install, alter, repair, or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor unless such violation is declared to be an infraction by Chapter 51 of this code, punishable by a fine of not more than \$1000 or by imprisonment not exceeding six months, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense. For the purposes of this section, a forfeiture of bail shall be equivalent to a conviction.

SECTION 31. Section 109.3.1 is hereby amended to read as follows:

109.3.1 Abatement of violation.

In addition to the imposition of penalties herein described, the fire code official is authorized to institute appropriate action to prevent unlawful construction or to restrain, correct or abate a violation; or to prevent illegal occupancy of a structure or premises; or to stop an illegal act, conduct of business or occupancy of a structure on or about any premises.

The owner of any parcel upon which a nuisance is found to exist may, as provided for by state, County, and local law, be liable for all costs of abatement of the nuisance.

SECTION 32. Section 109.4 is hereby added to read as follows:

109.4 Responsibility for fire suppression and related costs.

Any person: (1) who negligently, or in violation of the law, sets a fire, allows a fire to be set, or allows a fire kindled or attended by him to escape onto any public or private property, (2) other than a mortgagee, who, being in actual possession of a structure, fails or refuses to correct, within the time allotted for correction, despite having the right to do so, a fire hazard prohibited by law, for which a public agency properly has issued a notice of violation respecting the hazard, or (3) including a mortgagee, who, having an obligation under other provisions of law to correct a fire hazard prohibited by law, for which a public agency has properly issued a notice of violation respecting the hazard, fails or refuses to correct the hazard within the time allotted for correction, despite having the right to do so, is liable for the fire suppression costs incurred in fighting the

fire, for the cost of providing rescue or emergency medical services, for the cost of investigating and making any reports with respect to the fire, and for the costs relating to accounting for that fire and the collection of any funds pursuant to state or local law, including, but not limited to administrative costs of operating a fire suppression cost recovery program to the fullest extent authorized by law. All of these costs shall be a charge against that person, shall constitute a debt of that person, and is collectible by the person, or by the federal, state, County, public, or private agency, incurring those costs in the same manner as in the case of an obligation under a contract, expressed or implied.

SECTION 33. Section 109.4.1 is hereby added to read as follows:

109.4.1 **Responsibility for costs for emergency response related to hazardous substances.**

All expenses of an emergency response necessary to protect the public from a real and imminent threat to health and safety by a public agency to confine, prevent, or mitigate the release, escape, or burning of hazardous substances are a charge against any person whose negligence causes the incident to the fullest extent authorized by law, if either of the following occurs:

(a) Evacuation beyond the property where the incident originates is necessary to prevent loss of life or injury.

(b) The incident results in the spread of hazardous substances or fire posing a real and imminent threat to public health and safety beyond the property of origin.

Expenses reimbursable to the County or Fire District pursuant to this section are a debt of the person liable therefore, and shall be collectible in the same manner as in the case of an obligation under contract, express or implied. The charge created against the person related to hazardous substances by this section is also a charge against the person's employer if the negligence causing the incident occurs in the course of the person's employment.

SECTION 34. Section 110.1.1 is hereby amended to read as follows:

110.1.1 **Unsafe conditions.** Structures or existing equipment that are or hereafter become unsafe or deficient because of inadequate means of egress or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or which involve illegal or improper occupancy or inadequate maintenance, dilapidation, obsolescence, hazardous material contamination, disaster damage, or abandonment as specified in this code 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.

SECTION 35. Section 111.1 is hereby amended to read as follows:

111.1 **Order.** Whenever the fire code official finds any work 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 order. The fire code official is authorized to order the work, the operation, or the use stopped or the evacuation of any premises, building, or vehicle or portion thereof which has or is a condition hazardous to life or property.

SECTION 36. Section 111.4 is hereby amended to read as follows:

111.4 Failure to comply.

Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to ~~a fine of not less than [AMOUNT] dollars or more than [AMOUNT] dollars~~ for administrative fines and other prosecution as allowed by Title 1, Section 1.25 of the County Code or other applicable laws or regulations.

SECTION 37. Section 202 is hereby amended to add in alphabetical order as follows:

202 GENERAL DEFINITIONS

...

EMERGENCY AREA. The geographical area where the fire code official, exercising authority pursuant to Section 104.11 at the scene of a fire or other emergency involving the protection of life or property, has declared there is an immediate risk to health, life, property, or the environment within that area.

...

FIRE- FLOW. See Appendix B, Section B 102.

...

PRIVATE FIREFIGHTING RESOURCE. Any person, organization, association, company, or corporation that provides or conducts firefighting operations, provides fire protection operations, or applies fire-resistive treatment to structures or vegetation within the jurisdiction of the Consolidated Fire Protection District of Los Angeles County

(District), unless that person, organization, association, company, or corporation is formally under contract with the District to provide such services or is an employee or contractor of a local, state, or federal fire fighting agency while in the performance of those duties. Nothing in this definition is intended to prohibit conduct which is authorized, or for which immunity is granted, under the California Good Samaritan statutes or the California State Government Volunteers Act.

...

TRAINED CROWD MANAGER. Standby personnel, usually security or usher personnel, who are trained in the proper procedure to exit people from a tent or other place of public assemblage in an orderly and calm fashion in the event of an emergency.

SECTION 38. Section 301.2 is hereby amended to read as follows:

301.2 Permits.

Permits shall be required as set forth in Section 105.6 for the activities or uses regulated by Sections 306, 307, 308, ~~and 315,~~ 324, 326, and 328.

SECTION 39. Section 304.1.1.1 is hereby added to read as follows:

304.1.1.1 Waste material near ground-mounted photovoltaic array.

Accumulation of waste material shall not be permitted underneath nor within 10 feet from a ground-mounted photovoltaic array.

SECTION 40. Section 304.1.2 is hereby amended to read as follows:

304.1.2 Vegetation.

Weeds, grass, vines, or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirements in urban-wildland interface areas shall be in accordance with Section 325 and Chapter 49 of this code.

...

SECTION 41. Section 307.2.1 is hereby amended to read as follows:

307.2.1 Authorization.

Where required by state or local law or regulations, open burning shall only be permitted with prior approval from the fire code official, a United States Forest Service Officer having jurisdiction, or the state or local air and water quality management authority, provided that all conditions specified in the authorization are followed.

SECTION 42. Section 311.5 is hereby amended to read as follows:

311.5 Placards. When required by the fire code official, Any vacant or abandoned buildings or structures determined to be unsafe pursuant to Section 110 of this code relating to structural or interior hazards shall be marked as required by Sections 311.5.1 through 311.5.5.

SECTION 43. Section 315.2.2.1 is hereby added to read as follows:

315.2.2.1 Storage under stairways.

Combustible storage is prohibited under interior or exterior exit stairways.

EXCEPTION: When the stairway is not within an exit enclosure and enclosure under the stairway is provided as per Section 1009.6.3.

SECTION 44. Section 324 is hereby added to read as follows:

324 PARADE FLOATS

324.1 Decorative material.

Decorative material on parade floats shall be noncombustible, made flame retardant by application of a California State Fire Marshal listed treatment, or meet the flame resistive requirements of the fire code official.

324.2 Fire protection.

Motorized parade floats and towing apparatus shall be provided with a minimum 2-A, 10-B: C-rated portable fire extinguisher readily accessible to the operator.

SECTION 45. Section 325 is hereby added to read as follows:

325 CLEARANCE OF BRUSH AND VEGETATIVE GROWTH

325.1 Electrical transmission lines.

325.1.1 Support clearance. Any person owning, controlling, operating, or maintaining any electrical transmission or distribution line upon any mountainous, forest, or brush-covered lands, or land covered with flammable growth shall, at all times, maintain around and adjacent to any pole supporting a switch, fuse, transformer, lightning arrester, or line junction, or dead end, or corner poles, or towers,

or other poles or towers at which power company employees are likely to work most frequently, an effective firebreak, consisting of a clearing of not less than 10 feet in each direction from the outer circumference of such pole or tower provided, however, that this provision shall not be deemed to apply to lines used exclusively as telephone, telegraph, telephone, or telegraph messenger call, fire or alarm lines, or other lines classed as communication (Class C) circuits by the Public Utilities Commission of the State of California. Nor shall this provision apply to clearance around poles supporting only secondary electrical distribution lines of 750 volts or less.

325.1.2 Line clearance. Any person owning, controlling, operating, or maintaining any electrical transmission or distribution line upon any mountainous, or forest, or brush-covered lands, or lands covered with flammable growth shall maintain a clearance of the respective distances hereinafter in this section specified in all directions between all vegetation and all conductors carrying electrical current.

For lines operating at 2,400 volts or more, but less than 72,000 volts, four (4) feet;

For lines operating at 72,000 volts or more, but less than 110,000 volts, six (6) feet; and

For lines operating at 110,000 volts or more, ten (10) feet.

In any case, such distance shall be sufficiently great to furnish the required clearance from the particular wire or conductor at any position, of such wire or conductor at any temperature of 120 degrees Fahrenheit or less. Dead trees, old, decadent, or rotten trees, those weakened by decay or disease, and trees leaning

toward the line, which may contact the line from the side or may fall on the line, shall be felled, cut or trimmed so as to remove the hazard.

325.1.3 Self-supporting aerial cable. No clearing to obtain line clearance is required when self-supporting aerial cable is used except that forked trees, leaning trees, and other growth which may fall across the cable and break it, shall be removed.

EXCEPTION: Nothing contained in this section shall be construed to require any person to maintain any clearing on land where such person does not have the legal right to maintain such clearing, nor shall any provision of this ordinance be construed to require any person to enter upon or to damage property of another without the consent of the owner thereof. For further exceptions, see Title 14, California Code of Regulations, sections 1250-57 inclusive.

325.2 Structures.

325.2.1 Clearances. Any person owning, leasing, controlling, operating, or maintaining any building, structure, or apiary upon or adjoining any mountainous, or forest or brush-covered land or land covered with flammable growth, and any person owning, leasing, or controlling any land adjacent to such structures, shall at all times:

1. Place or store firewood, manure, compost, and other combustible materials a minimum of 30 feet from any building, structure, or apiary.
2. Maintain around and adjacent to such building, structure, or apiary an effective fire protection or firebreak made by removing and clearing away, for a distance

of not less than 30 feet on each side thereof, all flammable vegetation or other combustible growth. This includes ornamental plants and trees known to be flammable, including but not limited to, acacia, cedar, cypress, eucalyptus, juniper, pine, and pampas grass.

EXCEPTIONS:

1. Ornamental plants and trees that are individually planted, spaced, and maintained in such a manner that they do not form a means of transmitting fire from native growth to the structure.
2. Cultivated ground cover such as green grass, ivy, succulents, or similar plants provided that they are maintained in a condition that does not form a means of transmitting fire from native growth to the structure.
3. When the fire code official or commissioner finds that because of extra hazardous conditions, a firebreak of only 30 feet around such building, structure, or apiary is not sufficient to provide reasonable fire safety, the person owning, leasing, controlling, operating, or maintaining the building, structure, or apiary shall maintain around or adjacent to any building, structure, or apiary an additional fire protection or firebreak made by removing all brush, flammable vegetation, or combustible growth located from 30 to 100 feet from such building, structure, or apiary, as may be required by the fire code official or commissioner. Grass and other vegetation located more than 30 feet from such building, structure, or apiary and less than 18 inches in height above the ground, may be maintained where necessary to stabilize the soil and prevent erosion.

4. That portion of any tree which extends within 10 feet of the outlet of any chimney shall be removed.

5. Maintain any tree adjacent to or overhanging any building, structure, or apiary free of dead wood.

6. Maintain the roof of any building, structure or apiary free of leaves, needles, or other dead vegetative growth.

7. Nothing contained in this section shall be construed to require any person to maintain any clearing on land where such person does not have the legal right to maintain such clearing, nor shall any provision of this ordinance be construed to require any person to enter upon or to damage property of another without the consent of the owner thereof.

325.2.2 Extra hazard.

The governing body finds that in many cases because of extra hazardous situations, a firebreak around buildings, structures, or apiaries of only 30 feet is not sufficient and that a firebreak of 50 feet or more may be necessary. If the fire code official or commissioner finds that because of the location of any building, structure, or apiary and because of other conditions, a 30-foot firebreak around such building, structure, or apiary as required by Section 325.2.1 is not sufficient, the fire code official or commissioner may notify all owners of the properties affected that they must clear all flammable vegetation and other combustible growth or reduce the amount of fuel content for a distance greater than 30 feet, but not to exceed 200 feet.

325.3 Notice to correct.

325.3.1 Contents of notice.

A notice to clear all flammable vegetation and other combustible growth for a distance greater than 30 feet shall be in writing and shall specify the exact distance from the structure that such vegetation and growth must be cleared.

325.3.2 Compliance with findings.

Within a reasonable time after receipt of the notice specified in Section 325.3.1, every person owning, leasing, controlling, or operating the building, structure, or apiary involved, and every person owning, leasing, or controlling any land adjacent to such building, structure, or apiary shall at all times maintain around and adjacent to such building, structure, or apiary an effective fire protection or firebreak made by removing and clearing away, for a distance not less than so determined, on each side thereof, all flammable vegetation or other combustible growth, except as otherwise provided in Section 325.2.

325.3.3 Correction by fire code official or commissioner.

Any person who has received notice for having failed to meet any of the requirements specified in Sections 325.2.1, 325.2.2, 325.3.2, 325.10, 503.2.1, 2404.21, 3807.2, or 3807.3 and who is unable to comply with the requirements of such notice may request the fire code official or commissioner to correct the condition or conditions. The fire code official or commissioner may do so, provided that the person requesting such assistance agrees to pay the full cost thereof.

325.3.4 Notice of failure to correct.

In the event any of the conditions prohibited by Sections 325.2.1, 325.2.2, 325.3.2, 325.10, 503.2.1, 2404.21, 3807.2, or 3807.3 exist, the governing body may instruct the fire code official or commissioner to give notice to the owner of the property upon which such condition exists, to correct such prohibited condition, and if the owner fails to correct such condition, the governing body may cause the same to be done and make the expenses of such correction a lien upon the property upon which such condition exists. If it so instructs the fire code official or commissioner, the governing body shall designate the time and place of a hearing either before itself or before a referee appointed by it, and shall notify the fire code official of its action.

325.3.5 Mailing notice.

Upon receipt of a notice from the governing body of the time and place of hearing, and not less than 10 days before such hearing, the fire code official or commissioner shall mail a notice to the owners of the property, as their names and addresses appear from the last equalized assessment roll, or as they are known to the clerk of the governing body on which a firebreak is not maintained as required by Sections 325.2.1, 325.2.2, 325.3.2, 325.10, 503.2.1, 2404.21, or 3807.3 in substantially the following form:

NOTICE TO DESTROY WEEDS, BRUSH, AND RUBBISH

Notice is hereby given that on the ____ day of (month) _____, the governing body of (municipality) passed a resolution declaring the noxious or dangerous weeds, sagebrush, chaparral, and any other brush or weeds which attain such large growth as

to become, when dry, a fire menace to adjacent improved property, were growing and that there existed dry grass, stubble brush, litter, or other flammable material which endangers the public safety by creating a fire hazard upon or in front of the property on certain streets in said municipality, and more particularly described in said resolution, and that same constitutes a public nuisance which must be abated by the removal of said noxious or dangerous weeds, brush, litter, or other flammable material, otherwise they will be removed and the nuisance will be abated by the municipal authorities, in which case the cost of such removal shall be assessed upon the lots and lands from which, or in front of which, such materials are moved, and such cost will constitute a lien upon such lots or lands until paid. Reference is hereby made to said resolution for further particulars.

All property owners having any objections to the proposed removal of such materials are hereby notified to attend a meeting of the governing body of said municipality, to be held at _____ a.m. o'clock, (month) _____, when their objections will be heard and given due consideration.

Dated this _____ day of (month) _____.

(name)

(department)

(municipality)

325.3.6 Posting of notice.

As an alternative to mailing, a notice in the form required in Section 325.3.5 shall be posted conspicuously in front of the property on which vegetation which must be

removed exists, or if the property has no frontage upon any highway or road then upon that portion of the property nearest to a highway or road, or most likely to give actual notice to the owner. The notices shall be posted not more than 100 feet in distance apart, but at least one notice shall be posted on each lot or parcel of land.

325.3.7 **Publication of notice.**

The clerk of the governing body shall publish notice of the hearing once in a newspaper of general circulation printed and published in the County, not less than 10 days prior to the date of the hearing, when notice is given by means other than that prescribed in Section 325.3.4.

325.4 **Hearing of protests.**

325.4.1 **Appointment of referee.**

The governing body may appoint a referee to hear protests pursuant to the article. If the governing body appoints an officer or employee of the municipality as referee, the referee shall serve without any additional compensation, but all time spent as referee shall be deemed and counted as time spent in performing the duties of the compensated position.

325.4.2 **Hearing objections.**

At the same time stated in the notices, the governing body or referee shall hear and consider all objections and protests, if any, to the proposed removal of vegetation, and may continue the hearing from time to time.

325.4.3 Report of referee.

If the hearing is before a referee, upon the conclusion of the hearing, the referee shall report to the governing body findings and recommendations as to what objections, if any, should be allowed, and what objections, if any, should be overruled.

325.4.4 Decision by board.

Upon the conclusion of the hearing before itself, or upon receipt of the report of the referee, the governing body shall allow or overrule all objections, whereupon the governing body shall acquire jurisdiction to proceed and perform the work by removal. The decision of the governing body on the matter is final, except as provided in sections 14920 and 14921 of the California Health and Safety Code.

325.4.5 Order for abatement.

After final action is taken by the governing body on the disposition of any protests or objections or in case no protest or objections are received, the said governing body shall order the fire code official or commissioner to remove the dangerous vegetation.

325.5 Right of entry upon private property.

The fire code official or commissioner or their assistants, deputies, employees, or contracting agents, or other representatives may enter upon private property for the purpose of inspecting and/or removing vegetation pursuant to Sections 104.3 and 104.3.1 of this code.

325.6 Removal before arrival of fire code official or

commissioner.

Any property owner may have the vegetation removed at the owner's expense if it is done prior to the arrival of the fire code official or commissioner or their representatives.

325.7 Record and report of cost.

The fire code official or commissioner shall keep an account of the cost of removing the vegetation from each separate parcel of land and shall render an itemized report in writing to the governing body showing the cost of removing the vegetation from each separate lot or parcel of land.

325.7.1 Posting copy of report.

Before the report is submitted to the governing body or referee, a copy shall be posted for at least three days on or near the chamber door of the governing body with a notice of the time when the report will be submitted to the said governing body or referee for hearing on confirmation.

325.7.2 Hearing on report.

At the time fixed for receiving and considering the report, the governing body or the referee shall hear it and any objections of any of the property owners liable to be assessed for the work of clearing vegetation.

325.7.3 Report of referee.

If the hearing is before a referee, upon the conclusion of the hearing, the referee shall report to the governing body findings and recommendations as to what modifications, if any, should be made in the report.

325.7.4 Modification and confirmation of the report.

Upon the conclusion of the hearing on the report before itself, or upon receipt of the report of the referee, the governing body may make such modifications in the report of the fire code official or commissioner as it deems necessary, after which, by order or resolution, the report shall be confirmed.

325.7.5 Costs of removal.

The amounts for the cost for removing the vegetation upon the various parcels of land mentioned in the report of the fire code official or commissioner, as confirmed, shall constitute special assessments against the respective parcels of land and are a lien on the property for the amount of the respective assessments.

325.7.6 Collection of expenses.

The expenses of removing vegetation shall be collected and assessments shall be canceled or refunded as provided in Article 3 of Chapter 4 of Part 5 of Division 12 of the California Health and Safety Code, the provisions of which article are incorporated herein as if set forth herein in full.

325.8 **Joint proceedings.**

All of the proceedings provided for in this article may be combined with and performed in conjunction with proceedings for the abatement of noxious weeds pursuant to Part 5 of Division 12 of the California Health and Safety Code.

325.9 **Prosecution.**

A person who violates Sections 325.2.1, 325.2.2, 325.3.2, 325.10, 503.2.1, 2404.21, 3807.2, or 3807.3 may be prosecuted and punished whether proceeding pursuant to Sections 325.3-325.8 inclusive, have been had or not. Proceedings pursuant to Sections 325.3-325.8 inclusive, are not a condition precedent to prosecution for violation of Sections 325.2.1, 325.2.2, 325.3.2, 325.10, 503.2.1, 2404.21, 3807.2, or 3807.3.

325.10 **Roadway clearance.**

The fire code official or commissioner may require removal and clearance of all flammable vegetation or other combustible growth for a minimum of 10 feet on each side of every roadway, whether public or private. The fire code official or commissioner may enter upon private property to inspect, remove, and clear vegetation and growth as required by this section and may charge the responsible party for the cost of such action. This section shall not apply to single specimens of trees, ornamental shrubbery, or cultivated ground cover such as green grass, ivy, succulents, or similar plants used as ground cover, provided that they do not form a means of readily transmitting fire. As used in this section, "roadway" means that portion of a highway or private street improved, designed, or ordinarily used for vehicular travel. The minimum clearance of

10 feet may be increased if the fire code official determines additional distance is required to provide reasonable fire safety.

SECTION 46. Section 318 is amended and renumbered to read as follows:

318326 ACTIVITIES IN HAZARDOUS FIRE AREAS

318326.1 **Intent.** The unrestricted use of grass, grain, brush, or forest-covered land, in certain hazardous fire portions of the jurisdictional area due to conditions tending to cause or allow the rapid spread of fires which may occur on such lands, or because of the inaccessible character of such lands, is a potential menace to life and property from fire. Therefore, it is the intent of this section to provide necessary safeguards to prevent the occurrence of fires and to control the spread of fires which might be caused by recreational, commercial, industrial, or other activities carried on in any hazardous fire area.

318326.2 **Permit required.** No person shall establish or conduct any of the following or similar activities in a hazardous fire area without first securing a permit.

1. Recreational activities including, but not limited to, rifle ranges, carnivals, and fairs, public assembly events, fireworks, and open burning.
2. Temporary or permanent activities including, but not limited to, stands for cooking, or other activities which could provide a source of ignition.

318326.3 **Permit request.** A request of an issuance of a permit for any such activity shall be made to the fire code official not less than 15 days prior to the starting date of such activity.

318326.4 **Fire protection survey.** Upon receiving a request for issuance of a permit, the fire code official shall survey the buildings, premises, and facilities proposed for such use prior to issuance of the permit to determine the fire protection equipment and safeguards necessary to conduct such activity without unduly increasing the potential fire hazard to the area.

318326.5 **Notification.** The applicant shall be notified by the fire code official of those facilities and all fire protection safeguards necessary, and a permit shall not be issued until all such facilities and safeguards have been provided.

318326.6 **Permit stipulations.** The permit shall stipulate the conditions, precautions, limitations, and safeguards necessary to conduct such activity with a reasonable degree of fire safety and failure to comply with any condition, precaution, limitation, or safeguard stipulated shall be cause of immediate revocation of the permit and cessation of the activity.

318326.7 **Fire protection facilities required.** Fire protection facilities required and conditions or limitations necessary to maintain reasonable fire safety may include, but are not limited to, the following:

1. Adequate water supply, pumps, hydrants, and hose.
2. Firebreaks as necessary to prevent a fire on the premises from spreading to adjacent brush or grass-covered areas.
3. Posting of "NO SMOKING" signs.

4. Removal of dry grass and weeds from around buildings, along roadways and automobile parking areas, and other areas accessible to the public or participants of the activity.

5. Provision of approved, competent fire safety officers or advisors to act as fire guards or fire watchers to patrol the area when such activity is taking place. See also Section 2404.20.

6. Provision of adequate access roads and parking facilities to prevent congestion of public roads, to permit adequate means of egress for evacuation of the public or participants in event of emergency, and to permit movement of fire apparatus and equipment.

7. Restriction or prohibition of activities during periods of high fire hazard weather conditions.

8. Such fencing as is necessary to control the activity.

9. Such other conditions, limitations, or provisions necessary to maintain reasonable fire safety.

318326.8 **Restricted entry on national forest land.** A person shall not enter or be on any lands within the boundaries of the National Forest within Los Angeles County which have been closed to entry by the U.S. Forest Service, except by a valid special entry permit issued by a U.S. Forest Service Officer.

318326.9 **Closure of public or private lands.** Any portion of public or private lands in any hazardous fire area may be closed to the public by the fire code official at the request of the owners of such public or private lands, when in the opinion

of the fire code official such closure is necessary for the prevention of fires. Notice of such closure shall be made by the fire code official by public announcement and such closure shall be in effect until, in the opinion of the fire code official, such closure is no longer necessary for the protection of property against fire and such closure is lifted by public announcement.

318326.10 **Restricted entry on closed lands.** A person shall not enter or be upon any public or private lands closed to the public by the fire code official during the period such closure is in effect, except that the closure of private lands shall not prohibit the use or entry upon such lands by the owner, owner's guests, or invitees, provided that such guests or invitees have written permission from the owner of such lands to enter upon the same. Such written permit shall be presented upon the demand of any public officer when such person is within any closed area.

318326.11 **Posting of lands closed to entry.** Lands closed to entry shall be posted by the fire protection agency having jurisdiction.

318326.12 **Spark arresters required.**

318326.12.1 **Equipment.** No person shall use or operate in, upon, or within any hazardous fire area, any tractor, construction equipment, engine, machinery, or any steam, oil, or gasoline-operated stationary or mobile equipment, from which a spark or fire may originate unless such equipment is provided with a qualified device or spark arrester installed in or attached to the exhaust pipe which will prevent the escape of fire or sparks. Said qualified device or spark arrester shall meet the requirements of the current version of the United States Forest Service "Standard for Spark Arresters for

Internal Combustion Engines" (Standard 5100-1B, July 1991). For the purpose of this section, any registered motor vehicle operated on a road or highway and which is equipped with a muffler in good condition, as required by the Vehicle Code, shall be deemed to be in compliance with this section.

318326.12.2 Chimneys. Each chimney used in conjunction with any fireplace, barbecue, incinerator, or any heating appliance in which solid or liquid fuel is used, upon any building, structure, or premises located within any hazardous fire area, shall be maintained with a spark arrester constructed with heavy wire mesh or other noncombustible material with openings not to exceed one-half inch.

318326.13 Open flame device. No person shall operate or use any device, machine, or process such as a welding torch, tar pot, decorative torch, or any other device liable to start or cause fire in or upon any hazardous fire area, except by the authority of a written permit from the fire code official. Provided, however, that no permit will be required if such use is within inhabited premises or a designated camp site, and such uses are a minimum of 30 feet from any grass, grain, brush, or forest covered lands.

318326.14 Roadway clearance.

1. Clearance of brush or vegetative growth from roadways shall be in accordance with Section 317325.10 of this Code.
2. If the fire code official determines in any specific case that difficult terrain, danger of erosion, or other unusual circumstances make strict compliance with the

provisions of the Code undesirable or impractical, the fire code official may suspend enforcement thereof and require reasonable alternative measures.

318326.15 **Illegal dumping.** No person shall place, deposit, or dump any garbage, cans, bottles, papers, ashes, refuse, trash, rubbish, or combustible waste material in or upon any hazardous fire area. No person shall dump such material in, upon, or along any trail, roadway, or highway in any hazardous fire area. Dumping in areas approved by the fire department for this use shall not be deemed to be in violation of this section. This section may be enforced by the commissioner.

318326.16 **Disposal of ashes.** No person shall place, deposit, or dump any ashes or coals in or upon any hazardous fire area except, in the hearth of an established fire pit, camp stove, or fireplace, or in a noncombustible container with a tight-fitting lid which is kept or maintained in a safe location not less than 10 feet from any combustible vegetation or structure, or where such ashes or coals are buried and covered with one foot of mineral earth not less than 25 feet from any combustible vegetation or structure.

318326.17 **Fire roads and firebreaks.**

1. No person, except public officers acting within the scope of their duties, shall travel upon or drive or park any motorcycle, motor scooter, or motor vehicle upon any fire road or firebreak beyond the point where travel is restricted by a cable, gate, or sign, without the permission of the property owner or owners involved.

2. No person shall park any vehicle so as to obstruct the entrance to any fire road or firebreak.

3. No person shall install or maintain a radio or television aerial, or guy wire thereto, or any other obstruction on any fire road or firebreak, which is less than 16 feet above such fire road or firebreak.

318326.18 Use of motorcycle, motor scooter, and motor vehicles.

No person shall operate any motorcycle, motor scooter, or motor vehicle, except upon clearly established public or private roads, within any hazardous fire area without first having secured a permit to do so from the fire code official. No such permit shall be issued unless written permission from the property owner is first presented.

318326.19 Hazardous warning lights. It shall be unlawful to maintain

any torch or lantern utilizing an open flame along any excavation, road, or any place where the dislodgment of such torch or lantern might permit same to roll, fall, or slide on to any forest or brush-covered land, or any land containing flammable material.

SECTION 47. Sections 318 of Title 32 of the Los Angeles County Code is reserved.

SECTION 48. Section 319 is hereby renumbered and amended to read as follows:

Section 319327 ADMINISTRATIVE PENALTYFINES.

319.4327.1 Administrative ~~penalty~~fine--~~imposition~~.

~~An administrative penalty may be imposed on all~~Improved parcels found to be in violation of Sections ~~317.2.2325.2.1, 317.2.3325.2.2, 317.40325.10, or 503.2.1,~~ 2404.21, or 3807.3 of this code relating to clearance of brush and combustible growth, roadway clearance, and vertical clearance on fire access roads, shall be subject to an

administrative fine, noncompliance fee, and or possible liens as allowed by the provisions of Title 1, Chapter 1.25 of the County Code.

319.2327.2 Administrative ~~penalty~~ ~~fine~~ -- Eenforcement.

An administrative ~~penalty~~ fine will be imposed and enforced upon failure of the responsible party to comply with written abatement instructions and timeframes contained on the Official Inspection Report Form (County of Los Angeles Fire Department FORM 410B) issued by the fire department.

319.3327.3 Declared parcel.

A declared parcel is a parcel which contains noxious weeds and other flammable vegetation that are a fire hazard and which constitutes a public nuisance which must be abated as declared in an annual resolution of the ~~h~~Board of ~~s~~Supervisors. An owner of a declared parcel will be mailed a declaration card specifying the abatement actions required of the owner. The declaration card constitutes the first official notice to the owner. ~~A physical inspection of the declared parcel is conducted by the fire department to determine compliance with the declaration card. After the physical inspection, if the fire department determines that the owner has not complied with the declaration card, then such noncompliance constitutes the first violation of the fire code. The owner will be given notice of such first violation of the fire code. This notice constitutes the second official notice to the owner. The second official notice shall also inform the owner that an administrative penalty may be imposed on the declared parcel if not properly cleared. An owner's failure to comply with the second official notice constitutes the second violation of the fire code.~~

327.3.1 Declared parcel inspection—notice of violations.

A physical inspection of the declared parcel is conducted by the fire department to determine compliance with the declaration card. After the physical inspection, if the fire department determines that the owner has not complied with the declaration card, then such noncompliance constitutes the first violation of the fire code. The owner will be given notice of such first violation of the fire code. This notice constitutes the second official notice to the owner.

The second official notice shall also inform the owner that an administrative fine may be imposed on the declared parcel if not properly cleared. An owner's failure to comply with the second official notice constitutes the second violation of the fire code.

349.4327.4 Undeclared parcel.

An undeclared parcel is a parcel not contained in the annual resolution of the Board of Supervisors described in Section ~~349.3~~327.3.

349.5327.4.1 Undeclared parcel inspection--Nnotice of violations.

After a physical inspection, if the fire department determines that an undeclared parcel is not in compliance with the fire code, the owner will be given notice of such violation of the fire code. This notice of violation constitutes the first official notice. An owner's failure to comply with the first official notice constitutes the first violation of the fire code. After a first violation, a physical inspection of an undeclared parcel will be conducted by the fire department to determine compliance with the fire code. After the physical inspection, if the fire department determines that an undeclared parcel is not in compliance with the fire code, the owner will be given notice of the second violation of

the fire code. This notice constitutes the second official notice to the owner. This second official notice shall also inform the owner that an administrative ~~penalty~~fine may be imposed on an undeclared parcel if not cleared. An owner's failure to comply with the second notice constitutes the second violation of the fire code.

~~319.6327.5~~ Administrative ~~penalty~~fine--~~A~~amount.

The administrative ~~penalty~~fine for a first violation as described in Section ~~319.3327.3.1~~ or ~~319.5327.4.1~~ is \$0. The administrative ~~penalty~~fine for a second violation as described in Section ~~319.3327.3.1~~ or ~~319.5327.4.1~~ is ~~\$200~~500.

~~319.7327.6~~ Administrative ~~penalty~~fine--~~C~~ollection.

The administrative ~~penalty~~fine will be collected by the fire department through direct invoice. The fire department shall notify the owner of the imposition and amount of the administrative ~~penalty~~fine.

~~319.8327.7~~ Administrative ~~penalty~~fine--~~A~~administrative review and appeal.

The imposition of the ~~an~~ administrative ~~penalty~~fine may be appealed in writing utilizing the ~~claim resolution~~Request for Administrative Hearing form provided with the administrative fine invoice. The ~~claim resolution~~Request for Administrative Hearing form must be filed with the brush clearance unit~~section manager~~ of the fire department within ~~30~~10 calendar days of the ~~date of invoice~~following the service of the notice of administrative fine.

~~Brush clearance unit personnel will attempt to resolve the claim, and provide a written response to the claimant within 30 working days of receipt of the claim. If unable~~

~~to resolve the claim, brush clearance unit personnel will forward the claim to the brush clearance section manager. The brush clearance section manager will review the claim and provide a final administrative order or decision in writing within 30 working days of the receipt of the claim. The brush clearance section manager will make the final decision of the fire department on the claim. Upon conclusion of the administrative hearing, the hearing officer shall issue a written decision within 10 calendar days. The hearing officer's written decision shall constitute the final administrative decision of the County.~~

Any person contesting the final administrative order or decision of the fire department may seek further review pursuant to section 53069.4 of the California Government Code.

Any administrative penalty imposed shall be cancelled or refunded as provided in sections 14920 - 14921 of the California Health and Safety Code, or any successor statute of similar import.

327.8 Creation of lien for unpaid administrative fines.

Pursuant to Title 1, Chapter 1.25 of the County code, the amount of the unpaid administrative fines shall become a lien on the real property that is in violation of this chapter.

SECTION 49. Sections 319 of Title 32 of the Los Angeles County Code is reserved.

SECTION 50. Section 320 is hereby renumbered and amended to read as follows:

320328 Land development and environmental review fees.

This section is applicable to all unincorporated portions of Los Angeles County, to all incorporated areas that are a part of the Consolidated Fire Protection District of Los Angeles County, and to all cities that contract with the Consolidated Fire Protection District of Los Angeles County for services and adopt Section ~~320328~~ 320328 as part of their fire code. The applicable fees described herein shall be collected as a condition of approval for any land development project or environmental or permit review referred or submitted to the fire department for review.

320328.1 Tentative tract map initial review.

A fee shall be payable to the fire department, upon the initial submittal of any tentative tract map for the review and approval by the fire department. The amount of the fee shall be \$1,775.00 for the first 10 lots, plus an additional amount for any tentative tract map containing more than 10 lots, calculated in accordance with the following:

- a. An additional \$13.00 for each of the next 15 lots; plus
- b. An additional \$13.00 for each of the next 25 lots; plus
- c. An additional \$9.00 for each of the next 50 lots; plus
- d. An additional \$7.00 for each of the next 900 lots; plus
- e. An additional \$4.00 for each lot in excess of 1000 lots.

320328.2 Revised tentative tract map filing fees.

If prior to approval by the advisory agency or the legislative body of the city (if it has no advisory agency), the tentative map requires a ~~major~~significant revision, the subdivider shall pay to the fire department a fee of \$252.00 for the third major revision and for each additional ~~major revision~~significant revised map thereafter.

320328.2.1 If subsequent to the approval of a tentative map by the advisory agency or the legislative body of the city (if it has no advisory agency), the subdivider requests a significant revision of the conditions of approval, and a revised tentative map must be submitted for review and comment, the subdivider shall pay the fire department a fee of \$840.00.

320328.2.2 If ~~the revision is of a minor nature and~~ a less than significant change is proposed to a tentative map and a revised map is not required, the subdivider shall pay the fire department a fee of \$168.00.

320328.3 Final map review analysis (tract map).

320328.3.1 A fee shall be payable to the fire department, upon the submittal of any final tract map for review by the fire department. The amount of the fee shall be as follows:

- a. \$365.00 for each map consisting of 1 - 5 lots.
- b. \$441.00 for each map consisting of 6 - 10 lots.
- c. \$541.00 for each map consisting of 11 - 25 lots.
- d. \$630.00 for each map consisting of 26 - 50 lots.
- e. \$756.00 for each map consisting of 51 or more lots.

320328.3.2 In addition to the fee specified in Section 320328.3.1, a supplemental review fee shall be payable to the fire department in the event that a final tract map is submitted more than three times. The amount of the supplemental review fee, payable upon the fourth and each subsequent submittal shall be \$126.00.

320328.4 Tentative parcel map initial review.

A fee shall be payable to the fire department, upon the initial submittal of any tentative parcel map for the review and approval by the fire department. The amount of the fee shall be \$717.00.

320328.5 Tentative parcel map revisions.

A fee shall be payable to the fire department upon the submittal for approval by the fire department of any revisions to a tentative parcel map that has been previously approved by the fire department. The amount of the fee shall be as follows:

- a. \$193.00 for a ~~major~~ revision to a tentative parcel map that has not been approved by the advisory agency or the legislative body of the city (if it has no advisory agency).
- b. \$357.00 for a ~~major revision to a~~ revised tentative parcel map that has previously been approved by the advisory agency or the legislative body of the city (if it has no advisory agency).
- c. \$126.00 for a ~~revision of an~~ amendment to a tentative parcel map that has previously been approved by the advisory agency or the legislative body of the city (if it has no advisory agency) that is of a minor nature and where a revised map is not required.

320328.6 **Final map review analysis (parcel map).**

320328.6.1 A fee shall be payable to the fire department upon the

submittal of any final parcel map for approval by the fire department. The amount of the fee shall be as follows:

- a. \$365.00 for each map consisting of 1 - 4 parcels.
- b. \$441.00 for each map consisting of 5 - 10 parcels.
- c. \$630.00 for each map consisting of 11 - 50 parcels.
- d. \$756.00 for each map consisting of 51 or more parcels.

320328.6.2 In addition to the fee specified in Section ~~320328.6.1~~, a

supplemental review fee shall be payable to the fire department in the event that a final parcel map is submitted more than three times. The amount of the supplemental review fee, payable upon the fourth and each subsequent submittal shall be \$126.00.

320328.7 **Miscellaneous fees.**

A fee shall be payable to the fire department upon submittal of any of the following requests for review and approval by the fire department. The amount of the fee shall be as follows:

- a. \$84.00 for a request for a site plan review.
- b. \$168.00 for a request for verification that athe final tract or parcel map complies with the applicable ordinances, conditions, and other requirements.
- c. \$258.00 for a request for review of a proposed street vacation.
- d. \$180.00 for a request ~~for~~to review ~~of~~ an application for a lot line

adjustment.

e. \$180.00 for a request for ~~the~~to review of a water system that includes up ~~to a maximum of~~ 10 hydrants. Where the water system includes more than 10 hydrants, the amount of the fee shall be increased by an additional \$30.00 for each additional hydrant beyond 10.

f. \$104.00 for a request for review of a water system plan.

g. \$263.00 for a request for ~~to~~to review of an application for a conditional use permit.

h. \$143.00 for a request for review of a revision to a conditional use permit application that has previously been approved by the fire department.

i. \$84.00 for a request for review of an appeal to the water appeals board.

j. \$180.00 for a request for review of an application for a change of zone.

k. \$263.00 for a request ~~for~~to review of ~~an and approve, application for a an~~ application ~~to~~ for a mobile home permit or a mobile home impact report park or special occupancy park, including review of environmental impact reports, new park development or continued use of an existing park.

l. \$347.00 for a request for review of a grading plan for fire lanes and private driveways only.

m. \$84.00 for a request for review of a revised Exhibit A.

n. \$185.00 for a request for a grant of waiver.

o. \$168.00 for a request for review of an application for a clean hands waiver.

p. \$171 for a certificate of compliance.

320328.8 Environmental document reviews.

320328.8.1 Whenever a review for impact on the fire prevention, natural resources, and/or fire resource allocation responsibilities of the fire department is required, as part of the environmental review process, the applicant shall pay a minimum deposit fee of \$1,000 at the time of submittal to the fire department, and such supplemental fees and deposits as specified in subsections 320328.8.2 through 320328.8.7 of this section to complete the required review.

320328.8.2 If during the fire department's review process actual costs incurred reach 80 percent of the amount on deposit, the applicant shall be notified and required to submit a minimum supplemental deposit up to the amount of the initial deposit. There is no limit to the number of supplemental deposits that may be required prior to completion or withdrawal of the environmental review.

320328.8.3 If an initial or supplemental deposit is not received within 30 days of notification that such deposit is due and payable, the fire department's review shall be discontinued until such deposit is received.

320328.8.4 At the sole discretion of the applicant, the amount of an initial or supplemental deposit may exceed the minimum amounts defined herein, except that at no time shall such initial or supplemental deposit be less than the minimum deposit amount set forth in Section 320328.8.1.

320328.8.5 The fire department's actual costs shall be computed on a monthly basis and deducted from the amount on deposit. The costs shall be considered

final upon completion of the fire department's review process. If final costs do not exceed the amount on deposit, the unused portion shall be refunded.

320328.8.6 Should the application be withdrawn, costs to the date that the fire department is advised of the withdrawal shall be computed and the unused portion of the amount on deposit shall be refunded.

320328.8.7 Costs shall be computed using actual hours expended by staff multiplied by the most current applicable hourly rates, approved by the eCounty auditor-controller, that are available at the time that costs are assessed. Cost data used to determine fees shall be maintained by the department's business office and made available for public review while work is in progress and for three years following final action or withdrawal of the application.

320328.9 Oak Tree Permit Fees.

a. When an oak tree report is referred to the fire department for review, pursuant to Section 22.56.2140, a fee shall be paid to the fire department based on the number of trees identified for review in the oak tree report, as follows:

Number of Trees Identified for Review	Permit Fee
1 – 5	\$245.00
16 – 50	314.00
51 – 100	585.00
101 – 200	645.00
201 – 400	795.00

Number of Trees Identified for Review	Permit Fee
401 – 999	1,124.00

b. When the number of trees identified for review in the oak tree report is 1,000 or more, the applicant shall pay directly to the fire department a deposit of \$1,000.00 from which actual costs shall be billed and deducted.

— If during the oak tree inspection process, actual costs incurred reach 80 percent of the amount on deposit, the applicant shall be notified by the fire department and required to submit a minimum supplemental deposit in the amount of \$1,000.00 directly to the fire department. There is no limit to the number of supplemental deposits that may be required to be submitted to the fire department prior to completion or withdrawal of the inspection report.

— If an initial or supplemental deposit is not received by the fire department within 30 days of notification that such deposit is due and payable, all work shall be discontinued until such deposit is received.

— At the sole discretion of the applicant, the amount of an initial or supplemental deposit may exceed the minimum amount defined herein, except that at no time shall such initial or supplemental deposit be less than the minimum requirement.

— The final oak tree inspection fee shall be based on actual costs incurred by the fire department.

— Costs shall be computed on a monthly basis and deducted from the amount on deposit. The oak tree inspection fee shall be considered final upon

completion of the review process. If final costs do not exceed the amount on deposit, the unused portion shall be refunded to the applicant.

— Should the inspection request be withdrawn, costs to date shall be computed and the unused portion of the amount on deposit shall be refunded to the applicant.

— Costs shall be computed using actual hours expended by fire staff multiplied by the most current applicable hourly rates, approved by the County auditor-controller, that are available at the time that costs are assessed.

— Cost data used to determine inspection fees shall be maintained by the business office of the fire department and made available for public review while work is in progress and for three years following final action or withdrawal of the application.

320328.10 Land development plan reviews located within fire hazard severity zones.

Land development plan check review and approvals ~~in designated properties~~ located within the Very High Fire Hazard Severity Zone (VHFHSZ) shall be performed in accordance with Section ~~317~~325.2.1.2 of this code.

320328.11 Annual Review of Fees.

The fees in this Section ~~320328~~ shall be reviewed annually by the fire department. Beginning on July 1, 2008, and thereafter on each succeeding July 1, the amount of each fee shall be adjusted as follows: calculate the percentage movement between March of the previous year and March of the current year in the Consumer Price Index (CPI) for all urban consumers in the Los Angeles, Anaheim, and Riverside

areas, as published by the United States Government Bureau of Labor Statistics. The adjusted fee shall be rounded to the nearest dollar; provided, however, notwithstanding any of the above, no fee shall exceed the cost of providing the service for which the fee is collected.

SECTION 51. Sections 320 through 323 of Title 32 of the Los Angeles County Code are reserved.

SECTION 52. Section 403.4 is hereby added to read as follows:

403.4 Fire safety officers and advisors.

When in the opinion of the fire code official, it is necessary for the preservation of life or property, due to the hazardous nature of an event, production, operation, or function, the fire code official shall require the owner or lessee to employ or cause the employment of one or more approved fire safety officers or advisors to be on duty at such place during the hazardous activity.

SECTION 53. Section 404.3.2 is hereby amended to read as follows:

404.3.2 Fire safety plans. Fire safety plans shall include the

following:

...

4. Floor plans identifying the locations of the following:

...

4.10. Fire alarm, control panel, and fire alarm annunciators and controls.

4.11. Location of limited access devices, including key boxes and key

switches.

...

SECTION 54. Section 404.3.2.1 is hereby added to read as follows:

404.3.2.1 Implementation. In the event a fire is detected in a building or a fire alarm activates, the fire evacuation plan and fire safety plan shall both be implemented.

SECTION 55. Section 502.1 is hereby amended to read in alphabetical order as follows:

502.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

...

FIRE APPARATUS ACCESS ROAD. A road that provides fire apparatus access from a fire station to a facility, building, or portion thereof. This is a general term inclusive of all other terms such as fire lane, public street, private street, private driveway, parking lot lane, and access roadway.

...

TRAFFIC CALMING DEVICES. Traffic calming devices are design elements of fire apparatus access roads such as street alignment, installation of barriers, and other physical measures intended to reduce traffic and cut-through volumes, and slow vehicle speeds.

SECTION 56. Section 503.1.2 is hereby amended to read as follows:

503.1.2 Additional access. The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions, or other factors that could limit access. Additional access must comply with Title 21 of the Los Angeles County Code.

SECTION 57. Section 503.2.1 is hereby amended to read as follows:

503.2.1 Dimensions.

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

EXCEPTION: A minimum vertical clearance of 13 feet 6 inches may be allowed for protected tree species adjacent to access roads. Any applicable tree-trimming permit from the appropriate agency is required.

SECTION 58. Section 503.2.5 is hereby amended to read as follows:

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 area for turning around fire apparatus.

Exception: For dead-end fire apparatus access roads between 151 feet and 300 feet in length, the fire code official may determine that the approved area for turning around the fire apparatus can be met by requiring more stringent width, turning radius

and grade specifications as per Sections 104.8, 503.2, 503.24, and 503.2.7 of this code and when, in the opinion of the fire chief, fire fighting, or rescue operations would not be impaired.

SECTION 59. Section 503.3 is hereby amended to read as follows:

503.3 **Marking.** Where required by the fire code official, approved signs or other approved notices or markings that include the words NO PARKING – FIRE LANE shall be provided for fire apparatus access roads to identify such roads, to clearly indicate the entrance to such road or prohibit the obstruction thereof. The means by which fire lanes are designated shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

SECTION 60. Section 503.4 is hereby amended to read as follows:

503.4 **Obstruction of fire apparatus access roads.** Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles or the placement of speed bumps. The minimum widths and clearances established in Section 503.2.1 shall be maintained at all times in accordance with California Vehicle Code section 22500.1.

SECTION 61. Section 503.4.1 is hereby added to read as follows:

503.4.1 **Traffic calming devices.**

Traffic calming devices are prohibited unless approved by the fire code official.

SECTION 62. Section 503.7 is hereby amended to read as follows:

503.7 Fire protection in recreational vehicle, mobile home, and manufactured housing parks, sales lots, and storage lots. Recreational vehicle, mobile home, and manufactured housing parks, sales lots, and storage lots shall provide and maintain fire hydrants and access roads in accordance with Section 503 and 508.

EXCEPTION: Recreational vehicle parks located in remote areas shall be provided with protection and access roadways as required by the fire code official.

SECTION 63. Section 504.5 is hereby added to read as follows:

504.5 Roof top access and safety.

Roof top solar photovoltaic systems, roof gardens, and landscaped roofs shall be in accordance with Appendix K.

SECTION 64. Section 506.1 is hereby amended as follows:

506.1 Where required.

Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the fire code official.

EXCEPTION: A key box is not required for access to the interior of a dwelling unit.

SECTION 65. Section 507.1.1 is added to read as follows:

507.1.1 Water certificate.

Except as otherwise provided by this section, every application for a building permit shall be accompanied by:

1. Evidence indicating to the building official that the proposed structure will be provided with a reliable water supply. The building official may accept as sufficient evidence a certificate from a water utility that it can supply water to the proposed structure in compliance with Title 20 of the Los Angeles County Code, except that if the building official knows that such water utility cannot so supply water the official may reject such certificate; or

2. A certificate from the fire department that there exists, or is under construction, a private water supply which, in the fire code official's opinion, is adequate for fire protection.

EXCEPTION: A certificate is not required for U occupancies less than 1,000 square feet of floor area.

SECTION 66. Section 507.5.5 is hereby amended to read as follows:

507.5.5 Clear space around hydrants.

A three-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants except as otherwise required or approved. Vehicles parking near fire hydrants must also comply with California Vehicle Code section 22514.

SECTION 67. Section 507.5.7 is added to read as follows:

507.5.7 Fire fighting water source marker.

When required by the fire code official, a fire hydrant and other fire fighting water source shall be identified by the installation of a blue raised reflective pavement marker or identified by other approved means.

SECTION 68. Section 507.5.8 is added to read as follows:

507.5.8 Private fire hydrant identification.

A private service fire hydrant shall be painted red in color. The valve stem, coupling threads, or portions of the hydrant where the application of paint would violate the listing of the hydrant or hinder its operation shall not be painted.

SECTION 69. Section 507.5.9 is added to read as follows:

507.5.9 Private fire hydrant caps or plugs.

A private service fire hydrant hose coupling shall be provided with a protective thread cap or plug. Missing or damaged caps or plugs shall be replaced.

SECTION 70. Section 507.5.10 is hereby added to read as follows:

507.5.10 Draft system identification sign.

New or existing swimming pools and spas constructed or located in a fire hazard severity zone with a capacity of 5,000 or more gallons equipped with draft hydrants shall be identified with a permanent sign. The sign and its location shall be approved by the fire code official.

SECTION 71. Section 508.5.1.1 is amended and renumbered to read as follows:

508.5.1.1 ~~507.5.1.1~~ Pool draft system in fire hazard severity zones.

New swimming pools and spas, 5000 gallon (18925 L) or greater capacity, constructed or installed in a Fire Hazard Severity Zone shall have a drain and discharge line connected to a draft hydrant in accordance with the Los Angeles County Plumbing Code Title 28.

Exceptions:

1. Swimming pools constructed or installed with the bottom of the pool more than 15 feet below the proposed draft hydrant connection elevation, measured vertically, need not be provided with a draft hydrant system.
2. Properties that are adequately served by access roads that comply with fire department regulations, and have a properly spaced fire hydrant capable of flowing a minimum of 1250 Gallons per Minute (GPM) for 2 hours, may be exempted.
3. For residential properties built before August 13, 1995, where, in the opinion of the fire code official, there are practical geographic difficulties, the requirement may be modified.

SECTION 72. Section 603.8 is hereby amended to read as follows:

603.8 Incinerators. Commercial, industrial, and residential-type incinerators and chimneys shall be constructed in accordance with the California Building Code, and the California Mechanical Code. Incinerators shall comply with the

jurisdictional air quality district's rules and regulations regarding construction and operation.

SECTION 73. Section 901.7 is hereby amended to read as follows:

901.7 **Systems out of service.** Where a required fire protection system is out of service, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shutdown until the fire protection system has been returned to service.

...

901.7.4 **Preplanned impairment programs.** Preplanned impairments shall be authorized by the impairment coordinator. Before authorization is given, a designated individual shall be responsible for verifying that all of the following procedures have been implemented:

...

9. When alteration requires modification of a portion of a fire-protection system, the remainder of the system shall be kept in service.

10. When it is necessary to take a fire-protection system, or portion thereof, out of service for repair, the repair shall be completed immediately and the system returned to full service.

...

901.7.7 Obstruction to fire protection equipment.

Unobstructed access to 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.

901.7.8 Above-ground water control valve signs.

Above-ground water control valves used for water based fire protection systems, including private fire hydrant systems, shall have a permanent sign identifying areas or systems controlled. Signs shall be metal, painted white with red letters a minimum of one-inch high with 3/16" stroke, and shall be permanently banded to the valve or permanently affixed to a wall.

901.7.9 Above-ground water control valve supervision.

Above-ground water control valves used for water based fire protection systems, including private service mains and appurtenances, shall be mechanically supervised by locking the valve in the fully open position using a cable or chain and a non-case hardened lock, or by other approved means, when the valve is not electrically supervised. Detachable wrenches for post indicator valves shall be secured in place by the use of a non-case hardened lock.

901.7.10 Above-ground water control valve identification.

Above-ground water control valves used for water based fire protection systems, including valves that are part of private service mains and appurtenances, shall be painted red on any exposed surfaces subject to rust or corrosion. Valve stems, coupling threads, operating mechanisms, sight windows, components or portions of the

valve where the application of paint would violate the listing of the valve or hinder its operation shall not be painted.

901.7.11 Clear space around above-ground water control valves.

A 3-foot (914 mm) clear space shall be maintained around the circumference of above-ground water control valves used for water based fire protection systems, including private fire hydrant systems, except as otherwise required or approved.

SECTION 74. Section 903.1.1.2 is hereby renumbered and amended to read as follows:

903.1.4.2 Occupancies in fire hazard severity zones and in the Malibu-Santa Monica Mountains or San Gabriel Southface areas. An automatic fire sprinkler system shall be installed in every occupancy which is newly constructed or which is modified, reconstructed, or remodeled by adding 50 percent or more of the floor area of the existing occupancy, within any 12-month period, where the occupancy is located in a Fire Hazard Severity Zone and in the Malibu-Santa Monica Mountains or the San Gabriel Mountains Southface Areas, as defined in Appendix M.

EXCEPTIONS:

1. Occupancies located in the San Gabriel Mountains Southface Area and which are located three miles or less from the closest existing or planned Los Angeles County Fire Station capable of supporting firefighting resources, are exempt from the fire sprinkler requirement. Travel distances shall be measured by the most direct route on streets or roads accessible to fire department apparatus.

2. Occupancies modified, reconstructed, or remodeled by adding 50% percent or more of the floor area of the existing occupancy, where the total floor area of the occupancy after the modification, reconstruction, or remodel is less than 5,000 square feet (465 m²), are exempt from the fire sprinkler requirement.

3. ~~Detached U-1 occupancies~~ private garages, sheds, and agricultural buildings less than 200 square feet (19 m²) in area and separated from other structures by a minimum of 6 feet (1829 mm), are exempt from the fire sprinkler requirement.

4. Detached gazebos, pergolas, and carports open on two or more sides, that are separated from other structures by a minimum of ~~6~~six feet (1829 mm) are exempt from the fire sprinkler requirement.

5. Detached U-3 occupancies, separated from other structures by a minimum of ~~6~~six feet (1829 mm), built entirely out of non-combustible materials, and with no combustible storage, are exempt from the fire sprinkler requirement.

For the purposes of this subsection, "planned Los Angeles County Fire Station" means a fire station, approved by the Consolidated Fire Protection District of Los Angeles County, that will be developed within ~~5~~five years from the date of building permit application for the subject development.

The ~~B~~oard of ~~S~~upervisors finds it necessary to impose these requirements upon the issuance of a building permit because a failure to do so would place the residents of the subdivision or the immediate community, or both, in a condition perilous to their health, or safety, or both.

SECTION 75. Section 903.2.11.3 is hereby amended to read as follows:

903.2.11.3 Buildings ~~55 feet or more~~ over three stories in height.

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

EXCEPTIONS:

1. Airport control towers.
2. ~~Open parking structures~~ Buildings used exclusively as open parking structures.
3. Occupancies in Group F-2.

SECTION 76. Section 903.4.2 is hereby amended to read as follows:

903.4.2 **Alarms.** One exterior approved audible device shall be connected to every automatic sprinkler system in an approved location. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. One exterior approved visual device shall be provided to indicate the location of the interior annunciator in an approved location. Where a building fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. Interior vVisible alarm notification appliances shall not be required except when required by Section 907.

SECTION 77. Section 903.7 is hereby added to read as follows:

903.7 Buildings four or more stories.

In multi-story buildings that are four or more stories, including any basement levels, the following devices shall be provided for the automatic fire sprinkler system at each floor level within an exit stairway enclosure:

1. Indicating control valve.
2. Water flow detector with an alarm bell.
3. Drain valve.
4. Inspector's test valve with sight gauge.

SECTION 78. Section 905.4 is hereby amended to read as follows:

905.4 Location of Class I standpipe hose connections. Class I

standpipe hose connections shall be provided in all of the following locations:

1. In every required stairway, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at ~~an intermediate floor level~~ the main stair landing between floors, unless otherwise approved by the fire code official. See Section 909.20.2.3 of the California Building Code for additional provisions in smokeproof enclosures.

...

SECTION 79. Section 905.5.3 is hereby amended to read as follows:

905.5.3 Class II system 1-inch hose. A minimum 1-inch (25 mm)

~~hose shall be allowed to be used for hose stations in light hazard occupancies where investigated and listed for this service and where approved by the fire code official.~~

Class II interior wet standpipes shall be equipped with a 1½ inch valve, no more than 100 feet of lined hose, and an approved fog nozzle in each story, including the basement or cellar of the building, and located not less than 3 feet nor more than 5 feet above the floor. Where combination standpipes are installed, the 1½ inch outlet system may be supplied from the combination system with a 2-inch connecting line.

SECTION 80. Section 905.6.1 is hereby amended to read as follows:

905.6.1 Protection. Risers and laterals of Class III standpipe systems shall be protected as required for Class I systems in accordance with Section 905.4.1.

EXCEPTIONS:

1. In buildings equipped with an approved automatic sprinkler system, risers and laterals which are not located within an enclosed stairway or pressurized enclosure need not be enclosed within fire-resistive construction.

2. Laterals for Class II outlets on Class III systems need not be protected.

SECTION 81. Section 905.9 is hereby amended to read as follows:

905.9 Riser shutoff valve supervision and drain.

Each individual riser must be equipped with an indicating valve at its base and an approved valve for draining. Valves controlling water supplies shall be supervised in the open position so that a change in the normal position of the valve will generate a supervisory signal at the supervising station required by Section 903.4. Where a fire alarm system is provided, a signal shall also be transmitted to the control unit.

...

SECTION 82. Section 907.1.2.1 is hereby renumbered to read as follows:

907.4.2.1.7.4.1 **Obstruction of fire alarm equipment.** Fire alarm initiating devices, alarm notification appliances, and annunciators shall not be concealed from view, obstructed, or impaired in any manner.

SECTION 83. Section 910.1 is hereby amended to read as follows:

910.1 **General.**

Where required by this code or otherwise installed, smoke and heat vents or mechanical smoke exhaust systems and draft curtains shall conform to the requirements of this section.

Exceptions: ~~1. Frozen food warehouses used solely for storage of Class I and II commodities where protected by an approved automatic sprinkler system.~~

~~2. Where areas of buildings are equipped with early suppression fast response (ESFR) sprinklers, automatic smoke and heat vents shall not be required within these areas. This exception shall not apply to any state institution or other state owned or state occupied buildings and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshall.~~

SECTION 84. Section 910.2 is hereby amended to read as follows:

910.2 **Where required.** Smoke and heat vents shall be installed in the roofs of one-story buildings or portions thereof occupied for the uses set forth in Sections 910.2.1 through 910.2.2.

Exception: In those occupied portions of a building where the upper surface of the story is not a roof assembly, mechanical smoke exhaust in accordance with Section 910.4 shall be an acceptable alternative.

...

910.2.1.1 Group S-2.

Buildings and portions thereof containing a basement level enclosed parking garage exceeding 12,000 square feet (1108 m sq.).

...

SECTION 85. Section 910.4 is hereby amended to read as follows:

910.4 **Mechanical smoke exhaust.** When approved by the fire code official, engineered mechanical smoke exhaust shall be an acceptable alternative to smoke and heat vents. Mechanical smoke exhaust systems provided for basement level enclosed parking garages shall meet the performance criteria required by the fire code official.

...

SECTION 86. Section 912 is hereby amended to read as follows:

912.1 **Installation.** Fire department connections shall be installed in accordance with the NFPA standard applicable to the system design and shall comply with Sections 912.2 through 912.6.

...

912.2.1 **Visible location.** Fire department connections shall be located on the street address side of buildings, within 150 feet (via vehicular access) of

an accessible public fire hydrant, and as close to the street curb face as possible, fully visible, and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved by the fire chief. Fire department connections shall be located a minimum of 25 feet from the structure. When this distance cannot be achieved, a minimum two-hour fire resistive wall shall be provided for the structure with no openings in the wall, 25 feet in either direction from the fire department connection.

...

912.4 Signs. A metal sign with raised letters at least one inch (25 mm) in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes, or fire pump connections. Such signs shall read: AUTOMATIC SPRINKLERS or STAND PIPES or TEST CONNECTION or a combination thereof as applicable. The sign shall indicate the street addresses of buildings the fire department connection serves. Where the fire department connection does not serve the entire building, a sign shall be provided indicating the portions of the building served. For a system where the required pumping pressure is greater than 150 psi, the sign shall indicate the required pumping pressure.

...

912.7 Identification.

Fire department connections shall be painted red on any exposed surfaces subject to rust or corrosion. Coupling threads, operating mechanisms, sight windows, components, or portions of the valve where the application of paint would violate the listing of the valve or hinder its operation shall not be painted.

912.8 Breakable caps or plugs.

A fire hose coupling that is part of a fire department connection shall be provided with a protective breakable cap or plug. Missing or damaged breakable caps or plugs shall be replaced.

SECTION 87. Section 914.9.1 is hereby added to read as follows:

914.9.1 Spray booths.

Spray booths shall be provided with automatic fire sprinkler system protection when the spray booth is located in a portion of a building that is protected with an automatic fire sprinkler system.

SECTION 88. Section 1007.9.1 is hereby added to read as follows:

1007.9.1 Signage for high-rise buildings.

Signs shall be posted in a conspicuous place on every floor of the high-rise building and elsewhere as required by the fire department. Such signs shall include the heading: "IN CASE OF FIRE OR EMERGENCY DO NOT USE ELEVATORS" and give directions to all emergency fire exits from that floor. If fire safety refuge areas are provided on that floor, the signs shall give directions to that area. All such lettering shall be in letters at least one-inch-high and contrasting color.

Exception: Occupant evacuation elevators installed in accordance with section 403.6.2 of the Building Code.

SECTION 89. Section 1025.1.2 is hereby renumbered and amended to read as follows:

1025.1.2403.4 Ground seats.

When more than ~~500~~300 loose chairs are used in close proximity in connection with ~~place of assembly~~public assemblage events, chairs shall be fastened together in groups of not less than three.

Exceptions:

1. The bonding of chairs shall not be required when tables are provided for use for dining or similar purposes.

2. The bonding of chairs shall not be required when the placement and location of such chairs will not obstruct any required exit or any line of egress toward required exits and is approved by the fire code official.

SECTION 90. Section 1107.9 is hereby amended to read as follows:

1107.9 Helistops for high-rise buildings.

An approved helistop shall be provided on the roof of any high-rise building hereinafter constructed. It shall be designed and constructed in accordance with the Los Angeles County Building Code and Title 24 of the California Code of Regulations.

EXCEPTION: ~~For buildings 7-20 stories in height, equipped with an emergency elevator evacuation system, a 50' x 50' roof clear area may be utilized in lieu of Helistop. This clear area shall be clearly marked, maintained, and is intended to provide access for low-hover, light-wheel landing emergency helicopter evacuations.~~

~~1107.9.1~~ **1107.10 Helistops in fire hazard severity zones.**

~~1107.9.1.1~~ **1107.10.1 Surface.**

When required by the fire code official, a graded 100' x 100' pad shall be covered with reinforced concrete, with a minimum depth of 6 inches, capable of supporting 42,000 pounds.

~~1107.9.1.2~~ **1107.10.2 Hydrant.**

When required by the fire code official, a fire hydrant shall be installed adjacent to the graded pad as approved by the fire code official.

~~1107.9.1.3~~ **1107.10.3 Access.**

When required by the fire code official, a fire apparatus access road shall be provided in accordance with Section 503.2.1.

SECTION 91. Section 1304.4 is hereby amended to read as follows:

1304.4 Electrical grounding.

Artificial lighting in areas containing dust-producing or dust-agitating operations shall be by electricity with wiring and electrical equipment installed in accordance with ~~Title 27 of the County~~ Electrical Code. Machinery and metal parts of crushing, drying, pulverizing, and conveying systems shall be electrically grounded in accordance with ~~Title 27 of the County~~ Electrical Code.

Static electricity shall be removed from machinery and other component parts by permanent grounds or bonds or both. The design and installation of such grounds shall be in accordance with approved standards.

SECTION 92. Section 1412.2 is hereby amended to read as follows:

1412.2 Fire hose.

~~Suitable fire hose, as~~When required by the fire code official, approved fire hoses with attached nozzles, shall be maintained ready for immediate use at thea construction or a demolition site. Such hoses and nozzles shall be connected to an approved source of water, and Where a public or a private fire hydrant is permitted to be used as a source of water, the fire hose connection to the fire hydrant shall not impede the fire department from immediate access or use of the hydrants.

SECTION 93. Section 1504.4. is hereby amended to read as follows:

1504.4 Fire Protection.

Spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system complying with Chapter 9. Protection shall also extend to exhaust plenums, exhaust ducts, and both sides of dry filters when such filters are used. Spray booths shall be provided with automatic fire sprinkler system protection when the spray booth is located in a portion of a building that is protected with an automatic fire sprinkler system.

SECTION 94. Section 1508.5 is hereby amended to read as follows:

1508.5 Sources of ignition. Smoking shall be prohibited and NO

SMOKING signs shall be prominently displayed in compliance with Section 310.3 in areas where organic peroxides are stored, mixed, or applied. Only non-sparking tools shall be used in areas where organic peroxides are stored, mixed, or applied.

SECTION 95. Section 1910 is hereby added to read as follows:

1910 STORAGE OF COMBUSTIBLE IDLE PALLETS

1910.1 General.

Storage of combustible idle pallets shall be in accordance with this section.

1910.2 Storage location.

Pallets shall be stored outside or in a separate building designed for pallet storage unless stored indoors in accordance with Section 1910.3.

1910.3 Indoor storage.

Pallet storage in a building used for other storage or other purpose shall be in accordance with the provisions for high-hazard commodity high-piled combustible storage contained in Chapter 23.

Exception: When indoor storage does not exceed 6 feet (1.8 m) in height and the aggregate volume of all stored pallets does not exceed 2,500 cubic feet (70.8 m³).

1910.4 Outdoor storage.

Pallets stored outside shall be stored in accordance with Table 1910.4.1 and Table 1910.4.2 and Sections 1910.5 and 1910.6.

1910.5 Outdoor pile dimensions.

Pallet stacks shall not exceed 15 feet (4.6 m) in height nor shall cover an area greater than 500 square feet (46.5 m²). Pallet stacks shall be arranged to form stable piles. Piles shall be separated by a minimum of 8 feet (2.5 m). Piles shall be a minimum of 10 feet (3.1 m) from property lines.

1910.6 Fire department access.

Fire department access roadways shall be provided and maintained, in accordance with Section 503.

Table 1910.4.1

Required Clearance Between Outside Idle Pallet Storage and Other Yard Storage

<u>Pile Size</u>	<u>Minimum Distance, in feet (m)</u>
<u>Under 50 pallets</u>	<u>20 (6.1 m)</u>
<u>50-200 pallets</u>	<u>30 (9.2 m)</u>
<u>Over 200 pallets</u>	<u>50 (15.2 m)</u>

Table 1910.4.2

Required Clearance Between Outside Idle Pallet Storage and Structures

<u>Wall Construction</u>	<u>Minimum distance of wall from storage, in feet (m)</u>		
	<u>Under 50</u>	<u>50 to 200</u>	<u>Over 200</u>
	<u>Pallets</u>	<u>Pallets</u>	<u>Pallets</u>
<u>Masonry or concrete with no openings</u>	<u>0</u>	<u>0</u>	<u>15 (4.6 m)</u>

<u>Masonry with wired glass in openings, outside sprinklers and 1-hour doors</u>	<u>0</u>	<u>10 (3.1 m)</u>	<u>20 (6.1 m)</u>
<u>Masonry with wired or plain glass, outside sprinklers, and 3/4-hour doors</u>	<u>10 (3.1 m)</u>	<u>20 (6.1 m)</u>	<u>30 (9.2 m)</u>
<u>Wood or metal with outside sprinklers</u>	<u>10 (3.1 m)</u>	<u>20 (6.1 m)</u>	<u>30 (9.2 m)</u>
<u>Wood, metal, other</u>	<u>20 (6.1 m)</u>	<u>30 (9.2 m)</u>	<u>50 (15.2 m)</u>

SECTION 96. Section 2301.2 is hereby amended to read as follows:

2301.2 Permits.

A permit shall be required as set forth in Section 105.6. Prior to approval of storage racks, a building permit is required in occupancies regulated by this chapter. Proof of all required permits and all engineering calculations must be provided to the fire code official upon request. The approved permit must be kept on the premises and be available at all times for inspection by the fire code official.

SECTION 97. Table 2306.2 is hereby amended to read as follows:

GENERAL FIRE PROTECTION AND LIFE SAFETY REQUIREMENTS

...

footnote a. When automatic sprinklers are required for reasons other than those in Chapter 23, the portion of the sprinkler system protecting the high-piled storage area shall be designed and installed in accordance with Sections 2307 and 2308.

footnote b. For aisles, see Section 2306.9.

footnote c. Piles shall be separated by a minimum of 96-inch aisles complying with Section 2306.9.

...

~~footnote j. Not required when storage areas are protected by early suppression fast response (ESFR) sprinkler systems installed in accordance with NFPA 13. This footnote shall not apply to any state institution or other state owned or state occupied buildings or other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal.~~

SECTION 98. Section 2306.7.1 is hereby amended to read as follows:

2306.7.1 **Types of vents.**

Smoke and heat vents shall be approved and shall be labeled to indicate compliance with nationally recognized standards. ~~See Chapter 45.~~ Smoke and heat vents shall be operated automatically by activation of any one of the following:

1. An approved fixed-temperature heat-responsive device rated between 100 and 200° F (56 and 111° C) above estimated ambient temperatures. If a fire sprinkler system is provided, the fixed-temperature heat-responsive device shall also be a minimum of one temperature rating higher than the sprinkler heads. With ESFR

sprinkler systems, the fixed-temperature heat-responsive device shall also be a minimum two temperature ratings higher than the sprinkler heads up to 360° F,

2. An approved rate-of-rise device, or
3. Approved heat-sensitive glazing designed to shrink and drop out of the vent opening.

The heat-responsive device shall be listed and labeled. Smoke and heat vents shall have the capability of being opened by an approved exterior manual operation.

SECTION 99. Section 2308.2.2 is hereby amended to read as follows:

2308.2.2 Racks with solid shelving. Racks with solid shelving having an area greater than 32 square feet (3 m²), measured between approved flue spaces at all four edges of the shelf, shall be in accordance with this section.

EXCEPTIONS:

1. Racks with mesh, grated, slatted, or similar shelves having uniform openings not more than 6 inches (152 mm) apart, comprised of at least 50 percent of the overall shelf area, and with approved flue spaces are allowed to be treated as racks without solid shelves.

2. Racks used for the storage of combustible paper records, with solid shelving, shall be in accordance with NFPA 13.

3. In buildings with ESFR fire sprinkler protection, the storage racks shall not utilize solid, slatted, or other types of shelving that obstructs sprinkler water penetration down through the racks, unless allowed per NFPA 13.

SECTION 100. Section 2404.21 is hereby amended to read as follows:

2404.21 Combustible vegetation.

Combustible vegetation that could create a fire hazard shall be removed from the area occupied by a tent or membrane structure, and from areas within 30 feet (9144 mm) of such structures. When a tent or membrane structure has a capacity of 10 or more people, combustible vegetation shall be removed from areas within 50 feet of such structures. When a tent or membrane structure is located in a hazardous fire area, combustible vegetation shall be removed from areas within 50 feet from such structures or from areas within up to 200 feet from such structures when required by the fire code official.

SECTION 101. Section 2601.3 is hereby amended to read as follows:

2601.3 Restricted areas.

Hot work shall only be conducted in areas designed or authorized for that purpose by the personnel responsible for a Hot Work Program. Hot work shall not be conducted in the following areas unless approval has been obtained from the fire code official:

...

3. Areas with readily ignitable materials, such as storage of large quantities of bulk sulfur, baled paper, cotton, lint, dust, or loose combustible materials, or wildfire risk areas.

...

SECTION 102. Section 2701.5 is hereby amended to read as follows:

2701.5 Permits. Permits shall be required as set forth in Sections 105.6 and 105.7.

When required by the fire code official, permittees shall apply for approval to permanently close a storage, use or handling facility. Such application shall be submitted at least 30 days prior to the termination of the storage, use or handling of hazardous materials. The fire code official is authorized to require that the application be accompanied by an approved facility closure plan in accordance with Section 2701.6.3. A unified program facility permit shall be required for hazardous materials handlers, hazardous waste generators, or on-site treatment of hazardous waste in accordance with Chapters 12.50, 12.52, and 12.64 of the County Code. Unified program facility permits, if required, shall be obtained prior to the issuance of any fire code permit required by this code.

A permit shall be required for tank vehicles or railroad tank cars to remain on a siding indoors or outdoors, at the point of delivery while connected for transfer operations. Transfer operations shall be in accordance with DOT requirements and this code.

SECTION 103. Section 2701.5.1.1 is hereby added to read as follows:

2701.5.1.1 Hazardous materials business plan.

Each application for a permit for businesses handling or storing hazardous materials at anytime during the year exceeding 55 gallons, 500 pounds, or 200 cubic feet shall include a hazardous materials business plan (HMBP). The location of the

HMBP shall be posted adjacent to permits when an HMBP is provided. The HMBP shall include a facility site plan designating the following:

1. Storage and use areas.
2. Maximum amount of each material stored or used in each area.
3. Range of container sizes.
4. Locations of emergency isolation and mitigation valves and devices.
5. Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines.
6. On and off positions of valves for valves which are of the self-indicating type.
7. Storage plan showing the intended storage arrangement, including the location and dimensions of aisles.

The plans shall be legible and approximately to scale. Separate distribution systems are allowed to be shown on separate pages.

SECTION 104. Section 2701.5.1.2 is hereby added to read as follows:

2701.5.1.2 Application.

Each application for a permit required by this Chapter shall include a hazardous materials business plan (HMBP) in accordance with Chapter 12.64 of Title 12 of the Los Angeles County Code.

SECTION 105. Section 2701.5.2.1 is hereby added to read as follows:

2701.5.2.1 Hazardous materials disclosure.

A chemical inventory prepared in accordance with Chapter 12.64 of Title 12 of the Los Angeles County Code shall be considered the equivalent of the Hazardous Materials Inventory Statement (HMIS) discussed in Section 2701.5.2.

SECTION 106. Section 2701.5.2.2 is hereby added to read as follows:

2701.5.2.2 Health hazardous materials division authority.

The provisions of Chapter 27 of this code may be enforced by any duly authorized technician, health hazardous materials division staff, or fire code official of this department.

SECTION 107. Section 2701.5.2.3 is hereby added to read as follows:

2701.5.2.3 Reporting.

Every business shall comply with the reporting requirements as set forth in Chapter 12.64 of Title 12 of the Los Angeles County Code.

SECTION 108. Section 2701.5.2.4 is hereby added to read as follows:

2701.5.2.4 Notification.

The fire code official and the HHMD shall be notified immediately when an unauthorized discharge becomes reportable under state, federal, or local regulations.

SECTION 109. Section 2701.5.3 is hereby renumbered to read as follows:

2701.5.3.2.5 California accidental release prevention program.

Every business shall comply with the requirements as set forth in Chapter 12.64 of Title 12 of the Los Angeles County Code.

SECTION 110. Section 2701.5.4 is hereby renumbered to read as follows:

2701.5.45.2.6 **Emergency information.** Hazardous materials business plans, risk management prevention programs, and hazardous materials inventory statements shall be posted in an approved location and immediately available to emergency responders. The fire code official may require that the information be posted at the entrance to the occupancy or property.

SECTION 111. Section 2702.1 is hereby amended to add in alphabetical order as follows:

2702.1 **Definitions.** The following words and terms shall, for purposes of this chapter, Chapter 28 through 44 and as used elsewhere in this code, have the meanings shown herein.

ASSESS. Shall mean any activity taken to determine health and safety risks to the general public or the environment.

...

CONSOLIDATED CONTINGENCY PLAN. Shall mean a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous substance, which could threaten human health or the environment.

...

DEPARTMENT OF TOXIC SUBSTANCE CONTROL (DTSC). Shall mean the Department of the California Environmental Protection Agency that is responsible for implementing hazardous waste regulations in California.

...

EPA ID NUMBER. Shall mean a number issued by DTSC and used to track hazardous waste from point of origin to its final disposal. Provisional numbers are issued for special circumstances such as a spill if the facility does not have a permanent number.

...

HAZARDOUS MATERIALS. Those chemicals or substances which are physical hazards or health hazards as defined and classified in this chapter, whether the materials are in usable or waste condition. Hazardous materials mixtures are those substances that contain one percent or more of a hazardous ingredient, or one tenth of one percent of a carcinogen. This definition includes, but is not limited to, those hazardous wastes, hazardous materials, and extremely hazardous wastes listed in the California Code of Regulations, Title 22, section 66261.126, Appendix X.

...

HAZARDOUS WASTE. Shall mean a waste, or combination of wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics poses a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

HAZARDOUS WASTE CONTROL LAW. Shall mean the state law which implements a cradle to grave management system found in the California Health and Safety Code.

...

HEALTH HAZARDOUS MATERIALS DIVISION (HHMD). Shall mean a part of the Consolidated Fire Protection District of Los Angeles County (District) or Los Angeles County Fire Department, Prevention Services Bureau, that is responsible for regulating hazardous materials business plans and chemical inventories, hazardous waste generators, on-site treaters of hazardous waste, risk management plans for responding with hazardous materials squads to emergency incidents involving hazardous materials, supervising clean up of on-site and containment facilities, and for declaring emergency response scenes safe for re-entry.

...

UNAUTHORIZED DISCHARGE. Shall mean a release or emission of materials in a manner which does not conform to the provisions of this code or applicable public health and safety regulations. This shall mean any spilling, leaking, releasing, leaching, emptying, dumping, or disposing of a hazardous material/waste into the environment, unless permitted by a regulatory agency.

...

UNIFIED PROGRAM. Consolidates six environmental programs regarding the management of hazardous waste, hazardous materials, and underground storage tanks under one management system.

UNIFIED PROGRAM FACILITY PERMIT. Shall mean a consolidated permit issued pursuant to section 25284 of the Health and Safety Code and Division 4 of Title 11 of the County Code relating to the underground storage of hazardous materials; Chapter 12.52 of the County Code relating to the generation or handling of hazardous

waste or extremely hazardous waste; Chapter 12.64 of the County Code relating to handling of hazardous materials or acutely hazardous materials; and those city codes or resolutions related to the unified program elements administered by those cities as participating agencies to the Los Angeles County Certified Unified Program Agency.

...

WASTE. Shall mean a material that has been used or for whatever reason can or will no longer be used for its intended purpose, or has been discarded and not specially excluded by Health and Safety Code, Chapter 6.5.

SECTION 112. Section 2703.2.1 is hereby amended to read as follows:

2703.2.1 Design and construction of containers, cylinders, and tanks. Containers, cylinders, and tanks shall be designed and constructed in accordance with approved standards. Containers, cylinders, tanks, and other means used for containment of hazardous materials shall be of an approved type. Pressure vessels shall comply with the ASME Boiler and Pressure Vessel Code. Tank vehicles and railroad tank cars shall be used in accordance with Section 2705.

SECTION 113. Section 2703.2.5 is hereby amended to read as follows:

2703.2.5 Empty containers and tanks. Empty containers and tanks previously used for the storage of hazardous materials shall be free from residual material and vapor as defined by DOTn, the Resource Conservation and Recovery Act (RCRA), or other regulating authority or maintained as specified for the storage of the hazardous material. Containers larger than five gallons in capacity shall be marked with the date they have been emptied and shall be reclaimed, reconditioned, or

remanned within one year of being emptied. Containers which previously held acute or extremely hazardous materials are considered empty if the container has been triple-rinsed and the rinsate managed as a hazardous waste. If the activity does not qualify for an exemption, the activity may require a permit to treat on site.

SECTION 114. Section 2703.3.1.2 is hereby amended to read as follows:

2703.3.1.2 Preparation.

~~Provisions shall be made for controlling and mitigation unauthorized discharges.~~
The consolidated contingency plan of the Unified Program of the hazardous material business plan shall be prepared and maintained. Copies shall be on site and submitted every three years to the fire department as required by the provisions of the California Health and Safety Code, Division 20, Chapter 6.95, Hazardous Materials Release Response Plans and Inventory.

SECTION 115. Section 2703.3.1.3 is hereby amended to read as follows:

2703.3.1.3 Control. When an unauthorized discharge caused by primary container failure is discovered, the involved primary container shall be repaired or removed from service. Any waste generated as a result of the unauthorized discharge must be disposed of in accordance with all applicable regulations pertaining to hazardous waste. If the facility does not have an EPA ID number it must obtain a temporary ID number from DTSC prior to disposal.

SECTION 116. Section 2703.3.1.4 is hereby amended to read as follows:

2703.3.1.4 Responsibility for cleanup. The person, firm, or corporation responsible for an unauthorized discharge shall institute and complete all

actions necessary to remedy the effects of such unauthorized discharge, whether sudden or gradual, at no cost to the jurisdiction. When deemed necessary by the fire code official, cleanup may be initiated by the fire department or by an authorized individual or firm. Costs associated with such cleanup shall be borne by the owner, operator, or other person responsible for the unauthorized discharge. Upon termination of cleanup activities, the HHMD emergency operation section of the fire department must be contacted to assess cleanup measures and to clear the site for re-occupancy or reuse.

SECTION 117. Section 2703.5 is hereby amended to read as follows:

2703.5 Hazard Identification signs. Unless otherwise exempted by the fire code official, visible hazard identification signs as specified in NFPA 704 for the specific material contained shall be placed on stationary containers and above-ground tanks and at entrances to locations where hazardous materials are stored, dispensed, used, or handled in quantities requiring a permit and at specific entrances and locations designated by the fire code official. Each building that stores, handles, or dispenses a hazardous material shall be conspicuously posted with the overall occupancy hazard by using the NFPA 704 placard system for any product or waste that has a three or higher rating in any category or is a special hazard.

SECTION 118. Section 2703.9.1.1 is hereby amended to read as follows:

2703.9.1.1 Fire department liaison. Responsible persons shall be designated and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses and identifying the

locations where hazardous materials are located, and shall have access to Material Safety Data Sheets and be knowledgeable in the site's emergency response procedures. These persons shall be identified as the emergency coordinator with 24-hour contact numbers in the business plan as required by the provisions of the California Health and Safety Code, Division 20, Chapter 6.95, Article 1, Business and Area Plans.

SECTION 119. Section 2703.11.3.8 is hereby amended to read as follows:

2703.11.3.8 Floors. Floors shall be in accordance with Section 2704.12.

Floors shall be level and impervious.

SECTION 120. Section 2705.1 is hereby amended to read as follows:

2705.1 General. Use, dispensing, and handling of hazardous

materials in amounts exceeding the maximum allowable quantity per control area set forth in Section 2703.1 shall be in accordance with Sections 2701, 2703, and 2705.

Use, dispensing, and handling of hazardous materials in amounts not exceeding the maximum allowable quantity per control area set forth in Section 2703.1 shall be in accordance with Sections 2701 and 2703. Tank vehicles and railroad tank cars shall not be used as a means of hazardous materials storage. Indoor unloading or transfer operations from tank vehicles or railroad tank cars shall be in accordance with Section 2705.2.

Outdoor unloading or transfer operations shall be in accordance with

Section 2705.3.

SECTION 121. Section 2705.1.11.1 is hereby added to read as follows:

2705.1.11.1 Bulk plant or terminal.

Gases or liquids having a hazard ranking of 3 or 4 in accordance with NFPA 704 shall not be transferred from a tank vehicle or tank car into the cargo tank of another tank vehicle or tank car.

EXCEPTION: In an emergency, gases or liquids having a hazard rating of 3 or 4 may be transferred from a tank vehicle or tank car to the cargo tank of another tank vehicle or tank car when approved by the fire code official.

SECTION 122. Section 3301.2 is hereby amended to read as follows:

3301.2 FeesPermits.

The fee for issuance of a permit under this section shall, in all cases, be twelve dollars (\$12.00). In cases in which the quantity of explosives is one hundred pounds or less, the sum of one dollar (\$1.00) shall be deposited into the state treasury upon issuance of a permit. In all other cases the sum of five dollars (\$5.00) shall be deposited into the state treasury. Permits shall be required as set forth in Section 105.6 and regulated in accordance with this section.

3301.2.1 Fees.

As required by California Health and Safety Code section 12105, a permit for the storage of explosives shall not be issued until after the payment of a fee of ten dollars (\$10.00), unless the quantity of explosives is 100 pounds or less, in which case the fee shall be two dollars (\$2.00). The permit fee shall be equally divided and deposited into the treasury of the County of Los Angeles and into the State Treasury.

SECTION 123. Section 3301.3 is hereby amended to read as follows:

3301.3 Qualifications Fireworks.

~~Persons in charge of magazines, blasting, fireworks display, or pyrotechnic special effect operations shall not be under the influence of alcohol or drugs which impair sensory or motor skills, shall be at least 21 years of age, licensed by the State of California as a blaster, and shall demonstrate knowledge of all safety precautions related to the storage, handling, or use of explosives, explosive materials, or fireworks. The possession, manufacture, storage, sale, handling, and use of fireworks are prohibited.~~

Exceptions:

1. Storage and handling of fireworks as allowed by State law.
2. Manufacture, assembly, and testing of fireworks as allowed by State law.
3. The use of fireworks for fireworks displays as allowed in Title 19 California Code of Regulations, Division 1, Chapter 6 – Fireworks.
4. The possession, storage, sales, handling, and use of California State Fire Marshal classified safe and sane fireworks as allowed by state law and local ordinance in accordance with California Health and Safety Code section 12541.1.
5. Retail sales and use of California State Fire Marshal classified snap caps or party popper pyrotechnic devices.

SECTION 124. Section 3301.4 is hereby amended to read as follows:

3301.4 ~~Storage with other materials~~ Model rockets and experimental high power rockets.

~~Magazines shall be used exclusively for the storage of explosive materials and other blasting materials approved by the fire code official. Tools, other than approved conveyors, shall not be stored in magazines. Items of hardware which contain igniters, detonators, propellants, or explosives shall not be stored in the same magazine with other explosives.~~

~~Explosives which are subject to mass detonation, such as lead azide, lead styphanate, dynamite, photo flash powder, and black powder shall not be stored with other explosives.~~

~~**Exception:** Black sporting powder may be stored with smokeless sporting powder in retail commercial stores when quantities are limited to those allowed in Section 3306 with the approval of the fire code official.~~

The storage, handling, and use of a model rocket or an experimental high power rocket shall be in accordance with Title 19 California Code of Regulations, Chapter 6.
The storage, handling, and use of a model rocket or an experimental high power rocket shall be in accordance with NFPA 1122, NFPA 1125, or NFPA 1127 for fire and life safety matters not regulated by State law.

SECTION 125. Section 3308.1 is hereby amended to read as follows:

3308.1 General.

~~Outdoor f~~Fireworks displays, use of pyrotechnics before a proximate audience, and pyrotechnic special effects in theatrical and group entertainment productions shall comply with this California Code of Regulations Title 19 , Division 1, Chapter 6 – Fireworks and this Chapter. Additionally, firework displays and pyrotechnics before a proximate audience shall be conducted in accordance with NFPA 1123 or NFPA 1126 for fire and life safety matters not regulated by State law.

SECTION 126. Section 3310 is hereby added as follows:

3310. Seizure of explosives, explosive materials, and fireworks.

The fire code official is authorized to remove or cause to be removed or disposed of in an approved manner, at the expense of the owner, explosives, explosive materials, or fireworks offered or exposed for sale, stored, possessed, or used in violation of the chapter. Seizure shall be conducted in accordance with California Health and Safety Code Sections 12350 through 12355 and 12721 through 12724.

SECTION 127. Section 3404.2.6.1 is hereby amended to read as follows:

3404.2.6.1 Waste control.

Waste liquids shall be kept in a sump, tank, or receptacle approved for this purpose. The waste must be disposed of in accordance with the provisions of the California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control.

SECTION 128. Section 3404.2.8.3 is hereby added to read as follows:

3404.2.8.3 Secondary containment.

Vaults shall be substantially liquid tight and there shall be no backfill around the tank or within the vault. The vault floor shall drain to a sump. For pre-manufactured vaults, liquid tightness shall be certified as part of the listing provided by a nationally-recognized testing laboratory. For field-erected vaults, liquid tightness shall be certified in an approved manner.

Secondary containment shall be provided for new installations of underground tanks and existing tanks with a breach in integrity.

SECTION 129. Section 3404.2.9.1.1 is hereby amended to read as follows:

3404.2.9.1.1 Required foam fire protection systems. ~~When required-~~

~~by the fire code official, foam fire protection shall be provided for above-ground tanks, other than pressure tanks operating at or above 1 pound per square inch gauge (psig) (6.89 kPa) when such tank, or group of tanks spaced less than 50 feet (15 240 mm) apart measured shell to shell, has a liquid surface area in excess of 1,500 square feet (139 m²), and is in accordance with one of the following:~~

- ~~1. Used for the storage of Class I or II liquids.~~
- ~~2. Used for the storage of crude oil.~~
- ~~3. Used for in-process products and is located within 100 feet (30 480 mm) of a fired still, heater, related fractioning or processing apparatus or similar device at a processing plant or petroleum refinery as herein defined.~~
4. Considered by the fire code official as posing an unusual exposure hazard

~~because of topographical conditions; nature of occupancy, proximity on the same or adjoining property, and height and character of liquids to be stored; degree of private fire protection to be provided; and facilities of the fire department to cope with flammable liquid fires.~~ All above-ground tanks exceeding 1,500 square feet of liquid surface area used for the storage of Class I or Class II flammable liquids shall be provided with foam fire protection.

EXCEPTIONS:

1. Tanks with floating roofs for storage of crude oil exceeding 1,500 square feet of liquid surface area and less than 12,300 square feet of liquid surface area shall have foam fire protection only for the seal area.

2. Floating roof tanks or pressure tanks operating at or above 1-pound-per square inch gauge.

SECTION 130. Section 3404.2.9.6.1.3 is hereby amended to read as follows:

3404.2.9.6.1.3 Location of tanks storing boilover liquids. Above-ground tanks for storage of liquids with boilover characteristics shall be located in accordance with Table 22.4.1.4 of NFPA 30. Shell to shell spacing between tanks shall not be less than the diameter of the largest tank.

SECTION 131. Section 3406.4 is hereby amended to read as follows:

3406.4 Bulk plants or terminals. Portions of properties where flammable and combustible liquids are received by tank vessels, pipelines, tank cars, or tank vehicles and which are stored, transferred, or blended in bulk for the purpose of

distributing such liquids by tank vessels, pipelines, tank cars, tank vehicles, or containers shall be in accordance with Sections 3406.4.1 through 3406.4.10.4.

SECTION 132. Section 3406.5.1.1 is hereby amended to read as follows:

3406.5.1.1 Location. Bulk transfer and process transfer operations shall be conducted in approved locations. Tank cars shall be unloaded only on private sidings or railroad-siding facilities equipped for transferring flammable or combustible liquids. Tank vehicle and tank car transfer facilities shall be separated from buildings, above-ground tanks, combustible materials, lot lines, public streets, public alleys, or public ways by a distance of 25100 feet (762030480 mm) for Class I liquids and 1525 feet (45727620 mm) for Class II and III liquids measured from the nearest position of any loading or unloading valve. Buildings for pumps or shelters for personnel shall be considered part of the transfer facility.

SECTION 133. Section 3406.5.1.19 is hereby amended to read as follows:

3406.5.1.19 Liquid transfer. Class I, II, or III liquids shall be transferred from a tank vehicle or tank car only into an approved atmospheric tank or approved portable tank, except as provided in Sections ~~3406.5.4.6 through 3406.5.4.4~~ 3406.5.4.4 through 3406.5.4.6.

SECTION 134. Section 3804.4 is hereby amended to read as follows:

3804.4 Multiple LP-gas container installation. Multiple LP-gas container installations with a total water storage capacity of more than 180,000 gallons (681 300 L) [150,000-gallon (567 750 L) LP-gas capacity] shall be subdivided into groups containing not more than 180,000 gallons (681 300 L) in each group. Such

groups shall be separated by a distance of not less than 50 feet (15 240 mm), unless the containers are protected in accordance with one of the following:

...

Where one of these forms of protection is provided, the separation shall not be less than 25 feet (7620 mm) between container groups. At LP-gas multi-container installations, the aggregate capacity of the containers shall be used to determine minimum distances to the buildings or adjoining property lines.

SECTION 135. Section 3804.6 is hereby amended to read as follows:

3804.6 Container orientation. Unless special protection is provided and approved by the fire code official, LP-gas containers of ~~liquid petroleum gas~~ shall be oriented so that the longitudinal axes do not point toward other ~~liquid petroleum~~ LP-gas containers, vital process equipment, control rooms, loading stations, or flammable liquid storage tanks.

SECTION 136. Section 3806.1 is hereby amended to read as follows:

3806.1 Attendants. Dispensing of LP-gases shall be performed by a qualified attendant. Self-service LP-Gas dispensing open to the public is prohibited.

SECTION 137. Section 4604.17.7 is hereby added to read as follows:

4604.17.7 Maintenance.

Fire escapes shall be kept clear and unobstructed at all times and shall be maintained in good working order.

SECTION 138. Section 4605 is hereby added to read as follows:

4605 Requirements for outdoor operations.

4605.1 Tire storage yards.

Existing tire storage yards shall be provided with fire apparatus access roads in accordance with Sections 4605.1.1 and 4605.1.2.

4605.1.1 Access to piles.

Access roadways shall be within 150 feet (45 720 mm) of any point in the storage yard where storage piles are located, at least 20 feet (6096 mm) from any storage pile.

4605.1.2 Location within piles.

Fire apparatus access roads shall be located within all pile clearances identified in Section 2505.4 and within all fire breaks required in Section 2505.5.

SECTION 139. Section 4607.1.1 is hereby renumbered to read as follows:

4607.1.1~~4607.1.1~~ 4807.1.1 **Fire safety officers/advisors.**

When in the opinion of the fire code official, it is necessary for the preservation of life or property, due to the hazardous nature of an event, production, operation, or function, the fire official shall require the owner or lessee to employ or cause the employment of one or more approved fire safety officers or advisors to be on duty at such place during the hazardous activity.

SECTION 140. Section 4611.9 is hereby renumbered and amended to read as follows:

4611.9~~4611.9~~4811.9 **Fire department access.**

Required emergency vehicle access shall be maintained as per ~~The minimum widths and clearances established in Section 503.2.1 shall be maintained at all times.~~ Any deviations are subject to approval by the fire code official.

SECTION 141. Section 4801.3 is hereby amended to add in alphabetical order as follows:

4801.3 Definitions

...

COMMERCIAL STILL PHOTOGRAPHY PRODUCTION includes all activity attendant to the staging or shooting of commercial still photography production to create single or multiple photographs for sale or use for a commercial purpose.

...

SECTION 142. Section 4803.2 is hereby amended to read as follows:

4803.2 Additional permits.

A permit shall be required for:

1. Use of pyrotechnic special effects
2. Open flames
3. Flammable or combustible liquids, gases, and dust
4. Hot work
5. Presence of motor vehicles within a building
6. Any additional permits, including motion picture, commercial, and

television productions, as required by the fire code official as determined in

Section 105.6 of this code.

SECTION 143. Section 4803.4 is hereby added to read as follows:

4803.4 Permit fees.

Permit fees for permits required by Section 4803.2 and Section 105.6 shall be collected for the issuance of the following permits:

1. Motion picture, television, commercial, and related productions filming. The permit fee shall be two hundred eighty-two dollars (\$282.00).
2. Motion picture, television, commercial, and related production filming – Fuel-dispensing trucks and vehicles. The annual permit fee shall be two hundred twenty three dollars (\$223.00) .
3. Motion picture, television, commercials, and related production filming – Pyrotechnics and special effects. The permit fee shall be two hundred eighty-eight dollars (\$288).
4. Commercial still photography production outside of an approved production facility and where the on-site cast and crew numbers fifteen (15) or more persons. The permit fee shall be two hundred seventy seven dollars (\$277).

SECTION 144. Section 4902.1 is hereby amended to add in alphabetical order as follows:

4902.1 General. For the purpose of this chapter, certain terms are defined as follows:

...

FIRE PROTECTION PLAN is a document prepared for a specific project or development proposed for a Wildland-Urban Interface Fire Area. It describes ways to minimize and mitigate potential for loss from wildfire exposure.

The Fire Protection Plan shall be in accordance with this ~~Chapter~~. When required by the ~~enforcing agency~~fire code official for the purposes of granting modifications, a fire protection plan shall be submitted. ~~Only locally adopted ordinances that have been filed with the California Building Standards Commission or the Department of Housing and Community Development in accordance with Section 1.1.8 shall apply.~~

...

FUEL MODIFICATION PLAN. A fuel modification plan shall consist of a set of scaled plans that includes a plot plan showing fuel modification zones indicated with applicable assessment notes, a detailed landscape plan, and an irrigation plan. A fuel modification plan submitted for approval shall be prepared by a state licensed landscape architect, state licensed landscape contractor, a landscape designer, or an individual with expertise acceptable to the forestry division of the fire department.

...

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

Sections 51175 through 51189. See Appendix M for the designations within the County of Los Angeles.

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

WILDLAND-URBAN INTERFACE FIRE AREA is a geographical area identified by the state as a "Fire Hazard Severity Zone" in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the ~~enforcing agency~~Los Angeles County Fire Department to be at a significant risk from wildfires. See article 86B for the applicable reference sections of the Government Code and the Public Resources Code.

SECTION 145. Section 4905.2 is hereby amended to read as follows:

4905.2 Construction methods and requirements within

established limits. Within the limits established by law, construction methods intended to mitigate wildfire exposure shall comply with the wildfire protection building construction requirements contained in the ~~California~~Los Angeles County Building Standards Code including the following:

1. ~~California~~Los Angeles County Building Code Chapter 7A,
2. ~~California~~Los Angeles County Residential Code Section R327
3. ~~California~~ Building Standards Code, Reference Standards Code Chapter 12-7A
4. and this chapter.

SECTION 146. Section 4907.1 is hereby amended to read as follows:

4907.1 **General.** Defensible space will be maintained around all buildings and structures in State Responsibility Area (SRA) as required in Public Resources Code 4290 and "SRA Fire Safe Regulations" California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 2, Section 1270.

Buildings and structures within the Very High Fire Hazard Severity Zones of a Local Responsibility Areas (LRA) shall maintain defensible space as outlined in Government Code 51175 – 51189, Chapter 3 of this code and any local ordinance of the authority having jurisdiction.

SECTION 147. Section 4908 is hereby added to read as follows:

4908 **FUEL MODIFICATION**

4908.1 **Fuel modification plan in fire hazard severity zones.**

A fuel modification plan shall be submitted and have preliminary approval prior to any subdivision of land and have final approval prior to the issuance of a permit for any permanent tent, yurt, trailer, or other structure used for habitation, to the issuance of a permit for any structure that changes occupancy classification from a non R to R type occupancy, and new construction, remodeling, modification, or reconstruction of:

(1) any enclosed structure over 120 square feet; (2) any structure enclosed on three sides or more and greater than or equal to 200 square feet; and (3) any structure greater than or equal to 400 square feet, where such remodeling, modification, or reconstruction increases the square footage of the existing structure or footprint by 50 percent or more within any 12-month period, and where the tent, yurt, trailer,

structure, or subdivision is located within areas designated as a Fire Hazard Severity Zone within the State Responsibility Areas or Very High Hazard Severity Zone within the Local Responsibility areas, applicable Hazard Zone maps, and Appendix M of this code at the time of application. Every fuel modification plan shall be reviewed by the forestry division of the fire department for defensible space, reasonable fire safety, and compliance with Sections 325.2.1, 325.2.2, 325.10, and 503.2.1 of this code, the Fire Departments Fuel Modification Guidelines, and California Code of Regulations Title 14, Division 1.5, Chapter 7, subchapter 2.

After such final plan has been approved by the forestry division of the fire department, a signed and notarized copy of the provided Covenant and Agreement and or previously reviewed and approved association CC&R's that include the necessary fuel modification information shall be recorded at the registrar-recorder/County clerk's office and a copy given to the Fuel Modification Unit prior to site inspection and release. The fuel modification inspection ensures compliance with applicable requirements of this code, the Building Code, Section 701A.5 (Vegetation management compliance), and the Residential Code, Section R327.1.5 (Vegetation management compliance). An on-site inspection must be conducted by the forestry division of the fire department and a final release issued by the forestry division prior to a certificate of occupancy being granted by the building code official.

4908.1.1 Plan modification.

Any modification to an approved fuel modification landscape plan or addition to a structure that affects the approved zones of an approved fuel modification plan must be

reviewed and approved by the Fuel Modification Unit of the fire department prior to installation of landscaping or issuance of a construction permit by the building code official for such an addition.

4908.1.2 Penalties.

An owner of a property found to be in non-compliance with the fuel modification requirements shall be subject to an administrative fine (Section 327) and applicable liens or assessments as allowed by the provisions of Title 1, Chapter 1.25 of the County Code and this code. Failure to comply with this code is punishable as a misdemeanor and subject to additional enforcement proceedings, including corrective measures which shall be done at the owners expense in accordance with Section 325.

4908.2 Appeals.

Any person who disagrees with any decision related to fuel modification plans may file a written appeal with the chief of the forestry division. The chief of the forestry division will adjudicate all policy interpretations relevant to fuel modification plan requirements and serve as the final authority in the appeals process.

4908.3 Fuel modification plan check fee schedule.

A plan check fee shall be payable to the fire department, upon the submission of any fuel modification plan, landscape plan, or irrigation plan for review and approval by the fire department. For the purpose of this section, any tent, yurt, or trailer subject to fuel modification plan review will be considered a structure and fees will be based on the intended use. The amount of the plan check fee, for each such plan, shall be calculated in accordance with the following:

\$407.00 for barns, garages, accessory structures; or

\$678.00 for new residential, commercial, or industrial structures less than 2,500 square feet in total area, or additions/modifications to existing residential, commercial, or industrial structures which increase the total square footage or footprint by 50 percent or more and which addition/modification or occupancy type change does not exceed 2,500 square feet in total area, or

\$678.00 for parcel maps/ lot splits of 4 or fewer parcels; or

\$1,356.00 for new residential, commercial, or industrial structures greater than 2,500 square feet in total area, or additions/modifications to existing residential, commercial, or industrial structures which increase the total square footage or footprint by 50 percent or more and which addition/modification or occupancy type change exceeds 2,500 square feet in total area, or

\$1,356.00 for tentative tract maps - preliminary plan approval; or

\$2,711.00 for tract maps containing 5 to 20 lots – final plan approval; or

\$4,067.00 for tract maps containing more than 20 lots - final plan approval.

Section 4908 is applicable to all unincorporated portions of Los Angeles County, to all cities that are a part of the Consolidated Fire Protection District of Los Angeles County, and to all cities that contract with the Consolidated Fire Protection District of Los Angeles County for services and adopt Section 4908 as part of their fire code. The fees in this Section 4908.3 shall be reviewed annually by the fire department.

Beginning on July 1, 2008, and thereafter on each succeeding July 1, the amount of each fee shall be adjusted as follows: calculate the percentage movement between

March of the previous year and March of the current year in the Consumer Price Index (CPI) for all urban consumers in the Los Angeles, Anaheim, and Riverside areas, as published by the United States Government Bureau of Labor Statistics. The adjusted fee shall be rounded to the nearest dollar; provided, however, notwithstanding any of the above, no fee shall exceed the cost of providing the service for which the fee is collected.

SECTION 148. Chapter 50--AUTOMOBILE WRECKING YARDS is hereby added to read as follows:

50 AUTOMOBILE WRECKING YARDS

5001 SCOPE.

Automobile wrecking yards shall comply with the requirements of Chapter 50.

For rubbish handling operations, see Chapters 3 and 13.

5002 DEFINITION

5002 Limited application.

For the purpose of Chapter 50, certain terms are defined as follows:

MOTOR VEHICLE FLUIDS are liquids which are flammable, combustible, or hazardous materials, such as crankcase fluids, fuel, brake fluids, transmission fluids, radiator fluids, and gear oil. This definition does not include liquids which are permanently sealed, such as hydraulic fluid within shock absorbers.

5003 PERMITS

Permits to operate automobile wrecking yards are required. See Section 105.6.45.

5004 FIRE APPARATUS ACCESS ROADS

Fire apparatus access roads shall be constructed and maintained throughout the site in accordance with Section 503 of this code. Aisles or passageways shall be provided so as to allow fire department hose streams to reach all stored items and material.

5005 WELDING AND CUTTING

Welding and cutting operations shall be in accordance with Chapters 26 and 30 of this code.

5006 HOUSEKEEPING

Combustible rubbish accumulated on the site shall be collected and stored in approved containers, rooms, or vaults of noncombustible materials. Combustible vegetation, cut or uncut, shall be removed when determined by the fire code official to be a fire hazard.

5007 FIRE PROTECTION

Offices, storage buildings, and vehicles used for site operations shall each be provided with at least one portable fire extinguisher with a rating of not less than 4-A: 40-B: C. When required by the fire code official, additional portable fire extinguishers shall be provided in specific use areas in accordance with Section 906.

5008 TIRES

Tires shall be stored on racks in an approved manner or shall be piled in accordance with Chapter 25 and Sections 315.3 and 4605.

5009 BURNING OPERATIONS

The burning of salvage vehicles and salvage or waste materials shall be in accordance with section 307 and federal, state, or local air quality control regulations.

5010 MOTOR VEHICLE FLUIDS AND HAZARDOUS MATERIALS

5010.1 General.

The storage, use, and handling of motor vehicle fluids and hazardous materials, such as those used to operate air bags and electrical systems, shall be in accordance with Section 5010 and Chapters 22, 27 and 34.

5010.2 Motor vehicle fluids.

Motor vehicle fluids shall be drained from salvage vehicles when such fluids are leaking. Storage and handling of motor vehicle fluids shall be done in an approved manner. Flammable and combustible liquids shall be stored and handled in accordance with Chapters 22, 27, and 34.

5010.3 Mitigation for vehicle fluid leaks.

Supplies or equipment capable of mitigating leaks from fuel tanks, crankcases, brake systems, and transmissions shall be kept available on site. Single-use plugging, diking, and absorbent materials shall be disposed of as hazardous waste and removed from the site in a manner approved by federal, state, or local requirements.

5010.4 Lead-acid batteries.

Lead-acid batteries shall be removed from salvage vehicles when such batteries are leaking. Lead-acid batteries that have been removed from vehicles shall be stored in an approved manner.

SECTION 149. Chapter 51--INFRACTIONS is hereby added to read as follows:

51 **INFRACTIONS**

5101.1 **Offenses deemed infractions.**

In accordance with Section 109.3, the violation of the following sections or subsections shall be infractions:

Section	Offense
303.1 – 303.9	Asphalt kettles
304.1 -304.1.3	Waste combustibles
304.2	Combustible waste rubbish— storage
305.2	Hot ashes and spontaneous ignition sources
310. 4	Removal "No smoking" sign
315.2.2.1	Stairway— storage under
503.4	Obstructing access roadway
505.1	Address identification
507.5.4 – 507.5.5	Obstruction of fire hydrants
507.5.6	Physical protection – fire hydrants
507.5.7	Fire fighting water source markers
507.5.8	Identification – private fire hydrant
507.5.9	Private fire hydrant caps or plugs
507.5.13	Identification – above ground water control valves

605.5	Electrical extension cords
901.7	Failure to notify fire department
901.11	Signs – above ground water control valves
901.12	Locks – above ground water control valves
906.1 – 906.10	Fire extinguishers
912.4	Sign – Fire department connection
912.7	Identification - Fire department connection
912.8	Breakable caps or plugs-fire department connection
1007.9	Exit doors identification
1008.1.9.1	Door— locking devices
1103.2	"No Smoking" signs within aircraft hangers
1208.4	Fire extinguisher— dry cleaning plant
1208.5	No smoking signs— dry cleaning plant
1503.2.7	Welding warning signs
1503.4	Operations and maintenance
1503.4.3	Metal waste cans for rags and waste
1504.7.8.5	Filter disposal
1505.3.4	Dip tank covers
1505.4.2	Portable fire protection equipment
1506.5	Maintenance— powder coating
1507.1	Maintenance—electrostatic apparatus

1507.5.2	Signs— "Dangerous"
1508.5	Sources of ignition (organic peroxides)
1605.1	Housekeeping— fruit ripening room
1903.3.1	Lumber yards— housekeeping
1903.3.1.1	Lumber yards— weeds
2211.2.2	Waste oil storage
2403.12.6.1	Exit sign illumination
2404.21	Vegetation removal
2703.5	Hazardous materials signage
2703.7.1	No smoking signs—hazardous materials
2704.11	Combustible materials—clearance—hazardous materials storage
2705.3.8	Combustible materials—clearance—hazardous materials use
3003.4	Markings—compressed gases
3003.5	Security—compressed gases
3401.6	Maintenance and operating practices—flammable and combustible liquids
3404.2.3.1	"No smoking" sign
3404.3.3.4	Empty containers
3807.2	"No smoking" signs— LPG container
3807.3	Combustible material—clearance-LPG container

4503.2	Open flame device— boat or marina
4503.4	Rubbish containers--marina
4504.4	Portable fire extinguishers--marinas
4604.3	Sign illumination
4811.9	Fire Dept. access--motion picture production locations
4811.12	Blocked or obstructed fire hydrants and appliances
4811.13	Failure to provide fire extinguishers at production sites
5004	Auto wrecking yards— fire access

5101.2 Penalties for infractions.

Every violation determined to be an infraction is punishable by a fine not to exceed \$100 for the first violation, \$200 for the second, \$500 for the third, and \$500 for each additional violation of the same ordinance within one year. Each such violation is a separate offense for each and every day during any portion of which such violation is committed or allowed to continue. For the purposes of this section a forfeiture of bail shall be equivalent to a conviction.

SECTION 150. Chapter 52--CONSOLIDATED FIRE PROTECTION

DISTRICT CODE is hereby added to read as follows:

52 CONSOLIDATED FIRE PROTECTION DISTRICT CODE

5201 Fire Code.

Title 32 (Fire Code) of the Los Angeles County Code is hereby adopted and incorporated herein by reference at this point as if set forth at length herein as the Fire

Code for the Consolidated Fire Protection District of Los Angeles County (District).

A copy of Title 32 of the Los Angeles County Code has been filed in the executive office of the Board of Supervisors and shall be at all times maintained by the executive office for use and inspection by the public.

5202 Areas regulated.

The District finds and declares that the District Fire Code does not occupy the whole area of any subject matter regulated or covered therein except where the District Fire Code expressly states its intent to occupy the whole area of any subject matter regulated or covered therein.

Thus, in enacting this ordinance, it is not the intent of the District to preempt or otherwise nullify any other local ordinance containing different standards and protections.

5203 Applicability.

Except as provided in California Health and Safety Code section 13869.7, the District Fire Code shall apply to, and be enforceable in, all areas, including cities, served by the District.

SECTION 151. Appendix B, Section B104.2 is hereby amended to read as follows:

B104.2 Area separation.

Portions of buildings which are separated by fire walls without openings, constructed in accordance with the ~~California~~Los Angeles County Building Code, are

allowed to be considered as separate fire-flow calculation areas. Fire barriers or fire partitions cannot be used to create separate fire-flow calculation areas.

SECTION 152. Appendix B, Section B105.1 is hereby amended to read as follows:

B105.1 ~~One —and two—~~**family dwellings.** The minimum fire-flow requirements for ~~one-and two~~ family dwellings having a fire-flow calculation area which does not exceed 3,600 square feet (344.5 m²) shall be as follows:

1. For dwellings located on a lot of one acre or more, which are not located in a High or Very High Fire Hazard Severity Zones, the fire-flow shall be 750 gallons per minute (2839 L/min) for a duration of two hours and public hydrants shall be spaced not more than 600 feet apart.

2. For dwellings located on a lot less than one acre, which are not located in a High or Very High Fire Hazard Severity Zones, the fire-flow shall be 1250 gallons per minute (4732 L/min) for a duration of two hours and public hydrants shall be spaced not more than 600 feet apart.

3. For dwellings located on a lot of one acre or more in High and Very High Fire Hazard Severity Zones, the fire-flow shall be 1000 gallons per minute (3785.4 L/min) for a duration of two hours and public hydrants shall be spaced not more than 600 feet apart.

4. For dwellings located on a lot less than one acre in High and Very High Fire Hazard Severity Zones, the fire-flow shall be 1250 gallons per minute

(4731.8 L/min) for a duration of two hours and public hydrants shall be spaced not more than 600 feet apart. 1,000 gallons per minute (3785.4 L/min).

Fire-flow and flow duration for one-family dwellings having a fire-flow calculation area in excess of 3,600 square feet (344.5 m²) shall not be less than that specified in Table B105.1.

Exception: For one-family dwellings having a fire-flow calculation area in excess of 3,600 square feet (344.5 m²), a reduction in required fire-flow of up to 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of this code. The resulting fire-flow shall not be less than 1,000 gallons per minute for the prescribed duration as specified in Table B105.1.

SECTION 153. Appendix B, Section B105.1.1 is hereby added to read as follows:

B105.1.1 Two-family dwellings.

The minimum fire-flow requirements for two-family dwellings having a fire-flow calculation area which does not exceed 3,600 square feet (344.5 m²) shall be 1,500 gallons per minute (5678 L/min). Fire-flow and flow duration for two-family dwellings having a fire-flow calculation area in excess of 3,600 square feet (344.5 m²) shall not be less than that specified in Table B105.1.

Exception: A reduction in required fire-flow of up to 50 percent, as approved, is allowed for two-family dwellings when the building is provided with an approved

automatic sprinkler in accordance with Section 903.3.1.3 of this code. The resulting fire-flow shall not be less than 2,000 gallons per minute for the prescribed duration as specified in Table B105.1.

SECTION 154. Appendix B, Section B105.2 is hereby amended to read as follows:

B105.2 Buildings other than one- and two-family dwellings. The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table B105.1.

EXCEPTION: A reduction in required fire-flow of up to ~~75~~50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than ~~4,500~~2,000 gallons per minute (5678 L/min) for the prescribed duration as specified in Table B105.1.

...

SECTION 155. Appendix B, Section B105.3 is hereby added to read as follows:

B105.3 Mobile home parks.

The required fire-flow for mobile home parks located in the Very High Fire Hazard Severity Zones shall be 4,000 gallons per minute (15141.6 L/min) for a duration of two hours and with public hydrant spacing of not more than 600 feet apart. For recreational buildings located within a mobile home park, the fire-flow and duration shall be according to the fire-flow calculation area set forth in Table B105.1. For mobile

home parks not located in the Very High Fire Hazard Severity Zones, the required fire-flow shall be 1250 gallons per minute (4731.8 L/min) for a duration of two hours and with public hydrant spacing of not more than 600 feet apart.

SECTION 156. Appendix B, Section B105.4 is hereby added to read as follows:

B105.4 Land subdivision projects.

For the subdivision of undeveloped land, due to the undetermined building size and type of construction, the required fire-flow shall be 5,000 gallons per minute (18927 L/min) for a duration of five hours with public hydrant spacing of 300 feet. The required fire-flow for the subdivision of land consisting of lots having existing structures shall be in accordance with Table B105.1 for fire-flow and duration.

SECTION 157. Appendix C, Section C102.2 is hereby added to read as follows:

C102.2 Location on street.

Public hydrants shall be required on both sides of the street whenever streets have raised median center dividers that make access to hydrants difficult, cause time delays, and/or creates an undue hazard as determined by the fire code official.

SECTION 158. Appendix C, Section C105.2 is hereby added to read as follows:

C105.2 One-family dwelling.

For one-family dwellings, fire hydrants shall be spaced no more than 600 feet apart. For urban properties with more than one dwelling unit per acre, no portion of lot

frontage should be more than 450 feet via vehicular access away from a public hydrant. For non-urban properties less than one dwelling unit per acre, no portion of a structure shall be farther than 750 feet away via vehicular access from a properly spaced public hydrant that meets the required fire-flow.

C105.2.1 Cul-de-sac hydrant location.

When cul-de-sac depth exceeds 450' (residential) or 200' (commercial), hydrants shall be required at mid-block. Additional hydrants will be required if hydrant spacing exceeds specified distances.

C105.2.2 Buildings other than one-family dwelling units.

For all occupancies other than one-family dwellings, including commercial, industrial, multi-family dwellings, private schools, institutions, fire hydrant spacing shall be 300 feet. No portion of lot frontage shall be more than 200 feet via vehicular access from a public hydrant. No portion of a building shall exceed 400 feet via vehicular access from a properly spaced public hydrant.

SECTION 159. Appendix C, Section C106 is hereby added to read as follows:

C106 On-site hydrants.

When any portion of a proposed structure exceeds the allowable distances from a public hydrant, via vehicular access, on-site hydrants shall be provided. The spacing distance between on-site hydrants shall be 300 to 400 feet. All on-site fire hydrants shall have, at a minimum, a fire-flow of 1,250 gallons per minute at 20 psi for a duration of two hours. If more than one on-site fire hydrant is required, the fire-flow shall

be in accordance with Table B105.1. All on-site hydrants shall be installed a minimum of 25 feet from a structure or protected by a two-hour firewall.

Exception: For fully sprinklered multi-residential structures, on-site hydrants may be installed a minimum of 10 feet from the structure.

SECTION 160. Appendix K is hereby added to read as follows:

APPENDIX K - ROOF OBSTRUCTIONS

K101.1 Scope

This appendix shall apply to the design, construction, and installation of all solar photovoltaic systems, roof gardens, and landscaped roofs when located on the roof of a building.

Exception: Buildings that are four or more stories in height and protected with an approved automatic fire extinguishing system throughout.

Non-habitable structures include, but are not limited to, shade structures, private carports, solar trellises, etc.

K101.2 Permits.

The fire code official shall review and approve the installation of roof solar photovoltaic systems, roof gardens, landscaped roofs on building that obstruct more than 50 percent or 10,000 square feet of the total roof surface area of a building prior to the building code official issuing a permit for the installation for such roof obstructions.

See Section 105.7 for required construction permits.

K101.3 Required construction document information.

All roof top installations submitted for approval shall include the following:

Site plan to scale depicting the following:

Dimensions of the building

Location of all structures on site.

Street address of building.

Access from street to building.

Location of roof top solar arrays, gardens, or landscaped areas.

Location of disconnects.

Location of signage.

Location of required access paths.

Northern reference

Roof and Elevation plan showing the following:

Array or landscape placement.

Roof ridge lines.

Eave lines.

Equipment on roof.

Vents, skylights, roof hatches, etc.

Location and wording of all markings, labels and warning signs.

Building photographs that may be useful in the evaluation of the garden, landscaping, or array placement.

K102.1 Definitions.

For the purpose of this appendix, certain terms are defined as follows:

ACCESS PATHWAY. A required walking pathway that is designed to provide emergency access to firefighters.

ARRAY. An uninterrupted section of solar photovoltaic panels or modules or a group of interconnected sub-arrays.

GRID. The electrical system that is on the service side of the electric meter. Designation of ridge, hip, and valley does not apply to roofs with 2-in-12 or less pitch. All roof dimensions are measured to centerlines.

INVERTER. A device used to convert direct current (DC) electricity from the solar system to alternating current (AC) electricity for use in the building's electrical system or the grid.

LANDSCAPED ROOF. Vegetative landscaping located on the roof of a building that utilizes growing media and structures or containers to support the growth of vegetation.

ROOF ACCESS POINT. An area that does not require ladders to be placed over building openings (i.e., windows, vents, or doors), and that are located at structurally strong points of building construction and in locations where ladders will not be obstructed by tree limbs, wires, signs, or other overhead obstructions.

ROOF GARDEN. A garden located on the roof of a building that utilizes growing media and structures or containers to support the growth of vegetation.

SOLAR PHOTOVOLTAIC SYSTEM. A system of component parts that receives sunlight and converts it into electricity.

SUB-ARRAY. Uninterrupted sections of solar photovoltaic panels interconnected into an array.

TRAVEL DISTANCE. The walking distance between two points.

VENTING CUT-OUT. Section(s) in an array that are designed to accommodate emergency ventilating procedures.

K103.1. Solar photovoltaic systems.

The requirements of Section K103 apply to all solar photovoltaic systems installed on the roofs of buildings regardless of system size or if used for residential or commercial purposes. Roof solar photovoltaic systems shall be designed, constructed and installed in accordance with Sections K103.2 through K103.5.3.

K103.2 Marking.

Photovoltaic systems shall be marked. Marking is needed to provide emergency responders with appropriate warning and guidance with respect to isolating the solar electric system. This can facilitate identifying energized electrical lines that connect the solar panels to the inverter, as these should not be cut when venting for smoke removal. Materials used for marking shall be weather resistant. UL 969 shall be used as a standard for weather rating (UL listing of markings is not required).

K103.2.1 Electrical system main service disconnect marking.

The main electrical service disconnect on a building shall be marked.

K103.2.1.1 One- and two-dwelling unit residential buildings.

The marking shall be placed within the main service disconnect.

Exception: If the main service disconnect is operable with the service panel closed, then the marking shall be placed on the outside cover.

K103.2.1.2 Commercial and industrial buildings.

The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the lever is operated.

K103.2.1.3 Marking content and format.

Marking content and format shall be as follows.

1. Marking content: "CAUTION: SOLAR ELECTRIC SYSTEM
CONNECTED"
2. Red background
3. White lettering
4. Minimum 3/8" letter height
5. All capital letters
6. Arial or similar font, non-bold
7. Reflective weather resistant material suitable for the environment (durable adhesive materials must meet this requirement)

K103.2.2 Photovoltaic circuits marking.

Photovoltaic circuit marking is required on all interior and exterior photovoltaic DC circuit conduit, raceways, enclosures, cable assemblies, and junction boxes to alert firefighters to avoid cutting them. Marking shall be placed every 10 feet, at turns, and

above and/or below penetrations, and at all photovoltaic circuit combiner and junction boxes.

K103.2.2.1 Marking content and format.

Marking content and format shall be as follows.

1. Marking content: "CAUTION: SOLAR CIRCUIT"
2. Red background
3. White lettering
4. Minimum 3/8" letter height
5. All capital letters
6. Arial or similar font, non-bold
7. Reflective weather-resistant material suitable for the environment (durable

adhesive materials must meet this requirement)

K103.2.3 Inverter marking.

No markings are required for the inverter unless the inverter is used also as a required remote electrical disconnect.

K103.2.4 Remote electrical disconnect marking.

Marking shall be located immediately next to the remote electrical disconnect control as follows:

1. Marking content: "CAUTION: SOLAR CIRCUIT DISCONNECT"
2. Red background
3. White lettering
4. Minimum 3/8" letter height

5. All capital letters
6. Arial or similar font, non-bold
7. Reflective weather-resistant material suitable for the environment (durable adhesive materials must meet this requirement)

K103.3 Remote electrical disconnect.

Photovoltaic circuits shall be equipped with a means for remote electrical disconnect located downstream from the photovoltaic array at the point where the photovoltaic circuit first enters the structure, or at another approved location. The manual control to operate the remote electrical disconnect shall be located within five feet of the building's main electrical panel. The remote electrical disconnect shall be listed and meet the requirements of the California Electrical Code.

Exceptions:

1. Photovoltaic circuits contained in rigid or electrical metallic tubing running between the array combiner box and the main electrical panel which are entirely exterior to the building need not be equipped with a means of remote electrical disconnect other than the disconnects intrinsic to the system.
2. Photovoltaic circuits contained in rigid or electrical metallic tubing running between the array combiner box and the main electrical panel that run through the interior of the building when installed a minimum of 18" below the roof assembly when measured parallel to the surface of the roof.

K103.4 Access pathways and emergency ventilation.

Access and spacing requirements shall be provided in order to ensure firefighter access to the roof, provide access pathways to specific areas of the roof, provide for venting cut-out areas, and to provide emergency egress from the roof. For the purpose of access pathways and emergency ventilation, designation of ridge, hip, and valley does not apply to roofs with 2-in-12 or less pitch. All roof dimensions are measured to centerlines.

K103.4.1 Alternative materials and methods.

Alternative materials and methods per Section 104.9 for access pathways or venting cut-outs may be requested for approval by the fire code official due to:

1. Unique site specific limitations
2. Alternative access opportunities (as from adjoining roofs)
3. Ground level access to the roof area in question
4. Other adequate venting cut-out opportunities when approved by the fire code official.
5. Adequate venting cut-out areas afforded by panel set back from other roof top equipment (for example: shading or structural constraints may leave significant areas open for ventilation near HVAC equipment.)
6. Automatic ventilation device.
7. New technology, methods, or other innovations that ensure adequate fire department access pathways and ventilation opportunities.

K103.4.2 One- and two-dwelling unit residential buildings access pathways and venting cut-outs.

Access pathways and venting cut-outs for one and two dwelling unit residential buildings shall be provided as per Sections K103.4.2.1 through K103.4.2.4.

K103.4.2.1 Hip roof layout.

Solar modules shall be located in a manner that provides one three (3') foot wide clear access pathway from the eave to the ridge on each roof slope where solar modules are located. The access pathway shall be located at a structurally strong location on the building, such as a bearing wall.

K103.4.2.2 Single roof ridge.

Solar modules shall be located in a manner that provides two three (3') foot wide access pathways from the eave to the ridge on each roof slope where solar modules are located.

K103.4.2.3 Roof hips and valleys.

Solar modules shall be located no closer than one and one half (1.5') feet to a hip or a valley if modules are to be placed on both sides of a hip or valley. If the solar modules are to be located on only one side of a hip or valley, that is of equal length then the panels may be placed directly adjacent to the hip or valley.

K103.4.2.4 Venting cut-out areas.

Solar modules shall be located no higher than three (3') feet below the ridge.

K103.4.3 Commercial and industrial buildings and multi-residential buildings containing three or more dwelling units required access pathways and venting cut-outs.

Access pathways and venting cut-outs for commercial and industrial buildings and multi-residential buildings containing three or more dwelling units shall be provided as accordance with Sections K103.4.3.1 through K103.4.3.2.6.

Exception: If the fire code official determines that the roof configuration is similar to that found in single and two-dwelling unit residential buildings, the design requirements found in Section K103.4.2 may be utilized.

K103.4.3.1 Array dimension.

Arrays shall be no greater than 150 feet by 150 feet in distance in either axis.

K103.4.3.2 Access pathways.

Access pathways shall be established in the design of the photovoltaic system installation. Access pathways shall be provided in accordance with Sections K103.4.3.2.1 through K103.4.3.2.5.

K103.4.3.2.1 Access pathways perimeter of the roof.

There shall be a minimum six (6') foot wide clear perimeter around the edges of the roof.

Exception: If either axis of the building is 250 feet or less, there shall be a minimum four (4') feet wide clear perimeter around the edges of the roof.

K103.4.3.2.2 Access pathway location.

The center line axis of access pathways shall run on structural members or over the next closest structural member nearest to the center lines of the roof.

K103.4.3.2.3 Access pathway center line.

The center line axis of access pathways shall be provided in both axis of the roof.

K103.4.3.2.4 Access pathway alignment.

Access pathways shall run in a straight line, shall be not less than four (4') feet in width, and shall provide not less than four (4') feet of clearance around skylights, ventilation hatches, or roof standpipes.

K103.4.3.2.5 Access pathway around roof access hatches.

Access pathways shall provide not less than four (4') feet of clearance around roof access hatches with at least one not less than four feet (4') wide clear pathway to a parapet or roof edge.

K103.4.3.2.6 Venting cut-out areas.

Venting cut-outs between array sections shall be either:

1. An access pathway eight (8') feet or greater in width.
2. An access pathway that is four (4') feet or greater in width and bordering on existing roof skylights or ventilation hatches.
3. An access pathway that is four (4') feet or greater in width and bordering four (4') feet by eight (8') feet venting cut-outs every twenty (20') feet on alternating sides of the access pathway.

K103.5 Location of conductors.

Conduit, wiring systems and wiring raceways for photovoltaic circuits shall be provided in accordance with Sections K103.5.1 through K103.5.3.

K103.5.1 Conductor location.

Conduit, wiring systems, and wiring raceways shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize venting cut-out areas.

K103.5.2 Conductors between sub arrays and DC combiner boxes.

Conduit runs between sub-arrays and to DC combiner boxes shall use the design that minimizes the total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes are to be located such that conduit runs are minimized in the pathways between arrays.

K103.5.3 Conduit within enclosed spaces.

To limit the hazard of cutting live conduit in venting operations, DC wiring shall be run in metallic conduit or raceways when located within enclosed spaces in a building and shall be run, to the maximum extent possible, along the bottom of load-bearing members.

K104.1 Roof gardens and landscaped roofs.

The requirements of Section K104 apply to all roof gardens and landscaped roofs regardless of size or if used for residential and commercial purposes. Roof gardens

and landscaped roofs shall be designed, constructed and installed in accordance with Sections K104.2 through K104.3.

K104.2 Access pathways and emergency ventilation.

Access and spacing requirements shall be provided in order to ensure firefighter access to the roof, provide access pathways to specific areas of the roof, provide for venting cut-out areas, and to provide emergency egress from the roof. For the purpose of access pathways and emergency ventilation, designation of ridge, hip, and valley does not apply to roofs with 2-in-12 or less pitch. All roof dimensions are measured to centerlines.

K104.2.1 Alternative materials and methods.

Alternative materials and methods per Section 104.9 for access pathways or venting cut-outs may be requested for approval by the fire code official due to:

1. Unique site specific limitations
2. Alternative access opportunities (as from adjoining roofs)
3. Ground level access to the roof area in question
4. Other adequate venting cut-out opportunities when approved by the fire code official.
5. Adequate venting cut-out areas afforded by panel set back from other roof top equipment (for example: shading or structural constraints may leave significant areas open for ventilation near HVAC equipment.)
6. Automatic ventilation device.

7. New technology, methods, or other innovations that ensure adequate fire department access pathways and ventilation opportunities.

K104.2.2 One- and two-dwelling unit residential buildings.

Installation of roof gardens and landscaped roofs on one and two-dwelling unit residential buildings shall be in accordance with Sections K104.2.2.1 through K104.2.2.3.

K104.2.2.1 Hip roof design:

Planted sections shall be located in a manner that provides a three (3') foot wide clear access pathway from the eave to the ridge on each roof slope where the planted sections are located. The access pathway shall be located at a structurally strong location on the building such as a bearing wall.

K104.2.2.2 Single ridge roof design:

Planted sections shall be located in a manner that provides two three (3') foot wide access pathways from the eave to the ridge on each roof slope where the planted sections are located.

K104.2.2.3 Hips and valleys:

Planted sections shall be located no closer than one and one half (1.5') feet to a hip or a valley if planted sections are to be placed on both sides of a hip or valley. If the planted sections are to be located on only one side of a hip or valley that is of equal length then the planted sections may be placed directly adjacent to the hip or valley. Planted sections shall not be located closer than three feet (3') below the ridge.

K104.2.3 Commercial and industrial buildings and multi-residential buildings containing three or more dwelling units required access pathways and venting cut-outs.

Access pathways and venting cut-outs for commercial and industrial buildings and multi-residential buildings containing three or more dwelling units. Access pathways shall be provided in accordance with Sections K104.2.3.1 through K104.2.3.6.

Exception: If the fire code official determines that the roof configuration is similar to that found in single and two-dwelling unit residential buildings, the design requirements found in Section K104.2.2 may be utilized.

K104.2.3.1 Planted dimension.

Planted sections shall be no greater than 150 feet by 150 feet in distance in either axis.

K104.2.3.2 Access pathways:

Access pathways shall be established in the design of the roof garden or landscaped roof installation. Access pathways shall meet the requirements of this section.

K104.2.3.2.1 Access pathways perimeter of the roof.

There shall be a minimum six (6') foot wide clear perimeter around the edges of the roof.

Exception: If either axis of the building is 250 feet or less, there shall be a minimum four (4') feet wide clear perimeter around the edges of the roof.

K104.2.3.2.2 Access pathway location.

The center line axis of access pathways shall run on structural members or over the next closest structural member nearest to the center lines of the roof.

K104.2.3.2.3 Access pathway center line.

The center line axis of the access pathways shall be provided in both axis of the roof.

K104.2.3.2.4 Access pathway alignment.

Access pathways shall run in a straight line, shall be not less than four (4') feet in width, and shall provide not less than four (4') feet of clearance around skylights, ventilation hatches, or roof standpipes.

K104.2.3.5 Access pathway around roof access hatches.

Access pathways shall provide not less than four (4') feet of clearance around roof access hatches with at least one not less than four feet (4') wide clear pathway to a parapet or roof edge.

K104.2.3.6 Venting cut-out areas.

Venting cut-outs between planted sections shall be either:

1. An access pathway eight (8') feet or greater in width.
2. An access pathway that is four (4') feet or greater in width and bordering on existing roof skylights or ventilation hatches.
3. An access pathway that is four (4') feet or greater in width and bordering four (4') feet by eight (8') feet venting cut-outs every twenty (20') feet on alternating sides of the access pathway.

K104.3 Roof garden or landscaped roof maintenance plan.

The fire code official is authorized to require an approved maintenance plan for vegetation placed on roofs due to the size of the garden or landscaping area, or if materials and plants used may create a fire hazard to the building or exposures.

SECTION 161. Appendix L, Section 1.1 is hereby added to read as follows:

1.1 DEFINITION

RIFLE RANGE.

Any indoor or outdoor firing, shooting, or target range established, maintained or operated for the discharge of a rifle, pistol, revolver, shotgun, or firearm.

SECTION 162. Appendix L, Section 3 is hereby amended to read as follows:

3. Qualifications of range officer

To qualify as a range officer, individuals shall demonstrate to the fire code official and chief law enforcement officer their knowledge of firearms and ammunition, including the general rules of safety and the provisions of this code relative thereto. ~~Qualified range officers shall possess a valid certificate of fitness.~~ Individuals shall possess a valid certificate stating he or she is a qualified range officer.

SECTION 163. APPENDIX M, Section 1 is hereby amended to read as follows:

1 Designation.

Fire Hazard Severity Zones, as defined in Section ~~4702-14902.1~~ of this code, are hereby designated in those areas as specified in Sections 3 and 4 of Appendix M. See Chapter ~~4749~~.

SECTION 164. Appendix M, Section 3 is hereby amended to read as follows:

3 Designation of Incorporated Cities.

The following incorporated cities are designated as being located in the Local Agency Very High Fire Hazard Severity Zones:

All that part of the incorporated areas of the Consolidated Fire Protection District of Los Angeles County within the following:

Agoura Hills, Azusa, Bradbury, Calabasas, Claremont, Covina, Diamond Bar, Duarte, Glendora, Hidden Hills, Irwindale, La Canada/Flintridge, La Habra, La Mirada, Malibu, Palmdale, Palos Verdes Estates, Pomona, Rancho Palos Verdes, Rolling Hills, Rolling Hills Estates, San Dimas, Santa Clarita, Walnut, Westlake Village, and Whittier.

SECTION 165. Appendix M, Section 4 is hereby amended to read as follows:

4 Designation of Unincorporated Areas.

The following unincorporated areas are designated as being located in the Fire Hazard Severity Zones:

All that part of the unincorporated areas of Los Angeles County, unless otherwise indicated on the Unincorporated Los Angeles County Fire Hazard Severity Zone Map published by the California Department of Forestry and Fire Protection, within the following:

Angeles National Forest, City of Hidden Hills, Parcels between the City of Agoura Hills and the City of Calabasas, Santa Monica Mountains, Parcels South of the City of

Diamond Bar, Parcels North of the City of Whittier, San Dimas, Covina, West Covina, Parcels located East of the Cities of Covina and West Covina, Universal City, Parcels West of Rolling Hills, Baldwin Hills, Catalina Island, Claremont, Claremont Island, Glendora, Azusa, La Habra Heights, Whittier, West Hills and Valley Boulevard, the Malibu-Santa Monica Mountains Area, and the San Gabriel Mountains Southface Area.

SECTION 166. Findings in Support of Adoption of More Restrictive Building Standards.

The provisions of this ordinance contain various changes, modifications, and additions to the 2010 California Fire Code. Some of those changes are administrative in nature in that they do not constitute changes or modifications to requirements contained in the building standards adopted by the State Fire Marshall and published in the California Building Standards Code. Pursuant to Health and Safety Code sections 17958.5, 17958.7, and 189415, the Board of Supervisors hereby expressly finds and determines that all of the changes and modifications to requirements contained in the building standards published in the California Building Standards Code, contained in this ordinance, which are not administrative in nature, are reasonably necessary because of local climatic, geological, or topographical conditions in the County of Los Angeles and in the Consolidated Fire Protection District of Los Angeles County. This expressed finding is supported and based upon the following more specific determinations:

CLIMATIC - The County of Los Angeles is located in an area subject to climatic conditions with long periods of low humidity and hot weather, combined with

unpredictable seasonal high winds (Santa Ana wind conditions), resulting in increased exposure to fire risk. This combination of events creates an environment that is conducive to rapidly spreading fires. Control of such fires requires rapid response. With the time that is required to deal with potential obstacles from the wind, such as fallen trees, street lights, and utility poles, in addition to the time required to climb 75 feet vertically up flights of stairs, the ability to respond rapidly is negatively impacted. Additionally, there is a significant increase in the amount of wind at 60 feet above the ground. Use of aerial-type fire fighting apparatus above this height would place rescue personnel at increased risk of injury. High winds will also cause burning embers to become airborne resulting in the rapid spread of a fire to nearby structures. Immediate containment of a fire is the only method by which it can be controlled during high wind conditions. In high fire severity zones, a unique combination of low humidity, strong winds, and dry vegetation exists.

GEOLOGICAL - The County of Los Angeles is located in the middle of the seismically active area identified as Seismic Zone 4. The viability of the public water system would be questionable at best after a major seismic event. Tall buildings would become vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of any available water to floors above the 55-foot level. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create significant physical obstacles and logistical challenges. With the probability of strong aftershocks, there exists a need to provide increased protection for anyone on upper floors.

Geological conditions created by the numerous faults will result in increased fire danger to structures, delayed fire department response, and unique rescue challenges. Seismic events of sufficient magnitude will cause substantial damage to structures. These damages are likely to be accompanied by a substantial number of fires that may exceed the fire department suppression capabilities. Accordingly, built-in fire suppression systems provide the only adequate measure to mitigate the potential hazards from and damage caused by such fires.

The County of Los Angeles is subject to occasional severe rainstorms. The impacts from these rainstorms are exacerbated if hillside areas have been burned by wildland fires because significant mud and debris flows can occur. Mud and debris flows can impair fire department access or delay response times if access roads are obstructed by mud or debris.

TOPOGRAPHICAL - The topographical conditions of the County of Los Angeles includes many mountains, hills, and canyons which tend to accelerate the periodic high-velocity winds by means of a venturi effect. These canyon winds and the significant growth of vegetation of a combustible nature increase the fire danger. Additionally, long periods of dry, hot weather, combined with unpredictable seasonal winds (Santa Ana wind conditions) result in increased exposure to fire risk. The hillside areas have access roads that are narrow, steep, and contain many sharp curves, all of which makes timely response by large fire apparatus difficult.

The specific sections of this code that constitute more restrictive building standards are identified in the table set forth below. The more restrictive building

standards contained in this code and identified in the table below shall be applicable only in those cities served by the District which have ratified the aforesaid sections in accordance with California Health and Safety Code section 13869.

Section	Local Condition	Explanation and Findings
304.1.2 – Vegetation	Climatic and Topographical	Local amendment requiring brush clearance in order to maintain defensible space for fire operations that is necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize the spreading of fire to structures.
315.2.2.1 – Storage under stairways	Climatic	Prevents storage of combustible materials under stairways to help prevent fire in stairways from preventing safe exit in event of fire. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
325.1.1 – Support clearance	Climatic and Topographical	Local amendment requiring brush clearance under electrical transmission lines in order to prevent fires caused by powerlines and to maintain defensible space for fire operations that is necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize the spreading of fire to structures.
325.1.2 – Line clearance	Climatic and Topographical	Local amendment requiring clearance away from electrical transmission lines in order to prevent fires caused by powerlines and to maintain defensible space for fire operations that is necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize the spreading of fire to structures.
325.1.3 – Self-supporting aerial cable	Climatic and Topographical	Local amendment requiring clearance of trees and other growth from aerial cables in order to prevent fires and to maintain defensible space for fire operations that is necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize the spreading of fire to structures.

325.2.1 – Clearances	Climatic and Topographical	Local amendment creating defensible space for fire operations that is necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize the spreading of fire to structures.
325.2.2 – Extra Hazard	Climatic and Topographical	Local amendment creating defensible space for fire operations that is necessary due to Los Angeles County's unique climate and topography to reduce risk of fire, to minimize impacts of fire in fire hazard severity zone, and to reduce possibility of wildland fires spreading to structures.
325.10 – Roadway Clearance	Climatic and Topographical	Local amendment requiring clearance of roadways to provide adequate access for firefighting apparatus, to create defensible space for fire operations, and to reduce the possibility of wildland fires spreading to structures Necessary due to Los Angeles County's unique climate and topography.
326.7 – Fire protection facilities required	Climatic, Geological, and Topographical	Local amendment to require fire safety measures including but not limited to water supply, firebreaks, posting of fire watchers, access roads, restriction of activities during high fire hazard and other conditions to maintain reasonable fire safety. Necessary due to Los Angeles County's unique climate and topography to reduce risk of fire, to reduce the possibility of wildland fires spreading to structures, and to minimize impacts of fire. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
326.12.2 - Chimneys	Climatic and Topographical	Local amendment to reduce the threat of fires by requiring spark arrestors on chimneys that is necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize impacts of fire. Such spark arrestors reduce the likelihood of embers exiting a chimney and igniting a fire.
326.14 – Roadway Clearance	Climatic and Topographical	Local amendment requiring clearance of roadways to provide adequate access for firefighting apparatus, to create defensible space for fire operations, and to reduce the possibility of wildland fires spreading to structures Necessary due to Los Angeles County's unique climate and topography.

503.1.2 – Additional access	Climatic, Geological, and Topographical	Provides for additional access requirements necessary because of terrain, climate or other factors that limit access. Necessary to ensure adequate response times due to the unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
503.2.1 – Dimensions	Climatic, Geological, and Topographical	Requires unobstructed clearance to sky on fire apparatus access roads with exception for protected tree species. Necessary to prevent obstruction of access roads by tree limbs or other obstructions and thus allow for quick response times to fires and other emergencies. Necessary to ensure adequate response times due to the unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
503.2.5 - Dead-ends	Climatic, Geological, and Topographical	Provides for more stringent width, turning radius and grade specifications for access roads to ensure access for fire apparatus. Necessary due to unique climatic and topographical conditions that increase the risk of fires. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
503.4 – Obstruction of fire apparatus access roads	Climatic, Geological, and Topographical	Adds speed bumps to list of prohibited obstructions to fire apparatus access roads. Speed bumps reduce response times to fires and other emergencies because fire apparatus have to slow down to pass over them or drive around them. Necessary to ensure adequate response times due to the unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
503.4.1 – Traffic calming devices	Climatic, Geological, and Topographical	Requires fire code official approval to install traffic calming devices. Such devices can reduce response times to fires and other emergencies. Necessary to ensure adequate response times due

		to the unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
503.7 – Fire protection in recreational vehicle, mobile home, manufactured housing parks, sales lots, and storage lots	Climatic, Geological, and Topographical	Requires additional fire protection systems including fire-flow and access, for recreational vehicle, mobile home, and manufactured housing parks, sales lots, and storage lots. Necessary to ensure adequate water supply and access to such locations due to the unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
504.5 – Roof top access and safety	Climatic, Geological, and Topographical	Provides various design and location requirements for solar photovoltaic systems installed on roofs of buildings for residential and commercial structures. Access and spacing requirements ensure firefighter access to the roof, provide access pathways to specific areas of the roof, provide for venting cut-out areas, and to provide emergency egress from the roof. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
507.5.1.1 - Pool draft system in fire hazard severity zones.	Climatic, Geological, and Topographical	Requires a draft hydrant for swimming pools and spas located in the fire hazard severity zone in order to provide a source of water to fight fires. Necessary because of unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
507.5.10 – Draft System identification sign	Climatic, Geological, and Topographical	Provides posting of sign to notify fire department of draft hydrant for swimming pools and spas in fire hazard severity zone. Necessary because of unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.

<p>901.7.7 – Obstruction to fire protection equipment</p>	<p>Climatic, Geological, and Topographical</p>	<p>Prohibits obstruction of fire protection equipment. Necessary because of unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.</p>
<p>901.7.8 – Above- ground water control valve signs</p>	<p>Climatic, Geological, and Topographical</p>	<p>Provides signage requirements for water control valves in order to facilitate fire fighter identification and use of said valves in an emergency. Necessary because of unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.</p>
<p>901.7.11 – Clear space around above-ground water control valve signs</p>	<p>Climatic, Geological, and Topographical</p>	<p>Provides clearance requirements for water control valves in order to facilitate fire fighter identification and use of said valves in an emergency. Necessary because of unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.</p>
<p>903.1.2 – Occupancies in Fire Hazard Severity Zones and in the Malibu- Santa Monica Mountains or San Gabriel Southface areas</p>	<p>Climatic, Geological, and Topographical</p>	<p>Provides an additional level of protection to occupancies in case of a fire by requiring installation of automatic fire sprinklers. Necessary because of unique climatic and topographical conditions that increase the risk of catastrophic fires in fire hazard severity zones and due to the topography that reduces response times to fires. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.</p>

903.2.11.3 - Building over three stories in height	Climatic and Geological	Provides an additional level of protection to occupancies in case of a fire by requiring installation of automatic fire sprinklers. Necessary because of large number of buildings over three stories in Los Angeles County that increases the risk of fire due to damage or collapse of buildings due to the increased prevalence of earthquakes in Los Angeles County.
903.4.2 - Alarms	Climatic and Geological	Requires installation of exterior fire alarm visual device. Visual alarms are necessary to warn both disabled and non-disabled persons. Necessary because of increased likelihood of fires due to climatic conditions. Further necessary because risk of fire is increased due to the prevalence of earthquakes in the County.
903.7 - Buildings Four or more stories	Climatic and Geological	Requires installation of devices for the automatic fire sprinkler system within an exit stairway enclosure. Necessary because of increased likelihood of fires due to climatic conditions. Further necessary because risk of fire is increased due to the prevalence of earthquakes in the County.
905.2.1 - Class I standpipes; 905.2.1.1, 905.2.1.2; 905.2.1.3	Climatic	Construction and installation requirements for Class I standpipes to ensure adequate fire protection systems and water supply due to fires in Los Angeles County's hot and windy climate.
905.4 - Location of Class I standpipe hose connections	Climatic	Installation/Regulation of Fire Protection System to ensure proper location of hose connection to control fires in Los Angeles County's hot and windy climate.
905.5.3 - Class II System 1 1/2- inch hose	Climatic	Installation and regulation of interior wet standpipes to ensure adequate fire protection system due to fires in Los Angeles County's hot and windy climate.
905.6.1 - Protection	Climatic	Local amendment regarding installation and regulation of Fire Protection System to ensure proper location of hose connection to control fires in Los Angeles County's hot and windy climate.

905.6.1.1 - size	Climatic	Size requirements for Class III standpipes to ensure adequate fire protection system due to fires in Los Angeles County's hot and windy climate.
905.9 - Riser shutoff valve supervision and drain	Climatic	Additional requirements to fire protection system for testing, maintenance and operation to control fires in Los Angeles County's hot and windy climate.
905.12 - Basement pipe inlets, 905.12.1, 905.12.2, 905.12.4	Climatic	Requires installation and other guidelines related to inlets for fire protection systems in basements. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
907.9.4.1 - Obstruction of fire alarm equipment	Climatic, Geological, and Topographical	Prohibits concealing or obstructing fire alarm equipment. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions. Further necessary because the risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
910.2 - Where required	Climatic	Requires installation of smoke and heat vents in roofs of buildings or portions thereof occupied as Group F-1, S-1, or containing high-piled combustible storage. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
910.2.1.1 - Group S-2	Climatic	Requires smoke and heat removal for basement level parking garages. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
910.4 - Mechanical smoke exhaust	Climatic	Requirements for mechanical smoke exhaust in buildings. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
912.2.1 - Visible location	Climatic, Topographical, Geological	Requires fire department connections to be located within 150 feet of a public fire hydrant and at a safe distance from the building. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions. Further necessary because the risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.

912.7 – Identi- fication	Climatic, Topographical	Requires red paint on fire department connections subject to rust or corrosion in order to identify them to firefighters and protect from the elements. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
912.8 – Breakable caps or plugs	Climatic, Topographical	Requires breakable caps or plugs for fire hose couplings to protect them from the elements and to ensure easy access to the fire department connection during fires. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
914.9.1 - Spray booths	Climatic	Requires Spray booths to have automatic fire sprinkler system protection under specified conditions. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions. Further necessary because the risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
1007.9.1 – Signage of high-rise buildings	Climatic, Geological, and Topographical	Requirements for signage warning against elevator use in an emergency. Necessary to ensure proper notice and evacuation in case of fire or other emergency. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions. Further necessary because risk of fire and need for evacuation is increased due to the prevalence of earthquakes in Los Angeles County.
1107.9 – Helistops for high rise	Climatic; Topographical	Provides for additional public safety evacuation/landing area on high-rise buildings. Necessary due to large number of high-rise buildings in Los Angeles County and difficulty in evacuating high-rise buildings in case of fire or other emergency.
1107.10 – Helistops in fire hazard severity zones; 1107.10.1 Surface;	Climatic; Topographical	Provides for requirements for helistops in fire hazard severity zones to enable helicopters and associated water tenders and support equipment to safely operate to conduct operations to combat fires in those areas. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions and topography that hinders the ability for fire apparatus to gain access to remote portions of the County.

1107.10.2 - Hydrant	Climatic; Topographical	Provides for a hydrant next to helistops in fire hazard severity zones to enable helicopters to fill their tanks to facilitate water drops on wildland fires in those areas. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions and topography that hinders the ability for fire apparatus to gain access to remote portions of the County.
1107.10.3 – Access	Climatic; Topographical	Provides for requirements for fire apparatus access to helistops in fire hazard severity zones to enable support equipment and apparatus associated with helicopter operations to combat fires in those areas. Necessary because of increased danger of fire in the County due to hot and windy conditions and topography that hinders the ability for fire apparatus to gain access to remote portions of the County.
1504.4 - Fire Protection	Climatic	Provides for spray booths to be equipped with automatic fire sprinklers. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
Sections 1603, 1604, 1605, 1606, 1607 – Fruit and Crop Ripening	Climatic and Geological	Provides requirements for fruit and crop ripening operations to prevent ignition of ethylene gas and reduce risk of fire and explosion. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions and to reduce risk of fires and explosion from earthquakes.
1910 - Storage of Combustible Idle Pallets, 1910.10, 1910.2, 1910.3, 1910.4, 1910.5, 1910.6, Table 1910.4.1, Table 1910.4.2	Climatic	Provides requirements for the safe storage of combustible pallets to reduce risk of fire. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
Table 2306.2	Climatic and Geological	Provides for increased separation for aisles. Necessary because of unique climatic conditions that increase the risk of fires. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.

2306.7.1 - Vents	Climatic	Requires installation of smoke and heat vents. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
2308.2.2 - Racks with solid shelving	Climatic	Provides for effectiveness of sprinkler systems by prohibiting solid shelves, which would restrict water from extinguishing fire on shelves. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions.
2404.21 - Combustible vegetation.	Climatic and Topographic	Increased clearance requirements for combustible vegetation near tents and membrane structures. Necessary to increase fire and life safety around such structures and to create defensible space. Necessary because of fire risk due to climate and unique topography of Los Angeles County.
2605.9 - Backflash Prevention	Geological	Requirements for protective devices to be installed on fuel gas and oxygen lines to increase safety and reduce risk of explosion and fire. Necessary because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.
2703.11.3.8 - Floors	Climatic and Geological	Creates requirements for floors in buildings where hazardous materials are used or stored. Necessary to increase fire and life safety and to minimize fire danger from hazardous materials. Necessary because risk of fire and spillage of hazardous materials is increased due to the prevalence of earthquakes in Los Angeles County.
3404.2.8.3 - Secondary Containment	Geological	Requirements for secondary containment of flammable and combustible liquids that are necessary to increase fire and life safety and to prevent fires involving flammable and combustible liquids from spreading. Necessary because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.
3404.2.8.16.1 - System requirements	Climatic and Geological	Require foam deluge system. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.

3404.2.9.1.1 - Required foam fire protection systems	Geological and Climatic	Requires all above-ground tanks exceeding 1,500 square feet of liquid surface area used for the storage of Class I or Class II flammable liquids to be provided with foam fire protection. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County
3404.2.9.6.1 .3 - Location of tanks for boilover liquids	Geological and Climatic	Provides for additional spacing between tanks to reduce fire danger and help prevent fire from spreading to adjacent tanks. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.
3404.3.7.6 - Construction	Geological and Climatic	Construction and fire access requirements for liquid storage rooms. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of explosion or container failure is increased due to the prevalence of earthquakes in Los Angeles County.
3406.5.1.1 - Location	Geological and Climatic	Provides increased distances for bulk transfer and process transfer operations so that they are farther away from the public and other buildings. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County
3406.5.1.19 – Liquid transfer	Geological and Climatic	Class I, II, or III liquids shall be transferred from a tank vehicle or tank car only into an approved atmospheric tank or approved portable tank. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County
3804.4 – Multiple container installation	Geological and Climatic	Requirements for LP gas storage tank distances. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County

4605.1 – tire storage yard; 4605.1.1 – access to piles; 4605.1.2	Climatic and Topographical	Creates requirements for fire access roads for outdoor operations to enable fire apparatus to gain access to fight fires. Necessary to increase fire and life safety and to minimize risk of fire spreading beyond storage areas. Necessary because risk of fire due to climate and topography in Los Angeles County.
4907.1 – General	Climatic and Topographical	Local amendment providing that defensible space requirements shall also comply with Chapter 3 of this code. Necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize impacts of fire in fire hazard severity zone.
4908.1 – Fuel Modification Plan in Fire Hazard Severity Zone; 4908.1.1 Plan Modification	Climatic and Topographical	Local amendment creating defensible space for fire operations that is necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize impacts of fire in fire hazard severity zone.
5004 – fire apparatus access roads; 5006 – housekeeping ; 5008 tires;	Climatic and Topographical	Creates requirements for fire access roads and storage requirements for tire storage in automobile wrecking yards. Necessary to enable fire apparatus and fire fighters to gain access to fight fires and respond to emergencies. Necessary because risk of fire due to climate and topography in Los Angeles County.
APPENDIX B B105.1 – One-family dwellings	Topographical and Climatic	Provides for increased fire-flow to allow for more water to be available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX B B105.1.1 – Two-family dwellings	Topographical and Climatic	Provides for increased fire-flow to allow for more water to be available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.

APPENDIX B B105.2 – Buildings other than one-and two- family dwellings	Topographical and Climatic	Provides for increased fire-flow to allow for more water to be available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX B B105.3 – Mobile home parks	Topographical and Climatic	Provides for increased fire-flow at mobile home parks in Very High Fire Hazard Severity Zones to allow for more water to be available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX B B105.4 – Land subdivision projects	Topographical and Climatic	Provides for increased fire-flow for subdivisions of land to allow for more water to be available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX C, Section C102.2 – Location on street	Topographical and Climatic	Provides for hydrant spacing on streets to ensure hydrants are accessible to firefighters. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX C, Section C105.2 – One-family dwelling	Topographical and Climatic	Provides for hydrant spacing to ensure that water is available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX C, Section C105.2.1 – Cul-de-sac hydrant location	Topographical and Climatic	Provides for hydrant spacing for cul-de-sacs to ensure that there is adequate water supply available to fight fires. Necessary because of increased danger of fire in the County due to climatic and topographical conditions.
APPENDIX C, Section C105.2.2 – Buildings other than one-family dwelling units.	Topographical and Climatic	Provides for hydrant spacing for buildings other than single family dwellings to ensure that there is adequate water supply available to fight fires. Necessary because of increased danger of fire in the County due to climatic and topographical conditions.

<p>APPENDIX C, Section C106 – On-site hydrants</p>	<p>Topographical and Climatic</p>	<p>Provides requirements for on-site hydrants to ensure that there is adequate water supply available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.</p>
<p>APPENDIX K – Roof Obstructions, K103.1, K103.2, K103.2.1, K103.2.1.1, K103.2.1.2, K103.2.1.3, K103.2.2, K103.2.2.1, K103.2.3, K103.2.4, K103.3, K103.4, K103.4.2, K103.2.1, K103.4.2.2, K103.4.2.3, K103.4.2.4, K103.4.3, K103.4.3.1, K103.4.3.2, K103.4.3.2.1, K103.4.3.2.2, K103.4.3.2.3, K103.4.3.2.4, K103.4.3.2.5, K103.4.3.2.6, K103.5, K103.5.1</p>	<p>Topographical and Climatic</p>	<p>Provides various design and location requirements for solar photovoltaic systems installed on roofs of buildings for residential and commercial structures. Access and spacing requirements ensure firefighter access to the roof, provide access pathways to specific areas of the roof, provide for venting cut-out areas, and to provide emergency egress from the roof. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.</p>

Appendix K104.1, K104.2, K104.2.1, K104.2.2, K104.2.2.2, K104.2.2.3, K104.2.3, K104.2.3.1, K104.2.3.2 K104.2.3.2.1, K104.2.3.2.2, K104.2.3.2.3, K104.2.3.2.4, K104.2.3.5, K104.2.3.6, K104.3	Topographical and Climatic	Provides various design and location requirements for roof gardens and landscaped roofs for residential and commercial structures. Access and spacing requirements ensure firefighter access to the roof, provide access pathways to specific areas of the roof, provide for venting cut-out areas, and to provide emergency egress from the roof. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
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SECTION 167. The permit fees listed in Section 4803.4 for motion picture, television, commercial, and related production activities shall only be collected upon the implementation of the Consolidated Fire Protection District's Public Safety and Film Unit Field Inspection Program, as documented by a memorandum from the Fire Chief to the Executive Office of the Board of Supervisors.

SECTION 168. This ordinance shall become effective on January 1, 2011.

[TITLE322010AMENDMENTSICC]

SECTION 169. This ordinance shall be published in The Daily Commerce a newspaper printed and published in the County of Los Angeles.



Gloria Molina
Chair

ATTEST:

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that at its meeting of November 30, 2010 the foregoing ordinance was adopted by the Board of Supervisors of said County of Los Angeles by the following vote, to wit:

	<u>Ayes</u>		<u>Noes</u>
Supervisors	<u>Mark Ridley-Thomas</u>	Supervisors	<u>None</u>
	<u>Zev Yaroslavsky</u>		
	<u>Don Knabe</u>		
	<u>Michael D. Antonovich</u>		
	<u>Gloria Molina</u>		

Effective Date: January 1, 2011

Operative Date: _____

Sachi A. Hamai
Sachi A. Hamai
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that pursuant to Section 26103 of the Government Code, delivery of this document has been made.

SACHI A. HAMAI
Executive Officer
Clerk of the Board of Supervisors

By [Signature]
Deputy



APPROVED AS TO FORM:
ANDREA SHERIDAN ORDIN
County Counsel

By Leela Kapur
Leela Kapur
Chief Deputy County Counsel