

ORDINANCE NO. 180619

An ordinance amending various Sections of Articles 1, 3, 4 and 8 of Chapter IX of the Los Angeles Municipal Code and Sections 5.114 and 5.114.1 of the Los Angeles Administrative Code, regarding technical corrections and clerical errors which were inadvertently created by Ordinances Numbers 179,324, 179,325, 179,326 and 179,327, and to incorporate revised seismic design standards.

**THE PEOPLE OF THE CITY OF LOS ANGELES
DO ORDAIN AS FOLLOWS:**

Section 1. Section 91.101 of the Los Angeles Municipal Code is amended to read:

SEC. 91.101. TITLE, PURPOSE, AND SCOPE.

91.101. Title. This article shall be known as the **Los Angeles Building Code** or **Building Code** or **LABC**, a portion of the Los Angeles Municipal Code (LAMC), and wherever the word **Code** is used in this article it shall mean the **Los Angeles Building Code**. The Los Angeles Building Code adopts by reference portions of the California Building Code (CBC).

Sec. 2. Section 91.101.4 of the Los Angeles Municipal Code is amended to read:

91.101.4. Scope. The provisions of this Code shall apply to the construction, alteration, moving, demolition, repair, maintenance and use of any building or structure within this jurisdiction, except work located primarily in a public way, public utility towers and poles, mechanical equipment not specifically regulated in this Code, and hydraulic flood control structures.

For additions, alterations, moving and maintenance of buildings and structures, see Division 34. For temporary buildings and structures, see CBC Section 3103.

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.

The codes and standards referenced in this Code shall be considered part of the requirements of this Code to the prescribed extent of each reference. Where differences occur between provisions of this Code and referenced codes and standards, the provisions of this Code shall apply.

Wherever in this Code reference is made to an appendix, the provisions in the appendix shall not apply unless specifically adopted.

The metric conversions are provided in parenthesis following the English units. Where industry has made metric conversions available, the conversions conform to current industry standards. Formulas are also provided with metric equivalents. Metric equivalent formulas immediately follow the English formula and are denoted by "For SI" preceding the metric equivalent. Some formulas do not use dimensions and, thus, are not provided with a metric equivalent. Multiplying conversion factors have been provided for formulas where metric forms were unavailable. Tables are provided with multiplying conversion factors in subheadings for each tabulated units measurement.

Sec. 3. Items 1 and 15 of Section 91.101.5 of the Los Angeles Municipal code are amended to read:

1. A building accessory to a dwelling and not located in Fire District No. 1 provided the building is not more than 64 square feet in area or 8 feet in height and does not contain any heating, plumbing or electrical installation, and is located as permitted by the Los Angeles Zoning Code.

15. Any portable metal hangar less than 2,000 square feet in size, located on a city-owned airport, used for the parking of aircraft only, and bearing evidence of approval by the Department of Motor Vehicles of the State of California for movement on any highway. The structure shall, as an integral part of its basic construction, be equipped with a hitch or coupling device for towing. It shall accommodate, without further major structural change, wheel and axle assemblies which will provide the structure with a safe means of portability. No water or sanitary facilities shall be permitted in this structure and it shall be equipped with permanent ventilation as required for Group S-1 Occupancy.

Sec. 4. Item 3 of Section 91.105.5.4 of the Los Angeles Municipal Code is amended to read:

3. To hear and determine written appeals brought by any persons where it is alleged that there is error or abuse of discretion in any order, requirement, decision, interpretation or other determination made by the Department in the enforcement or administration of California Building Code Section 108 *et seq.*, and any other federal, state or municipal handicapped access and adaptability requirements.

Sec. 5. Item 1 of Section 91.105.5.5.6 of the Los Angeles Municipal Code is amended to read:

1. To appoint one or more hearing officers to conduct hearings and make recommendations to the same extent and in the same manner as the Superintendent of Building acting pursuant to LAMC Section 98.0601 (a).

Sec. 6. The fourth unnumbered paragraph of Section 91.106.1.1 of the Los Angeles Municipal Code is amended to read:

Where complete plans for a proposed building are filed with the department and where a foundation only permit is issued with respect thereto in accordance with rules established by the Superintendent of Building, a building permit may be issued for the remainder of the building within one year after the issuance of the foundation only permit, provided the plans and specifications comply with all applicable Los Angeles Building Code provisions in effect at the time of issuance of the foundation only permit.

Sec. 7. Exceptions 3, 4, 9 and 10 of Section 91.106.2 of the Los Angeles Municipal Code are amended to read:

3. Construction sheds, state approved construction trailers without toilet facilities and sidewalk protection barriers and canopies built pursuant to Division 33.

4. Sandblasting, liquid washing, compressed air cleaning, steam cleaning of buildings outside of Fire District No. 1 and also those exterior surfaces of buildings which are located more than 20 feet from pedestrian walkways in dedicated streets. Painting, papering and similar work, provided, however, that the values thereof shall be included as part of the value of any new construction for which a permit is required by this Code, for the purpose of determining the amount of the fee to be paid for the permit; and provided further that this exception does not include operations such as liquid washing, compressed air cleaning and steam cleaning on the exterior surfaces of buildings adjacent and within 20 feet of pedestrian walkways in dedicated streets where these operations extend above the first story.

9. Canopies or awnings located outside of Fire District No. 1 extending not more than 4 feet from the exterior wall of the building and attached to Group R Occupancies.

10. Impact hazard glazing pursuant to Section 91.6101.

Sec. 8. Section 91.106.3.3.4 of the Los Angeles Municipal Code is amended to read:

91.106.3.3.4. Yard Restriction. The increase in area permitted by CBC Section 506.2 shall not be allowed unless or until the owner of the required yard and open space files with the Department an agreement binding the owner, heirs and assignees, to set aside the required yard as an unobstructed space having no improvements. This agreement shall be recorded in the Los Angeles County Recorder's Office.

Sec. 9. The last unnumbered paragraph of Section 91.107.4.4. of the Los Angeles Municipal Code is amended to read:

The Department of Building and Safety shall cause all money collected pursuant to this section to be deposited into the Fire Hydrant Installation and Main Replacement

Fund described in Section 5.114 of the Los Angeles Administrative Code for purposes of disbursement as permitted therein; except that \$5.00 from each fire hydrant fee shall be deposited in the Department of Building and Safety Building Permit Enterprise Fund pursuant to Section 5.114 of the Los Angeles Administrative Code.

Sec. 10. Item 7 of Section 91.108.12.1 of the Los Angeles Municipal Code is amended to read:

7. The removal of existing roofing and the replacement of roofing materials that are in compliance with CBC Section 1510 and that do not require any alteration to the roof support system.

Sec. 11. Table No. 1-B in that group of tables following Section 91.112.2 of the Los Angeles Municipal Code is amended to read:

**TABLE NO. 1-B
TEMPORARY CERTIFICATE OF OCCUPANCY ADDITIONAL FEES**

ITEMS	ADDITIONAL FEE
A Occupancy	\$65.00 each assembly room or area
E Occupancy	\$65.00 each classroom
I Occupancy	\$65.00 each floor or portion thereof
H Occupancy	\$65.00 each floor or portion thereof
B, F, L, M or S Occupancy	\$65.00 each floor or portion thereof
R1, R2, R3.1 or R4 Occupancy	\$125.00 each floor or portion thereof
R3 Occupancy	No additional fee

Sec. 12. Section 91.700 of the Los Angeles Municipal Code is amended to read:

SEC. 91.700. BASIC PROVISIONS.

Chapter 7 of the CBC is hereby adopted by reference with the following exceptions, modifications and additions:

Sec. 13. Division 7 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding new Sections 91.703 and 91.703.3 to read:

SEC 91.703. FIRE-RESISTANCE RATINGS AND FIRE TESTS.

Section 703 of the CBC is adopted by reference, except that Section 703.3 of the CBC is not adopted and in lieu, Section 91.703.3 is added.

SEC. 91.703.3. Alternative Methods for Determining Fire Resistance. The application of any of the alternative methods listed in this section shall be based on the fire exposure and acceptance criteria specified in ASTM E 119. The required fire resistance of a building element shall be permitted to be established by any of the following methods or procedures:

1. Fire-resistance designs documented in approved sources.
2. Prescriptive designs of fire-resistance-rated building elements as prescribed in CBC Section 720.
3. Calculations in accordance with CBC Section 721.
4. Engineering analysis based on a comparison of building element designs having fire-resistance ratings as determined by the test procedures set forth in ASTM E 119.
5. Alternative protection methods as allowed by Section 91.104.2.6 of this chapter.

Sec. 14. Section 91.1301 of the Los Angeles Municipal Code is amended to read:

SEC. 91.1301. SOLAR ENERGY COLLECTORS.

Approved collectors which function as building components shall comply with the applicable provisions of the Code.

Approved collectors located above or upon a roof and not functioning as building components shall not reduce the required fire-resistance or fire-retardancy classification of the roof-covering materials.

Approved collectors shall be considered a rooftop structure and shall comply with the construction limitations of CBC Section 1509.2.

EXCEPTIONS:

1. Approved collectors installed in one- and two-family dwellings outside the Very High Fire Hazard Severity Zone.
2. Approved noncombustible collectors located on buildings not over three stories in height or 9,000 square feet (836 m²) in total floor area.
3. Approved collectors that comply with the provisions of CBC Section 2603.14.

Sec. 15. Section 91.1507.3.1 of the Los Angeles Municipal Code is amended to read:

91.1507.3.1. Deck Requirements. Concrete and clay tile shall be installed only over solid sheathing.

Sec. 16. Section 91.1613 of the Los Angeles Municipal Code is amended to read:

SEC. 91.1613. EARTHQUAKE LOADS.

Section 1613 of the CBC is adopted by reference, except that CBC Section 1613.6.1 is not adopted and in lieu, Sections 91.1613.6.1, 91.1613.7 through 91.1613.7.2, 91.1613.8 through 91.1613.8.5, 91.1613.9 through 91.1613.9.10.5 and 91.1613.10 are added.

Sec. 17. Division 16 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding Section 91.1613.6 to read:

91.1613.6. Alternatives to ASCE 7.

91.1613.6.1. Assumption of Flexible Diaphragm. The following text is added at the end of Section 12.3.1.1 of ASCE 7:

Diaphragms constructed of wood structural panels or untopped steel decking shall also be permitted to be idealized as flexible, provided all of the following conditions are met:

1. Toppings of concrete or similar materials are not placed over wood structural panel diaphragms except for nonstructural toppings no greater than 1½ inches (38 mm) thick.
2. Each line of vertical elements of the lateral-force-resisting system complies with the allowable story drift of Table 12.12-1 of ASCE 7.
3. Vertical elements of the lateral-force-resisting system are light-framed walls sheathed with wood structural panels rated for shear resistance or steel sheets.
4. Portions of wood structural panel diaphragms that cantilever beyond the vertical elements of the lateral-force-resisting system are designed in accordance with Section 91.2305.2.5 of this Code.

EXCEPTION: In lieu of CBC Section 2305.2.5, flexible diaphragm assumption is permitted to be used for buildings up to two stories in height provided cantilevered diaphragms supporting lateral-force-resisting elements from above does not exceed 15 percent of the distance between

lines of lateral-force-resisting elements from which the diaphragm cantilevers nor one-fourth the diaphragm width perpendicular to the overhang.

Sec. 18. Division 16 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding a new Section 91.1614 to read:

SEC. 91.1614. MODIFICATIONS TO ASCE 7.

91.1614.1. General. The text of ASCE 7 shall be modified as indicated in this section. 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.

91.1614.2. ASCE 7, Section 12.3.1.1. ASCE 7, Section 12.3.1.1 is modified to read as follows:

12.3.1.1. Flexible Diaphragm Condition. Diaphragm constructed of untopped steel decking or wood structural panels are permitted to be idealized as flexible in structures in which the vertical elements are steel or composite steel and concrete braced frames, or concrete, masonry, steel, or composite shear walls. Diaphragms of wood structural panels or untopped steel decks in one- and two-family residential buildings of lightframe construction shall also be permitted to be idealized as flexible.

Flexible diaphragm assumption is permitted to be used for buildings up to two stories in height provided cantilevered diaphragms supporting lateral-force-resisting elements from above do not exceed 15 percent of the distance between lines of lateral-force resisting elements from which the diaphragm cantilevers nor one-fourth the diaphragm width perpendicular to the overhang.

91.1614.3. The text of ASCE 7 shall be modified as indicated in this section. Modify ASCE 7, Section 12.8.1.1 by amending Equation 12.8-5 as follows:

$$C_s = 0.044S_{DS} \geq 0.01 \quad (\text{Eq. 12.8-5})$$

91.1614.4. The text of ASCE 7 shall be modified as indicated in this section. Modify ASCE 7, Table 12.8-2 by adding the following:

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

91.1614.5. General. The text of ASCE 7 shall be modified as indicated in this Section. Modify ASCE 7, Section 12.8.7 by amending Equation 12.8-16 as follows:

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

91.1614.6. General. The text of ASCE 7, Section 12.11.2.2.3 is modified 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 wood diaphragms supporting concrete or masonry walls, wood diaphragms 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% of the maximum diaphragm shear.

91.1614.7. General. The text of ASCE 7, Section 12.12.4 is modified to read as follows:

12.12.4. Deformation Compatibility for Seismic Design Category D through F. For structures assigned to Seismic Design Category D, E, or F, every structural component not included in the seismic force-resisting system in the direction under consideration shall be designed to be adequate for the gravity load effects and the seismic forces resulting from displacement to the design story drift (Δ) as determined in accordance with Section 12.8.6 (see also Section 12.12.1).

EXCEPTION: Reinforced concrete frame members not designed as part of the seismic force-resisting system shall comply with Section 21.9 of ACI 318.

Where determining the moments and shears induced in components that are not included in the seismic force-resisting system in the direction under consideration, the stiffening effects of adjoining rigid structural and nonstructural elements shall be considered and a rational value of member and restraint stiffness shall be used.

When designing the diaphragm to comply with the requirements stated above, the return walls and fins/canopies at entrances shall be considered. Seismic compatibility with the diaphragm shall be provided by either seismically isolating the element or by attaching the element and integrating its load into the diaphragm.

Sec. 19. Section 91.1704 of the Los Angeles Municipal Code is amended to read:

SEC. 91.1704. SPECIAL INSPECTIONS.

Section 1704 of the CBC is adopted by reference, except that Sections 1704.1, 1704.1.1, 1704.1.2, 1704.2.2, 1704.4, 1704.7 and 1704.8 of the CBC are not adopted and in lieu, Sections 91.1704.1, 91.1704.1.1, 91.1704.1.2, 91.1704.1.3, 91.1704.1.4, 91.1704.1.4.1, 91.1704.1.4.2, 91.1704.2.2, 91.1704.4, 91.1704.8, 91.1704.15, 91.1704.16, 91.1704.17, 91.1704.18, 91.1704.19, 91.1704.19.1, 91.1704.19.2, 91.1704.19.3, 91.1704.19.4, 91.1704.19.5, 91.1704.20, 91.1704.20.1 and 91.1704.20.2 are added.

Sec. 20. Section 91.1704.1 of the Los Angeles Municipal Code is amended to read:

91.1704.1. General. Where application is made for construction as described in this section, the owner or the registered design professional in responsible charge who is acting as the owner's agent shall employ one or more deputy inspectors to provide inspections during construction on the types of work listed in Sections 91.1704 and 91.1707. The Registered Deputy Inspector shall be a qualified person as set forth in Section 91.1704.1.3 and shall demonstrate competence to the satisfaction of the Superintendent of Building for inspection of the particular type of construction or operation requiring special inspection. The Registered Deputy Inspector shall be approved by and shall be responsible to the registered design professional in charge of the design of the structure.

The special inspections shall be in addition to the inspections made by the employees of the Department as set forth in Section 91.108 of this Code.

All special inspections shall be made by a Registered Deputy Inspector. Whenever the term "Special Inspector" is used in this Code, it shall mean "Registered Deputy Inspector" as described in Section 91.1704.1.3.

EXCEPTIONS:

1. Special inspections are not required for work of a minor nature or as warranted by conditions in the jurisdiction as approved by the Superintendent of Building.

2. A registered Deputy Inspector for Grading shall be required only as per section 91.1704.7.1

3. Special inspections are not required for building components unless the design involves the practice of professional engineering or architecture as defined by applicable state statutes and regulations governing the professional registration and certification of engineers or architects.

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

Sec. 21. Section 91.1704.1.4 of the Los Angeles Municipal Code is amended by adding a new item 5 to read:

5. Nothing herein shall be deemed to authorize any registered deputy inspector to approve the pouring of concrete, the placement of masonry, structural steel or fill prior to the approval of the regular building inspector.

Sec. 22. Division 17 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding Sections 91.1704.4, 91.1704.7, 91.1704.7.1 and 91.1704.8 to read:

91.1704.4. Concrete Construction. The special inspections and verifications for concrete construction shall be as required by this section and CBC Table 1704.4.

EXCEPTIONS: Special inspection shall not be required for:

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

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

2.1. The footings support walls of light-frame construction;

2.2. The footings are designed in accordance with CBC Table 1805.4.2; or

2.3. The structural design of the footing is based on a specified compressive strength, f'_c , no greater than 2,500 pounds per square inch (psi) (17.2 mpa), regardless of the compressive strength specified in the construction documents or used in the footing construction.

3. Nonstructural concrete slabs supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi (1.03 mpa).

4. Concrete patios, driveways and sidewalks, on grade.

91.1704.7. Soils. Special inspection as defined per Sections 91.7008.2 and 91.7011.3 of this Code for existing site soil conditions, fill placement and load-bearing requirements shall be as required by this section and CBC Table 1704.7. The approved soils report, required by CBC Section 1802.2, and the documents prepared by the registered design professional in responsible charge shall be used to determine compliance. During fill placement, the special inspector shall determine that proper materials and procedures are used in accordance with the provisions of the approved soils report, as specified in CBC Section 1803.5.

EXCEPTION: Special inspection is not required during placement of controlled fill having a total depth of 12 inches (305 mm) or less.

91.1704.7.1. Grading. A registered Grading Inspector is required under all conditions where the site grading or foundation earthwork planned on a project has any of the following:

1.1. A contiguous grading area exceeding 60,000 square feet (5574 m²).

1.2. An excavated or filled slope steeper than 2 horizontal in 1 vertical (50% slope).

1.3. An excavated slope exceeding 40 feet (12,192 mm) in height and the top of which is within 20 feet (6096 mm) of a property line coterminous with improved private property or a public way.

1.4. Foundation excavations below a 1 horizontal in 1 vertical plane inward and down from the property line.

EXCEPTION: The department may waive continuous inspection where minor areas or heights are involved and no unusual hazards exist.

91.1704.8. Pile Foundation and Connecting Grade Beams. Special inspections shall be performed during installation and testing of pile foundations as required by CBC Table 1704.8. The approved soils report, required by CBC Section 1802.2, and

the documents prepared by the registered design professional in responsible charge shall be used to determine compliance. Special inspections for connecting grade beams shall be in accordance with Section 91.1704.4 of this Code.

Sec. 23. Section 91.1709 of the Los Angeles Municipal Code is amended to read:

SEC. 91.1709. STRUCTURAL OBSERVATIONS.

Section 1709 of the CBC is adopted by reference, except that Sections 1709.1 and 1709.2 of the CBC are not adopted and in lieu, Sections 91.1709.1 and 91.1709.2 are added.

Sec. 24. Section 91.1709.1 of the Los Angeles Municipal Code is amended to read:

91.1709.1. General. Where required by the provisions of Section 91.1709.2 of this Code or CBC Section 1709.3, the owner shall employ the registered design professional in responsible charge for the structural design, or another registered design professional designated by the registered design professional in responsible charge for the structural design to perform structural observations as defined by CBC Section 1702.

The owner or owner's representative shall coordinate and call a preconstruction meeting between the engineer or architect responsible for the structural design, structural observer, contractor, affected subcontractors and deputy 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 systems of the structure and to review scheduling of the required observations. A record of the meeting shall be included in the first report submitted to the Superintendent of Building.

Observed deficiencies shall be reported in writing to the owner's representative, Registered Deputy Inspector, contractor and the Superintendent of Building. Upon the form prescribed by the Superintendent of Building, the structural observer shall submit to the Superintendent of Building 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 Superintendent of Building.

Sec. 25. Division 17 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding Section 91.1709.2 to read:

91.1709.2. Structural Observations for Seismic Resistance. Structural observations shall be provided for those structures included in Seismic Design

Category D, E or F, as determined in Section 91.1613 of this Code, where one or more of the following conditions exist:

1. The structure is classified as Occupancy Category III or IV in accordance with CBC Section 1604.5.
2. The height of the structure is greater than 75 feet (22860 mm) above the base.
3. The structure is classified as Occupancy Category I or II in accordance with CBC Section 1604.5 and 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% sloped), assigned to Seismic Design Category D.

4. When so designated by the registered design professional in responsible charge of the design.
5. When such observation is specifically required by the building official.

Sec. 26. Table 1805.4.2 immediately following Section 91.1809 of the Los Angeles Municipal Code is amended to read:

**TABLE 1805.4.2
FOOTINGS SUPPORTING WALLS OF
LIGHT-FRAMED CONSTRUCTION^{a, b, c, d, e}**

NUMBER OF FLOORS SUPPORTED BY THE FOOTING ^f	WIDTH OF FOOTING (inches)	THICKNESS OF FOOTING (inches)
1	12	6
2	15	6
3	18	8

For SI: one inch = 25.4 mm, one foot = 304.8 mm

- a. Depth of footings shall be in accordance with Section 91.1805.2
- b. The ground under the floor is permitted to be excavated to the elevation of the top of the footing.
- c. Not Adopted.

- d. See CBC Section 1908 for additional requirements for footings of structures assigned to Seismic Design Category C, D, E or F.
- e. For thickness of foundation walls, see Section 91.1805.5 of this Code
- f. Footings are permitted to support a roof in addition to the stipulated number of floors. Footings supporting roof only shall be as required for supporting one floor.

Sec. 27. Section 91.1900 of the Los Angeles Municipal Code is amended to read:

SEC. 91.1900. BASIC PROVISIONS.

Chapter 19 of the CBC is adopted by reference, except that Sections 1908.1 and 1908.1.15 of the CBC are not adopted and Sections 91.1908.1, 91.1908.1.15, 91.1908.1.17, 91.1908.1.18, 91.1908.1.19, 91.1918.1.20 and 91.1908.1.21 are added.

Sec. 28. Division 19 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding a new Section 91.1908.1 to read:

91.1908.1. General. The text of ACI 318 shall be modified as indicated in CBC Sections 1908.1.1 through 1908.1.21.

Sec. 29. Division 19 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding new Section 91.1908.1.15 to read:

91.1908.1.15. ACI 318, Section 22.10. Delete ACI 318, Section 22.10, and replace with the following:

22.10 – Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

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

(a) 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.

(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. A

minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

EXCEPTION: In detached one- and two-family dwellings three stories or less in height and constructed with stud-bearing walls, plain concrete footings 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.

Sec. 30. Section 91.1908.1.17 of the Los Angeles Municipal Code is amended to read:

91.1908.1.17. ACI 318, Equation 14-9 of Sections 14.8.3 and 14.8.4. Sections 14.8.3 and 14.8.4. of ACI 318 are modified as follows:

Section 14.8.3 of ACI 318: I_{cr} shall be calculated by Equation (14-7), and M_a shall be obtained by iteration of deflections.

$$I_{cr} = \frac{E_s}{E_c} \left(A_s + \frac{P_u h}{f_y 2d} \right) (d - c)^2 + \left(\frac{I_w c^3}{3} \right) \quad (14-7)$$

and the value E_s/E_c shall not be less than six.

Section 14.8.4 of ACI 318: Maximum out-of-plane deflection, Δ_s , due to service loads, including $P\Delta$ effects, shall not exceed $l_o/150$.

If M_a , maximum moment at mid-height of wall due to service lateral and eccentric loads, including $P\Delta$ effects, exceed $(2/3)M_{cr}$, then Δ_s shall be calculated by Equation (14-8):

$$\Delta_s = \frac{2}{3} \Delta_{cr} + \frac{M_a - \frac{2}{3} M_{cr}}{M_n - \frac{2}{3} M_{cr}} \left(\Delta_n - \frac{2}{3} \Delta_{cr} \right) \quad (14-8)$$

If M_a does not exceed $(2/3) M_{cr}$, Δ_s shall be calculated by Equation (14-9):

$$\Delta_s = \left(\frac{M_a}{M_{cr}} \right) \Delta_{cr} \quad (14-9)$$

Where:

$$\Delta_{cr} = \frac{5 M_{cr} l_c^2}{48 E_c I_g}$$

$$\Delta_n = \frac{5 M_n l_c^2}{48 E_c I_{cr}}$$

I_{cr} shall be calculated by Equation (14-7), and M_n shall be obtained by iteration of deflections.

Sec. 31. Division 19 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding new sections 91.1908.1.18 through 91.1908.1.21 to read:

91.1908.1.18. ACI 318, Section 21.4.4.1. Modify ACI 318, Section 21.4.4.1 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 21.4.4.1, Items (a) through (c), over the full height of the member.

91.1908.1.19. ACI 318, Section 21.4.4.7. Modify ACI 318 by adding Section 21.4.4.7 as follows:

21.4.4.7 – 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 21.3.4.1 and 21.4.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318, Sections 21.4.4.1 through 21.4.4.3 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.

91.1908.1.20. ACI 318, Section 21.7.4.6. Modify ACI 318 by adding Section 21.7.4.6 as follows:

21.7.4.6 – 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. These walls shall conform to the requirements of ACI 318, Section 21.11.

91.1908.1.21. ACI 318, Section 21.9.4. Modify ACI 318 section 21.9.4 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.

Sec. 32. Section 91.2200 of the Los Angeles Municipal Code is amended to read:

Chapter 22 of the CBC is adopted by reference, except that Section 2204 of the CBC is not adopted and in lieu, Sections 91.2204, 91.2204.1, 91.2204.2, 91.2204.2.1 and 91.2205.4 are added.

Sec. 33. Division 22 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding Section 91.2205.4 to read:

91.2205.4. Modifications to AISC 341, Part I, 13, Members, Special Concentrically Braced Frames (SCBF) Modifications. AISC 341, Part 1, 13, is modified to add a new section as follows:

AISC 341, 13.2f – Member Types. The use of rectangular HSS are not permitted for bracing members, unless filled solid with cement grout having a minimum compressive strength of 3000 psi (20.7 MPa) at 28 days. The effects of composite action in the filled composite brace shall be considered in the sectional properties of the system where it results in the more severe loading condition or detailing.

Sec. 34. Section 91.2305 of the Los Angeles Municipal Code is amended to read:

SEC. 91.2305. GENERAL DESIGN REQUIREMENTS FOR LATERAL-FORCE-RESISTING SYSTEM.

Section 2305 of the CBC is adopted by reference, except that Sections 2305.2.5, 2305.3.3 and 2305.3.11 of the CBC are not adopted and in lieu, Sections 91.2305.2.5, 91.2305.3.3, 91.2305.3.11 and Table 2305.11 is added.

Sec. 35. Division 23 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding Section 91.2305.2.5 to read:

91.2305.2.5. Rigid Diaphragms. Design of structures with rigid diaphragms shall conform to the structure configuration requirements of Section 12.3.2 of ASCE 7 and the horizontal shear distribution requirements of Section 12.8.4 of ASCE 7.

Wood structural panel diaphragms shall not be considered as transmitting lateral forces by rotation.

Sec. 36. Section 91.2305.3.11 of the Los Angeles Municipal Code is amended to read:

91.2305.3.11. Sill Plate Size and Anchorage in Seismic Design Categories D, E or F.

Anchorage in Seismic Design Categories D, E or F shall comply with the following:

1. Anchor bolts for shear walls shall include steel plate washers a minimum of 0.229 inch by three inches by three inches (5.82 mm by 76 mm by 76 mm) in size, between the sill plate and nut. The hole in the plate washer is permitted to be diagonally slotted with a width of up to $\frac{3}{16}$ of an inch (4.76 mm) larger than the bolt diameter and a slot length not to exceed $1\frac{3}{4}$ inches (44 mm), provided a standard cut washer is placed between the plate washer and the nut.

or

2. Steel plate washers of minimum size and thickness, as specified in Table 2305.3.11.

Sill plates resisting a design load greater than 490 plf (7154 N/m) using load and resistance factor design or 350 plf (5110 N/m) using allowable stress design shall not be less than a three-inch (76mm) nominal member. Where a single three-inch (76 mm) nominal sill plate is used, 2-20d box end nails shall be substituted for 2-16d common end nails found in line 8 of CBC Table 2304.9.1.

EXCEPTION: In shear walls where the design load is greater than 490 plf (7151 N/m) but less than 840 plf (12 264 N/m) using load and resistance factor design or greater than 350 plf (5110 N/m) but less than 600 plf (8760 N/m) using allowable stress design, the sill plate is permitted to be a two-inch (51 mm) nominal member if the sill plate is anchored by two times the number of bolts required by design and 0.229-inch by three-inch by three-inch (5.82mm by 76 mm by 76mm) plate washers are used.

Sec. 37. Table 2305.3.11 immediately following Section 91.2305.3.11 of the Los Angeles Municipal Code is amended to read:

**TABLE 2305.3.11
MINIMUM SIZE FOR STEEL PLATE WASHERS.**

BOLT SIZE (inches)	PLATE WASHER SIZE (inches by inches by inches)
$\frac{1}{2}$	$\frac{3}{16} \times 2 \times 2$
$\frac{5}{8}$	$\frac{1}{4} \times 2\text{-}1/2 \times 2\text{-}1/2$
$\frac{3}{4}$	$\frac{5}{16} \times 2\text{-}3/4 \times 2\text{-}3/4$
$\frac{7}{8}$	$\frac{5}{16} \times 3 \times 3$
1	$\frac{3}{8} \times 3\text{-}1/2 \times 3\text{-}1/2$

Sec. 38. Section 91.2306 of the Los Angeles Municipal Code is amended to read:

SEC. 91.2306. ALLOWABLE STRESS DESIGN.

Section 2306 of the CBC is adopted by reference, except that Sections 2306.3.1, 2306.4.1, 2306.4.5, 2306.5, 2306.6, and 2306.7, and Tables 2306.3.1, 2306.3.2, 2306.4.1 and 2306.4.5 of the CBC are not adopted and in lieu, Sections 91.2306.3.1, 91.2306.4.1, 91.2306.4.5, 91.2306.5, 91.2306.6, 91.2306.7 and Tables 2306.3.1, 2306.3.2, 2306.4.1 and 2306.4.5 are added.

Sec. 39. Division 23 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended to delete Table 23.06.4.1 and to add new Tables 2306.3.1, 2306.3.2, 2306.4.1 and 2306.4.5 to read:

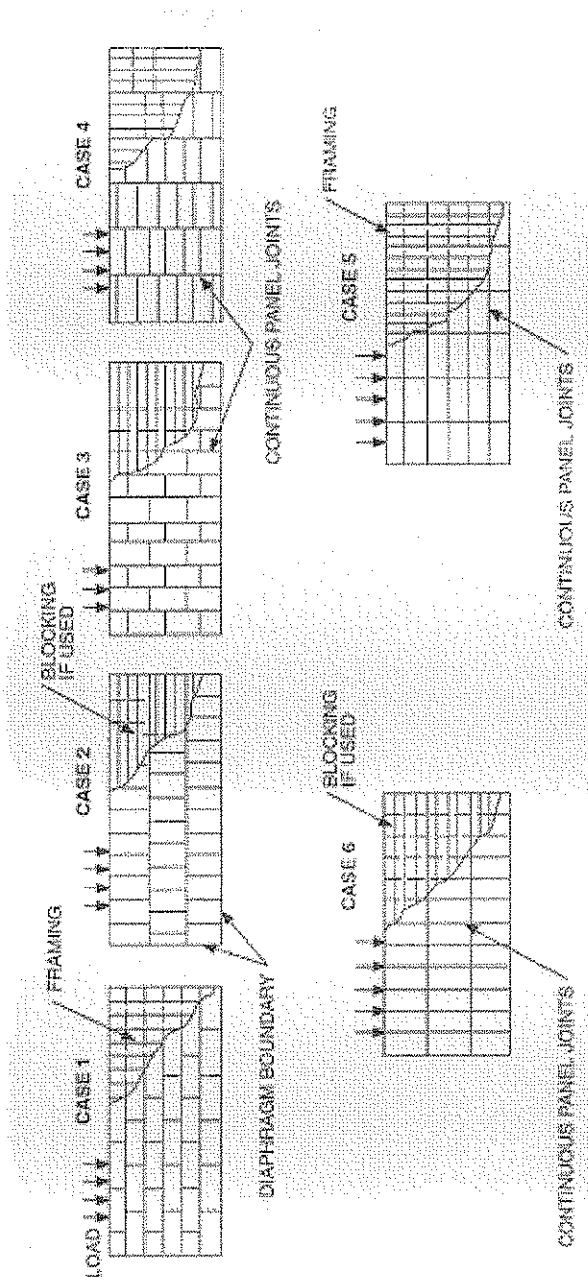
TABLE 2306.3.1
ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL DIAPHRAGMS WITH
FRAMING OF DOUGLAS FIR-LARCH, OR SOUTHERN PINE^a FOR WIND OR SEISMIC LOADING^h

PANEL GRADE	COMMON NAIL SIZE	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM WIDTH OF FRAMING MEMBERS AT ADJOINING PANEL EDGES AND BOUNDARIES ⁹ (inches)	BLOCKED DIAPHRAGMS					UNBLOCKED DIAPHRAGMS	
					Fastener spacing (inches) at diaphragm boundaries (all cases) at continuous edges parallel to load (Cases 3, 4), and at all panel edges (Cases 5, 6) ^b					Fasteners spaced 6" max. at supported edges b	
					6	4	2 1/2 ^c	2 ^c	3	Case 1 (No unblocked edges or continuous joints parallel to load)	All other configurations (Cases 2, 3, 4, 5 and 6)
Structural I Grades	6d ^e (2" x 0.113")	1 1/4	5/16	2	185	250	375	420	165	125	
		1 3/8	3/8	3	210	280	420	475	185	140	
	8d (2 1/2" x 0.131)	1 1/2	15/32	2	270	360	530	600	240	180	
		1 3/4	5/16	3	300	400	600	675	265	200	
	Sheathing, single floor and other grades covered in DOC PS 1 and PS 2	6d ^e (2" x 0.113)	1 1/4	5/16	2	320	425	640	730	285	215
			1 3/8	3/8	3	360	480	720	820	320	240
	6d ^e (2" x 0.113)	1 1/4	5/16	2	170	225	335	380	150	110	
		1 3/8	3/8	3	190	250	380	430	170	125	
		1 1/2	15/32	2	185	250	375	420	165	125	
		1 3/4	5/16	3	210	280	420	475	185	140	
8d (2 1/2" x 0.131)	1 3/8	3/8	2	240	320	480	545	215	160		
	1 1/2	15/32	3	270	360	540	610	240	180		

TABLE 2306.3.1 – Continued
 ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL DIAPHRAGMS WITH
 FRAMING OF DOUGLAS FIR-LARCH, OR SOUTHERN PINE^a FOR WIND OR SEISMIC LOADINGⁿ

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 ⁹ (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				Fasteners spaced 6" max. at supported edges b		
					6	4	2½ ^c	2 ^c	Case 1 (No unblocked edges or continuous joints parallel to load)	All other configurations (Cases 2, 3, 4, 5 and 6)	
	8d (2 ½" x 0.131")	1 ³/₈	1/16		Fastener spacing (inches) at other panel edges (Cases 1, 2, 3 and 4) ^b	6	6	4	3	230	170
	8d (2 ½" x 0.131")	1 ³/₈	15/32			255	340	505	575	255	190
	10d (3" x 0.148")	1 ½				270	360	530	600	240	180
	10d (3" x 0.148")	1 ½				300	400	600	675	265	200
	10d (3" x 0.148")	1 ½				290	385	575	655	255	190
	10d (3" x 0.148")	1 ½	19/32			325	430	650	735	290	215
	10d (3" x 0.148")	1 ½				320	425	640	730	285	215
	10d (3" x 0.148")	1 ½				360	480	720	820	320	240

TABLE 2306.3.1 – Continued
 ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL DIAPHRAGMS WITH
 FRAMING OF DOUGLAS FIR-LARCH, OR SOUTHERN PINE a FOR WIND OR SEISMIC LOADING^h



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 shall be staggered where nails are spaced 2 inches o.c. or 2 1/2 inches o.c.
- d. 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 nails having penetration into framing of more than 1 1/2 inches and (2) nails are spaced 3 inches o.c. or less.
- e. 8d is recommended minimum for roofs due to negative pressures of high winds.
- f. Not adopted
- g. The minimum nominal width of framing members not located at boundaries or adjoining panel edges shall be 2 inches.
- h. 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 2306.3.2
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 WIND OR SEISMIC LOADING^{b, g, h}**

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

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 framing lumber in AF&PA NDS. (2) For nails, find shear value from table above for nail size of 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 PS 1 or PS 2.
- d. This table gives shear values for Cases 1 and 2 as shown in Table 2306.3.1. The values shown are applicable to Cases 3, 4, 5 and 6 as shown in Table 2306.3.1, providing fasteners at all continuous panel edges are spaced in accordance with the boundary fastener spacing.
- e. The minimum nominal depth of framing members shall be 3 inches nominal. The minimum nominal width of framing members not located at boundaries or adjoining panel edges shall be 2 inches.
- f. Not adopted.
- g. High load diaphragms shall be subject to special inspection in accordance with Section 1704.6.1.
- h. 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 2306.4.1
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, k, l, m}**

PANEL GRADE	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM FASTENER PENETRATIO N IN FRAMING (inches)	ALLOWABLE SHEAR VALUE FOR SEISMIC FORCES PANELS APPLIED DIRECTLY TO FRAMING					ALLOWABLE SHEAR VALUE FOR WIND FORCES PANELS APPLIED DIRECTLY TO FRAMING					
			NAIL (common or galvanized box)					NAIL (common or galvanized box)					
			Fastener spacing at panel edges (inches)					Fastener spacing at panel edges (inches)					
			6	4	3	2 ^e	6	4	3	2 ^e			
PANEL GRADE	3/8	1-3/8	8d (2½"x0.131" common, 2½"x0.113" galvanized box)	200	200	200	200	8d (2½"x0.131" common, 2½"x0.113" galvanized box)	230 ^d	360 ^d	460 ^d	610 ^d	
			8d (2½"x0.131" common, 2½"x0.113" galvanized box)	255 ^d	395 ^d	505 ^d	670 ^d	8d (2½"x0.131" common, 2½"x0.113" galvanized box)	255 ^d	395 ^d	505 ^d	670 ^d	
	7/16	1-3/8	8d (2½"x0.131" common, 2½"x0.113" galvanized box)	280	430	550	730	8d (2½"x0.131" common, 2½"x0.113" galvanized box)	280	430	550	730	
			10d (3"x0.148" common, 3"x0.128" galvanized box)	340	510	665 ^f	870	10d (3"x0.148" common, 3"x0.128" galvanized box)	340	510	665 ^f	870	
	5/16 or 1/4 ^c	1-1/4	6d (2"x0.113" common, 2"x0.099" galvanized box)	180	200	200	200	6d (2"x0.113" common, 2"x0.099" galvanized box)	180	270	350	450	
			6d (2"x0.113" common, 2"x0.099" galvanized box)	200	200	200	200	6d (2"x0.113" common, 2"x0.099" galvanized box)	200	300	390	510	
	3/8	1-3/8	8d (2½"x0.131" common, 2½"x0.113" galvanized box)	200	200	200	200	8d (2½"x0.131" common, 2½"x0.113" galvanized box)	220 ^d	320 ^d	410 ^d	530 ^d	
			8d (2½"x0.131" common, 2½"x0.113" galvanized box)	240 ^d	350 ^d	450 ^d	585 ^d	8d (2½"x0.131" common, 2½"x0.113" galvanized box)	240 ^d	350 ^d	450 ^d	585 ^d	
	7/16	1-3/8	8d (2½"x0.131" common, 2½"x0.113" galvanized box)	260	380	490	640	8d (2½"x0.131" common, 2½"x0.113" galvanized box)	260	380	490	640	
			10d (3"x0.148" common, 3"x0.128" galvanized box)	310	460	600 ^f	770	10d (3"x0.148" common, 3"x0.128" galvanized box)	310	460	600 ^f	770	
	15/32	1-1/2	10d (3"x0.148" common, 3"x0.128" galvanized box)	340	510	665 ^f	870	10d (3"x0.148" common, 3"x0.128" galvanized box)	340	510	665 ^f	870	
			Nail Size (galvanized casing)						Nail Size (galvanized casing)				
5/16 ^c	1-1/4	6d (2"x0.099")	140	200	200	200	6d (2"x0.099")	140	210	275	360		
		8d (2½"x0.113")	160	200	200	200	8d (2½"x0.113")	160	240	310	410		

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 one.

b. Panel edges backed with two-inch nominal or thicker framing. Install panels either horizontally or vertically. Space fasteners maximum six 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. 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.
- d. Except for wood structural panel sheathing used for shear walls that are part of the seismic-force-resisting system, 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 three inches nominal or wider, and nails shall be staggered where nails are spaced two inches on center.
- f. Framing at adjoining panel edges shall be three inches nominal or wider, 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 three inches on center.
- 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 six inches on center on either side, panel joints shall be offset to fall on different framing members, or framing shall be three-inch nominal or thicker at adjoining panel edges and nails on each side shall be staggered.
- i. In Seismic Design Category D, E or F, 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 three-inch nominal member, or two two-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 in all cases. See Section 2305.3.1 for sill plate size and anchorage requirements.
- j. Galvanized nails shall be hot dipped or tumbled.
- k. The maximum allowable shear value for three-ply plywood resisting seismic forces is 200 pounds per foot (2.92 kn/m).
- l. 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.
- m. [DSA-SS & OSHPD 1, 2 and 4] Refer to Section 2305.2.4.2, which requires any wood structural panel sheathing used for diaphragms and shear walls that are part of the seismic-force-resisting system to be applied directly to framing members.

**TABLE 2306.4.5
ALLOWABLE SHEAR FOR WIND OR SEISMIC FORCES FOR SHEAR WALLS OF LATH
AND PLASTER OR GYPSUM BOARD WOOD FRAMED WALL ASSEMBLIES**

TYPE OF MATERIAL	THICKNESS OF MATERIAL	WALL CONSTRUCTION	FASTENER SPACING ^b MAXIMUM (inches)	SHEAR VALUE ^{a,e} (plf)		MINIMUM FASTENER SIZE ^{c,d,j,k}	
				Seismi	Wind		
1. Expanded metal or woven wire lath and portland cement plaster	7/8"	Unblocked	6	90	180	No. 11 gage 1 1/2" long, 7/16" head	
2. Gypsum lath, plain or perforated	3/8" lath and 1/2" plaster	Unblocked	5	30	100	No. 13 gage, 1 1/8" long, 19/64 head, plasterboard nail 0.120" Nail, min. 3/8" head, 1-1/4" long	
3. Gypsum sheathing	1/2" x 2' x 8"	Unblocked	4	30	75	No. 11 gage, 1 3/4" long, 7/16" head, diamond-point, galvanized	
	1/2" x 4'	Blocked ^f	4	30	175		
		Unblocked	7	30	100		
3. Gypsum sheathing	5/8" x 4'	Blocked	4" edge/ 7" field	30	200	6d galvanized 0.120" Nail, min. 3/8" head, 1 3/4" long	
		1/2"	Unblocked ^f	7	30	75	5d cooler (1-5/8" x .086") or wallboard 0.120" nail, min. 3/8" head, 1 1/2" long
			Unblocked ^f	4	30	110	
Unblocked	7		30	100			
Unblocked	4		30	125			
Blocked ^g	7		30	125			
Blocked ^g	4		30	150			
Unblocked	8/12 ^h		30	60	No. 6-1 1/4" screws ⁱ		
Blocked ^g	4/16 ^h		30	160			
Blocked ^g	4/12 ^h		30	155			
Blocked ^g	8/12 ^h		30	70			
Blocked ^g	6/12 ^h	30	90				
4. Gypsum board, gypsum veneer base or water-resistant gypsum backing board	5/8"	Unblocked ^f	7	30	115	6d cooler (1 7/8" x 0.092") or wallboard 0.120" Nail, min. 3/8" head, 1 3/4" long	
			4	30	145		
		Blocked ^g	7	30	145		
			4	30	175		
		Blocked ^g Two-ply	Base ply: 9 Face ply: 7	30	250	Base ply-6d cooler (1 7/8" x 0.092") or wallboard 1 1/4" x 0.120" Nail, min. 3/8" head Face ply-8d cooler (2 3/8" x 0.113") or wallboard 0.120" Nail, min. 3/8" head, 2 3/8" long	
		Unblocked	8/12 ^h	30	70	No. 6-1 1/4" screw ⁱ	
Blocked ^g	8/12 ^h	30	90				

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per foot = 14.5939 N/m.

- a. These shear walls shall not be used to resist loads imposed by masonry or concrete construction (see Section 2305.1.5). Values shown are for short-term loading due to wind or seismic loading. Walls resisting seismic loads shall be subject to the limitations in Section 12.2.1 of ASCE 7. Values shown shall be reduced 25 percent for normal loading.
- b. Applies to fastening at studs, top and bottom plates and blocking.
- c. Alternate fasteners are permitted to be used if their dimensions are not less than the specified dimensions. Drywall screws are permitted to substitute for the 5d ($1\frac{5}{8} \times 0.086$), and 6d ($1\frac{7}{8} \times 0.092$) (cooler) nails listed above, and No. 6 $1\frac{1}{4}$ inch Type S or W screws for 6d ($1\frac{7}{8} \times 0.092$) (cooler) nails.
- d. For properties of cooler nails, see ASTM C 5 14.
- e. Except as noted, shear values are based on a maximum framing spacing of 16 inches on center.
- f. Maximum framing spacing of 24 inches on center.
- g. All edges are blocked, and edge fastening is provided at all supports and all panel edges.
- h. First number denotes fastener spacing at the edges; second number denotes fastener spacing at intermediate framing members.
- i. Screws are Type W or S.

Sec. 40. Section 91.2306.4.5 of the Los Angeles Municipal Code is amended to read:

91.2306.4.5. Shear Walls Sheathed with Other Materials. Shear wall capacities for walls sheathed with lath, plaster or gypsum board shall be in accordance with CBC Table 2306.4.5. Shear walls sheathed with lath, plaster or gypsum board shall be constructed in accordance with Division 25 of this Code and CBC Section 2306.4.5.1. Walls resisting seismic loads shall be subject to the limitations in Section 12.2.1 of ASCE 7. The allowable shear values shown in CBC Table 2306.4.5 for materials in Category 1 is limited to 90 pound per foot (1.31 kN/m); and materials in Category 2 thru 4 are limited to 30 pound per foot (438 N/m). Shear walls sheathed with lath, plaster or gypsum board shall not be used below the top level in a multi-level building.

Sec. 41. Section 91.2306.5 of the Los Angeles Municipal Code is amended to read:

91.2306.5. Hold-Down Connectors. Hold-down connectors shall be designed to resist shear wall overturning moments using approved cyclic load values or 75 percent of the allowable earthquake load values that do not consider cyclic loading of the product. Connector bolts into wood framing require steel plate washers in accordance with Table 2306.5 of this Code. Hold-downs shall be re-tightened just prior to covering the wall framing.

Sec. 42. Division 23 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding Table 2306.5 immediately following Table 2306.4.5 to read:

**TABLE 2306.5
MINIMUM SIZE FOR STEEL PLATE WASHERS**

BOLT SIZE (inches)	PLATE WASHER SIZE (inches by inches by inches)
$\frac{1}{2}$	$\frac{3}{16} \times 2 \times 2$
$\frac{5}{8}$	$\frac{1}{4} \times 2\frac{1}{2} \times 2\frac{1}{2}$
$\frac{3}{4}$	$\frac{5}{16} \times 2\frac{3}{4} \times 2\frac{3}{4}$
$\frac{7}{8}$	$\frac{5}{16} \times 3 \times 3$
1	$\frac{3}{8} \times 3\frac{1}{2} \times 3\frac{1}{2}$

Sec. 43. Section 91.2308 of the Los Angeles Municipal Code is amended to read:

SEC. 91.2308. CONVENTIONAL LIGHT-FRAME CONSTRUCTION.

Section 2308 of the CBC is adopted by reference, except that Sections 2308.2, 2308.3.4, 2308.6, 2308.9.2.3, 2308.12.1, 2308.12.2, 2308.12.4 and 2308.12.5 of the CBC are not adopted and in lieu, Sections 91.2308.2, 91.2308.3.4, 91.2308.6,

91.2308.9.2.3, 91.2308.12.1, 91.2308.12.2, 91.2308.12.4, 91.2308.12.5 and Table 2308.12.4 are added.

Sec. 44. Division 23 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended by adding a new Section 91.2308.3.4 to read:

91.2308.3.4. Braced Wall Line Support. Braced wall lines shall be supported by continuous foundations.

Sec. 45. Section 91.2308.12.4 of the Los Angeles Municipal Code is amended to read:

91.2308.12.4. Braced Wall Line Sheathing. Braced wall lines shall be braced by one of the types of sheathing prescribed by CBC Table 2308.12.4 as shown in CBC Figure 2308.9.3. The sum of lengths of braced wall panels at each braced wall line shall conform to CBC 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 1 1/2 inch (38 mm)] or larger members, spaced a maximum of 16 inches on center. Nailing shall be minimum 8d common 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. Braced wall panels required by CBC 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 1/2-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% of its length.

Sec. 46. Division 30 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended to read:

SEC. 91.3000. BASIC PROVISIONS.

Chapter 30 of the CBC is adopted by reference with the following exceptions, modifications and additions:

SEC. 91.3001. GENERAL.

Section 3001 of the CBC is adopted by reference, except that Sections 3001.1, 3001.2 and 3001.4 of the CBC are not adopted and in lieu, Sections 91.3001.1, 91.3001.2 and 91.3001.4 are added.

91.3001.1. Scope. This division governs the design, construction, installation, alteration and repair of elevators and conveying systems and their components. All elevators shall comply with the additional requirements of the Elevator Code. Whenever a conflict exists between this Division and the Elevator Code, the more restrictive of the two codes shall apply.

91.3001.2. Referenced Standards. Except as otherwise provided for in this Code, the design, construction, installation, alteration, repair and maintenance of elevators and conveying systems and their components shall conform to the Elevator Code, ASME A90.1, ASME B20.1, ALI ALCTV, and ASCE 24 for construction in flood hazard areas established in CBC Section 1612.3.

91.3001.4. Change in Use. A change in use of an elevator from freight to passenger, passenger to freight, or from one freight class to another freight class shall comply with the Elevator Code.

SEC. 91.3002. HOISTWAY ENCLOSURES.

Section 3002 of the CBC is adopted by reference, except that Sections 3002.1.1, 3002.1.2, 3002.4a.4, 3002.5, 3002.8, 3002.9 and 3002.9.1 through 3002.9.5 of the CBC are not adopted and in lieu Section 91.3002.1.1 is added.

91.3002.1.1. Opening Protectives. Openings in hoistway enclosures shall be protected as required in Division 7 of this Code.

SEC. 91.3003. EMERGENCY OPERATIONS.

Section 3003 of the CBC is adopted by reference, except that Sections 3003.2, 3003.2.1 through 3003.2.4 of the CBC are not adopted and in lieu, Section 91.3003.2 is added.

91.3003.2. Fire-fighters' Emergency Operation. Elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with the Elevator Code.

SEC. 91.3005. CONVEYING SYSTEMS.

Section 3005 of the CBC is adopted by reference, except that Section 3005.4 of the CBC is not adopted.

Sec. 47. Section 91.6303 of the Los Angeles Municipal Code is amended to read:

SEC. 91.6303. SERVICE STATIONS.

Every service station located within 660 feet of an accessible right-of-way of any interstate or primary highway, as defined in Sections 5215 and 5220 of the Business and Professions Code, shall provide, during business hours, public restrooms for use by its customers. The public restroom shall not be temporary or portable but shall be permanent and shall include separate facilities for men and women, each with toilets and sinks suitable for use by disabled persons in accordance with Division 11 of this article and shall be maintained in a clean and sanitary manner. This section shall not apply to service stations which are fully operational prior to January 1, 1990.

Sec. 48. Section 91.6702 of the Los Angeles Municipal Code is amended to read:

SEC. 91.6702. GENERAL.

In every Group B, F, M, S and R Occupancy, the openings regulated by this division shall be completely secured in accordance with the provisions specified herein.

EXCEPTIONS: The requirements of this division shall not apply to:

1. Detached buildings which are accessory to Group R-3 Occupancies.
2. Group B, F, M, S Occupancies which, by the nature of their operation, are unenclosed.
3. Group B, F, M, S Occupancies where the owner submits written notice to the Department of intent to substitute security personnel and/or site security installations in lieu of requirements of this division of this Code. Such exemption shall be subject to the concurrence of the Department and shall be one of the conditions upon which the Certificate of Occupancy is issued.

Sec. 49. The first unnumbered paragraph of Section 91.6703 of the Los Angeles Municipal Code is amended to read:

The provisions of this division shall not be applicable to latching or locking devices on exit doors to the extent that the provisions of this division are contrary to the provisions of Division 10 of this article, nor shall the regulations of this division be construed to waive any other provision of this Code.

Sec. 50. Section 91.7006.2 of the Los Angeles Municipal Code is amended to read:

SEC. 7006.2. Report Requirement. Reports shall be submitted to the Department for review and approval in, but not limited to, the following circumstances:

1. Soils and/or geological reports are required when they are stipulated in a Grading Preinspection Report prepared in accordance with Section 91.107.3.2 of this Code.
2. Soils and geological reports are required for all grading work in excess of 5,000 cubic yards (3825 m³) of cut or fill, or a combination thereof.
3. Foundation reports are required when the design of the foundations does not conform to the requirements of Division 18 of this article.
4. Foundation, soils, and/or geological reports may be required when previously unknown adverse soils or geologic conditions are revealed during construction.
5. Seismic Report as required by CBC Section 1613 or for projects located on site designated as Alquist-Priolo (Fault) Studies Zone.

The Superintendent of Building may require a geotechnical investigation in accordance with CBC Section 1802.2 to address the potential of liquefaction when, during the course of an investigation, all of the following conditions are discovered:

1. Shallow ground water, 50 feet (15 240 mm) or less.
2. Unconsolidated sandy alluvium.

Sec. 51. Section 91.7011.3 of the Los Angeles Municipal Code is amended to read:

SEC. 91.7011.3. Compaction. All manufactured fills shall be placed on natural undisturbed material or approved compacted fill. Fills shall be compacted throughout their full extent to a minimum relative compaction of 90 percent of maximum dry density within 40 feet (1219 mm) below finish grade and 93 percent of maximum dry density

deeper than 40 feet (1219mm) below finish grade, unless a lower relative compaction (not less than 90 percent of maximum dry density) is justified by the soils engineer. The relative compaction shall be determined by ASTM soil compaction test D1557. Every manufactured fill shall be tested for relative compaction by a soil testing agency approved by the Department. A compaction report including a Certificate of Compliance setting forth densities so determined shall be submitted to the Department for review before approval of any fill is given. For slopes to be constructed with an exposed slope surface steeper than two horizontal to one vertical, compaction at the exposed surface of the slope shall be obtained either by overfilling and cutting back the slope surface until the compacted inner core is exposed, or by compacting the outer horizontal ten feet of the slope at least 92 percent of relative compaction.

Prior to permitting building on deep fills of 40 feet or more, the Department may require the determination of the settlement characteristics of the fills to establish that any movements have substantially ceased. In those cases, a system of benchmarks shall be installed at critical points on the fill and accurate measurement of both horizontal and vertical movements shall be taken for a period of time sufficient to define the settlement behavior. In no case shall the period of time be less than one year, with at least four consecutive checks made at intervals of three months.

EXCEPTIONS:

1. The Department may approve uncompacted fill in self-contained areas where the fills are not to be used to support buildings or structures and no hazard will be created.
2. Fill material placed in areas within cemeteries used or to be used for interment sites shall be compacted to a minimum of 80 percent, unless the fill is placed on a slope steeper than three horizontal to one vertical, or placed on slopes adjacent to public properties or private properties in separate ownership, or is to be used to support buildings or structures, in which cases it shall be compacted to a minimum of 90 percent.
3. Compaction report is not required for gravel backfill behind retaining walls provided the following conditions are met:
 - A. The retaining wall does not exceed ten feet in height.
 - B. The maximum distance between the retaining wall and the backcut shall not exceed 24 inches.
 - C. The gravel backfill shall be mechanically compacted and covered with concrete pavement or be capped with a 24-inch thick soil blanket mechanically compacted to the Department's satisfaction.

D. The gravel backfill does not provide vertical or lateral support for any structures or adverse bedding planes.

Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density.

At cut-fill transition zones, there shall be a minimum of 3 feet (914 mm) of compacted fill at the cut pad area. The depth of fill shall be measured from the bottom of the deepest footings and extend horizontally throughout the cut pad area under the building and extend a minimum of 3 feet (914 mm) beyond exterior footings.

Sec. 52. Section 91.7013.2 of the Los Angeles Municipal Code is amended to read:

91.7013.2. Diverter Terraces. Paved diverter terraces, constructed as shown in Figure B, shall be installed at the top of all graded slopes where the tributary drainage area above has a slope exceeding one unit vertical in 10 units horizontal (10% slope) and a horizontal projection of greater than 40 feet (12 192 mm).

Sec. 53. Section 91.7102 of the Los Angeles Municipal Code is amended by deleting the definition of the term "Pressure Sensor."

Sec. 54. Section 91.7103 of the Los Angeles Municipal Code is amended by adding a third unnumbered paragraph to read:

Equipment and Systems. All devices, components and equipment installed in any methane detection system shall be approved by the Fire Department as set forth in Fire Prevention Bureau (F. P. B.) Requirement No. 71.

Sec. 55. Section 91.7104.3.1 of the Los Angeles Municipal Code is repealed.

Sec. 56. Section 91.7104.3.5 of the Los Angeles Municipal Code is amended to read:

SEC. 91.7104.3.5. Single Family Dwelling. Single Family Dwellings and buildings accessory to single family dwellings shall comply with all the Methane Mitigation requirements of Table 71, except that the following mitigation system may be substituted:

A. Single Station Gas Detectors with battery back-up may be installed in lieu of Alarm System and Gas Detection System; or

B. 6 mil thick Visquene may be used in lieu of Impervious Membrane, when the Site Design Levels are I or II; or

C. Additional Vent Risers or Mechanical Ventilation may be omitted for buildings with width less than 50 feet and footprint less than 6,000 square feet in area; or

D. Vent Risers may be substituted in lieu of Mechanical Extraction System, provided the Vent Risers are designed at a rate twice that established by the Methane Mitigation Standards.

Sec. 57. Table 71 immediately following Section 91.7109.2 of Division 71 of Article 1 of Chapter IX of the Los Angeles Municipal Code is amended to read:

TABLE 71. MINIMUM METHANE MITIGATION REQUIREMENTS.

Site Design Level		LEVEL I	LEVEL II	LEVEL III	LEVEL IV	LEVEL V
Design Methane Concentration (ppmv)		0-100	101-1,000	1,001-5,000	5,001-12,500	>12,500
Design Methane Pressure (inches of water pressure)		>2	>2	>2	>2	All Pressures
PASSIVE SYSTEM	De-watering System ¹	X	X	X	X	X
	Perforated Horizontal Pipes	X	X	X	X	X
	Gravel Blanket Thickness Under Impervious Membrane	2"	2"	3"	2"	4"
	Gravel Thickness Surrounding Perforated Horizontal Pipes	2"	2"	3"	2"	4"
	Vent Risers	X	X	X	X	X
Impervious Membrane	X	X	X	X	X	X
ACTIVE SYSTEM	Mechanical Extraction System ²				X	X
	Lowest Occupied Space System	X	X	X	X	X
	Gas Detection System ³	X	X	X	X	X
	Mechanical Ventilation ^{3, 4, 5}	X	X	X	X	X
Alarm System	X	X	X	X	X	X
Control Panel	X	X	X	X	X	X

MISC. SYSTEM	Trench Dam	X	X	X	X	X	X	X	X	X	X	X
	Conduit or Cable Seal Fitting	X	X	X	X	X	X	X	X	X	X	X
	Additional Vent Risers ⁵											X

For SI: 1 inch = 25.4 mm.

X = Indicates a Required Mitigation Component

1. See Section 91.7104.3.7 for exception.

2. The Mechanical Extraction System shall be capable of providing an equivalent of a complete change of air every 20 minutes of the total volume of the Gravel Blanket.

3. The mechanical ventilation systems shall be capable of providing an equivalent of one complete change of the lowest occupied space air every 15 minutes.

4. Vent opening complying with Section 7104.3.4 may be used in lieu of mechanical ventilation.

5. The total quantity of installed vent risers shall be increased to double the rate for passive system.

Sec. 58. Section 91.7106 of the Los Angeles Municipal Code is amended to read:

SEC. 91.7106. TESTING, MAINTENANCE AND SERVICE OF GAS-DETECTION AND MECHANICAL VENTILATION SYSTEMS.

The installation instructions for the gas detection and mechanical ventilation systems, which are required by Table 71, shall be approved and enforced by the Fire Department. All gas detection and mechanical ventilation systems shall be maintained and serviced in proper working condition and meet all requirements of the Electrical and Mechanical Code.

A. Fire Department. The Fire Department shall enforce the following:

1. The maintenance and service procedures for each gas detection and mechanical ventilation systems, which are required in Table 71, shall be performed by the building owner in accordance with the manufacturers written instructions.

2. The annual and maintenance testing shall be performed as set forth by the Fire Department in accordance with the Fire Prevention Bureau (F.P.B.) Requirement No. 71 and Fire Chief's Regulation 4, Section 4J.

3. The testing of the gas detection and mechanical ventilation systems shall be performed by a person with a valid Certificate of Fitness for Gas Detection Systems as set forth in Los Angeles Municipal Code Section 57.06.01.

B. Notification Placard. A permanent notification placard shall be posted and maintained at the front entrance of a building that is constructed with Impervious Membrane, except in residential buildings. The placard shall indicate the presence of the Impervious Membrane.

Sec. 59. The first unnumbered paragraph of Section 91.7107 of the Los Angeles Municipal Code is amended to read:

With the exception of single-family dwellings, all buildings required by this division to have a gas detection system or sub-slab vent system shall, subject to Fire Department approval, have established emergency procedures that include, but are not limited to, the following:

Sec. 60. Section 91.7201.2 and duplicate Section 91.7201.2 of the Los Angeles Municipal Code are deleted and replaced with a new Section 91.7201.2 to read:

91. 7201.2. Very High Fire Hazard Severity Zone. The Very High Fire Hazard Severity Zone shall be considered a Fire District. The Very High Fire Hazard Severity

Zone shall be all of the territory so designated by the boundaries shown on the Very High Fire Hazard Severity Zone Map as established in Los Angeles Municipal Code Section 57.25.01 and adopted by the City Council.

Sec. 61. The "Exception" to Section 91.8116.2.1 of the Los Angeles Municipal Code is amended to read:

EXCEPTION: A room having a superficial floor area of not less than 120 square feet may be used for light-housekeeping if it is occupied by only one person.

Sec. 62. The first unnumbered paragraph of Section 91.8204 of the Los Angeles Municipal Code is amended to read:

No change shall be made in the character of occupancies or use of any building that would place the building in a different division of the same group of occupancy or in a different group of occupancies, unless such building is made to comply with the requirements of this code for such division or group of occupancy.

Sec. 63. Section 91.8502.1 of the Los Angeles Municipal Code is amended to read:

91.8502.1. Use or Occupancy. When applying this Chapter, a Joint Living and Work Quarter shall be classified as R-2 occupancy and comply with all R-2 occupancy requirements of the Code, except as provided in this Chapter. Not more than 33 percent of the total floor area of a Joint Living and Work Quarter shall be used or arranged for residential purposes such as sleeping area, cooking space, sanitary facilities and closet areas.

Sec. 64. Exception Number 1 of Section 91.8602.8.1 of the Los Angeles Municipal Code is amended to read:

1. The provisions of CBC Section 707 which require shaft enclosures need not be complied with, provided the provisions of this section are met.

Sec. 65. Section 91.8603.1.2 of the Los Angeles Municipal Code is amended to read:

91.8603.1.2. Existing Apartment Hotels and Hotels Over 75 Feet in Height. Every existing apartment hotel more than 75 feet in height and containing no more than nine dwelling units and every existing hotel more than 75 feet in height, where the original building permit for the building was issued prior to May 18, 1980, shall comply with the provisions of CBC Section 907.2.10 not later than August 1, 1981.

EXCEPTION: The operative date for compliance may be delayed until August 1, 1982, if the Department determines that the building complies with either the provisions of CBC Sections 419 and 602.2 or CBC Section 3412.

Notwithstanding any other provision here to the contrary, every guest room in any apartment hotel or hotel described in this section when used as a light-housekeeping room, as that term is described in Section 91.8116.1 of this Code, shall be provided with smoke detectors in compliance with the provisions of CBC Section 907.2.10 and the provisions of Section 91.8603.2 of this Code pertaining to photoelectric type smoke detectors located in corridors or areas giving access to sleeping rooms. Smoke detectors may be battery operated until August 1, 1982, at which time the smoke detectors shall be located and permanently wired as required by CBC Section 907.2.10.

Sec. 66. Section 91.8807 of the Los Angeles Municipal Code is amended to read:

SEC. 91.8807. HISTORICAL BUILDINGS.

Qualified historical buildings shall comply with the requirements of the California Historical Building Code established under Part 8, Title 24 of the California Code of Regulations.

Sec. 67. Section 91.8904.1 of the Los Angeles Municipal Code is amended to read:

91.8904.1. Duties of the Owner of Vacant Property. It shall be unlawful for the owner or person in control to permit the accumulation of trash, debris, vehicle parts, rubbish, excessive vegetation or other similar nuisance conditions on a parcel or in and around any building or structure located on a parcel. The Department may order the fencing of such a parcel in the manner described below.

It shall be unlawful for the owner or person in control of a parcel of land, to allow to exist a vacant building or structure which is open to unauthorized entry on that land. The entire building or structure shall be securely maintained. The owner or person in control of a vacant building, structure, or lot which is open to unauthorized entry shall secure all openings, accessible for entry from the exterior of the building or structure, and where appropriate, the entire lot itself, with one of the following methods:

1. **Minimum 3/4-inch exterior grade plywood.** The plywood shall have a positive connection to the building or structure using minimum 1/2-inch bolts which shall not be removable from the outside.
2. **Minimum 16-gauge steel mesh attached to a minimum one inch by 1/8-inch angle iron frame.** The frame shall have a positive connection to

the building or structure using minimum 1/2-inch bolts which shall not be removable from the outside.

3. Other means of barricading as directed or approved by the Department including wrought iron fencing of the lot. The Department may, working in cooperation with the Police Department, develop standards for alternative fencing.

Unless directed otherwise by the Department, the owner or person in control also shall erect a ten foot high, unobstructed, chainlink fence complete with lockable gates. The fence, once constructed, shall become the property of the owner of the property upon which it is constructed and, all structures on the property, including the fence shall be maintained in good repair. In the event that the fence or other barriers cannot be maintained in good repair, the Department may order an alternative method of barricading. The property so fenced shall be conspicuously posted with a "No Trespassing" sign pursuant to Section 41.24 of the Los Angeles Municipal Code.

It shall also be unlawful for the owner or person in control to allow to exist any graffiti on a building or fence when that graffiti, as defined in Section 49.84 of the Los Angeles Municipal Code, is visible from a public street or alley. It shall also be unlawful if the owner or person in control refuses to consent to the removal of the graffiti by the City after being notified by the Department that the City intends to remove the graffiti.

Owners, whose property displays graffiti, shall completely remove the graffiti by washing, sandblasting or chemical treatment or shall completely and uniformly cover or otherwise obscure the graffiti with paint or other approved materials.

It is unlawful to maintain a swimming pool in violation of Sections 91.6407 and 91.6405.16 of this Code. The ten foot high chainlink fence described above may be used to comply with Section 91.6407 of this Code. The swimming pool water shall be removed if the property is vacant.

Sec. 68. Section 93.0700 of the Los Angeles Municipal Code is amended to read:

SEC. 93.0700. THE CALIFORNIA ELECTRICAL CODE.

Chapters 1 through 9 of the 2005 Edition of the National Electrical Code (N.E.C.), as published by the National Fire Protection Association (N.F.P.A. 70-2005), the 2007 Edition of the California Electrical Code and the California Building Standards Code are adopted by reference as part of this Code. When there is a conflict between the 2005 National Electrical Code, the 2007 Edition of the California Electrical Code and the Los Angeles Municipal Code, Section 93.0105 of this Code shall prevail. Except as specified in Divisions 1 through 7 of Article 3 of Chapter IX of the Los Angeles Municipal Code, all electrical installations and materials shall be in conformity with the 2007 Edition of the California Electrical Code, as adopted by reference to be

part of this Code and Sections 93.515-17, 93.515-18 and 93.695.3 are added as provided here.

Sec. 69. Division 7 of Article 3 of Chapter IX of the Los Angeles Municipal Code is amended by adding a new Section 93.695.3 to read:

93.695.3. POWER SOURCE(S) FOR ELECTRIC MOTOR-DRIVEN FIRE PUMPS (EMDFP). Electric motor-driven fire pumps shall have a reliable source of power.

When two or more electric motor-driven fire pumps are installed in accordance with Item 20 of Section 94.2020.0 of the Los Angeles Municipal Code all sources of electric power to the EMDFP shall have the capacity and rating for all loads to operate simultaneously, including all redundant electric motor-driven fire pumps. The controller of each EMDFP shall incorporate a sequential timing device to prevent simultaneous starting of any pump motor. Failure of an EMDFP to start shall not prevent subsequent pump motor(s) from starting. No one controller shall prevent operation of any other pump motor.

(A) Individual Sources. When reliable, and where capable of carrying indefinitely the sum of the locked-rotor current of the fire pump motor(s) and the pressure maintenance pump motor(s) and the full- load current of the associated fire pump accessory equipment when connected to this power supply, the power source for an electric motor-driven fire pump shall be one or more of the following.

(1) Electric Utility Service Connection. A fire pump shall be permitted to be supplied by a separate service, or from a connection located ahead of and not within the same cabinet, enclosure, or vertical switchboard section as the service disconnecting means. The connection shall be located and arranged so as to minimize the possibility of damage by fire from within the premises and from exposing hazards. A tap ahead of the service disconnecting means shall comply with CEC 230.82(5). The service equipment shall comply with the labeling requirements in CEC 230.2 and the location requirements in CEC 230.72(B). [NFPA 20:9.2.2]

(2) On-Site Power Production Facility. A fire pump shall be permitted to be supplied by an on-site power production facility. The source facility shall be located and protected to minimize the possibility of damage by fire. [NFPA 20:9.2.3]

(B) Multiple Sources. Where reliable power cannot be obtained from a source described in Subsection A of this section, power shall be supplied from an approved combination of two or more of either of these sources, or from an approved combination of feeders constituting two or more power sources as covered in Subdivision 2 of this subsection, or from an approved combination of one or more power sources in combination with an on-site standby generator complying with Subdivisions (1) and (3) of this subsection.

(1) Generator Capacity. An on-site generator(s) used to comply with this section shall be of sufficient capacity to allow normal starting and running of the motor(s) driving the fire pump(s) while supplying all other simultaneously operated load. Automated shedding of one or more optional standby loads in order to comply with this capacity requirement shall be permitted. A tap ahead of the on-site generator disconnecting means shall not be required. The requirements of CEC 430.113 shall not apply. [NFPA 20:9.6.1]

(2) Feeder Sources. This section applies to multibuilding campus-style complexes with fire pumps at one or more buildings. Where sources in Subsection (a) of this section are not practicable, and with the approval of the authority having jurisdiction, two or more feeder sources shall be permitted as one power source or as more than one power source where these feeders are connected to or derived from separate utility services. The connections(s), overcurrent protective devices(s), and disconnecting means for these feeders shall meet the requirements of CEC 695.4(B). [NFPA 20:9.2.5.3]

(3) Arrangement. The power source shall be arranged so that a fire at one source will not cause an interruption at the other source. [NFPA 20:9.2.5.1]

Sec. 70. Section 94.103.1.1.3 of the Los Angeles Municipal Code is amended to read:

94.103.1.1.3. Separate Permits Required. A separate plumbing and/or fire sprinkler permit shall be obtained for the work indicated on each building permit.

Sec. 71. Section 94.2003.0 of the Los Angeles Municipal Code is amended by adding a new definition for the term "Out of Operation" in the proper alphabetical order to read:

Out of Operation is the state of either a pump, a pump driver, a riser, a pressure regulator or any other fire protection appurtenance being non-functional.

Sec. 72. Item 20 of Section 94.2020.0 of the Los Angeles Municipal Code is amended to read:

20. Section 9.2.1 is added to read:

9.2.1. Buildings Over 150 Feet High.

1. **Redundancy.** The system shall be adequate when either one pump, one pump driver, one riser or zone pressure regulator is out of operation.

2. **Power.** Pumps shall be either diesel engine or electric motor driven. Electric fire pump motors shall be supplied from both normal and the emergency

standby power system. At least 750 g.p.m. shall be supplied by an electric motor driven pump.

If water flow requirements call for more than one pump to start, the normal and emergency power shall be sized to run all pumps at the same time. The normal and emergency power system shall have adequate capacity and rating for all loads, including the redundant pump(s) to be operated simultaneously. The controller for each unit of multiple pumps shall incorporate a sequential timing device to prevent any one driver from starting simultaneously with any other driver. Failure of a leading driver to start shall not prevent subsequent drivers from starting. Locking out of motors is prohibited.

Sec. 73. The terms "TYPE I FABRICATOR" and "TYPE II FABRICATOR" in Section 96.201 of the Los Angeles Municipal Code are amended to read:

TYPE I FABRICATOR. A person who, at a place or location other than the site of a particular building or structure to be erected or under construction in the City of Los Angeles, performs work which:

1. If performed at such construction site would be subject to the inspection requirements of Section 91.1704 of the Los Angeles Municipal Code; or
2. Is required by a provision of Article I, Chapter IX, of the Los Angeles Municipal Code to be performed by a Type I Fabricator.

TYPE II FABRICATOR. Any person who, at the place or location other than the site of a particular building or structure to be erected or under construction in the City of Los Angeles, performs work which if performed at the construction site would be subject to the inspection requirements of Sections 91.108, 93.0304, 94.103.5, or 95.116 of the Los Angeles Municipal Code.

Sec. 74. Section 96.203 of the Los Angeles Municipal Code is amended to read:

SEC. 96.203. SCOPE AND EFFECT OF APPROVALS.

An approval issued pursuant to this division shall constitute authorization for the persons named in the approval to perform work as Type I or Type II Fabricators at the locations designated in the approval and shall constitute authorization to utilize the work so produced without the inspections which, if the work were performed at the construction site of a building or structure in the City of Los Angeles, would be required by Sections 91.108, 91.1704, 93.0304, 94.103.5 and 95.116 of the Los Angeles Municipal Code, provided, however that any Type I Fabricator who performs work described in Section 91.1707.2 of the Los Angeles Municipal Code shall not be exempt from the inspection requirements of that subsection.

No approval issued pursuant to the provisions of this division shall be construed as authority to violate any law or regulation applicable in the City of Los Angeles, nor shall any approval be construed as having any effect whatsoever upon the laws or regulations of the State of California applicable to contractors.

Sec. 75. Section 96.303 of the Los Angeles Municipal Code is amended to read:

SEC. 96.303. APPLICATION.

Upon written application by the owner or the owner's agent to the Department of Building and Safety on forms provided by the City and the payment of a fee specified herein to the Department of Building and Safety, the Superintendent of Building and the City Engineer shall review the appropriate City records. This application shall contain the name and address of the owner, the legal description, the county assessor's map book page and parcel number and, if available, the street address of the residential property for which the reports are sought.

The application for the report regarding a sale or exchange of a residential property shall not be accepted by the Department of Building and Safety until such time as the applicant provides the Department of Building and Safety with one of the following:

1. A declaration under penalty of perjury by the owner certifying that in the residential property for which the report is sought:

(a) Smoke detectors have been installed in accordance with Section 91.8603 of the Los Angeles Municipal Code; and

(b) Impact hazard glazing has been installed in accordance with Section 91.6101 of the Los Angeles Municipal Code; and

(c) Water conservation devices have been installed in accordance with Section 122.03 of the Los Angeles Municipal Code;

(d) Metal bars, grilles, grates, security roll-down shutters, and similar devices over emergency escape windows in sleeping rooms have been installed in accordance with Section 91.6304.3 of the Los Angeles Municipal Code; and

(e) Lights and locks have been installed in accordance with Section 91.8607 of the Los Angeles Municipal Code; and

(f) Seismic gas shutoff valves have been installed in accordance with Section 94.1219 of the Los Angeles Municipal Code.

2. A declaration under penalty of perjury by the owner certifying that in the residential property for which the report is sought:

(a) Smoke detectors will be installed in accordance with Section 91.8603 of the Los Angeles Municipal Code; and

(b) Impact hazard glazing will be installed in accordance with Section 91.6101 of the Los Angeles Municipal Code.

The owner shall further certify that such smoke detectors and/or impact hazard glazing will be installed prior to entering into an agreement of sale or contracting for an exchange of a residential property, or, where an escrow agreement has been executed in connection therewith, prior to close of escrow, and that within ten days after the smoke detectors and/or impact hazard glazing is/are installed he/she will so advise the Department of Building and Safety in writing; and

(c) Water conservation devices will be installed in accordance with Section 122.03 of the Los Angeles Municipal Code;

(d) Metal bars, grilles, grates, security roll-down shutters, and similar devices over emergency escape windows in sleeping rooms will be installed in accordance with Section 91.6304.3 of the Los Angeles Municipal Code; and

(e) Lights and locks will be installed in accordance with Section 91.8607 of the Los Angeles Municipal Code; and

(f) Seismic gas shutoff valves will be installed in accordance with Section 94.1219 of the Los Angeles Municipal Code.

3. A declaration under penalty of perjury by the buyer certifying that in the residential property for which the report is sought:

(a) Smoke detectors will be installed in accordance with 91.8603 of the Los Angeles Municipal Code Section; and

(b) Impact hazard glazing will be installed in accordance with Section 91.6101 of the Los Angeles Municipal Code.

The buyer shall further certify that such smoke detectors and/or impact hazard glazing will be installed within 30 days after entering into an agreement of sale or contracting for an exchange of a residential property, or, where an escrow agreement has been executed in connection therewith, within 30 days after close of escrow, and that within 10 days after the smoke detectors and/or impact hazard glazing

is/are installed he/she will so advise the Department of Building and Safety in writing; and

(c) Water conservation devices have been installed in accordance with Section 122.03 of the Los Angeles Municipal Code;

(d) Metal bars, grilles, grates, security roll-down shutters, and similar devices over emergency escape windows in sleeping rooms have been installed in accordance with Section 91.6304.3 of the Los Angeles Municipal Code; and

(e) Lights and locks have been installed in accordance with Section 91.8607 of the Los Angeles Municipal Code; and

(f) Seismic gas shutoff valves will be or have been installed in accordance with Section 94.1219 of the Los Angeles Municipal Code.

4. The Department of Building and Safety shall deliver to the applicant, either in person or by mail, the reports required within 15 calendar days after the date of the acceptance of the application.

5. The owner must also provide a declaration under penalty of perjury that he or she has inspected the property for the existence of protected trees and the number of protected trees, if any, located on the subject property. For the purposes of this section, the definition of "**protected tree**" set forth in Section 46.01 the Los Angeles Municipal Code shall apply. The declaration shall also authorize the Bureau of Street Services within the Department of Public Works to verify this information by entry upon the subject property. A fee may be collected for any inspection required to verify the declaration. The fee shall be determined and adopted in the same manner as provided in Section 12.37 I.1 of the Los Angeles Municipal Code for establishing fees.

Sec. 76. Table No. 4-A immediately following Section 98.0403.2 of Division 4 of Article 8 of Chapter IX of the Los Angeles Municipal Code is amended to read:

**TABLE NO. 4-A
FILING FEES* FOR APPEALS**

Group Occupancy	FIRST ITEM FOR SINGLE BUILDING TYPE OF BUILDING**				Each Additional Item
	V	IV & II-B	III	I & II Except II-B	
R-3 & U	\$ 155	\$ 155	\$ 155	\$ 155	\$ 55
A, B, E, F, H, I, M, S & R-1, R-2, R-4 & R-3.1	255	255	255	455	155
All other filing fees not covered in the above schedule including appeals pursuant to Los Angeles Municipal Code Section 12.27, shall be \$250.00 for the first item and \$150.00 for each additional item.					

* See Section 91.105.4 for fees for referral to the Sign Advisory Committee.

** Accessory building, structures or appendages will be considered the same as main building and occupancy.

Sec. 77. Section 98.0418 of the Los Angeles Municipal Code is amended to read:

SEC. 98.0418. SURCHARGE FOR DEVELOPMENT OF AUTOMATED SYSTEMS FOR THE DEPARTMENT OF CITY PLANNING.

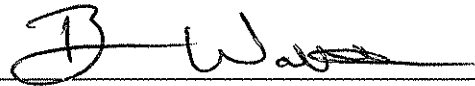
There shall be added to the total of all fees imposed for any building permit required by the provisions of Article 1 of Chapter IX of this Code, an automated systems development surcharge in an amount equal to the greater of 6 percent of the fee or \$1.00, except that any other surcharge shall be excluded from the computation of the surcharge under this section. The Fire Hydrant Fee, Section 91.107.4.4, and the Arts Development Fee, Section 91.107.4.6 of the Los Angeles Municipal Code, shall also be excluded from the computation of the surcharge under this section. In addition, an administrative fee of \$5.00 shall be collected each time the surcharge is collected. Moneys received from this surcharge shall be deposited into the City Planning Systems Development Fund pursuant to Los Angeles Administrative Code Section 5.457, except that the \$5.00 fee shall be deposited into the Department of Building and Safety Building Permit Enterprise Fund and credited to the departmental receipts of the Department of Building and Safety.

Sec. 78. Subdivision (3) of Subsection (b) of Section 5.114, and Subsection (a) and Subdivision (2) of Subsection (b) of Section 5.114.1 of the Los Angeles Administrative Code are amended by deleting the reference to "Section 91.0304(b)8" and substituting therefore a reference to "Section 91.107.4.4."

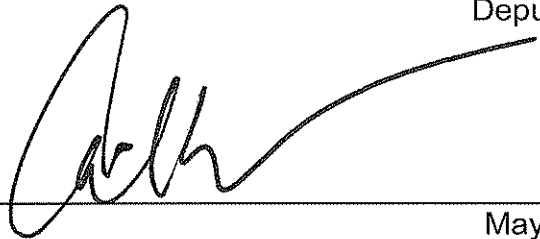
Sec. 79. The City Clerk shall certify to the passage of this ordinance and have it published in accordance with Council policy, either in a daily newspaper circulated in the City of Los Angeles or by posting for ten days in three public places in the City of Los Angeles: one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall; one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall East; and one copy on the bulletin board located at the Temple Street entrance to the Los Angeles County Hall of Records.

I hereby certify that this ordinance was passed by the Council of the City of Los Angeles, at its meeting of MAR 24 2009.

KAREN E. KALFAYAN, City Clerk

By  Deputy

Approved ~~MAR 31 2009~~

 Mayor

Approved as to Form and Legality

ROCKARD J. DELGADILLO, City Attorney

By 
SHARON SIEDORF CARDENAS
Assistant City Attorney

Date FEB 20 2009

File No. CF 08-2911

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DECLARATION OF POSTING ORDINANCE

I, MARIA C. RICO, state as follows: I am, and was at all times hereinafter mentioned, a resident of the State of California, over the age of eighteen years, and a Deputy City Clerk of the City of Los Angeles, California.

Ordinance No. 180619 – Amending various Sections of Articles 1, 3, 4 and 8 of Chapter IX of the Los Angeles Municipal Code and Sections 5.114 and 5.114.1 of the Los Angeles Administrative Code - a copy of which is hereto attached, was finally adopted by the Los Angeles City Council on **March 24, 2009**, and under the direction of said City Council and the City Clerk, pursuant to Section 251 of the Charter of the City of Los Angeles and Ordinance No. 172959, on **April 2, 2009** I posted a true copy of said ordinance at each of three public places located in the City of Los Angeles, California, as follows: 1) one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall; 2) one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall East; 3) one copy on the bulletin board located at the Temple Street entrance to the Los Angeles County Hall of Records.

Copies of said ordinance were posted conspicuously beginning on **April 2, 2009** and will be continuously posted for ten or more days.

I declare under penalty of perjury that the foregoing is true and correct.

Signed this **2nd** day of **April 2009** at Los Angeles, California.



Maria C. Rico, Deputy City Clerk

Ordinance Effective Date: May 12, 2009

Council File No. 08-2911