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CHAPTER 18.40 BUILDING CODE

18.40.010 – Adoption.

The City Council adopts and incorporates by reference as though set forth in full in this chapter the 2013 Edition of the California Building Code, including Appendices C, H, and I, but excluding sections, chapters or appendices pursuant to Section 18.40.040. The California Building Code is Part 2 of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part is based on the provisions of the 2012 International Building Code (model code) as developed by the International Code Council with necessary California amendments.

The adoption of the 2013 Edition of the California Building Code (herein referred to as “California Building Code”) is subject to the changes, amendments and modifications to said code as provided in this chapter, and certain provisions of the Long Beach Municipal Code, which shall remain in full force and effect as provided in this title. Such codes and code provisions shall constitute and be known as the Long Beach Building Code. A copy of the California Building Code, printed as code in book form, shall be on file in the office of the City Clerk.

18.40.020 – Application.

The provisions of the model code (the International Building Code), which are incorporated into the California Building Code, are applicable to all occupancy groups and uses regulated by the model code. The amendments made by the State agencies to the model code and incorporated into the California Building Code are applicable only to those occupancies or uses that the State agency making the amendments is authorized to regulate, as listed in Chapter 1, Division I of the California Building Code. The Building and Safety Bureau shall only enforce those amendments made by the following State agencies:

- A. The California Energy Commission (CEC) as specified in Section 1.5 of the California Building Code.
- B. The Department of Housing and Community Development (HCD) as specified in Section 1.8 of the California Building Code.
- C. The Division of the State Architect, Access Compliance (DSA/AC) as specified in Section 1.9 of the California Building Code.
- D. The Office of Statewide Health, Planning and Development (OSHPD 3) as specified in Section 1.10 of the California Building Code.
- E. The Office of the State Fire Marshal (SFM) as specified in Section 1.11 of the California Building Code.

18.40.030 – Amendments to the adopted code.

The California Building Code is amended and modified as set forth in Sections 18.40.040 through 18.40.420.

18.40.040 – Sections, chapters or appendices deleted from the adopted code.

The following sections, chapters or appendices of the California Building Code are deleted: Sections 101 through 116 of Chapter 1, Division II; Section 3412 of Chapter 34; Sections H109.2, H110.3, H110.4, H110.5, H112.4, H113.3, and H113.4 of Appendix H; and Appendices Chapter A, B, D, E, F, G, J and K.

18.40.050 – Amend CBC Section 201.4—Terms not defined.

Section 201.4 of the 2013 Edition of the California Building Code is amended to read as follows:

201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies. Webster's Third New International Dictionary of the English Language, Unabridged shall be considered as providing ordinarily accepted meanings.

18.40.060 – Amend CBC Section 302.1—Classification.

The last sentence in Section 302.1 of the 2013 Edition of the California Building Code is amended to read as follows:

Where a structure is proposed for a purpose that is not specifically provided for in this code or about which there is any question, such structure shall be classified, as determined by the Building Official, in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved.

18.40.070 – Amend CBC Section 1603.1.9—Systems and components requiring special inspections for seismic resistance.

Section 1603.1.9 of the 2013 Edition of the California Building Code is amended by changing the reference to "Section 107.1, Chapter 1, Division II" to read "Chapter 18.05 of the Long Beach Municipal Code."

18.40.080 – Amend CBC Section 1612.3—Establishment of flood hazard areas.

Section 1612.3 of the 2013 Edition of the California Building Code is amended to read as follows:

1612.3 Establishment of flood hazard areas. To establish flood hazard areas, the City shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study for the City of Long Beach" dated July 6, 1998, as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.

18.40.090 – Amend CBC Section 1612.5—Flood hazard documentation.

Section 1612.5 Item 1.1 of the 2013 Edition of the California Building Code is amended by changing the reference to "Section 110.3.3, Chapter 1, Division II" to read "Subsection 18.07.050.A.3 of the Long Beach Municipal Code."

18.40.100 – Add CBC Section 1613.6—Minimum distance for building separation.

Section 1613.6 is added to Chapter 16 of the 2013 Edition of the California Building Code to read as follows:

1613.6 ASCE 7, 12.12.3 Modify ASCE 7 Equation 12.12-1 of Section 12.12.3 to read as follows:

$$\delta_M = C_d \delta_{max} \quad (12.12-1)$$

18.40.110 – Add CBC Section 1613.7—Modify ASCE 7 Section 12.2.3.1 Exception 3.

Section 1613.7 is added to Chapter 16 of the 2013 Edition of the California Building Code to read as follows:

1613.7 ASCE 7, 12.2.3.1, Exception 3. Modify ASCE 7 Section 12.2.3.1 Exception 3 to read as follows:

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

18.40.120 – Add CBC Section 1613.8—Modify ASCE 7, Section 12.11.2.2.3.

Section 1613.8 is added to Chapter 16 of the 2013 Edition of the California Building Code to read as follows:

1613.8 ASCE 7, Section 12.11.2.2.3. Modify ASCE 7, Section 12.11.2.2.3 to read as follows:

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

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

1. The spacing of continuous ties shall not exceed 40 feet. Added chords of diaphragms may be used to form subdiaphragms to transmit the anchorage forces to the main continuous crossties.
2. The maximum diaphragm shear used to determine the depth of the subdiaphragm shall not exceed 75% of the maximum diaphragm shear.

18.40.130 – Add CBC Section 1613.10—Suspended ceiling.

1613.10 Suspended Ceilings. Minimum design and installation standards for suspended ceilings shall be determined in accordance with the requirements of Section 2506.2.1 of this Code and this section.

1613.10.1 Scope. This part contains special requirements for suspended ceilings and lighting systems. Provisions of Section 13.5.6 of ASCE 7-10 shall apply except as modified herein.

1613.10.2 General. The suspended ceilings and lighting systems shall be limited to 6 feet (1828 mm) below the structural deck unless the lateral bracing is designed by a licensed engineer or architect.

1613.10.3 Sprinkler Heads. All sprinkler heads (drops) except fire-resistance-rated floor/ceiling or roof/ceiling assemblies, shall be designed to allow for free movement of the sprinkler pipes with oversize rings, sleeves or adaptors through the ceiling tile. Sprinkler heads and other penetrations shall have a 2 in. (50mm) oversize ring, sleeve, or adapter through the ceiling tile to allow for free movement of at least 1 in. (25mm) in all horizontal directions. Alternatively, a swing joint that can accommodate 1 in. (25 mm) of ceiling movement in all horizontal directions is permitted to be provided at the top of the sprinkler head extension.

Sprinkler heads penetrating fire-resistance-rated floor/ceiling or roof/ceiling assemblies shall comply with Section 714 of this Code.

1613.10.4 Special Requirements for Means of Egress. Suspended ceiling assemblies located along means of egress serving an occupant load of 30 or more shall comply with the following provisions.

1613.10.4.1 General. Ceiling suspension systems shall be connected and braced with vertical hangers attached directly to the structural deck along the means of egress serving an occupant load of 30 or more and at lobbies accessory to Group A Occupancies. Spacing of vertical hangers shall not exceed 2 feet (610 mm) on center along the entire length of the suspended ceiling assembly located along the means of egress or at the lobby.

1613.10.4.2 Assembly Device. All lay-in panels shall be secured to the suspension ceiling assembly with two hold-down clips minimum for each tile within a 4-foot (1219 mm) radius of the exit lights and exit signs.

1613.10.4.3 Emergency Systems. Independent supports and braces shall be provided for light fixtures required for exit illumination. Power supply for exit illumination shall comply with the requirements of Section 1006.3 of this Code.

1613.10.4.4 Supports for Appendage. Separate support from the structural deck shall be provided for all appendages such as light fixtures, air diffusers, exit signs, and similar elements.

18.40.140 – Amend CBC Section 1705.3—Concrete construction.

Section 1705.3 of the 2013 Edition of the California Building Code is amended to read as follows:

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

Exceptions: Special inspection shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above grade plane that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength, f_c , 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.
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 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.

18.40.150 – Amend CBC Section 1705.11—Seismic resistance.

Exception 3 of Section 1705.11 of the 2013 Edition of the California Building Code is amended to read as follows:

3. The structure is a detached one- or two-family dwelling not exceeding two stories above grade plane, is not assigned to Seismic Design Category D, E or F and does not have any of the following horizontal or vertical irregularities in accordance with Section 12.3 of ASCE 7:

18.40.160 – Amend CBC Section 1704.5—Structural observations.

Section 1704.5 of the 2013 Edition of the California Building Code is amended to read as follows:

1704.5 Structural observations. Where required by the provisions of Section 1704.5.1 or 1704.5.2, the owner shall employ a structural observer to perform structural observations as defined in Section 1702. The structural observer shall be one of the following individuals:

1. The registered design professional responsible for the structural design, or
2. A registered design professional designated by the registered design professional responsible for the structural design.

Prior to the commencement of observations, the structural observer shall submit to the Building Official a written statement identifying the frequency and extent of structural observations.

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

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

18.40.170 – Amend CBC Section 1707—Alternate test procedure.

Section 1707 of the 2013 Edition of the California Building Code is amended by changing the reference to "Section 104.11, Chapter 1, Division II" to read "Section 18.03.060 of the Long Beach Municipal Code."

18.40.180 – Amend CBC Section 1807.1.4—Permanent wood foundation systems.

Section 1807.1.4 of the 2013 Edition of the California Building Code is amended to read as follows:

1807.1.4 Permanent wood foundation systems. Permanent wood foundation systems shall be designed and installed in accordance with AF&PA PWF. Lumber and plywood shall be treated in accordance with AWPA U1 (Commodity Specification A, Use Category 4B and Section 5.2) and shall be identified in accordance with Section 2303.1.8.1. Permanent wood foundation systems shall not be used for structures assigned to Seismic Design Category D, E or F.

18.40.190 – Amend CBC Section 1807.1.6— Prescriptive design of concrete and masonry foundation walls.

Section 1807.1.6 of the 2013 Edition of the California Building Code is amended to read as follows:

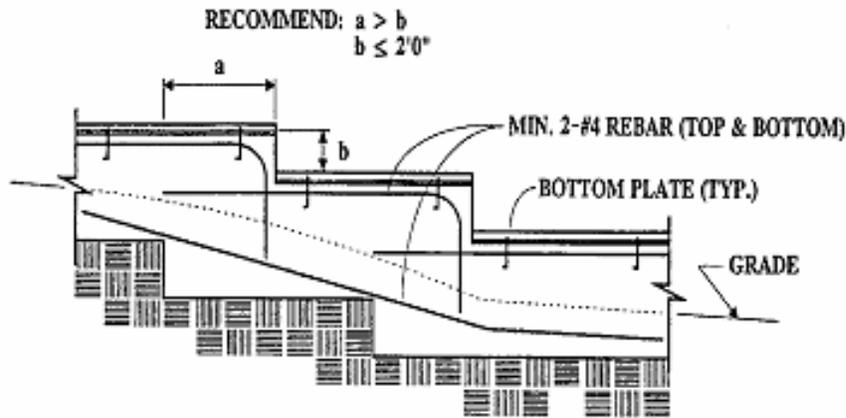
1807.1.6 Prescriptive design of concrete and masonry foundation walls. Concrete and masonry foundation walls that are laterally supported at the top and bottom shall be permitted to be designed and constructed in accordance with this section. Prescriptive design of foundation walls shall not be used for structures assigned to Seismic Design Category D, E or F.

18.40.200 – Amend CBC Section 1809.3—Stepped footings.

Section 1809.3 of the 2013 Edition of the California Building Code is amended to read as follows:

1809.3 Stepped footings. The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in 10 units horizontal (10-percent slope).

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



STEPPED FOUNDATIONS

FIGURE 1809.3
STEPPED FOOTING

18.40.210 – Amend CBC Section 1809.7 and Table 1809.7— Prescriptive footings for light-frame construction.

Section 1809.7 and Table 1809.7 of the 2013 Edition of the California Building Code are amended to read as follows:

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

TABLE 1809.7
PREScriptive FOOTINGS SUPPORTING WALLS OF
LIGHT-FRAME 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: 1 inch = 25.4 mm, 1 foot = 304.8 mm

- a. Depth of footings shall be in accordance with Section 1809.4.
- b. The ground under the floor shall be permitted to be excavated to the elevation of the top of the footing.
- c. Not Adopted.
- d. See Section 1908 for additional requirements for concrete footings of structures assigned to Seismic Design Category C, D, E or F.
- e. For thickness of foundation walls, see Section 1807.1.6.
- f. Footings shall be permitted to support a roof addition to the stipulated number of floors. Footings supporting roof only shall be as required for supporting one floor.

18.40.220 – Amend CBC Section 1809.12—Timber footings.

Section 1809.12 of the 2013 Edition of the California Building Code is amended to read as follows:

1809.12 Timber footings. Timber footings shall be permitted for buildings of Type V construction and as otherwise approved by the Building Official. Such footings shall be treated in accordance with AWPA U1 (Commodity Specification A, Use Category 4B). Treated timbers are not required where placed entirely below permanent water level, or where used as capping for wood piles that project above the water level over submerged or marsh lands. The compressive stresses perpendicular to grain in untreated timber footing supported upon treated piles shall not exceed 70 percent of the allowable stresses for the species and grade of timber as specified in the AF&PA NDS. Timber footings shall not be used in structures assigned to Seismic Design Category D, E or F.

18.40.230 – Amend CBC Section 1810.3.2.4—Timber.

Section 1810.3.2.4 of the 2013 Edition of the California Building Code is amended to read as follows:

1810.3.2.4 Timber. Timber deep foundation elements shall be designed as piles or poles in accordance with AF&PA NDS. Round timber elements shall conform to ASTM D 25. Sawn timber elements shall conform to DOC PS-20. Timber shall not be used in structures assigned to Seismic Design Category D, E or F.

18.40.240 – Amend CBC Section 2304.11.7—Wood used in retaining walls and cribs.

Section 2304.11.7 of the 2013 Edition of the California Building Code is amended to read as follows:

2304.11.7 Wood used in retaining walls and cribs. Wood installed in retaining or crib walls shall be preservative treated in accordance with AWPA U1 (Commodity Specifications A or F) for soil and fresh water use. Wood shall not be used in retaining or crib walls for structures assigned to Seismic Design Category D, E or F.

18.40.250 – Add CBC Section 2305.4—Quality of nails.

Section 2305.4 is added to Chapter 23 of the 2013 Edition of the California Building Code to read as follows:

2305.4 Quality of Nails. In Seismic Design Category D, E or F, mechanically driven nails used in wood structural panel shear walls shall meet the same dimensions as that required for hand-driven nails, including diameter, minimum length and minimum head diameter. Clipped head or box nails are not permitted in new construction. The allowable design value for clipped head nails in existing construction may be taken at no more than the nail-head-area ratio of that of the same size hand-driven nails.

18.40.260 – Add CBC Section 2305.5—Hold-down connectors.

Section 2305.5 is added to Chapter 23 of the 2013 Edition of the California Building Code to read as follows:

2305.5 Hold-down connectors. In Seismic Design Category D, E or F, hold-down connectors shall be designed to resist shear wall overturning moments using approved cyclic load values or 75 percent of

the allowable seismic load values that do not consider cyclic loading of the product. Connector bolts into wood framing shall require steel plate washers on the post on the opposite side of the anchorage device. Plate size shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Hold-down connectors shall be tightened to finger tight plus one half (1/2) wrench turn just prior to covering the wall framing.

18.40.270 – Amend CBC Section 2306.2—Wood-frame diaphragms.

Section 2306.2 of the 2013 Edition of the California Building Code is amended to read as follows:

2306.2 Wood-frame diaphragms. Wood-frame diaphragms shall be designed and constructed in accordance with AF&PA SDPWS. Where panels are fastened to framing members with staples, requirements and limitations of AF&PA SDPWS shall be met and the allowable shear values set forth in Table 2306.2(1) or 2306.2(2) shall only be permitted for structures assigned to Seismic Design Category A, B, or C.

Exception: Allowable shear values where panels are fastened to framing members with staples may be used if such values are substantiated by cyclic testing and approved by the building official.

The allowable shear values in Tables 2306.2(1) and 2306.2(2) are permitted to be increased 40 percent for wind design.

Exception: [DSA-SS, DSA-SS/CC and OSHPD 1, 2 &4] Wood structural panel diaphragms using staples as fasteners are not permitted by DSA and OSHPD.

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

Exception: Wood structural panel diaphragms are permitted to be fastened over solid lumber planking or laminated decking, provided the panel joints and lumber planking or laminated decking joints do not coincide.

18.40.280 – Amend CBC Section 2306.3—Wood-frame shear walls.

2306.3 Wood-frame shear walls. Wood-frame shear walls shall be designed and constructed in accordance with AF&PA SDPWS. For structures assigned to Seismic Design Category D, E, or F, application of Tables 4.3A and 4.3B of AF&PA SDPWS shall include the following:

1. Wood structural panel thickness for shear walls shall not be less than 3/8 inch thick and studs shall not be spaced at more than 16 inches on center.
2. The maximum nominal unit shear capacities for 3/8 inch wood structural panels resisting seismic forces in structures assigned to Seismic Design Category D, E or F is 400 pounds per linear foot (plf).

Exception: Other nominal unit shear capacities may be permitted if such values are substantiated by cyclic testing and approved by the building official.

3. Where shear design values using allow stress design (ASD) exceed 350 plf or load and resistance factor design (LRFD) exceed 500 plf, all framing members receiving edge nailing from abutting panels shall not be less than a single 3-inch nominal member, or two 2-inch nominal members fastened together in accordance with Section 2306.1 to transfer the design shear value between framing members. Wood structural panel joint and sill plate nailing shall be staggered at all panel edges. See Section 4.3.6.1 and 4.3.6.4.3 of AF&PA SDPWS for sill plate size and anchorage requirements.
4. Nails shall be placed not less than 1/2 inch in from the panel edges and not less than 3/8 inch from the edge of the connecting members for shear greater than 350 plf using ASD or 500 plf using LRFD. Nails shall be placed not less than 3/8 inch from panel edges and not less than 1/4 inch from the edge of the connecting members for shears of 350 plf or less using ASD or 500 plf or less using LRFD.
5. Table 4.3B application is not allowed for structures assigned to Seismic Design Category D, E, or F.

For structures assigned to Seismic Design Category D, application of Table 4.3C of AF&PA SDPWS shall not be used below the top level in a multi-level building for structures.

Where panels are fastened to framing members with staples, requirements and limitations of AF&PA SDPWS shall be met and the allowable shear values set forth in Table 2306.3(1), 2306.3(2) or 2306.3(3) shall only be permitted for structures assigned to Seismic Design Category A, B, or C.

Exception: Allowable shear values where panels are fastened to framing members with staples may be used if such values are substantiated by cyclic testing and approved by the building official.

The allowable shear values in Tables 2306.3(1) and 2306.3(2) are permitted to be increased 40 percent for wind design. Panels complying with ANSI/APA PRP-210 shall be permitted to use design values for Plywood Siding in the AF&PA SDPWS.

Exception: [DSA-SS 7DSA-SS/CC and OSHPD 1, 2 &4] Wood structural panel shear walls using staples as fasteners are not permitted by DSA and OSHPD.

18.40.290 – Add CBC Section 2307.2—Wood-frame shear walls.

Section 2307.2 is added o the 2013 Edition of the California Building Code to read as follows:

2307.2 Wood-frame shear walls. Wood-frame shear walls shall be designed and constructed in accordance with Section 2306.3 as applicable.

18.40.300 – Amend CBC Section 2308.3.4—Braced wall line support.

Section 2308.3.4 of the 2013 Edition of the California Building Code is amended to read as follows:

2308.3.4 Braced wall line support. Braced wall lines shall be supported by continuous foundations.

Exception: For structures with a maximum plan dimension not over 50 feet (15240 mm), continuous foundations are required at exterior walls only for structures assigned to Seismic Design Category A, B or C.

18.40.310 – Amend CBC Section 2308.9.3.1—Alternative bracing.

Section 2308.9.3.1 Item 1 of the 2013 Edition of the California Building Code is amended to read as follow:

1. In one-story buildings, each panel shall have a length of not less than 2 feet 8 inches (813 mm) and a height of not more than 10 feet (3048 mm). Each panel shall be sheathed on one face with 3/8-inch-minimum-thickness (9.5 mm) wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with Table 2304.9.1 and blocked at wood structural panel edges. For structures assigned to Seismic Design Category D or E, each panel shall be sheathed on one face with 15/32-inch-minimum-thickness (11.9 mm) wood structural panel sheathing nailed with 8d common nails spaced 3 inches on panel edges, 3 inches at intermediate supports. Two anchor bolts installed in accordance with Section 2308.6 shall be provided in each panel. Anchor bolts shall be placed at each panel outside quarter points. Each panel end stud shall have a tie-down device fastened to the foundation, capable of providing an approved uplift capacity of not less than 1,800 pounds (8006 N). The tie-down device shall be installed in accordance with the manufacturer's recommendations. The panels shall be supported directly on a foundation or on floor framing supported directly on a foundation that is continuous across the entire length of the braced wall line. This foundation shall be reinforced with not less than one No. 4 bar top and bottom.

Where the continuous foundation is required to have a depth greater than 12 inches (305 mm), a minimum 12-inch by 12-inch (305 mm by 305 mm) continuous footing or turned down slab edge is permitted at door openings in the braced wall line. This continuous footing or turned down slab edge shall be reinforced with not less than one No. 4 bar top and bottom. This reinforcement shall be lapped 15 inches (381 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.

18.40.320 – Amend CBC Section 2308.9.3.2 and Figure 2308.9.3.2—Alternate bracing wall panel adjacent to a door or window opening.

Section 2308.9.3.2 Item 1 of the 2013 Edition of the California Building Code is amended to read as follow:

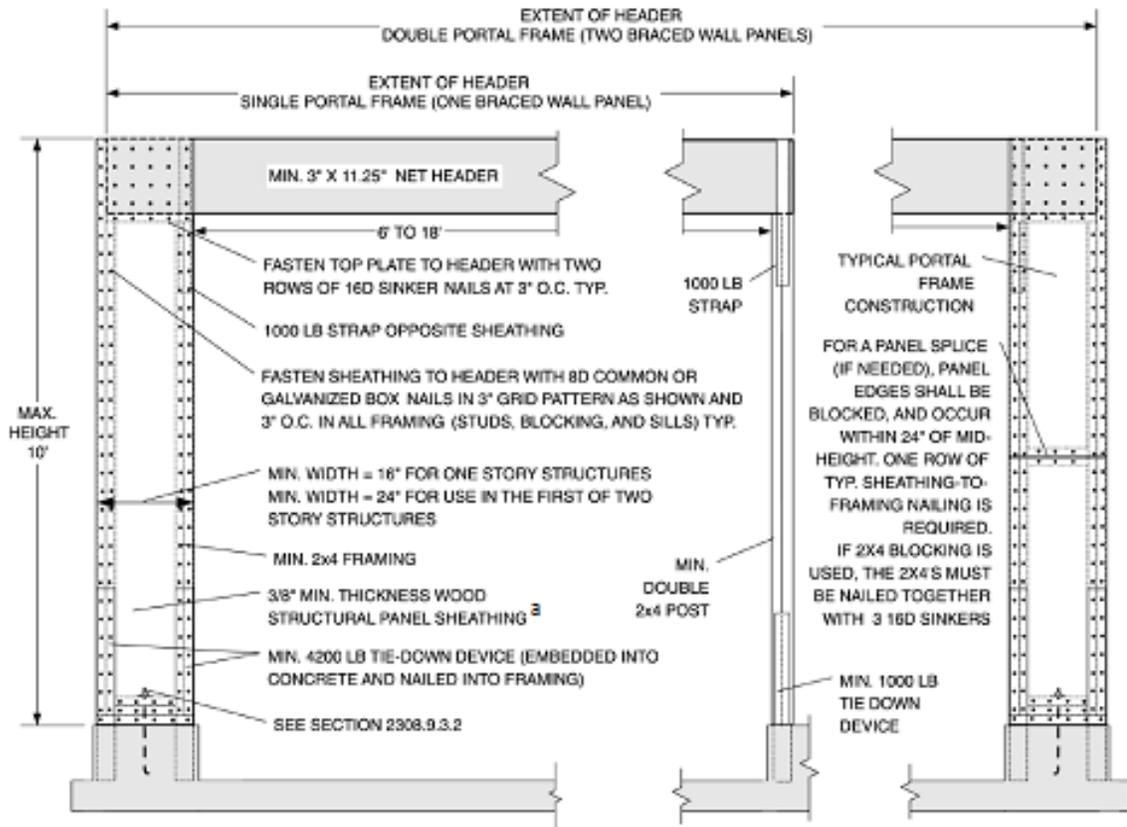
1. In one-story buildings, each panel shall have a length of not less than 16 inches (406 mm) and a height of not more than 10 feet (3048 mm). Each panel shall be sheathed on one face with a single layer of 3/8 inch (9.5 mm) minimum thickness wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with Figure 2308.9.3.2. For structures assigned to Seismic Design Category D or E, each panel shall be sheathed on one face with 15/32-inch-minimum-thickness (11.9 mm) wood structural panel sheathing nailed with 8d common nails spaced 3 inches on panel edges, 3 inches at intermediate supports and in accordance with Figure 2308.9.3.2. The wood structural panel sheathing shall extend up over the solid sawn or glued-laminated header and shall be nailed in accordance with Figure 2308.9.3.2. A built-up header consisting of at least two 2 × 12s and fastened in accordance with Item 24 of

Table 2304.9.1 shall be permitted to be used. A spacer, if used, shall be placed on the side of the built-up beam opposite the wood structural panel sheathing. The header shall extend between the inside faces of the first full-length outer studs of each panel. The clear span of the header between the inner studs of each panel shall be not less than 6 feet (1829 mm) and not more than 18 feet (5486 mm) in length. A strap with an uplift capacity of not less than 1,000 pounds (4,400 N) shall fasten the header to the inner studs opposite the sheathing. One anchor bolt not less than 5/8 inch (15.9 mm) diameter and installed in accordance with Section 2308.6 shall be provided in the center of each sill plate. The studs at each end of the panel shall have a tie-down device fastened to the foundation with an uplift capacity of not less than 4,200 pounds (18 480 N).

Where a panel is located on one side of the opening, the header shall extend between the inside face of the first full-length stud of the panel and the bearing studs at the other end of the opening. A strap with an uplift capacity of not less than 1,000 pounds (4400 N) shall fasten the header to the bearing studs. The bearing studs shall also have a tie-down device fastened to the foundation with an uplift capacity of not less than 1,000 pounds (4400 N).

The tie-down devices shall be an embedded strap type, installed in accordance with the manufacturer's recommendations. The panels shall be supported directly on a foundation that is continuous across the entire length of the braced wall line. This foundation shall be reinforced with not less than one No. 4 bar top and bottom.

Where the continuous foundation is required to have a depth greater than 12 inches (305 mm), a minimum 12-inch by 12-inch (305 mm by 305 mm) continuous footing or turned down slab edge is permitted at door openings in the braced wall line. This continuous footing or turned down slab edge shall be reinforced with not less than one No. 4 bar top and bottom. This reinforcement shall be lapped not less than 15 inches (381 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.



For SI: 1 foot = 304.8 mm; 1 inch = 25.4 mm; 1 pound = 4.448 N.

- a. For structures assigned to Seismic Design Category D or E, sheathed on one face with 15/32-inch minimum thickness (11.9 mm) wood structural panel sheathing nailed with 8d common nails spaced 6 inches on panel edges, 12 inches at intermediate supports.

**FIGURE 2308.9.3.2
ALTERNATE BRACED WALL PANEL ADJACENT TO A DOOR OR WINDOW OPENING**

18.40.330 – Amend CBC Table 2308.12.4—Braced wall line sheathing.

Table 2308.12.4 of the 2013 Edition of the California Building Code is amended to read as follows:

**TABLE 2308.12.4
WALL BRACING IN SEISMIC DESIGN CATEGORIES D AND E
(Minimum Percentage of Wall Bracing per each Braced Wall Line^a)**

CONDITION	SHEATHING TYPE ^b	$S_{DS} < 0.50$	$0.50 \leq S_{DS} < 0.75$	$0.75 \leq S_{DS} \leq 1.00$	$S_{DS} > 1.00$
One Story	G-P ^c	43	59	75	100
	S-W ^d	21	32	37	48

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. Minimum length of panel bracing of one face of the wall for S-W sheathing shall be at least 4'-0" long or both faces of the wall for G-P sheathing shall be at least 8'-0" long; h/w ratio shall not exceed 2:1. For S-W panel bracing of the same material on two faces of the wall, the minimum length is permitted to be one-half the tabulated value but the h/w ratio shall not exceed 2:1 and design for uplift is required. The 2:1 h/w ratio limitation does not apply to alternate braced wall panels constructed in accordance with Section 2308.9.3.1 or 2308.9.3.2. 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 and spaced a maximum of 16 inches on center. Braced wall panel construction types shall not be mixed within a braced wall line.
- b. G-P = gypsum board, portland cement plaster or gypsum sheathing boards; S-W = wood structural panels.
- c. Nailing as specified below shall occur at all panel edges at studs, at top and bottom plates and, where occurring, at blocking:
For 1/2-inch gypsum board, 5d (0.113 inch diameter) cooler nails at 7 inches on center;
For 5/8-inch gypsum board, No 11 gage (0.120 inch diameter) cooler nails at 7 inches on center;

For gypsum sheathing board, 1-3/4 inches long by 7/16-inch head, diamond point galvanized nails at 4 inches on center;
For gypsum lath, No. 13 gage (0.092 inch) by 1-1/8 inches long, 19/64-inch head, plasterboard at 5 inches on center;
For Portland cement plaster, No. 11 gage (0.120 inch) by 1 1/2 inches long, 7/16-inch head at 6 inches on center;

- d. S-W sheathing shall be a minimum of 15/32" thick nailed with 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.

18.40.340 – Amend CBC Section 2304.9.1—Fastener requirements.

Section 2304.9.1 of the 2013 Edition of the California Building Code is amended to read as follows:

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

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

18.40.350 – Amend CBC Section 2308.12.5—Attachment of sheathing.

Section 2308.12.5 of the 2013 Edition of the California Building Code is amended to read as follows:

2308.12.5 Attachment of sheathing. Fastening of braced wall panel sheathing shall not be less than that prescribed in Table 2308.12.4 or 2304.9.1. Wall sheathing shall not be attached to framing members by adhesives. Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.

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

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

18.40.360 – Amend CBC Section 2503.1—Inspection.

Section 2503.1 of the 2013 Edition of the California Building Code is amended by changing the reference to "Section 110.3.5, Chapter 1, Division II" to read "Section 18.07.050 of the Long Beach Municipal Code."

18.40.370 – Amend CBC Section 3307.1—Protection required.

Section 3307.1 of the 2013 Edition of the California Building Code is amended to read as follows:

3307.1 Protection required. Adjoining public and private property shall be protected from damage during construction, remodeling and demolition work. Protection shall be provided for footings, foundations, party walls, chimneys, skylights and roofs. Provisions shall be made to control water runoff and erosion during construction or demolition activities. The person making or causing an excavation to be made shall provide written notice to the owners of adjoining buildings advising them that the excavation is to be made and that the adjoining buildings should be protected. Said notification shall be delivered not less than ten (10) days prior to the scheduled starting date of the excavation.

The requirements of protection of adjacent property with respect to excavations shall be as provided in Section 832 of the California Civil Code.

Prior to the issuance of any permit which authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Building Official with evidence that the adjacent property owner or owners have been given a thirty (30) day written notice of such intent to make an excavation. This notice shall state the depth to which such excavation is intended to be made and when the excavation will commence. This notice shall be by certified mail, return receipt requested.

This section shall not be construed to waive the requirements of the General Safety Orders of the California Department of Industrial Relations, nor the provisions of Section 832 of the California Civil Code concerning the rights of coterminous owners as to excavations.

18.40.380 – Amend CBC Section 3408.1—Change of occupancy, conformance.

Section 3408.1 of the 2013 Edition of the California Building Code is amended to read as follows:

3408.1 Conformance. No change shall be made in the use or occupancy of any building that would place the building in a different division of the same group of occupancies 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 occupancies. Subject to the approval of the Building Official, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups without conforming to all the requirements of this code for those groups, provided the new or proposed use is less hazardous, based on life and fire risk, than the existing use.

Except for groups A, E and I occupancies, which were constructed prior to January 9, 1934, and are not within the scope of Chapter 18.68 of the Long Beach Municipal Code, a change of occupancy group or division may be made to another equal or lesser hazard as listed herein. For the purpose of this section, the order of least hazardous group to highest hazardous group is as follows:

- Group U (least hazardous group)
- Groups R-3 and R-3.1
- Group S-2
- Groups B, F, L, M, H and S-1
- Groups R-1, R-2, R-2.1 and R-4
- Groups A, E and I (highest hazardous group)

Every change of use or increased occupant load within the same division of an occupancy group shall require compliance with the provisions of Chapters 3, 10 and 16 of this code applicable to the proposed use or increased occupant load if the Building Official determine that there is an overall increase in hazard to life, limb, health, property or public welfare.

18.40.390 – Amend CBC Section 3410.1—Moved structures, general.

Section 3410.1 of the 2013 Edition of the California Building Code is amended to read as follows:

3410.1 Conformance. Structures moved into or within the City shall comply with the provisions of this code for new structures and Chapter 18.60 of the Long Beach Municipal Code.

18.40.400 – Amend CBC Section H101.2 of Appendix H—Signs exempt from permits.

Section H101.2 of Appendix H of the 2013 Edition of the California Building Code is amended by deleting Item 4.

18.40.410 – Amend CBC Section H105.2 of Appendix H—Permits, drawings and specifications.

Section H105.2 of Appendix H of the 2013 Edition of the California Building Code is amended by changing the reference to "Chapter 1" to read "Chapter 18.04 of the Long Beach Municipal Code."

18.40.420 – Amend CBC Section H110.1 of Appendix H— General.

Section H110.1 of Appendix H of the 2013 Edition of the California Building Code is amended by deleting the last two sentences.

CHAPTER 18.41 RESIDENTIAL CODE

- 18.41.010 – Adoption.
- 18.41.020 – Application.
- 18.41.030 – Amendments to the adopted code.
- 18.41.040 – Sections, chapters or appendices deleted from adopted code.
- 18.41.050 – Amend CRC Section R201.4—Terms not defined.
- 18.41.060 – Amend CRC Section R301.1.3.2—Woodframe structures.
- 18.41.070 – Amend CRC Table R301.2(1)—Irregular buildings.
- 18.41.080 – Amend CRC Section R301.2.2.2.5—Irregular buildings.
- 18.41.090 – Amend CRC Section R401.1—Application, foundation.
- 18.41.100 – Amend CRC Section R403.1.2— Continuous footing.
- 18.41.110 – Amend CRC Section R403.1.3—Seismic reinforcing.
- 18.41.120 – Amend CRC Section R403.1.5—Slope.
- 18.41.130 – Amend CRC Section R404.2— Wood foundation walls.
- 18.41.140 – Add CRC Section R503.2.4—Openings in horizontal diaphragms.
- 18.41.150 – Amend CRC Table R602.3(1)—Fastener schedule for structural members.
- 18.41.160 – Amend CRC Section 602.3.2—Top plate.
- 18.41.170 – Amend CRC Table R602.3(2)—Alternate attachment.
- 18.41.180 – Amend CRC Section R602.10.2.3—Minimum number of braced wall panels.
- 18.41.190 – Amend CRC Table R602.10.3(3)—Bracing requirements.
- 18.41.200 – Amend CRC Table R602.10.4—Bracing methods.
- 18.41.210 – Amend CRC Figure R602.10.6.1—Alternate braced wall panel.
- 18.41.220 – Amend CRC Figure R602.10.6.2—Method PFH.
- 18.41.230 – Amend CRC Table R602.10.5—Minimum length of braced wall panels.
- 18.41.240 – Amend CRC Figure R602.10.6.4—Method CD-PF.
- 18.41.250 – Amend CRC Section R606.12.2.2.3—Reinforcement requirements for masonry elements.
- 18.41.260 – Add CRC Section R803.2.4—Openings in horizontal diaphragms.
- 18.41.270 – Amend CRC Section R1001.3.1—Vertical reinforcing.

CHAPTER 18.41 RESIDENTIAL CODE

18.41.010 – Adoption.

The City Council adopts and incorporates by reference as though set forth in full in this chapter The 2013 Edition of the California Residential Code, excluding sections, chapters or appendices pursuant to Section 18.41.040. The California Residential Code is Part 2.5 of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part is based on the provisions of the 2012 International Residential Code (model code) as developed by the International Code Council with necessary California amendments.

The adoption of the 2013 Edition of the California Residential Code (herein referred to as “California Residential Code”) is subject to the changes, amendments and modifications to said code as provided in this chapter, and certain provisions of the Long Beach Municipal Code, which shall remain in full force and effect as provided in this title. Such codes and code provisions shall constitute and be known as the Long Beach Residential Code. A copy of the California Residential Code, printed as code in book form, shall be on file in the office of the City Clerk.

18.41.020 – Application.

The provisions of the model code (the International Residential Code), which are incorporated into the California Residential Code, are applicable to all occupancy groups and uses regulated by the model code. The amendments made by the State agencies to the model code and incorporated into the California Residential Code are applicable only to those occupancies or uses that the State agency making the amendments is authorized to regulate, as listed in Chapter 1, Division I of the California Residential Code. The Building and Safety Bureau shall only enforce those amendments made by the following State agencies:

- A. The California Energy Commission (CEC) as specified in Section 1.5 of the California Residential Code.
- B. The Department of Housing and Community Development (HCD) as specified in Section 1.8 of the California Residential Code.
- C. The Division of the State Architect, Access Compliance (DSA/AC) as specified in Section 1.9 of the California Residential Code.
- D. The Office of Statewide Health, Planning and Development (OSHPD 3) as specified in Section 1.10 of the California Residential Code.
- E. The Office of the State Fire Marshal (SFM) as specified in Section 1.11 of the California Residential Code.

18.41.030 – Amendments to the adopted code.

The California Residential Code is amended and modified as set forth in Sections 18.41.040 through 18.41.270.

18.41.040 – Sections, chapters or appendices deleted from the adopted code.

The following sections, chapters or appendices of the California Residential Code are deleted: Sections R101 through R114 of Chapter 1, Division II; Section R319 of Chapter 3; Section R602.10.9.1 of Chapter 6; Parts IV through VIII; and Appendices A through Q.

18.41.050 – Amend CRC Section 201.4—Terms not defined.

Section R201.4 of the 2013 Edition of the California Residential Code is amended to read as follows:

R201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies. Webster's Third New International Dictionary of the English Language, Unabridged shall be considered as providing ordinarily accepted meanings.

18.41.060 – Amend CRC Section R301.1.3.2—Woodframe structures.

Section R301.1.3.2 of the 2013 Edition of the California Residential Code is amended to read as follows:

R301.1.3.2 Woodframe structures. The Building Official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of woodframe construction more than two stories and basement in height located in Seismic Design Category A, B or C. Notwithstanding other sections the law, the law establishing these provisions is found in Business and Professions Code Section 5537 and 6737.1.

The Building Official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of woodframe construction more than one story in height or with a basement located in Seismic Design Category D₀, D₁, D₂ or E.

18.41.070 – Amend CRC Table R301.2(1)—Irregular buildings.

Table R301.2(1) of the 2013 Edition of the California Residential Code is amended to read as follows:

TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ^e	ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
	Speed ^d (mph)	Topographic effects ^k		Weathering ^a	Frost line Depth ^b	Termite ^c					
Zero	85	No	D ₂ or E	Negligible	12" - 24"	Very heavy	43	No		0	60

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

- a. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The weathering column shall be filled in with the weathering index (i.e., "negligible," "moderate" or "severe") for concrete as determined from the Weathering Probability Map [Figure R301.2(3)]. The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.
- b. The frost line depth may require deeper footings than indicated in Figure R403.1(1). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.
- c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.
- d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(4)]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
- e. The outdoor design dry-bulb temperature shall be selected from the columns of 971/2-percent values for winter from Appendix D of the International Plumbing Code. Deviations from the Appendix D temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official.
- f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.
- g. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study for, the City of Long Beach" dated July 6, 1998, as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto.
- h. In accordance with Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."
- i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99%) value on the National Climatic Data Center data table "Air Freezing Index- USA Method (Base 32°)" at www.ncdc.noaa.gov/fpsf.html.
- j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)" at www.ncdc.noaa.gov/fpsf.html.

- k. In accordance with Section R301.2.2.2.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

18.41.080 – Amend CRC Section R301.2.2.2.5—Irregular buildings.

Items 1, 3 and 5 of Section R301.2.2.2.5 of the 2013 Edition of the California Residential Code are amended to read as follows, including the removal of the exception in each of the items:

1. When exterior shear wall lines or braced wall panels are not in one plane vertically from the foundation to the uppermost story in which they are required.
3. When the end of a braced wall panel occurs over an opening in the wall below.
5. When portions of a floor level are vertically offset.

18.41.090 – Amend CRC Section R401.1—Application, foundation.

Section R401.1 of the 2013 Edition of the California Residential Code is amended to read as follows:

R401.1 Application. The provisions of this chapter shall control the design and construction of the foundation and foundation spaces for all buildings. In addition to the provisions of this chapter, the design and construction of foundations in areas prone to flooding as established by Table R301.2(1) shall meet the provisions of Section R322. Wood foundations shall be designed and installed in accordance with AF&PA PWF.

Exception: The provisions of this chapter shall be permitted to be used for wood foundations only in the following situations:

1. In buildings that have no more than two floors and a roof.
2. When interior basement and foundation walls are constructed at intervals not exceeding 50 feet (15 240 mm).

Wood foundations in Seismic Design Category D₀, D₁ or D₂ shall not be permitted.

Exception: In non-occupied, single-story, detached storage sheds and similar uses other than carport or garage, provided the gross floor area does not exceed 200 square feet, the plate height does not exceed 12 feet in height above the grade plane at any point, and the maximum roof projection does not exceed 24 inches.

18.41.100 – Amend CRC Section R403.1.2— Continuous footing.

Section R403.1.2 of the 2013 Edition of the California Residential Code is amended to read as follows:

R403.1.2 Continuous footing in Seismic Design Categories D₀, D₁ and D₂. The braced wall panels at exterior walls of buildings located in Seismic Design Categories D₀, D₁ and D₂ shall be supported by continuous footings. All required interior braced wall panels in buildings shall be supported by continuous footings.

18.41.110 – Amend CRC Section R403.1.3—Seismic reinforcing.

Exception of Section R403.1.3 of the 2013 Edition of the California Residential Code is amended to read as follows:

Exception: In detached one- and two-family dwellings located in Seismic Design Category A, B or C which are three stories or less in height and constructed with stud bearing walls, plain concrete

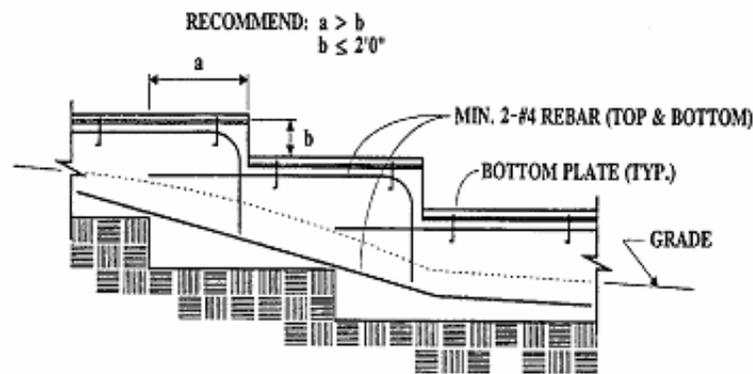
footings without longitudinal reinforcement supporting walls and isolated plain concrete footings supporting columns or pedestals are permitted.

18.41.120 – Amend CRC Section R403.1.5—Slope.

Section R403.1.5 of the 2013 Edition of the California Residential Code is amended to read as follows:

R403.1.5 Slope. The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in 10 units horizontal (10-percent slope).

For structures located in Seismic Design Categories D₀, D₁ or D₂, stepped footings shall be reinforced with four 1/2-inch diameter (12.7 mm) deformed reinforcing bars. Two bars shall be placed at the top and bottom of the footings as shown in Figure R403.1.5.



STEPPED FOUNDATIONS

**FIGURE R403.1.5
STEPPED FOOTING**

18.41.130 – Amend CRC Section R404.2— Wood foundation walls.

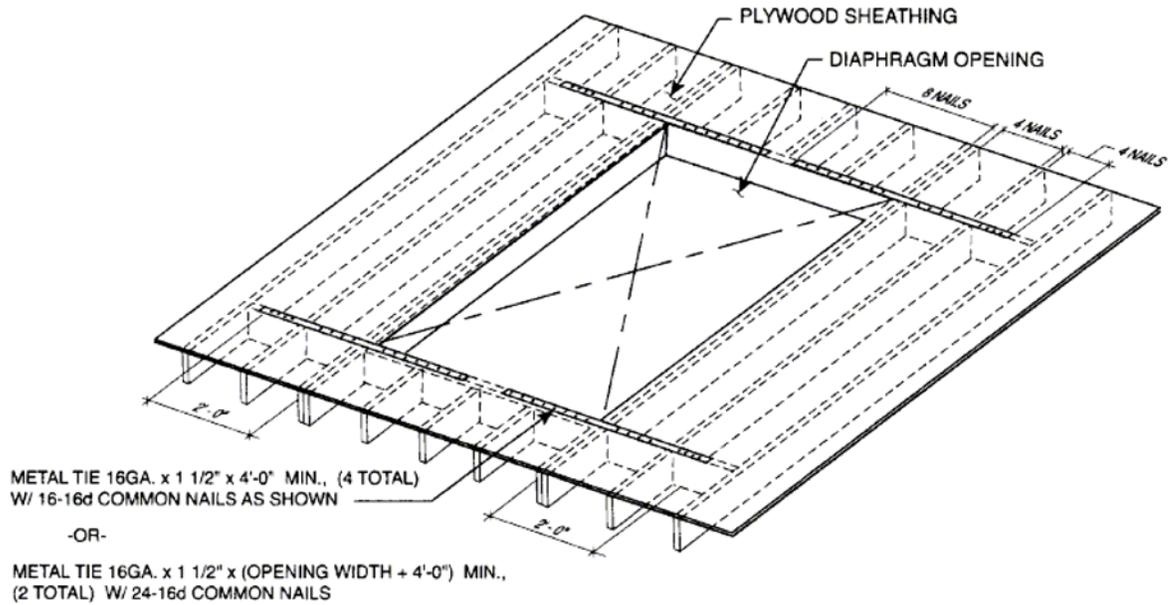
Section R404.2 of the 2013 Edition of the California Residential Code is amended to read as follows:

R404.2 Wood foundation walls. Wood foundation walls shall be constructed in accordance with the provisions of Sections R404.2.1 through R404.2.6 and with the details shown in Figures R403.1(2) and R403.1(3). Wood foundation walls shall not be used for structures located in Seismic Design Category D₀, D₁ or D₂.

18.41.140 – Add CRC Section R503.2.4—Openings in horizontal diaphragms.

Section R503.2.4 is added to Chapter 5 of the 2013 Edition of the California Residential Code to read as follows:

R503.2.4 Openings in horizontal diaphragms. Openings in horizontal diaphragms with a dimension perpendicular to the joist that is greater than 4 feet (1.2 m) shall be constructed in accordance with Figure R503.2.4.



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- Blockings shall be provided beyond headers.
- Metal ties not less than 0.058 inch [1.47 mm (16 galvanized gage)] by 1.5 inches (38 mm) wide with eight 16d common nails on each side of the header-joist intersection. The metal ties shall have a minimum yield of 33,000 psi (227 MPa).
- Openings in diaphragms shall be further limited in accordance with Section R301.2.2.2.5.

FIGURE R503.2.4
OPENINGS IN HORIZONTAL DIAPHRAGMS

18.41.150 – Amend CRC Table R602.3(1)—Fastener schedule for structural members.

Footnote k is added to Lines 37 and 38 of Table R602.3(1) of the 2013 Edition of the California Residential Code to read as follows:

- Use of staples in braced wall panels shall be prohibited in Seismic Design Category D₀, D₁ or D₂.

18.41.160 – Amend CRC Section 602.3.2—Top plate.

Exception of Section 602.3.2 of the 2013 Edition of the California Residential Code is amended to read as follows:

Exception: In other than Seismic Design Category D₀, D₁ or D₂, a single top plate may be installed in stud walls, provided the plate is adequately tied at joints, corners and intersecting walls by a minimum 3-inch-by-6-inch by a 0.036-inch-thick (76 mm by 152 mm by 0.914 mm) galvanized steel plate that is nailed to each wall or segment of wall by six 8d nails on each side, provided the rafters or joists are centered over the studs with a tolerance of no more than 1 inch (25 mm). The top plate may be omitted over lintels that are adequately tied to adjacent wall sections with steel plates or equivalent as previously described.

18.41.170 – Amend CRC Table R602.3(2)—Alternate attachment.

Footnote b of Table R602.3(2) of the 2013 Edition of the California Residential Code is amended to read as follows:

b. Staples shall have a minimum crown width of 7/16-inch on diameter except as noted. Use of staples in roof, floor, subfloor, and braced wall panels shall be prohibited in Seismic Design Category D₀, D₁, or D₂.

18.41.180 – Amend CRC Section R602.10.2.3—Minimum number of braced wall panels.

Section R602.10.2.3 of the 2013 Edition of the California Residential Code is amended to read as follows:

R602.10.2.3 Minimum number of braced wall panels. Braced wall lines with a length of 16 feet (4877 mm) or less shall have a minimum of two braced wall panels of any length or one braced wall panel equal to 48 inches (1219 mm) or more. Braced wall lines greater than 16 feet (4877 mm) shall have a minimum of two braced wall panels. No braced wall panel shall be less than 48 inches in length in Seismic Design Category D₀, D₁, or D₂.

18.41.190 – Amend CRC Table R602.10.3(3)—Bracing requirements.

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

TABLE R602.10.3(3)
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY

<ul style="list-style-type: none"> • SOIL CLASS D^b • WALL HEIGHT = 10 FEET • 10 PSF FLOOR DEAD LOAD • 15 PSF ROOF/CEILING DEAD LOAD • BRACED WALL LINE SPACING ≤ 25 FEET 			MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE ^a				
Seismic Design Category	Story Location	Braced Wall Line Length (feet)	Method LIB ^a	Method GB ^a	Methods DWB, SFB, PBS, PCP, HPS, CS-SFB ^{a,c}	Method WSP	Methods CS-WSP, CS-G
C (townhouses only)		10	2.5	2.5	2.5	1.6	1.4
		20	5.0	5.0	5.0	3.2	2.7
		30	7.5	7.5	7.5	4.8	4.1
		40	10.0	10.0	10.0	6.4	5.4
		50	12.5	12.5	12.5	8.0	6.8
		10	NP	4.5	4.5	3.0	2.6
		20	NP	9.0	9.0	6.0	5.1
		30	NP	13.5	13.5	9.0	7.7
		40	NP	18.0	18.0	12.0	10.2
		50	NP	22.5	22.5	15.0	12.8
		10	NP	6.0	6.0	4.5	3.8
		20	NP	12.0	12.0	9.0	7.7
		30	NP	18.0	18.0	13.5	11.5
		40	NP	24.0	24.0	18.0	15.3
		50	NP	30.0	30.0	22.5	19.1
D ₀		10	NP	5.6	5.6	1.8	1.6
		20	NP	11.0	11.0	3.6	3.1
		30	NP	16.6	16.6	5.4	4.6
		40	NP	22.0	22.0	7.2	6.1
		50	NP	27.6	27.6	9.0	7.7
		10	NP	NP	NP	3.8	3.2
		20	NP	NP	NP	7.5	6.4
		30	NP	NP	NP	11.3	9.6
		40	NP	NP	NP	15.0	12.8
		50	NP	NP	NP	18.8	16.0
		10	NP	NP	NP	5.3	4.5
		20	NP	NP	NP	10.5	9.0
		30	NP	NP	NP	15.8	13.4
		40	NP	NP	NP	21.0	17.9
		50	NP	NP	NP	26.3	22.3

(continued)

TABLE R602.10.3(3)—continued
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY

<ul style="list-style-type: none"> • SOIL CLASS D^b • WALL HEIGHT = 10 FEET • 10 PSF FLOOR DEAD LOAD • 15 PSF ROOF/CEILING DEAD LOAD • BRACED WALL LINE SPACING ≤ 25 FEET 			MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE ^a				
Seismic Design Category	Story Location	Braced Wall Line Length (feet)	Method LIB ^c	Method GB ^e	Methods DWB, SFB, PBS, PCP, HPS, CS-SFB ^{d,e}	Method WSP	Methods CS-WSP, CS-G
D ₁		10	NP	6.0	6.0	2.0	1.7
		20	NP	12.0	12.0	4.0	3.4
		30	NP	18.0	18.0	6.0	5.1
		40	NP	24.0	24.0	8.0	6.8
		50	NP	30.0	30.0	10.0	8.5
		10	NP	NP	NP	4.5	3.8
		20	NP	NP	NP	9.0	7.7
		30	NP	NP	NP	13.5	11.5
		40	NP	NP	NP	18.0	15.3
		50	NP	NP	NP	22.5	19.1
		10	NP	NP	NP	6.0	5.1
		20	NP	NP	NP	12.0	10.2
		30	NP	NP	NP	18.0	15.3
		40	NP	NP	NP	24.0	20.4
		50	NP	NP	NP	30.0	25.5
D ₂		10	NP	8.0	8.0	2.5	2.1
		20	NP	16.0	16.0	5.0	4.3
		30	NP	24.0	24.0	7.5	6.4
		40	NP	32.0	32.0	10.0	8.5
		50	NP	40.0	40.0	12.5	10.6
		10	NP	NP	NP	5.5	4.7
		20	NP	NP	NP	11.0	9.4
		30	NP	NP	NP	16.5	14.0
		40	NP	NP	NP	22.0	18.7
		50	NP	NP	NP	27.5	23.4
		10	NP	NP	NP	NP	NP
		20	NP	NP	NP	NP	NP
		30	NP	NP	NP	NP	NP
		40	NP	NP	NP	NP	NP
		50	NP	NP	NP	NP	NP
	Cripple wall below one- or two-story dwelling	10	NP	NP	NP	7.5	6.4
		20	NP	NP	NP	15.0	12.8
		30	NP	NP	NP	22.5	19.1
		40	NP	NP	NP	30.0	25.5
		50	NP	NP	NP	37.5	31.9

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 pound per square foot = 0.0479 kPa.

- a. Linear interpolation shall be permitted.
- b. Wall bracing lengths are based on a soil site class "D." Interpolation of bracing length between the S_{ds} values associated with the Seismic Design Categories shall be permitted when a site-specific S_{ds} value is determined in accordance with Section 1613.3 of the *California Building Code*.
- c. Method LIB shall have gypsum board fastened to at least one side with nails or screws per Table R602.3(1) for exterior sheathing or Table R702.3.5 for interior gypsum board. Spacing of fasteners at panel edges shall not exceed 8 inches.
- d. Method CS-SFB applies in SDC C only.
- e. Method GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D₀, D₁ or D₂. Methods DWB, SFB, PBS and HPS are not permitted in SDC D₀, D₁ or D₂.

18.41.200 – Amend CRC Table R602.10.4—Bracing methods.

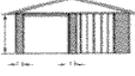
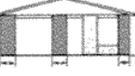
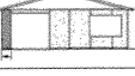
Table R602.10.4 of the 2013 Edition of the California Residential Code is amended to read as follows:

**TABLE R602.10.4
BRACING METHODS**

METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA*		
			Fasteners	Spacing	
Intermittent Bracing Method	LIB Let-in-bracing	1 × 4 wood or approved metal straps at 45° to 60° angles for maximum 16" stud spacing		Wood: 2-8d common nails or 3-8d (2 1/2" long x 0.113" dia.) nails Metal strap: per manufacturer	Wood: per stud and top and bottom plates Metal: per manufacturer
	DWB Diagonal wood boards	3/4" (1" nominal) for maximum 24" stud spacing		2-8d (2 1/2" long x 0.113" dia.) nails or 2 - 1 3/4" long staples	Per stud
	WSP Wood structural panel (See Section R604)	15/32"		8d common (2 1/2" x 0.131) nails 3/8" edge distance to panel edge	6" edges 12" field
	BV-WSP* Wood Structural Panels with Stone or Masonry Veneer (See Section R602.10.6.5)	7/16"	See Figure R602.10.6.5	8d common (2 1/2" x 0.131) nails	4" at panel edges 12" at intermediate supports 4" at braced wall panel end posts
	SFB Structural fiberboard sheathing	1/2" or 25/32" for maximum 16" stud spacing		1 1/2" long x 0.12" dia. (for 1/2" thick sheathing) 1 3/4" long x 0.12" dia. (for 25/32" thick sheathing) galvanized roofing nails or 8d common (2 1/2" long x 0.131" dia.) nails	3" edges 6" field
	GB Gypsum board	1/2"		Nails or screws per Table R602.3(1) for exterior locations Nails or screws per Table R702.3.5 for interior locations	For all braced wall panel locations: 7" edges (including top and bottom plates) 7" field
	PBS Particleboard sheathing (See Section R605)	3/8" or 1/2" for maximum 16" stud spacing		For 3/8", 6d common (2" long x 0.113" dia.) nails For 1/2", 8d common (2 1/2" long x 0.131" dia.) nails	3" edges 6" field
	PCP Portland cement plaster	See Section R703.6 for maximum 16" stud spacing		1 1/2" long, 11 gage, 7/16" dia. head nails or 7/8" long, 16 gage staples 9	6" o.c. on all framing members
	HPS Hardboard panel siding	7/16" for maximum 16" stud spacing		0.092" dia., 0.225" dia. head nails with length to accommodate 1 1/2" penetration into studs	4" edges 8" field
	ABW Alternate braced wall	3/8"		See Section R602.10.6.1	See Section R602.10.6.1

(continued)

TABLE R602.10.4—continued
BRACING METHODS

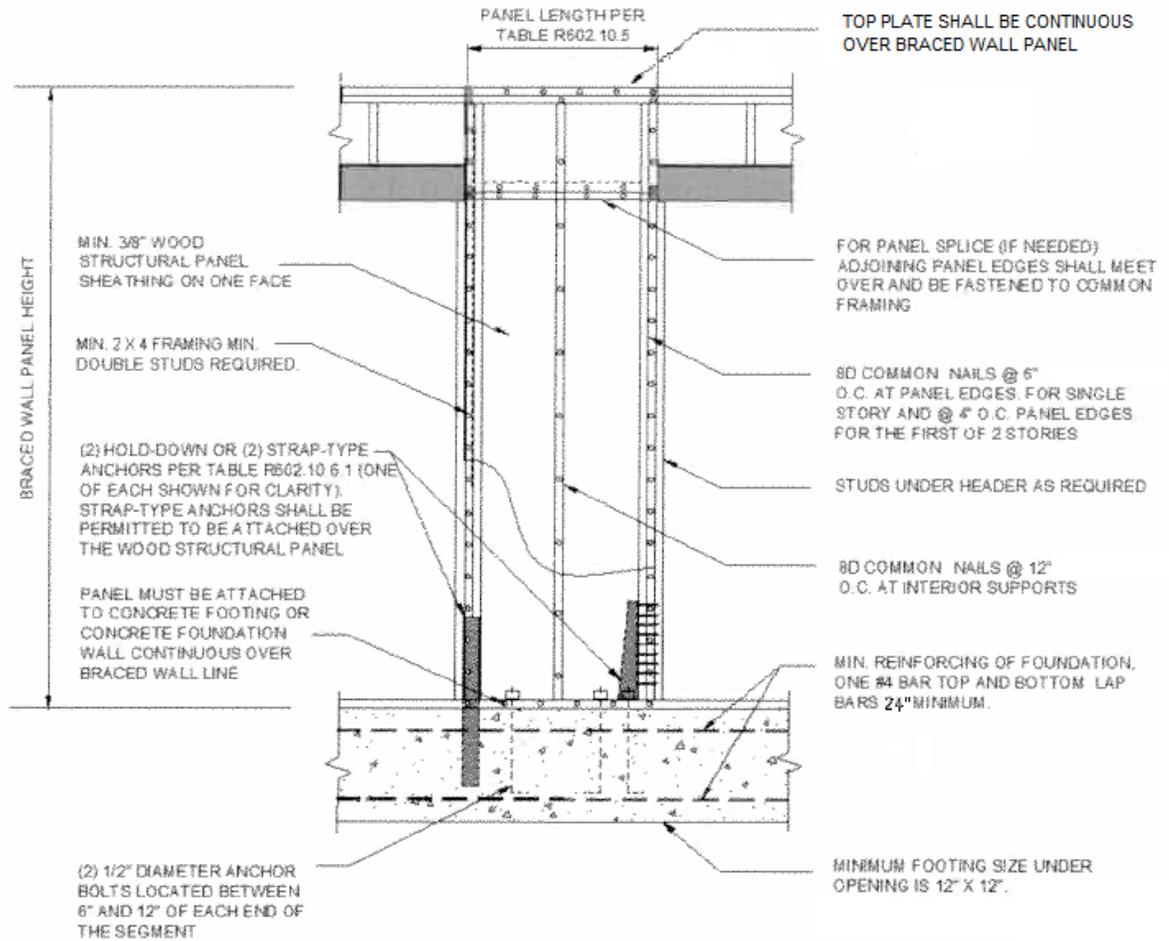
METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA*		
			Fasteners	Spacing	
Intermittent Bracing Methods	PFH Portal frame with hold-downs	$\frac{3}{8}$ "		See Section R602.10.6.2	See Section R602.10.6.2
	PFG Portal frame at garage	$\frac{7}{16}$ "	6" edges 12" field 	See Section R602.10.6.3	See Section R602.10.6.3
Continuous Sheathing Methods	CS-WSP Continuously sheathed wood structural panel	$\frac{15}{32}$ "		8d common ($2\frac{1}{2}$ " \times 0.131) nails $\frac{3}{8}$ " edge distance to panel edge	6" edges 12" field
	CS-G^{b,c} Continuously sheathed wood structural panel adjacent to garage openings	$\frac{15}{32}$ "		See Method CS-WSP	See Method CS-WSP
	CS-PF Continuously sheathed portal frame	$\frac{15}{32}$ "		See Section R602.10.6.4	See Section R602.10.6.4
	CS-SFB^d Continuously sheathed structural fiberboard	$\frac{1}{2}$ " or $\frac{25}{32}$ " for maximum 16" stud spacing		$1\frac{1}{2}$ " long \times 0.12" dia. (for $\frac{1}{2}$ " thick sheathing) $1\frac{3}{4}$ " long \times 0.12" dia. (for $\frac{25}{32}$ " thick sheathing) galvanized roofing nails or 8d common ($2\frac{1}{2}$ " long \times 0.131" dia.) nails	3" edges 6" field

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 degree = 0.0175 rad, 1 pound per square foot = 47.8 N/m², 1 mile per hour = 0.447 m/s.

- a. Adhesive attachment of wall sheathing, including Method GB, shall not be permitted in Seismic Design Categories C, D₀, D₁ and D₂.
- b. Applies to panels next to garage door opening when supporting gable end wall or roof load only. May only be used on one wall of the garage. In Seismic Design Categories D₀, D₁ and D₂, roof covering dead load may not exceed 3 psf.
- c. Garage openings adjacent to a Method CS-G panel shall be provided with a header in accordance with Table R502.5(1). A full height clear opening shall not be permitted adjacent to a Method CS-G panel.
- d. Method CS-SFB does not apply in Seismic Design Categories D₀, D₁ and D₂ and in areas where the wind speed exceeds 100 mph.
- e. Method applies to detached one- and two-family dwellings in Seismic Design Categories D₀ through D₂ only.
- f. Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D0, D1 or D2. Methods LIB, DWB, SFB, PBS, HPS and PFG are not permitted in SCD D0, D1 or D2.
- g. Use of staples in braced wall panels shall be prohibited in SDC D0, D1 or D2.

18.41.210 – Amend CRC Figure R602.10.6.1—Alternate braced wall panel.

Figure R602.10.6.1 of the 2013 Edition of the California Residential Code is amended to read as follows:

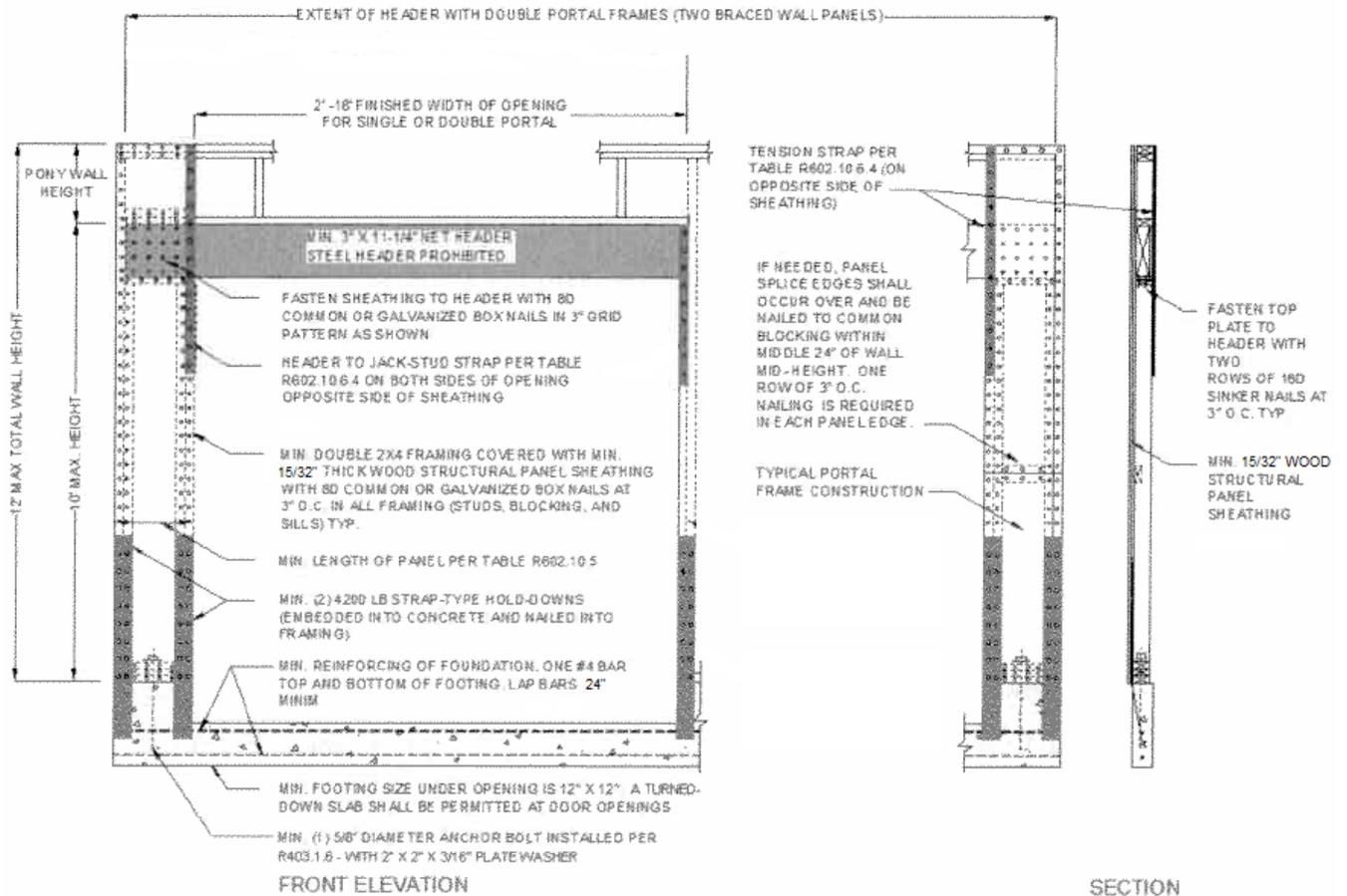


For SI: 1 inch = 25.4 mm.

**FIGURE R602.10.6.1
METHOD ABW—ALTERNATE BRACED WALL PANEL**

18.41.220 – Amend CRC Figure R602.10.6.2—Method PFH.

Figure R602.10.6.2 of the 2013 Edition of the California Residential Code is amended to read as follows:



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

**FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS
AT DETACHED GARAGE DOOR OPENINGS**

18.41.230 – Amend CRC Table R602.10.5—Minimum length of braced wall panels.

Table R602.10.5 of the 2013 Edition of the California Residential Code is amended to read as follows:

**TABLE R602.10.5
MINIMUM LENGTH OF BRACED WALL PANELS**

METHOD (See Table R602.10.4)		MINIMUM LENGTH* (inches)					CONTRIBUTING LENGTH (inches)
		Wall Height					
		8 feet	9 feet	10 feet	11 feet	12 feet	
DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP		48	48	48	53	58	Actual ^b
GB		48	48	48	53	58	Double sided = Actual Single sided = 0.5 × Actual
LIB		55	62	69	NP	NP	Actual ^b
ABW	SDC A, B and C, wind speed < 110 mph	28	32	34	38	42	48
	SDC D ₀ , D ₁ and D ₂ , wind speed < 110 mph	32	32	34	NP	NP	
PFH	Supporting roof only	24	24	24	24 ^c	24 ^c	48
	Supporting one story and roof	24	24	24	27 ^c	29 ^c	48
PFG		24	27	30	33 ^d	36 ^d	1.5 × Actual ^b
CS-G		24	27	30	33	36	Actual ^b
CS-PF		24	24	24	24 ^e	24 ^e	Actual ^b
CS-WSP, CS-SFB	Adjacent clear opening height (inches)						Actual ^b
	≤ 64	24	27	30	33	36	
	68	26	27	30	33	36	
	72	27	27	30	33	36	
	76	30	29	30	33	36	
	80	32	30	30	33	36	
	84	35	32	32	33	36	
	88	38	35	33	33	36	
	92	43	37	35	35	36	
	96	48	41	38	36	36	
	100	—	44	40	38	38	
	104	—	49	43	40	39	
	108	—	54	46	43	41	
	112	—	—	50	45	43	
	116	—	—	55	48	45	
	120	—	—	60	52	48	
	124	—	—	—	56	51	
	128	—	—	—	61	54	
132	—	—	—	66	58		
136	—	—	—	—	62		
140	—	—	—	—	66		
144	—	—	—	—	72		

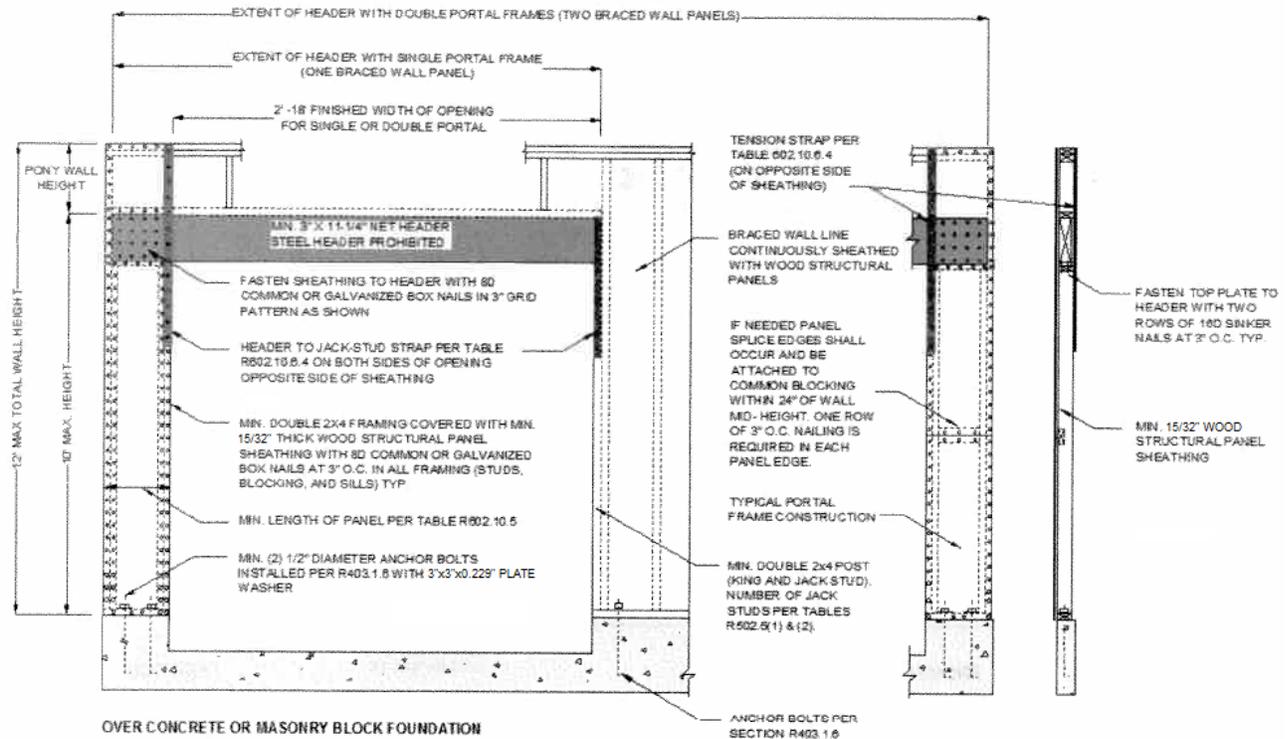
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s.

NP = Not Permitted.

- a. Linear interpolation shall be permitted.
- b. Use the actual length when it is greater than or equal to the minimum length.
- c. Maximum header height for PFH is 10 feet in accordance with Figure R602.10.6.2, but wall height may be increased to 12 feet with pony wall.
- d. Maximum opening height for PFG is 10 feet in accordance with Figure R602.10.6.3, but wall height may be increased to 12 feet with pony wall.
- e. Maximum opening height for CS-PF is 10 feet in accordance with Figure R602.10.6.4, but wall height may be increased to 12 feet with pony wall.

18.41.240 – Amend CRC Figure R602.10.6.4—Method CD-PF.

Figure R602.10.6.4 of the 2013 Edition of the California Residential Code is amended to read as follows:



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

FIGURE R602.10.6.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

18.41.250 – Amend CRC Section R606.12.2.2.3—Reinforcement requirements for masonry elements.

Section R606.12.2.2.3 of the 2013 Edition of the California Residential Code is amended to read as follows:

R606.12.2.2.3 Reinforcement requirements for masonry elements. Masonry elements listed in Section R606.12.2.2.2 shall be reinforced in either the horizontal or vertical direction as shown in Figure R606.11(3) and in accordance with the following:

1. Horizontal reinforcement. Horizontal joint reinforcement shall consist of at least one No. 4 bar spaced not more than 48 inches (1219 mm). Horizontal reinforcement shall be provided within 16 inches (406 mm) of the top and bottom of these masonry elements.
2. Vertical reinforcement. Vertical reinforcement shall consist of at least one No. 4 bar spaced not more than 48 inches (1219 mm). Vertical reinforcement shall be within 8 inches (406mm) of the ends of masonry walls.

18.41.260 – Add CRC Section R803.2.4—Openings in horizontal diaphragms.

Section R803.2.4 is added to Chapter 8 of the 2013 Edition of the California Residential Code to read as follows:

R803.2.4 Openings in horizontal diaphragms. Openings in horizontal diaphragms shall conform with Section R503.2.4.

18.41.270 – Amend CRC Section R1001.3.1—Vertical reinforcing.

Section R1001.3.1 of the 2013 Edition of the California Residential Code is amended to read as follows:

R1001.3.1 Vertical reinforcing. For chimneys up to 40 inches (1016 mm) wide, four No. 4 continuous vertical bars adequately anchored into the concrete foundation shall be placed between wythes of solid masonry or within the cells of hollow unit masonry and grouted in accordance with Section R609. Grout shall be prevented from bonding with the flue liner so that the flue liner is free to move with thermal expansion. For chimneys more than 40 inches (1016 mm) wide, two additional No. 4 vertical bars adequately anchored into the concrete foundation shall be provided for each additional flue incorporated into the chimney or for each additional 40 inches (1016 mm) in width or fraction thereof.

CHAPTER 18.42 ELECTRICAL CODE

18.42.010 – Adoption.

18.42.020 – Application.

18.42.030 – Amendments to the adopted code.

18.42.040 –Articles, chapters or annexes deleted from adopted code.

CHAPTER 18.42 ELECTRICAL CODE

18.42.010 – Adoption.

The City Council adopts and incorporates by reference as though set forth in full in this chapter the 2013 Edition of the California Electrical Code, including Annexes A, B and C, but excluding articles, chapters or annexes pursuant to Section 18.42.040. The California Electrical Code is Part 3 of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part is based on the provisions of the 2011 National Electrical Code (model code) as developed by the National Fire Protection Association with necessary California amendments.

The adoption of the 2013 Edition of the California Electrical Code (herein referred to as “California Electrical Code”) is subject to the changes, amendments and modifications to said code as provided in this chapter, and certain provisions of the Long Beach Municipal Code, which shall remain in full force and effect as provided in this title. Such codes and code provisions shall constitute and be known as the Long Beach Electrical Code. A copy of the California Electrical Code, printed as code in book form, shall be on file in the office of the City Clerk.

18.42.020 – Application.

The provisions of the model code (the National Electrical Code), which are incorporated into the California Electrical Code, are applicable to all occupancy groups and uses regulated by the model code. The amendments made by the State agencies to the model code and incorporated into the California Electrical Code are applicable only to those occupancies or uses that the State agency making the amendments is authorized to regulate, as listed in Article 89 of the California Electrical Code. The Building and Safety Bureau shall only enforce those amendments made by the following State agencies:

- A. The California Energy Commission (CEC) as specified in Article 89.105 of the California Electrical Code.
- B. The Department of Housing and Community Development (HCD) as specified in Article 89.108 of the California Electrical Code.
- C. The Division of the State Architect, Access Compliance (DSA/AC) as specified in Article 89.109 of the California Electrical Code.
- D. The Office of Statewide Health, Planning and Development (OSHPD 3) as specified in Article 89.110 of the California Electrical Code.
- E. The Office of the State Fire Marshal (SFM) as specified in Article 89.111 of the California Electrical Code.

18.42.030 – Amendments to the adopted code.

The California Electrical Code is amended and modified as set forth in Section 18.42.040.

18.42.040 – Articles, chapters or annexes deleted from the adopted code.

The following sections, chapters or annexes of the California Electrical Code are deleted: Annexes D, E, F, G, H, and I.

CHAPTER 18.43 PLUMBING CODE

18.43.010 – Adoption.

18.43.020 – Application.

18.43.030 – Amendments to the adopted code.

18.43.040 – Sections, chapters or appendices deleted from adopted code.

18.43.050 – Amend CPC Section 403.3.1.1—Non water urinal drainage connection.

18.43.060 – Amend CPC Section 604.11—Lead content.

CHAPTER 18.43 PLUMBING CODE

18.43.010 – Adoption.

The City Council adopts and incorporates by reference as though set forth in full in this chapter the 2013 Edition of the California Plumbing Code, including Appendices A, B, D, I and K, but excluding sections, chapters or appendices pursuant to Section 18.43.040. The California Plumbing Code is Part 5 of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part is based on the provisions of the 2012 Uniform Plumbing Code (model code) as developed by the International Association of Plumbing and Mechanical Officials with necessary California amendments.

The adoption of the 2013 Edition of the California Plumbing Code (herein referred to as “California Plumbing Code”) is subject to the changes, amendments and modifications to said code as provided in this chapter, and certain provisions of the Long Beach Municipal Code, which shall remain in full force and effect as provided in this title. Such codes and code provisions shall constitute and be known as the Long Beach Plumbing Code. A copy of the California Plumbing Code, printed as code in book form, shall be on file in the office of the City Clerk.

18.43.020 – Application.

The provisions of the model code (the Uniform Plumbing Code), which are incorporated into the California Plumbing Code, are applicable to all occupancy groups and uses regulated by the model code. The amendments made by the State agencies to the model code and incorporated into the California Plumbing Code are applicable only to those occupancies or uses that the State agency making the amendments is authorized to regulate, as listed in Chapter 1, Division I of the California Plumbing Code. The Building and Safety Bureau shall only enforce those amendments made by the following State agencies:

- A. The California Energy Commission (CEC) as specified in Section 1.5 of the California Plumbing Code.
- B. The Department of Housing and Community Development (HCD) as specified in Section 1.8 of the California Plumbing Code.
- C. The Division of the State Architect, Access Compliance (DSA/AC) as specified in Section 1.9 of the California Plumbing Code.
- D. The Office of Statewide Health, Planning and Development (OSHPD 3) as specified in Section 1.10 of the California Plumbing Code.
- E. The Office of the State Fire Marshal (SFM) as specified in Section 1.11 of the California Plumbing Code.

18.43.030 – Amendments to the adopted code.

The California Plumbing Code is amended and modified as set forth in Sections 18.43.040 through 18.43.060.

18.43.040 – Sections, chapters or appendices deleted from the adopted code.

The following sections, chapters or appendices of the California Plumbing Code are deleted: Sections 101.0 through 103.8 and Table 103.4 of Chapter 1, Division II; and Appendices G and L.

18.43.050 – Amend CPC Section 403.3.1.1—Non water urinal drainage connection.

Section 403.3.1.1 of the 2013 Edition of the California Plumbing Code is amended by deleting the reference to "(HCD)".

18.43.060 – Amend CPC Section 604.11—Lead content.

Section 604.11 of the 2013 Edition of the California Plumbing Code is amended to read as follows:

604.11 Lead Content. Water pipe, plumbing fittings, fixtures, solder, and flux with lead content used to convey potable water shall comply with the Section 116875 of the California Health and Safety Code.

CHAPTER 18.44 MECHANICAL CODE

18.44.010 – Adoption.

18.44.020 – Application.

18.44.030 – Amendments to the adopted code.

18.44.040 – Sections, chapters or appendices deleted from adopted code.

CHAPTER 18.44 MECHANICAL CODE

18.44.010 – Adoption.

The City Council adopts and incorporates by reference as though set forth in full in this chapter the 2013 Edition of the California Mechanical Code, including Appendices A, B, C and D, but excluding sections, chapters or appendices pursuant to Section 18.44.040. The California Mechanical Code is Part 4 of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part is based on the provisions of the 2012 Uniform Mechanical Code (model code) as developed by the International Association of Plumbing and Mechanical Officials with necessary California amendments.

The adoption of the 2013 Edition of the California Mechanical Code (herein referred to as “California Mechanical Code”) is subject to the changes, amendments and modifications to said code as provided in this chapter, and certain provisions of the Long Beach Municipal Code, which shall remain in full force and effect as provided in this title. Such codes and code provisions shall constitute and be known as the Long Beach Mechanical Code. A copy of the California Mechanical Code, printed as code in book form, shall be on file in the office of the City Clerk.

18.44.020 – Application.

The provisions of the model code (the Uniform Mechanical Code), which are incorporated into the California Mechanical Code, are applicable to all occupancy groups and uses regulated by the model code. The amendments made by the State agencies to the model code and incorporated into the California Mechanical Code are applicable only to those occupancies or uses that the State agency making the amendments is authorized to regulate, as listed in Chapter 1, Division II of the California Mechanical Code. The Building and Safety Bureau shall only enforce those amendments made by the following State agencies:

- A. The California Energy Commission (CEC) as specified in Section 1.5 of the California Mechanical Code.
- B. The Department of Housing and Community Development (HCD) as specified in Section 1.8 of the California Mechanical Code.
- C. The Division of the State Architect, Access Compliance (DSA/AC) as specified in Section 1.9 of the California Mechanical Code.
- D. The Office of Statewide Health, Planning and Development (OSHPD 3) as specified in Section 1.10 of the California Mechanical Code.
- E. The Office of the State Fire Marshal (SFM) as specified in Section 1.11 of the California Mechanical Code.

18.44.030 – Amendments to the adopted code.

The California Mechanical Code is amended and modified as set forth in Section 18.44.040.

18.44.040 – Sections, chapters or appendices deleted from the adopted code.

The following sections, chapters or appendices of the California Mechanical Code are deleted: Sections 101.0 through 118.0 and Table 114.1 of Chapter 1, Division II; and Appendices E, F and G.

CHAPTER 18.45 HOUSING CODE

18.45.010 – Adoption.

18.45.020 – Application.

18.45.030 – Amendments to the adopted code.

18.45.040 – Sections, chapters or appendices deleted from adopted code.

18.45.050 – Add UHC Chapter 17—Prohibited uses and maintenance.

CHAPTER 18.45 HOUSING CODE

18.45.010 – Adoption.

The City Council adopts and incorporates by reference as though set forth in full in this chapter the 1997 Edition of the Uniform Housing Code, excluding sections, chapters or appendices pursuant to Section 18.45.040. Adoption and enforcement of the Uniform Housing Code is mandated through the State Housing Law pursuant to Section 17960, Part 1.5, Division 13, of the California Health and Safety Code. Section 17922 of the California Health and Safety Code requires the adoption of the latest edition of the Uniform Housing Code. The 1997 Edition of the Uniform Housing Code was adopted by the California Department of Housing and Community Development as provided for in Section 32, Article 5, Subchapter 1, Division 1, of Title 25 of the California Code of Regulations. The provisions of the 1997 Uniform Housing Code were developed by the International Conference of Building Officials.

The adoption of the 1997 Edition of the Uniform Housing Code (herein referred to as “Uniform Housing Code”) is subject to the changes, amendments and modifications to said code as provided in this chapter, and certain provisions of the Long Beach Municipal Code, which shall remain in full force and effect as provided in this title. Such codes and code provisions shall constitute and be known as the Long Beach Housing Code. A copy of the Uniform Housing Code, printed as code in book form, shall be on file in the office of the City Clerk.

18.45.020 – Application.

The provisions of the Uniform Housing Code are applicable to all occupancy groups and uses intended for human habitation.

18.45.030 – Amendments to the adopted code.

The Uniform Housing Code is amended and modified as set forth in Sections 18.45.040 and 18.45.050.

18.45.040 – Sections, chapters or appendices deleted from the adopted code.

The following sections, chapters or appendices of the Uniform Housing Code are deleted: Chapters 1, 2, 3, 4, 10, 11, 12, 13, 14, 15 and 16.

18.45.050 – Add UHC Chapter 17—Prohibited uses and maintenance.

Chapter 17 is added to the 1997 Edition of the Uniform Housing Code to read as follows:

Chapter 17 PROHIBITED USES AND MAINTENANCE

SECTION 1701 – PROHIBITED USES

- A. **Cooking.** It shall be unlawful for any person to cook or prepare food or to permit another person to cook or prepare food in any bath, shower, slop sink, toilet room, water closet compartment, any room not designed and intended to be used as a kitchen, or in any other portion of a building in which the cooking or preparation of food is detrimental to the health of the occupants or the proper sanitation of the building.
- B. **Sleeping.** It shall be unlawful for any person to use or to permit another person to use any of the following portions of a building for sleeping purposes:
 - 1. Kitchen, hallway, water closet, bath, cellar, shower compartment or slop sink room.

2. Any other room or place which does not comply with the provisions of this code as a sleeping room or in which sleeping is dangerous to life or health.

SECTION 1702 – MAINTENANCE AND REPAIR

- A. Maintenance. Every building shall be maintained in good repair.
- B. Roof. The roof of every building shall be kept watertight and all storm or casual water shall be properly drained and conveyed from the roof to a storm drain or street gutter in accordance with other applicable provisions of this chapter.
- C. Drainage. All portions of a lot about a building, including the yards, areaways, vent shafts, court and passageways, shall be graded and drained to efficiently carry the water away from the building.
- D. Surfacing. If the Building Official finds it necessary for the protection of the health and safety of the occupants, or for the proper sanitation of a dwelling, apartment house or hotel, it may require that the yards, areaways, vent shafts, court, passageways, or other parts of the lot surrounding the building be graveled, or properly paved and surfaced with concrete, asphalt or similar materials.
- E. Painting of room walls and ceilings. The walls and ceilings of every room in a dwelling, apartment house or hotel shall be finished, sealed, coated or covered in an approved manner. Approved materials shall be applied as often as may be necessary to maintain the walls and ceilings in a clean and sanitary condition.
- F. Painting of court and shaft walls. Unless built of light-colored materials, the walls of courts and shafts shall be painted in a light color, or shall be whitewashed. The paint or whitewash shall be applied as often as may be necessary to maintain the walls in a light color.
- G. Wallpaper. Not more than two (2) thicknesses of wallpaper shall be placed upon any wall, partition, or ceiling of any room in any dwelling, apartment house or hotel. If any wall, partition, or ceiling with two (2) thicknesses of wallpaper in any such room is to be repapered, the old wallpaper shall first be removed. Any wallpaper which has become loose or dilapidated shall be removed and the surface repapered, calcimined or painted.
- H. Painting of wallpaper. Paint or calcimine over wallpaper is permissible if the plaster under the wallpaper is in good condition.
- I. Screening. Whenever necessary for the health of the occupants, or for the proper sanitation or cleanliness of any building, acceptable mosquito screening shall be provided for each exterior door, window, or other opening in the exterior walls of the buildings.
- J. Garbage receptacle compartment. Every residential building shall be provided with facilities adequate for the storing of all garbage and waste, either within an approved compartment or receptacles. These facilities shall be maintained in a clean and sanitary condition.
- K. Fences. All fences shall be maintained in good repair and shall be kept straight, uniform and structurally sound. Wooden fences shall be either painted or stained or otherwise treated or sealed in an approved manner to prevent their becoming a nuisance from weathering or deterioration.
- L. Sanitation. Each room, hallway, passageway, stairway, wall, partition, ceiling, floor, skylight, glass window, door carpet, rug, matting, window curtain, water closet, compartment, or room, toilet room, bathroom, slop sink room, washroom, plumbing fixtures, drain, roof, closet, cellar, basement, yard, court, lot and the premises of every building shall be kept in every part clean,

sanitary, and free from all accumulation of debris, abandoned or inoperable motor vehicles and vehicle parts, filth, rubbish, garbage, rodents, insects and other vermin, excessive vegetation and other offensive matter.

- M. Dangerous articles. No article that is dangerous or detrimental to life or to the health of the occupants, including any feed, hay, straw, excelsior, cotton, paper stock, rags, junk, or any other material that may create a fire hazard, shall be kept, stored or handled in any part of a dwelling, apartment house or hotel, or on the lot on which such building is located.
- N. Caretaker. A janitor, housekeeper, or other responsible person shall reside upon the premises and shall have charge of every apartment house in which there are sixteen (16) or more apartments, of every hotel in which there are twelve (12) or more guest rooms, unless the owner of any such apartment house or hotel resides upon said premises. If the owner does not reside upon the premises of any apartment house in which there are more than four (4) but less than sixteen (16) apartments, a notice stating the owner's name and address or the name and address of his agent in charge of the apartment house shall be posted in a conspicuous place on the premises.
- O. Bedding. In every apartment house or hotel, every part of every bed, including mattress, sheets, blankets, and bedding, shall be kept in a clean, dry and sanitary condition, free from filth, urine or other foul matters, and from the infection of lice, bedbugs or other insects. The bed linen of a bed in a hotel shall be changed at least as often as a new guest occupies the bed.

CHAPTER 18.46 ENERGY CODE

18.46.010 – Adoption.

18.46.020 – Application.

CHAPTER 18.46 ENERGY CODE

18.46.010 – Adoption.

The City Council adopts and incorporates by reference as though set forth in full in this chapter the 2013 Edition of the California Building Energy Efficiency Standards. The California Building Energy Efficiency Standards is Part 6 of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part is developed by the California Energy Commission.

The adoption of the 2013 Edition of the California Building Energy Efficiency Standards (herein referred to as “California Energy Code” and certain provisions of the Long Beach Municipal Code shall remain in full force and effect as provided in this title. Such codes and code provisions shall constitute and be known as the Long Beach Energy Code. A copy of the California Energy Code, printed as code in book form, shall be on file in the office of the City Clerk.

18.46.020 – Application.

The provisions of the California Energy Code are applicable to all occupancy groups and uses regulated by Section 100.0 of Subchapter 1 of said code. The Building and Safety Bureau enforce those provisions made by the California Energy Commission (CEC).

CHAPTER 18.47 GREEN BUILDING STANDARDS CODE

18.47.010 – Adoption.

18.47.020 – Application.

18.47.030 – Amendments to the adopted code.

18.47.040 – Sections, chapters or appendices deleted from the adopted code.

18.47.050 – Amend CGBSC Section 4.408—Construction and demolition recycling program.

18.47.060 – Amend CGBSC Section 5.408—Construction and demolition recycling program.

CHAPTER 18.47 GREEN BUILDING STANDARDS CODE

18.47.010 – Adoption.

The City Council adopts and incorporates by reference as though set forth in full in this chapter the 2013 Edition of the California Green Building Standards Code, excluding sections, chapters or appendices pursuant to Section 18.47.040. The California Green Building Standards Code is Part 11 of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code.

The adoption of the 2013 Edition of the California Green Building Standards Code (herein referred to as “California Green Building Standards Code”) is subject to the changes, amendments and modifications to said code as provided in this chapter, and certain provisions of the Long Beach Municipal Code, which shall remain in full force and effect as provided in this title. Such codes and code provisions shall constitute and be known as the Long Beach Green Building Standards Code. A copy of the California Green Building Standards Code, printed as code in book form, shall be on file in the office of the City Clerk.

18.47.020 – Application.

The provisions of the California Green Building Standards Code are applicable only to those occupancies or uses that the State agency making the amendments is authorized to regulate, as listed in Chapter 1 of the California Green Building Standards Code. The Building and Safety Bureau shall only enforce those amendments made by the following State agencies:

- A. The Building Standards Commission as specified in Section 103.1 of the California Green Building Standards Code.
- B. The Department of Housing and Community Development (HCD) as specified in Section 104.1 of the California Green Building Standards Code.

18.47.030 – Amendments to the adopted code.

The California Green Building Standards Code is amended and modified as set forth in Sections 18.47.040 through 18.47.060.

18.47.040 – Sections, chapters or appendices deleted from the adopted code.

The following sections, chapters or appendices of the California Green Building Standards Code are deleted: Appendices A4, A5, and A6.1.

18.47.050 – Amend CGBSC Section 4.408—Construction and demolition recycling program.

Section 4.408 of the 2013 Edition of the California Green Building Standards Code is deleted in its entirety and replaced to read as follows:

SECTION 4.408 CONSTRUCTION AND DEMOLITION RECYCLING PROGRAM

4.408.1 General. Covered projects meeting the threshold of Section 18.67.020 of Title 18 of the Long Beach Municipal Code shall comply with Chapter 18.67 Construction and Demolition Recycling Program of Title 18 of the Long Beach Municipal Code.

18.47.060 – Amend CGBSC Section 5.408—Construction and demolition recycling program.

Section 5.408 of the 2013 Edition of the California Green Building Standards Code is deleted in its entirety and replaced to read as follows:

SECTION 5.408
CONSTRUCTION AND DEMOLITION RECYCLING PROGRAM

5.408.1 General. Covered projects meeting the threshold of Section 18.67.020 of Title 18 of the Long Beach Municipal Code shall comply with Chapter 18.67 Construction and Demolition Recycling Program of Title 18 of the Long Beach Municipal Code.

CHAPTER 18.48 FIRE CODE

- 18.48.010 – Adoption.
- 18.48.020 – Application.
- 18.48.030 – Amendments to the adopted codes.
- 18.48.040 – Deleted phrases and sections.
- 18.48.050 – CFC Chapter 1, Section 101.1—Title.
- 18.48.060 – CFC Chapter 1, Section 101.2—Scope.
- 18.48.070 – CFC Chapter 1, Section 101.2—Scope.
- 18.48.080 – CFC Chapter 1, Section 103.2—Appointment.
- 18.48.090 – CFC Chapter 1, Section 104.3—Right of entry.
- 18.48.100 – CFC Chapter 1, Section 104.6—Official records.
- 18.48.110 – CFC Chapter 1, Section 105.1.2—Types of permits.
- 18.48.120 – CFC Chapter 1, Section 105.1.2—Types of permits.
- 18.48.130 – CFC Chapter 1, Section 105.2—Application.
- 18.48.140 – CFC Chapter 1, Section 105.3.1—Expiration.
- 18.48.150 – CFC Chapter 1, Section 105.6—Required operational permits.
- 18.48.160 – CFC Chapter 1, Section 105.6—Required operational permits.
- 18.48.170 – CFC Chapter 1, Section 105.6.14 – Explosives.
- 18.48.180 – CFC Chapter 1, Section 105.7—Required construction permits.
- 18.48.190 – CFC Chapter 1, Section 105.7—Required construction and inspection permits.
- 18.48.200 – CFC Chapter 1, Section 107.5—Overcrowding.
- 18.48.210 – CFC Chapter 1, Section 109.4—Violation penalties.
- 18.48.220 – CFC Chapter 1, Section 111.4—Failure to comply.
- 18.48.230 – CFC Chapter 1, Section 113.2—Fees.
- 18.48.240 – CFC Chapter 1—Administration.
- 18.48.250 – CFC Chapter 2, Section 202—General definitions.
- 18.48.260 – CFC Chapter 2, Section 202—General definitions.
- 18.48.270 – CFC Chapter 2, Section 202—General definitions.
- 18.48.280 – CFC Chapter 3, Section 304.1—Waste accumulation prohibited.
- 18.48.290 – CFC Chapter 3, Section 307.1.1—Prohibited open burning.
- 18.48.300 – CFC Chapter 3, Section 307.4.2—General.
- 18.48.310 – CFC Chapter 3, Section 312.2—Posts.
- 18.48.320 – CFC Chapter 4, Section 403 – Public Assemblages and Events.
- 18.48.330 – CFC Chapter 5, Section 503.2.1—Dimensions.
- 18.48.340 – CFC Chapter 5, Section 503.2.4—Turning radius.
- 18.48.350 – CFC Chapter 5, Section 505.1—Address numbers.
- 18.48.360 – CFC Chapter 5, Section 506.1—Where required.
- 18.48.370 – CFC Chapter 5—Fire Service Features.
- 18.48.380 – CFC Chapter 9, Section 901.4—General.
- 18.48.390 – CFC Chapter 9, Section 901.4.2 – Nonrequired fire protection systems.
- 18.48.400 – CFC Chapter 9, Section 901.4.3 – Fire areas.
- 18.48.410 – CFC Chapter 9, Section 903.1—General.
- 18.48.420 – CFC Chapter 9, Section 903.2—Where required.
- 18.48.430 – CFC Chapter 9, Section 903.2.8—Group R.
- 18.48.440 – CFC Chapter 9, Section 903.3.5—Water supplies.
- 18.48.450 – CFC Chapter 9, Section 903.4 – Sprinkler system supervision and alarms.
- 18.48.460 – CFC Chapter 9, Section 903.4.1—Monitoring.
- 18.48.470 – CFC Chapter 9, Section 903.4.2—Alarms.
- 18.48.480 – CFC Chapter 9, Section 903.4.2—Alarms.
- 18.48.490 – CFC Chapter 9, Section 905.1—General.
- 18.48.500 – CFC Chapter 9, Section 905.4 (1) – Location of Class I standpipe hose connection.
- 18.48.510 – CFC Chapter 9, Section 907.1—General.
- 18.48.520 – CFC Chapter 9, Section 907.3.1 – Duct smoke detectors.
- 18.48.530 – CFC Chapter 9, Section 907.3.1 Exception 2– Duct smoke detectors.
- 18.48.540 – CFC Chapter 9, Section 907—Fire alarm and detection systems.
- 18.48.550 – CFC Chapter 9, Section 910.3.2.2—Sprinklered buildings.

- 18.48.560 – CFC Chapter 9, Section 912.1—Installation.
 - 18.48.570 – CFC Chapter 9, Section 912.2.1—Visible location.
 - 18.48.580 – CFC Chapter 9, Section 912.3—Access.
 - 18.48.590 – CFC Chapter 10, Section 1003—General means of egress.
 - 18.48.600 – CFC Chapter 10, Section 1009.16—Stairway to roof.
 - 18.48.610 – CFC Chapter 10, Section 1009.16—Stairway to roof.
 - 18.48.620 – CFC Chapter 10, Section 1009.16—Stairway to roof.
 - 18.48.630 – CFC Chapter 10, Section 1028.12—Seat stability.
 - 18.48.640 – CFC Chapter 23, Section 2303.1.1—Protection of dispensing devices.
 - 18.48.650 – CFC Chapter 23, Section 2306.7.9.2—Vapor processing system.
 - 18.48.660 – CFC Chapter 35—Welding and other hot work.
 - 18.48.670 – CFC Chapter 36, Section 3604—Fire protection equipment.
 - 18.48.680 – CFC Chapter 48, Section 4807.1—Fire safety officers.
 - 18.48.690 – CFC Chapter 56, Section 5601—General.
 - 18.48.700 – CFC Chapter 56, Section 5608—Fireworks Display.
 - 18.48.710 – CFC Chapter 57, Section 5704.2.11.3—Depth and cover.
 - 18.48.720 – CFC Chapter 57, Section 5705.3.5.2—Occupancy quantity limits.
 - 18.48.730 – CFC Chapter 61, Section 6101—General.
 - 18.48.740 – CFC Chapter 61, Section 6103.2.2—Industrial vehicles and floor maintenance machines.
 - 750 – CFC Chapter 61, Section 6104.3—Container location.
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- 18.48.760 – CFC Chapter 61, Section 6101.3 – Construction documents.
 - 18.48.770 – CFC Appendix Chapter B, Section B105.2—Buildings other than one- and two-family dwellings.

CHAPTER 18.48 FIRE CODE

18.48.010 – Adoption.

The City Council adopts and incorporates by reference as though set forth in full in this chapter The 2013 Edition of the California Fire Code (CFC), excluding sections, chapters or appendices pursuant to Section 18.48.040. The California Fire Code is Part 9 of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part is based on the provisions of the 2012 International Fire Code (model code—IFC) as developed by the International Code Council with necessary California amendments.

The adoption of the 2013 Edition of the California Fire Code (herein referred to as the “California Fire Code”) is subject to the changes, amendments and modifications to said code as provided in this chapter, and certain provisions of the Long Beach Municipal Code, which shall remain in full force and effect as provided in this title. Such codes and code provisions shall constitute and be known as the Long Beach Fire Code. A copy of the California Fire Code, printed as code in book form, shall be on file in the office of the City Clerk.

Notwithstanding the provisions of the above referenced Fire Code(s), all new or increased fees for services provided pursuant to the Fire Code(s) shall not take effect until a resolution for such fees is adopted by the City Council pursuant to California Government Code Sections 66016 and 66020.

18.48.020 – Application.

The provisions of the model code (the International Fire Code), which are incorporated into the California Fire Code, are applicable to all occupancy groups and uses regulated by the model code. The amendments made by the State agencies to the model code and incorporated into the California Fire Code are applicable only to those occupancies or uses that the State agency making the amendments is authorized to regulate, as listed in Chapter 1 of the California Building Code adopted in Chapter 18.40. The Fire Prevention Bureau shall only enforce those amendments made by the following State agencies:

- A. The Office of the State Fire Marshal (SFM) as specified in Section 1.11 of the California Fire Code.

18.48.030 – Amendments to the adopted codes.

The California Fire Code is amended and modified as set forth in Sections 18.48.040 through 18.48.770.

18.48.040 – Deleted phrases and sections.

The following phrases or sections are deleted from the California Fire Code, 2010 Edition:

CFC & IFC 108	Delete section.
CFC & IFC 308.1.4	Delete section.
CFC & IFC 308.1.6.2	Delete exception 4.
CFC & IFC 308.1.7	Delete section.
CFC & IFC 308.2	Delete exception 2.
CFC & IFC 308.3	Delete section.
CFC & IFC 311.2.2	Delete exceptions 1 and 2.
CFC & IFC Chapter 4	Delete entire chapter, except for those sections adopted by the SFM.
CFC & IFC 510.2	Delete section

CFC & IFC 805 Delete section

CFC & IFC 806	Delete section, except where adopted by the SFM.
CFC & IFC 807	Delete section, except where adopted by the SFM.
CFC & IFC 808	Delete section.
CFC & IFC 901.4.2	Delete the words “partial or”.
CFC & IFC 903.4	Delete exceptions 4 and 5.
CFC & IFC 907.2.7.1	Delete section.
CFC & IFC 907.3.1	Delete exception 1.
CFC & IFC 913.4	Delete methods 3 and 4.
CFC & IFC Chapter 11	Delete entire chapter, except for those sections adopted by the SFM.
CFC & IFC Chapter 26	Delete entire chapter.
CFC & IFC 2701.1	Delete exception 8.
.	.
CFC & IFC Appendix A	Delete entire appendix. CFC & IFC Appendix D Delete entire appendix.
CFC & IFC Appendix E	Delete entire appendix.
CFC & IFC Appendix F	Delete entire appendix.
CFC & IFC Appendix G	Delete entire appendix.
CFC & IFC Appendix I	Delete entire appendix. I
CFC & IFC Appendix J	Delete entire appendix.
CFC & IFC Appendix K	Delete entire appendix.

18.48.050 – CFC Chapter 1, Section 101.1—Title.

Section 101.1 of Chapter 1 of the California Fire Code is amended to read:

101.1 Title. These regulations shall be known as the Fire Code of the City of Long Beach, hereinafter referred to as” this code”.

18.48.060 – CFC Chapter 1, Section 101.2—Scope.

Section 101.2 of Chapter 1 of the California Fire Code is amended by the addition of Subsection 6 to read:

6. The maintenance of fire protection and elimination of fire hazards on vessels moored, anchored, or berthed in waters under the jurisdiction of the City and/or within the boundaries of the Port of Long Beach.

18.48.070 – CFC Chapter 1, Section 101.2—Scope.

Section 101.2 of Chapter 1 of the California Fire Code is amended by the addition of Section 101.2.2 to read:

101.2.2 Supplemental rules and regulations. The Fire Code Official is authorized to make and enforce such rules and regulations for the prevention and control of fires, fire hazards and hazardous materials incidents as may be necessary from time to time to carry out the intent of this code. Three certified copies of such rules and regulations shall be filed with the City Clerk and shall take effect immediately thereafter. Additional copies shall be kept in the Fire Prevention Bureau Office. These rules and regulations shall be known as the Fire Prevention Requirements.

18.48.080 – CFC Chapter 1, Section 103.2—Appointment.

Section 103.2 of Chapter 1 of the California Fire Code is amended to read:

103.2 Appointment. The fire code official shall be appointed by the Fire Chief of the City of Long Beach; and the fire code official shall not be removed from office except for cause and after full opportunity to be heard on specific and relevant charges by and before the Fire Chief.

18.48.090 – CFC Chapter 1, Section 104.3—Right of entry.

Section 104.3 of Chapter 1 of the California Fire Code is amended by the addition of the following paragraph to read:

The Fire Code Official shall have the authority to direct inspection and insure compliance with the Long Beach Fire Code on all tankers and vessels at anchor or dockside in waters under the jurisdiction of the City and/or within the boundaries of the Port of Long Beach. All vessels shall comply with rules and regulations set forth in federal, State and local codes. Access to vessels shall be maintained at all times while the vessel is at anchor or dockside by use of proper brows or accommodation ladders.

18.48.100 – CFC Chapter 1, Section 104.6—Official records.

Section 104.6 of Chapter 1 of the California Fire Code is amended to read:

104.6 Official records. The Fire Code Official shall keep official records as required by Sections 104.6.1 through 104.6.4. Such official records shall be retained for not less than three years or for as long as the activity to which such records relate remains in existence, unless otherwise provided by other regulations.

18.48.110 – CFC Chapter 1, Section 105.1.2—Types of permits.

Section 105.1.2 of Chapter 1 of the California Fire Code is amended by revising the first sentence to read:

105.1.2 Types of permits. There shall be three types of permits as follows:

18.48.120 – CFC Chapter 1, Section 105.1.2—Types of permits.

Section 105.1.2 of Chapter 1 of the California Fire Code is amended by the addition of subsection 3 to read:

3. Inspection permit. An inspection permit allows the applicant to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, fire access roadways, smoke control systems, high piled storage, hazardous materials when not in “H” occupancies, and special systems as indicated in Section 18.48.560 of this code.

18.48.130 – CFC Chapter 1, Section 105.2—Application.

Section 105.2 of Chapter 1 of the California Fire Code is amended by the addition of Subsection 105.2.5 to read:

105.2.5 Declaration of intended use of occupancy. As required by the Fire Code Official, any or all owners of any occupancy may be required to record with the County Recorder of the County of Los Angeles a legal instrument of intended use. This legal instrument shall be called a Declaration of Intended Use, which shall specifically state by occupancy classification designations all intended uses of all portions of the occupancy and may not be modified or withdrawn without the approval of the Fire Code Official. Unapproved changes of occupancy or use can be cause for an immediate hearing before the Building Official and the Fire Code Official or their designees. Such hearing shall be conducted to rule on the revocation of the Certificate of Occupancy and the revocation of all permits issued to all owners, tenants, operators and occupants of all portions of the occupancy. The Declaration of Intended Use shall be binding on all present and future owners, tenants, operators and occupants.

105.2.5.1 Existing occupancy modification. Any existing occupancy that is modified in any manner where the modifications exceed 1% of the total floor area of the smallest aggregate individual floor area or tier area in any twelve month period, shall require the filing of a Declaration of Intended Use.

105.2.5.2 Filing. A certified copy of the recorded Declaration of Intended Use shall be filed with the Building Official and the Fire Code Official before any Certificate of Occupancy and/or any permits are issued to any or all owners, operators or occupants of the occupancy.

18.48.140 – CFC Chapter 1, Section 105.3.1—Expiration.

Section 105.3.1 of Chapter 1 of the California Fire Code is amended to read:

105.3.1 Expiration. Every construction and inspection permit issued shall be valid for a period of two (2) years from the date after its issuance; provided however that every permit issued shall expire on the one-hundred eightieth (180th) day after its issuance if the work on the site authorized by such permit has not commenced or has not been inspected; or shall expire whenever the Fire Code Official determines the work authorized by such permit has been suspended, discontinued or abandoned or has not been inspected for a continuous period of one hundred and eighty (180) days after the time the work has commenced.

18.48.150 – CFC Chapter 1, Section 105.6—Required operational permits.

Section 105.6 of Chapter 1 of the California Fire Code is amended to read:

105.6 Required operational permits. The Fire Code Official is authorized to issue operational permits for the operations set forth in Chapter 1, Sections 105.6.1 through 105.6.61.

18.48.160 – CFC Chapter 1, Section 105.6—Required operational permits.

Section 105.6 of Chapter 1 of the California Fire Code is amended by the addition of Sections 105.6.48 through 105.6.61 to read:

105.6.48 Airport, heliport and helistop. An operational permit is required to operate an airport, heliport and helistop.

105.6.49 Battery systems. An operational permit is required to operate stationary lead-acid battery systems having a liquid capacity greater than 50 gallons.

105.6.50 Bulk storage facility. Above ground bulk storage of flammable and combustible liquids for each 225,000 BBL or major fraction thereof.

105.6.51 Educational occupancy. An operational permit is required to operate any occupancy classified as E and E-Daycare in all commercial properties. Also in residential properties with more than 8 children.

105.6.52 Flammable and combustible liquids. Outside above ground storage of flammable and combustible liquids, more than 60 gallons, for each 6,000 gallons or major fraction thereof.

105.6.53 General use permit. An operational permit is required to maintain, store, use or handle materials, or to conduct processes which may produce conditions hazardous to life or property, or to install equipment used in connection with such processes, or to carry on any activity which in the opinion of the Fire Code Official may be hazardous to life and property and which is not specifically covered by Section 105.6

105.6.54 High-rise. An operational permit is required to operate any high-rise structure.

105.6.55 Hot air balloon. An operational permit is required to launch any hot air balloon which has its lifting power provided by an open flame device. A plan shall be submitted for approval showing distances from buildings and other possible hazards, as determined by the Fire Code Official, before the permit is issued.

105.6.56 Institutional occupancy. An operational permit is required to operate any occupancy with over 6 occupants classified as an I-1, I-2, I-3 or any R occupancy providing care.

105.6.57 Marine service station. An operational permit is required to operate a marine service station.

105.6.58 Radioactive material. An operational permit is required to store or handle radioactive materials.

105.6.59 Recreational fire. An operational permit is required for a recreational fire.

105.6.60 Residential occupancy. An operational permit is required to operate a residential occupancy with three or more units.

Exception. High-rise. See Section 105.6.55.

105.6.61 Rifle range. An operational permit is required to operate a rifle range.

18.48.170 – CFC Chapter 1, Section 105.6.14—Explosives.

Section 105.6.14 Exception, of Chapter 1 of the California Fire Code is amended by replacing “Section 5606” with “Chapter 56”.

18.48.180 – CFC Chapter 1, Section 105.7—Required construction permits.

Section 105.7 of Chapter 1 of the California Fire Code is amended to read:

105.7 Required construction and inspection permits. The Fire Code Official is authorized to issue construction and inspection permits for work as set forth in Chapter 1, Sections 105.7.1 through 105.7.21.

18.48.190 – CFC Chapter 1, Section 105.7—Required construction and inspection permits.

Section 105.7 of Chapter 1 of the California Fire Code is amended by the addition of Sections 105.7.17 through 105.7.23 to read:

105.7.17 Buildings and structures. An inspection permit is required to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure.

105.7.18 Automatic sprinkler systems. A construction permit is required for the installation or modification of an automatic sprinkler system, including all interior and exterior piping, valves, or appurtenances. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.19 Smoke control system. An inspection permit is required for the installation or modification of a smoke control system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.20 Fire Department emergency access and building emergency egress. A construction permit is required for the construction or modification of a Fire Department emergency access and building emergency egress.

105.7.21 High piled storage. A construction permit is required for the construction or modification of a high piled storage area inside, or outside of any building or structure.

105.7.22 Hazardous materials, when not in “H” occupancies. A construction permit is required for the installation or modification of a hazardous material, when not in “H” Occupancies.

105.7.23 Special systems. A construction permit is required for the construction or modification of vapor recovery systems, dust collection systems, compressed or liquefied gas manifolds, and other special systems requiring Fire Department approvals.

18.48.200 – CFC Chapter 1, Section 107.5—Overcrowding.

Section 107.5 of Chapter 1 of the California Fire Code is amended by the addition of Section 107.5.1 to read:

107.5.1 Occupant count. The supervisor of each place of assembly shall have an effective system to keep count of the number of occupants present in the assembly area. If at any time, the Fire Code Official determines that an accurate count of occupants is not being maintained, the occupancy shall be cleared until an accurate count can be made.

18.48.210 – CFC Chapter 1, Section 109.4—Violation penalties.

Section 109.4 of Chapter 1 of the California Fire Code is amended to read:

109.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the Fire Code Official, or of a permit or certificate used under the provisions of this code, or who enters a building that has been declared "unsafe" and ordered "evacuated", shall be guilty of a misdemeanor .

A person is guilty of a separate offense each day during which he or she commits, continues, or permits a violation of any provision of, or any order, rule, or regulation made pursuant to, this chapter.

18.48.220 – CFC Chapter 1, Section 111.4—Failure to comply.

Section 111.4 of Chapter 1 of the California Fire Code is amended to read:

111.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be guilty of a misdemeanor .

A person is guilty of a separate offense each day during which he or she commits, continues, or permits a violation of any provision of, or any order, rule, or regulation made pursuant to, this chapter.

18.48.230 – CFC Chapter 1, Section 113.2—Fees.

Section 113 of Chapter 1 of the California Fire Code is amended by the addition of Sections 113.6, 113.7 and 113.8 to read:

113.6 Operational permit fees. The fee set forth and established for the particular activity by a resolution of the City Council shall accompany all operational permits required pursuant to the provisions of this code.

113.7 Construction and inspection permit fees. Construction and inspection permit fees shall be paid at the time of the permit issuance. In addition to the permit fee, the applicant shall pay a plan check fee. The fee set forth and established for the particular activity by a resolution of the City Council shall accompany all construction and inspection permits required pursuant to the provisions of this code.

113.8 Reinspection fee. When the Fire Code Official or his representative arrives at an occupancy to inspect for compliance with a written order or notice and is prevented from making the inspection due to inaccessibility of the area, or finds that compliance with the written order has not been made or other circumstances, or when an inspection is scheduled for operational or construction permits and

the permittee is not ready for inspection and does not inform the Fire Code Official or his representative two hours prior to the scheduled inspection, a reinspection fee may be assessed.

18.48.240 – CFC Chapter 1—Administration.

Chapter 1 of the California Fire Code is amended by the addition of Section 114 to read:

SECTION 114 – RESPONSIBILITY

114.1 Responsibility for costs. Persons who personally or through another willfully, negligently, or in violation of law set a fire, allow a fire to be set, allow a fire kindled or attended by them to escape from their control, allow any hazardous materials to escape from their control, neglect to properly comply with any written notice of the Fire Code Official, or willfully or negligently allow the continuation of a violation of this code and amendments thereto are liable for the expenses of fighting the fire, for the expenses of any investigation, or for the expenses incurred during a hazardous materials incident. Such expenses shall be a charge against that person. Such charge shall constitute a debt of such person, and is collectible by the City in the same manner as in the case of an obligation under a contract, expressed or implied and a lien may be attached to the involved property.

114.2 Reporting injuries caused by fires. Any person, firm, corporation, or agency that maintains a hospital, pharmacy, or any other medical or first aid service shall immediately report to the Fire Code Official any person suffering from any fire-related injury. The report shall be made both by telephone and in writing, and shall include the name and address of the injured person, the person's whereabouts, and the character and extent of the person's injuries.

18.48.250 – CFC Chapter 2, Section 202—General definitions.

Section 202 of Chapter 2 of the California Fire Code high-rise structure definition, Subsection 2 is amended to read:

"High-rise structure" means every building of any type of construction or occupancy having floors used for human occupancy located more than seventy five (75) feet above the lowest floor level having building access (see California Building Code, Section 403) or the lowest level of Fire Department vehicle access, whichever is more restrictive, except buildings used as hospitals as defined in Section 1250 of the California Health and Safety Code.

18.48.260 – CFC Chapter 2, Section 202—General definitions.

Section 202 of Chapter 2 of the California Fire Code is amended by revising the following definitions to read:

Fire Chief. The chief officer of the fire department serving the jurisdiction.

Fire Code Official. The fire marshal or his or her designated representatives.

18.48.270 – CFC Chapter 2, Section 202—General definitions.

Section 202 of Chapter 2 of the California Fire Code is amended by adding the following definitions to read:

Boat Yard. A facility for construction, repair, storage, launching, berthing, and fueling of small craft.

Small Craft. Vessels under sixty-five (65) feet in length.

18.48.280 – CFC Chapter 3, Section 304.1—Waste accumulation prohibited

Section 304.1 of Chapter 3 of the California Fire Code is amended by the addition of Section 304.1.4 to read:

304.1.4 Alleys to be kept clean. It shall be unlawful for any person owning or occupying or having possession or control of any property bordering on any public alley in the City to fail, refuse or neglect to keep the portion of such alley between the center line of the alley and the property line of such property free from garbage, debris, rubbish, combustible materials, flammable liquids, hazardous materials and other obstructions.

18.48.290 – CFC Chapter 3, Section 307.1.1—Prohibited open burning.

Section 307.1.1 of Chapter 3 of the California Fire Code is amended to read:

307.1.1 Prohibited open burning. Open burning shall be conducted in accordance with Section 307 and as required by other governing agencies regulating emissions. No person shall conduct open burning for any purposes except:

1. When such fire is set or permission for such fire is given in the performance of the official duty of any Public Safety Officer, and the fire in the opinion of such officer is necessary for the purpose of the prevention of a fire hazard which cannot be abated by any other means or for the purpose of the instruction of public employees in the methods of fighting fire.
2. When such fire is set on property used for industrial or institutional purposes to instruct employees in methods of fighting fire.
3. The Fire Code Official has issued an open burning permit allowing open burning for a specific purpose.

18.48.300 – CFC Chapter 3, Section 307.4.2—General.

Section 307.4.2 of Chapter 3 of the California Fire Code is amended by the addition of Section 307.4.2.1 to read:

307.4.2.1 General. Recreational fires shall be in accordance with Section 307. Recreational fires shall not be conducted unless the Fire Code Official has issued a permit permitting such fires. For recreational fires this permit shall be issued without cost.

18.48.310 – CFC Chapter 3, Section 312.2—Posts.

Section 312.2 of Chapter 3 of the California Fire Code is amended by the revision of Subsection (4) and the addition of Subsections (6) and (7) to read:

- (4) Set the top of the posts not less than 4 feet above ground.
- (6) Where heavy truck traffic is anticipated guard posts shall be a minimum of 6 inches in diameter, or as required by the Fire Code Official, concrete filled, located not less than 5 feet from the protected object, and have the tops of the posts not less than 4 feet above ground.
- (7) Guard posts shall be painted safety yellow.

18.48.320 – CFC Chapter 4, Section 403—Public Assemblages and Events.

Section 403 of Chapter 4 of the California Fire Code is amended by the addition of Section 403.4 to read:

403.4 Fire safety officer. When in the opinion of the Fire Code Official a place of assembly or any other place where people congregate, because of the number of persons, or nature of performance, exhibition, display, contest or activity or any other type of activity the Fire Code Official determines it is essential for public safety, the owner, agent, lessee or responsible party shall pay for Long Beach Fire Department Fire Safety Officers to be present.

18.48.330 – CFC Chapter 5, Section 503.2.1—Dimensions.

Section 503.2.1 of Chapter 5 of the California Fire Code is amended to read:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 26 feet, and an unobstructed vertical clearance of 15 feet.

18.48.340 – CFC Chapter 5, Section 503.2.4—Turning radius.

Section 503.2.4 of Chapter 5 of the California Fire Code is amended to read:

503.2.4 Turning radius. Fire apparatus access roads shall have a minimum inside turning radius of 28 feet.

18.48.350 – CFC Chapter 5, Section 505.1—Address numbers.

Section 505.1 of Chapter 5 of the California Fire Code is amended by the addition of Sections 505.1.1 and 505.1.2 to read:

505.1.1 Rear address numbers. All buildings on the property of the Long Beach Airport, and all multi-tenant buildings within the City, shall be provided with address numbers and/or suite numbers on the rear doors to each tenant space.

505.1.2 Address illumination. Address numbers on the street or road frontage of the building, shall be internally or externally illuminated. In addition, buildings on the Long Beach Airport property shall have the rear address numbers internally or externally illuminated, in addition to the street or road frontage addresses.

18.48.360 – CFC Chapter 5, Section 506.1—Where required.

Section 506.1 of Chapter 5 of the California Fire Code is amended by the addition of Sections 506.1.3 and 506.1.4 to read:

506.1.3 Identification. When required, keys shall be clearly tagged as to the area and/or location they serve and a minimum of three separate sets shall be located within the key box.

506.1.4 Gates. Vehicular or pedestrian gates obstructing required fire access shall be provided with locking devices and/or over-ride mechanisms, which have been approved by the Fire Code Official of the City of Long Beach.

18.48.370 – CFC Chapter 5—Fire Service Features.

Chapter 5 of the California Fire Code is amended by the addition of Section 511 to read:

SECTION 511 – EMERGENCY HELICOPTER LANDING FACILITY

511.1 General. Each high-rise building shall have an emergency helicopter landing facility located on the roof of the building in an area approved by the Fire Department. The landing facility shall be for emergency operations only and installed in accordance with Section 511.

511.2 Approaches. A landing glide slope angle determined by a ratio of eight feet horizontal distance for every one foot of vertical clearance is required. Two such approaches shall be available at least ninety degrees removed from each other.

511.3 Landing and takeoff area. A clear, unobstructed landing and takeoff area is required with a minimum dimension of one hundred feet by one hundred feet and a touchdown area having a minimum dimension of fifty feet by fifty feet.

511.4 Roof perimeter. If the roof has no parapet wall, a substantial fence or safety net shall be provided around the perimeter of the roof in such a manner that it will not restrict or reduce the required landing and takeoff area.

511.5 Wind device. An approved wind-indicating device shall be provided.

511.6 Standpipe. A Class II wet standpipe shall be provided and located in such a manner that it will not restrict or reduce the required landing and takeoff area.

511.7 Marking. The rooftop shall be marked by an emergency marker as required by the Fire Code Official.

511.8 Communication system. An extension of the building's emergency communication system shall extend to the roof, and shall consist of a head set and microphone in a cabinet.

18.48.380 – CFC Chapter 9, Section 901.4—General.

Section 901.4 of Chapter 9 of the California Fire Code is amended by the addition of Section 901.4.5 to read:

901.4.5 Protection of fire protection systems and equipment. Fire protection systems and equipment subject to possible vehicular damage shall be adequately protected with guard posts in accordance with Section 312 Vehicle Impact Protection, and modifications adopted under this code.

18.48.390 – CFC Chapter 9, Section 901.4.2—Nonrequired fire protection systems.

Section 901.4.2 of Chapter 9 of the California Fire Code is amended to read:

901.4.2 Nonrequired fire protection systems. Any fire protection system not required by this code or the California Building Code shall be furnished for complete protection and meet all requirements of this code and the California Building Code.

18.48.400 – CFC Chapter 9, Section 901.4.3—Fire areas.

Section 901.4.3 of Chapter 9 of the California Fire Code is amended to read:

901.4.3 Fire areas. The total fire area of buildings for this section shall be computed without regard to fire barriers and floors of less than four-hour fire resistive construction without openings.

18.48.410 – CFC Chapter 9, Section 903.1—General.

Section 903.1 of Chapter 9 of the California Fire Code is amended by the addition of Sections 903.1.2 through 903.1.4 to read:

903.1.2 Control valves. Fire Sprinkler system control valves shall be located within stairway number 1, and at the discretion of the Fire Code Official, shall be provided on all levels of buildings above or below grade.

903.1.3 Existing buildings. An automatic sprinkler system shall be installed in all existing occupancies as required by this section, if any of the following occurs:

1. There is a change in occupancy classification to one that would require an automatic sprinkler system per the Fire Code in the new occupancy.
2. The Fire Code Official determines that an automatic sprinkler system is required to provide a minimum level of public safety.

903.1.4 Partial automatic sprinkler systems. Partial automatic sprinkler systems are not allowed. Where automatic sprinkler systems are required to be installed by this section, or by any other sections in this code, or any nationally recognized standards, or are electively installed, the automatic sprinkler system shall be installed throughout the entire building, unless a four-hour fire resistive constructed wall, with no openings, separates the areas.

18.48.420 – CFC Chapter 9, Section 903.2—Where required.

Section 903.2 of Chapter 9 of the California Fire Code is amended by the addition of the following paragraph to read:

All new commercial, industrial and non-residential buildings that require two or more exits or that are greater than 3,000 sq. ft. shall be protected by an automatic sprinkler system. This shall not apply to existing buildings.

18.48.430 – CFC Chapter 9, Section 903.2.8—Group R.

Section 903.2.8 of Chapter 9 of the California Fire Code is amended by the addition of the following paragraphs to read:

All new multi-family (3 or more units) residential, hotels, motels and similar buildings shall be protected by an automatic sprinkler system.

All new single-family dwellings and duplexes greater than 4,000 sq. ft., or more than two-stories in height shall be protected by an automatic sprinkler system.

18.48.440 – CFC Chapter 9, Section 903.3.5—Water supplies.

Section 903.3.5 of Chapter 9 of the California Fire Code is amended by the addition of Section 903.3.5.3 to read:

903.3.5.3 Hydraulic calculations margin. Fire protection system hydraulic calculations shall include a 10 percent safety margin between the available water supply and the required system supply.

18.48.450 – CFC Chapter 9, Section 903.4—Sprinkler system supervision and alarms.

Section 903.4 of Chapter 9 of the California Fire Code is amended by the addition of Section 903.4.4 to read:

903.4.4 Remote annunciator. A remote annunciator shall be provided at the main entrance, the first suite in a multi suite building, or in a location as approved by the fire code official. The remote annunciator shall have the capability to silence and reset the system via a key located in the Knox box, or other approved means.

18.48.460 – CFC Chapter 9, Section 903.4.1—Monitoring.

Section 903.4.1 of Chapter 9 of the California Fire Code is amended by the addition of Section 903.4.1.1 to read:

903.4.1.1 Signal reporting. All signals when automatically transmitted to the facilities noted in 903.4.1 and to the remote annunciator shall be transmitted with each devices specific location, type and address.

18.48.470 – CFC Chapter 9, Section 903.4.2—Alarms.

Section 903.4.2 of Chapter 9 of the California Fire Code is amended by the addition of the following sentence to read:

The exterior alarm device shall be a horn and strobe device, located on the address side of the building, closest to the location of the fire department connection.

18.48.480 – CFC Chapter 9, Section 903.4.2—Alarms.

Section 903.4.2 of Chapter 9 of the California Fire Code is amended by the addition of Sections 903.4.2.1 and 903.4.2.2 to read:

903.4.2.1 Alarms. At least one (1) additional horn and strobe device is required on the interior of a building at the main entrance or in a location as approved by the fire code official.

903.4.2.2 Manual pull station. At least one (1) manual pull station is required on the interior of a building at the main entrance or in a location as approved by the fire code official.

18.48.490 – CFC Chapter 9, Section 905.1—General.

Section 905.1 of Chapter 9 of the California Fire Code is amended by the addition of Section 905.1.1 to read:

905.1.1 Design. All standpipe systems, except Class II systems, shall be designed to deliver a minimum of 125 psi at the discharge of all standpipe outlets.

18.48.500 – CFC Chapter 9, Section 905.4 (1) —Location of Class I standpipe hose connection.

Section 905.4 (1) of Chapter 9 of the California Fire Code is amended to read:

1. In every required required stairway, a hose connection shall be provided for each floor level above or below grade. Hose connection shall be located at the floor landing of each floor, unless otherwise approved by the fire code official. See Section 909.20.3.2 for additional provisions in smokeroof enclosures.

18.48.510 – CFC Chapter 9, Section 907.1—General.

Section 907.1 of Chapter 9 of the California Fire Code is amended by the addition of Sections 907.1.6, 907.1.7 and 907.1.9 to read:

907.1.6 Voluntary. Any fire alarm system not required by this code or the California Building Code shall be furnished for complete protection and meet all requirements of this code and the California Building Code, unless approved by the fire code official.

907.1.7 Evacuation. Buildings over 3 stories may be required to provide building evacuation based on the floor of alarm, the floor above and the floor below, in lieu of a general alarm, at the discretion of the Fire Code Official.

907.1.8 Control panels. Fire alarm system control panels, including sprinkler monitoring panels, shall be utilized for connecting and supervising fire alarm and/or fire related equipment only. Security or similar devices shall not be connected to a fire alarm or sprinkler monitoring control panel. The use of control panels capable of this feature is subject to the following:

1. The owner of the facility where the panel is being installed shall provide an original letter, on company letterhead, to the Long Beach Fire Department stating that not now, nor in the future, will security or similar equipment be connected to the fire alarm or sprinkler monitoring control panel.
2. New and/or existing control panels installed after the adoption of this ordinance found to be in violation of this requirement shall be subject to corrective action, as determined by the Fire Code Official.

907.1.9 Remote annunciator. A remote annunciator shall be provided at the main entrance, the first suite in a multi suite building, or in a location as approved by the fire code official. The remote annunciator shall have the capability to silence and reset the system via a key located in the Knox box, or other approved means.

18.48.520 – CFC Chapter 9, Section 907.3.1 — Duct smoke detectors.

Section 907.3.1 of Chapter 9 of the California Fire Code is amended to read:

907.3.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm system or sprinkler monitoring system, when one is installed. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the California Mechanical Code. Duct smoke detectors shall not be used as a substitute for required open area detection.

18.48.530 – CFC Chapter 9, Section 907.3.1 Exception 2— Duct smoke detectors.

Section 907.3.1 Exception 2 of Chapter 9 of the California Fire Code is amended to read:

2 In occupancies not required to be equipped with a fire alarm or sprinkler monitoring system, actuation of a duct smoke detector shall activate a visible and and audible signal in an approved location. Duct smoke detector trouble condition shall activate a visible or audible signal in an approved location and shall be identified as an air duct detector trouble.

18.48.540 – CFC Chapter 9, Section 907—Fire alarm and detection systems.

Section 907 of Chapter 9 of the California Fire Code is amended by the addition of Sections 907.10 and 907.10.1 to read:

907.10 Fire alarm upgrade. All existing multi-family residential, hotels, motels and high-rise buildings shall upgrade the existing fire alarm system to current code, at the time of replacement of the existing non-functioning fire alarm control panel.

907.10.1 Firefighter smoke removal system. A natural or mechanical Fire Department approved ventilation system for the removal of products of combustion shall be provided above and below grade on every level, at the discretion of the Fire Code Official, and shall consist of one of the following:

1. Panels or windows in the exterior walls which can be opened remotely from an approved location other than the fire floor. Such venting facilities shall be provided at the rate of twenty square feet per lineal feet of exterior wall in each story and shall be distributed around the perimeter at not

more than fifty-foot intervals. Such windows or panels and their controls shall be clearly identified. Exception: When a complete automatic fire extinguishing system is installed, windows or panels manually openable from within the fire floor or approved fixed tempered glass may be used in lieu of the remotely operated openable panels and windows. Such windows shall be clearly identified and shall be of the size and spacing called for above.

2. When a complete and approved automatic fire extinguishing system is installed, the mechanical air-handling equipment may be designed to accomplish smoke removal. Under fire conditions, the return and exhaust air shall be moved directly to the outside without recirculation to other sections of the building. The air-handling system shall provide a minimum of one exhaust air change each ten minutes for the area involved.
3. The firefighter smoke exhaust panel shall be located at the main entrance to the building or as required by the Fire Code Official, and shall be permanently labeled "Fire Department Smoke Evacuation Use Only".
4. Any other design which will produce equivalent results as approved by the Fire Code Official.
5. Operation shall be by use of Knox key switch.

18.48.550 – CFC Chapter 9, Section 910.3.2.2—Sprinklered buildings.

Section 910.3.2.2 of Chapter 9 of the California Fire Code is amended by the addition of the following sentence to read:

Smoke and heat vents fusible links shall be designed at a minimum of 100 degrees above the temperature rating of the fire sprinklers.

18.48.560 – CFC Chapter 9, Section 912.1—Installation.

Section 912.1 of Chapter 9 of the California Fire Code is amended by the addition of Section 912.1.1 to read:

912.1.1 Design. Fire Department connections, where required, shall be provided with a minimum number of two (2) 2-1/2 inch inlets, regardless of the size of the fire sprinkler system. Where fire protection system demands are in excess of 1,000 gpm a minimum of four (4) 2-1/2 inch inlets shall be provided.

Hazardous locations, high-rise buildings or where fire protection system demands are in excess of 2,000 gpm, a second fire Department connection utilizing four (4) 2-1/2 inch inlets may be required at the discretion of the Fire Code Official.

18.48.570 – CFC Chapter 9, Section 912.2.1—Visible location.

Section 912.2.1 of Chapter 9 of the California Fire Code is amended by the addition of the following paragraph to read:

Fire Department connections shall be located on the address side of the building or structure and shall be within 150 feet of a public fire hydrant.

18.48.580 – CFC Chapter 9, Section 912.3—Access.

Section 912.3 of Chapter 9 of the California Fire Code is amended by the addition of the following paragraph to read:

Fire Department connections, where located in landscaping or other similar areas, shall be provided with a minimum 3-foot concrete pad around the Fire Department connection, and an approved concrete pathway leading to the Fire Department connection.

18.48.590 – CFC Chapter 10, Section 1003—General means of egress.

Section 1003 of Chapter 10 of the California Fire Code is amended by the addition of Section 1003.8 to read:

1003.8 Protection of means of egress. When the Fire Code Official determines that means of egress require protection from possible vehicular damage, crash posts shall be installed in accordance with Section 312 Vehicle Impact Protection.

18.48.600 – CFC Chapter 10, Section 1009.16—Stairway to roof.

Section 1009.16 of Chapter 10 of the California Fire Code is amended to read:

1009.16 Stairway to roof. In buildings located four or more stories in height above grade plane, one stairway shall extend to the roof surface, unless the roof has a slope steeper than four units vertical in 12 units horizontal (33-percent slope).

18.48.610 – CFC Chapter 10, Section 1009.16—Stairway to roof.

Section 1009.16 of Chapter 10 of the California Fire Code is amended by addition of Section 1009.16.1.1 to read:

1009.16.1.1 Ladder. A fixed ladder shall be provided for access to the hatch or trap door.

18.48.620 – CFC Chapter 10, Section 1009.16—Stairway to roof.

Section 1009.16 of Chapter 10 of the California Fire Code is amended by the addition of Section 1009.16.1.2 to read:

1009.16.1.2 Stairway 1. When a stairway to the roof is required it shall be designated Stairway 1.

18.48.630 – CFC Chapter 10, Section 1028.12—Seat stability.

Section 1028.12 of Chapter 10 of the California Fire Code is amended by the addition of the following paragraph to read:

This does not apply to temporary situations, such as, tents or temporary public assemblies.

18.48.640 – CFC Chapter 23, Section 2303.1.1—Protection of dispensing devices.

Section 2303.1.1 of Chapter 23 of the California Fire Code is amended by the addition of the following paragraph to read:

Dispensing devices shall be protected against physical damage from vehicles by mounting on a concrete island 6 inches or more in height or by other approved methods.

18.48.650 – CFC Chapter 23, Section 2306.7.9.2—Vapor processing system.

Section 2306.7.9.2 of Chapter 23 of the California Fire Code is amended by the addition of Sections 2306.7.9.2.5 through 2306.7.9.2.10 to read:

2306.7.9.2.5 Component design. If a component is likely to contain a flammable vapor/air mixture under operating conditions and can fail in a manner, which could ignite the mixture, the component

shall be designed to withstand an internal explosion without failure to the outside and protected to prevent flame propagation to other parts of the system.

2306.7.9.2.6 Fire checks. Approved fire checks or other positive means of automatic isolation of underground storage tanks shall be installed in vapor-return piping to prevent a flashback from reaching the underground tanks. Such devices also shall be installed in all vapor/air piping as close as practical to each burner or group of burners in a vapor incineration unit, and in all vapor-transfer piping as close as practical to refrigeration, absorption or similar types of processing equipment.

2306.7.9.2.7 Vent termination. Vents from vapor-processing units shall not be less than 12 feet above adjacent ground level and not less than 8 feet above the processing unit itself. Vent outlets shall be directed and located such that flammable vapors will not accumulate, travel to an unsafe location or enter buildings.

2306.7.9.2.8 Electrical equipment. Electrical equipment shall be in accordance with the California Electrical Code.

2306.7.9.2.9 Site control. Fences, bumper posts or other control measures shall be provided where necessary to protect from tampering, trespassing and vehicle traffic. The area within 15 feet of the installed vapor-processing unit shall be kept clear of combustible materials.

2306.7.9.2.10 Maintenance, tests and inspection. Vapor-recovery and vapor-processing equipment shall be subject to periodic maintenance, tests and inspections. Maintenance, tests and inspections set forth in the listing document, or other tests required by the Fire Code Official, shall be the responsibility of the owner or occupant of the premises on which such equipment is located.

Maintenance on vapor-recovery system or vapor-processing equipment shall be performed by the manufacturer of the affected equipment, or an equally qualified person. Written records of maintenance, tests, inspections and the results and recommendations shall be maintained on the premises where the equipment is located, and shall be made available to the Fire Code Official on request.

Incidents involving leaks, fires, explosions, overheating or requiring shutting down equipment, other than for routine maintenance or tests, shall be immediately reported to the Fire Department.

18.48.660 – CFC Chapter 35—Welding and other hot work.

Chapter 35 of the California Fire Code is amended by the addition of Sections 3510 and 3511 to read:

SECTION 3510 – WELDING AND CUTTING ABOARD VESSELS

3510.1 General. No person shall perform any welding or cutting operations aboard any vessel moored or anchored in the waterfront facilities under the jurisdiction of the Long Beach Harbor Department without first complying with the regulations of the Port of Long Beach Tariff and notifying the Fire Department.

3510.2 Conditions. No person shall perform any welding or cutting operations aboard any vessel moored, anchored or in drydock or on any waterfront facility within the corporate limits of the City, which are not included and regulated in Section 3510.1 above, at any yacht moorage, shipyard, boat landing or marina without first notifying and receiving permission from the proper authority as hereinafter defined:

1. Proper authority for a yacht moorage, shipyard, boat landing or marina shall mean the manager or owner. Prior to giving permission to do welding or cutting, a permit shall be obtained from the Fire Department.
2. Proper authority for any area not covered in (1) shall be the Fire Code Official.

3510.3 Special hazards. Welding or cutting shall be prohibited aboard any vessel in congested moorage, except as approved by the Fire Code Official or in an approved shipyard site where adequate fire protection, as approved by the Fire Code Official, is provided. Vessels shall be located in such a manner as to facilitate their quick removal in case of fire or other emergency. If an unusual hazard exists which endangers life or property, the Fire Code Official may require sufficient and competent personnel to be immediately available to move the vessel in the event of an emergency.

3510.4 Access. Brows, gangways, ladders or other facilities shall be provided for prompt and easy access to a vessel upon which welding or cutting is being conducted. A Jacobs ladder or other suitable equipment may be required to be rigged on the offshore side in such a manner that it can be immediately lowered for a boarding party in the event of an emergency.

3510.5 Prohibitions. Welding and cutting prohibited:

1. Within two hundred feet of any vessel or any transfer apparatus on any waterfront facility while transferring any liquefied petroleum gas, liquefied natural gas, or flammable liquid between such vessel and/or waterfront facility.
2. Within one hundred feet of any vessel or any transfer apparatus on any waterfront facility while transferring any combustible liquid between such vessel and/or waterfront facility.

3510.6 Dangerous conditions. At any time the General Manager of the Port, the Director of the Marine Division, or their authorized assistants, the Master of the vessel, the Fire Code Official, or any other responsible person is aware of a dangerous condition existing during welding or cutting operations, he/she shall immediately cause such operations to be discontinued. Operations shall not be resumed until the danger is abated, and the Fire Department is satisfied that appropriate safety levels are being provided.

3510.7 Cylinder locations. Compressed gas and liquefied petroleum gas cylinders when being used aboard a vessel shall not be placed below decks or under overhanging decks except by permission of the Fire Code Official.

3510.8 Acetylene generators. The use of acetylene generators on vessels or waterfront facilities is prohibited.

3510.9 National standards. All welding and cutting operations covered by this section shall also comply with the requirements of other applicable sections of these regulations and with N.F.P.A. No. 303, "Fire Protection Standard for Marinas and Boatyards."

SECTION 3511 – TESTS AND RECORDS REQUIRED

3511.1 General. Wherever tests are required to determine the safety of welding and cutting operations, records shall be maintained to the satisfaction of the Fire Code Official. Additional tests and inspections shall be required to insure that safe conditions are maintained and to determine that welding or cutting operations may be conducted with safety under the following conditions:

1. If the work has been delayed for a prolonged period of time.
2. When transfer of ballast or manipulation of valves or closure equipment tends to alter conditions in pipelines, tanks or compartments subject to gas accumulation.
3. If there is removal or disturbance of hatches or separations from adjoining compartments aboard vessels.
4. If vessels or containers are moved from one area to another.

3511.2 Hazardous conditions. If at any time conditions become hazardous, the person making the test or inspection shall immediately notify the responsible person of the hazard. The responsible person shall immediately cause all operations to stop and remain stopped until the hazard is abated, and the Fire Department is satisfied that appropriate safety levels are being provided.

18.48.670 – CFC Chapter 36, Section 3604—Fire protection equipment.

Section 3604 of Chapter 36 of the California Fire Code is amended by the addition of Section 3604.7 to read:

3604.7 Cabinets. Cabinets for the protection of fire protection equipment shall be of non-corrosive materials.

18.48.680 – CFC Chapter 48, Section 4807.1—Fire safety officers.

Section 4807.1 of Chapter 48 of the California Fire Code is amended to read:

4807.1 Where permits are required by the fire code, a requirement for standby fire safety officers shall be determined by the fire code official on a case-by-case basis.

18.48.690 – CFC Chapter 56, Section 5601—General.

Section 5601 of Chapter 56 of the California Fire Code is amended by the addition of Sections 5601.2 and 5601.3 to read:

5601.2 Financial responsibility. Before a permit required by Chapter 1, Section 105.6.14 or 105.6.36 is issued, the permittee shall file with the Fire Code Official a certificate of insurance issued by an insurance company authorized to transact business in the State of California. Such certificate shall certify that the operations under the permit are covered by the policy. The insurance coverage shall not be less than One Million Dollars for injury or death of one person, One Million Dollars for injury or death to more than one person and One Million Dollars for damage to property in any one occurrence. Should the Fire Code Official decide that the activities of the permittee should be supervised by employees of the Fire Department, then the permittee shall furnish to the Fire Code Official the original or certified copy of the policy of insurance in the amounts above provided. The City of Long Beach, its officers, agents, employees and volunteers shall be named parties insured under said policy insofar as the activities of such officers and employees pertain to operations of permittee under the permit. The policy of insurance shall be approved by Risk Management as to sufficiency and the City Attorney as to form. Upon approval, the policy of insurance will be returned if permittee files a certificate of insurance issued by the insurance carrier. No insurance will be required if the permittee is a public agency.

5601.3 Qualifications. The handling and firing of explosives shall be performed only by authorized pyrotechnicians licensed by the State of California, or by employees who are at least 18 years of age under the direct personal supervision of the authorized blaster.

18.48.700 – CFC Chapter 56, Section 5608—Fireworks Display.

Section 5608 of Chapter 56 of the California Fire Code is amended by the addition of Sections 5608.2, 5608.3 and 5608.4 to read:

5608.2 Prohibition. Except as hereinafter provided, it shall be unlawful for any person to possess, store, offer for sale, expose for sale, sell at retail, or use or explode any fireworks, provided that the Fire Code Official shall have power to adopt reasonable rules and regulations for the granting of permits for supervised public displays of fireworks by a jurisdiction, fair associations, amusement parks, other organizations or for the use of fireworks by artisans in pursuit of their trade. Every such use or display shall be handled by a competent operator approved by the Fire Code Official and shall

be of such character and so located, discharged or fired so as, in the opinion of the Fire Code Official after proper investigation, not to be hazardous to property or to endanger any person.

5608.3 Financial responsibility. Before a permit required by Chapter 1, Section 105.6.14 is issued, the permittee shall file with the Fire Code Official a certificate of insurance issued by an insurance company authorized to transact business in the State of California. Such certificate shall certify that the operations under the permit are covered by the policy. The insurance coverage shall not be less than One Million Dollars for injury or death of one person, One Million Dollars for injury or death to more than one person and One Million Dollars for damage to property in any one occurrence. Should the Fire Code Official decide that the activities of the permittee should be supervised by employees of the Fire Department, then the permittee shall furnish to the Fire Code Official the original or certified copy of the policy of insurance in the amounts above provided. The City of Long Beach, its officers, agents, employees and volunteers shall be named parties insured under said policy insofar as the activities of such officers and employees pertain to operations of permittee under the permit. The policy of insurance shall be approved by Risk Management as to sufficiency and the City Attorney as to form. Upon approval, the policy of insurance will be returned if permittee files a certificate of insurance issued by the insurance carrier. No insurance will be required if the permittee is a public agency.

5608.4 Qualifications. The handling and firing of explosives shall be performed only by authorized pyrotechnicians licensed by the State of California, or by employees who are at least 18 years of age under the direct personal supervision of the authorized blaster.

18.48.710 – CFC Chapter 57, Section 5704.2.11.3—Depth and cover.

Section 5704.2.11.3 of Chapter 57 of the California Fire Code is amended to read:

5704.2.11.3 Depth and cover. Excavation for underground storage tanks shall be made with due care to avoid undermining of foundations of existing structures. Underground tanks shall be set on firm foundations and surrounded with at least 6 inches of noncorrosive inert material such as clean sand or gravel well tamped in place or in accordance with the manufacturer's installation instructions. Tanks shall be covered with a minimum of 2 feet of earth or shall be covered by not less than 1 foot of earth, on top of which shall be placed a slab of reinforced concrete not less than 4 inches thick.

When underground tanks are, or are likely to be, subject to traffic, they shall be protected against damage from vehicles passing over them by at least 3 feet of earth cover, or 18 inches of well tamped earth plus 6 inches of reinforced concrete, or 8 inches of asphaltic concrete. When asphaltic or reinforced concrete paving is used as part of the protection, it shall extend at least 1 foot horizontally beyond the outline of the tank in all directions.

For tanks built in accordance with Sections 3404.2.7 the burial depth and the height of the vent line shall be such that the static head imposed at the bottom of the tank will not exceed 10 psig if the fill or vent pipe is filled with liquid.

If the depth of cover exceeds 7 feet or the manufacturer's specifications, reinforcements shall be provided in accordance with the tank manufacturer's recommendations.

Nonmetallic underground tanks shall be installed in accordance with the manufacturer's instructions. The minimum depth of cover shall be as specified above.

18.48.720 – CFC Chapter 57, Section 5705.3.5.2—Occupancy quantity limits.

Section 5705.3.5.2 of Chapter 57 of the California Fire Code is amended by the addition of the following paragraph to Subsection 7, Group R Occupancies, to read:

In dwellings and apartment houses containing not more than three dwelling units and accompanying attached or detached garages, storage other than fuel oil is prohibited, except that which is required

for maintenance or equipment operation which shall not exceed five gallons in non sprinklered building or ten gallons in sprinklered occupancies. Containers shall be listed or approved for the specific product to be stored, and shall have an exterior label identifying the product in the container.

18.48.730 – CFC Chapter 61, Section 6101—General.

Section 6101 of Chapter 61 of the California Fire Code is amended by the addition of Section 6101.4 to read:

6101.4 Inside storage or use. No liquefied petroleum gases of any type or mixture shall be permitted in any occupancy either for sale, use or storage without the approval of the Fire Code Official.

18.48.740 – CFC Chapter 61, Section 6103.2.2—Industrial vehicles and floor maintenance machines.

Section .2.2 of Chapter 61 of the California Fire Code is amended by the addition of Section 6103.2.2.1 to read:

6103.2.2.1 Portable cylinders. The use of portable cylinders of liquefied petroleum gas as motorized equipment fuel in occupancies is limited as follows: Liquefied petroleum gas fuel tanks on motorized equipment are limited to two per vehicle with a combined capacity not to exceed fifty pounds. Refilling or exchanging of tanks shall not be permitted within the occupancy and shall be permitted only in approved locations as determined by the Fire Code Official.

18.48.750 – CFC Chapter 61, Section 6104.3—Container location.

Section 3804.3 of Chapter 38 of the California Fire Code is amended by the addition of Section 6104.3.3 to read:

6104.3.3 Tank orientation. Unless special protection is provided and approved by the Fire Code Official, containers of liquid petroleum gas shall be oriented so that their longitudinal axes do not point toward other liquid petroleum containers, vital process equipment, control rooms, loading stations, flammable liquid storage tanks or required fire access roads.

18.48.760 – CFC Chapter 61, Section 6101.3—Construction documents.

Section 6101.3 of Chapter 61 of the California Fire Code is amended to read:

6101.3 Construction documents. The installer shall submit construction documents for any single or multi LP-gas container or system installation.

18.48.770 – CFC Appendix Chapter B, Section B105.2—Buildings other than one- and two-family dwellings.

Exception #1 for Section B105.2 of Appendix Chapter B of the California Fire Code is amended to read:

Exception #1: A reduction in required fire-flow of up to 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting fire flow shall not be less than 1,500 gallons per minute for the prescribed duration as specified in Table B105.1.