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

February 10, 2011

Amy J. Bodek, AICP
Director of Development Services
City of Long Beach
333 West Ocean Boulevard, 4th Floor
Long Beach, CA 90802

Dear Ms. Bodek:

This is to acknowledge receipt of the City of Long Beach submittal pertaining to Ordinance No. 10-0035 with findings on December 8, 2010. As the law states, no local modification or change to the California Building Standards Code (Code) shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission.

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

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

This letter attests only to the filing of these local modifications with the Building Standards Commission, which is not authorized by law to determine the merit of the filing. The filing of the energy efficiency standards portion of this ordinance will not be complete without the approval of the California Energy Commission. If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

Enrique M. Rodriguez
Associate Construction Analyst

cc: Joe Loyer, California Energy Commission
Chron
Local Filings

CITY OF LONG BEACH

DEPARTMENT OF DEVELOPMENT SERVICES

333 WEST OCEAN BOULEVARD, 4TH FLOOR • LONG BEACH, CA 90802 • PHONE: 562-570-LBDS • FAX: 562-570-6205

BUILDING AND SAFETY BUREAU

November 23, 2010

David Walls, Executive Director
CALIFORNIA BUILDING STANDARDS COMMISSION
2525 NATOMAS Park Drive, Suite 130
Sacramento, CA 95833

SUBJECT: ADOPTION OF CODES AND FILING OF AMENDMENTS

Dear Mr. Walls:

The City of Long Beach has adopted by the attached Ordinance No. ORD-10-0035 the 2010 Edition of the California Building Standards Code and the 1997 Edition of the Uniform Housing Code with local amendments.

In making the local amendments, an express finding has been made in the attached City Council Resolution No. RES-10-0132 that the modifications are necessary because of the local climatic, geological or topographical conditions existing in Long Beach.

In accordance with Section 17958.7 of the California Health and Safety Code, the local amendments and express findings are hereby filed with the California Building Standards Commission. Please provide us with a response acknowledging receipt of the documents for our records.

Sincerely,

Amy J. Bodek, AICP
Director of Development Services

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ORDINANCE NO. ORD-10-0035

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LONG BEACH AMENDING THE LONG BEACH MUNICIPAL CODE BY AMENDING AND RESTATING TITLE 18 IN ITS ENTIRETY; AND BY REPEALING CHAPTER 21.62, ALL RELATING TO THE ADOPTION AND AMENDMENTS TO THE 2010 EDITION OF THE CALIFORNIA BUILDING STANDARDS CODES AND THE 1997 EDITION OF THE UNIFORM HOUSING CODE TO BE KNOWN AS THE LONG BEACH BUILDING STANDARDS CODE

The City Council of the City of Long Beach ordains as follows:

Section 1. Title 18 of the Long Beach Municipal Code is amended in its entirety and restated as shown on Exhibit "A", which is attached hereto and incorporated herein by this reference as if set forth in full.

Section 2. Chapter 21.62 of the Long Beach Municipal Code is hereby repealed.

Section 3. The City Clerk shall certify to the passage of this ordinance by the City Council and cause it to be posted in three (3) conspicuous places in the City of Long Beach, and it shall take effect on the thirty-first (31st) day after it is approved by the Mayor, but in no event prior to January 1, 2011.

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OFFICE OF THE CITY ATTORNEY
ROBERT E. SHANNON, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

MJM:kjm A10-01740 10/28/10
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I hereby certify that the foregoing ordinance was adopted by the City Council of the City of Long Beach at its meeting of November 16, 2010 by the following vote:

Ayes: Councilmembers: Garcia, Lowenthal, DeLong, O'Donnell, Schipske, Andrews, Johnson, Gabelich, Neal.

Noes: Councilmembers: None.

Absent: Councilmembers: None.

City Clerk

Approved: 11/18/10 (Date)

Mayor

CERTIFIED AS A TRUE AND CORRECT COPY

CITY CLERK OF THE CITY OF LONG BEACH

BY

DATE: 11/19/10

OFFICE OF THE CITY ATTORNEY
ROBERT E. SHANNON, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

RESOLUTION NO. RES-10-0132

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LONG BEACH ADOPTING AND MAKING EXPRESS FINDINGS AND DETERMINATIONS RELATING TO THE ENACTMENT OF ADMINISTRATIVE AMENDMENTS, AND, WHERE APPROPRIATE, MORE RESTRICTIVE BUILDING STANDARDS CODE PROVISIONS THAN THOSE OF THE CALIFORNIA BUILDING CODE, CALIFORNIA RESIDENTIAL CODE, CALIFORNIA GREEN BUILDING STANDARDS CODE, CALIFORNIA FIRE CODE AND UNIFORM HOUSING CODE; FINDING THAT SAID AMENDMENTS AND MODIFICATIONS TO THE CODES ARE REASONABLY NECESSARY BECAUSE OF THE LOCAL CLIMATIC, GEOLOGICAL OR TOPOGRAPHICAL CONDITIONS EXISTING IN LONG BEACH; AND INSTRUCTING THE DIRECTOR OF DEVELOPMENT SERVICES AND THE FIRE CHIEF TO TRANSMIT SAID FINDINGS AND DETERMINATIONS TO THE CALIFORNIA BUILDING STANDARDS COMMISSIONS IN ACCORDANCE WITH CALIFORNIA HEALTH AND SAFETY CODE SECTIONS 17922, 17958 AND 18941.5

WHEREAS, California Health and Safety Code Sections 17922, 17958 and 18941.5 require all cities to adopt, as the City of Long Beach Building Standards Code, the California Building Standards Code adopted pursuant to the provisions of Chapter 4 of Part 2.5 of Division 13 of the California Health and Safety Code and the 1997 Edition

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of the Uniform Housing Code adopted pursuant to the California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, Article 5, Section 32; and

WHEREAS, Section 17958.5 of the California Health and Safety Code provides, in pertinent part, as follows:

"...a city or county may make those changes or modifications in the requirements contained in the provisions published in the California Building Standards Code and the other regulations adopted pursuant to Section 17922, including, but not limited to, green building standards, as it determines, pursuant to the provisions of Section 17958.7, are reasonably necessary because of local climatic, geological, or topographical conditions;" and

WHEREAS, prior to making the modifications permitted under Section 17958.5 of the California Health and Safety Code, this Council is required to make an express finding that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, the City of Long Beach is traversed by the Newport-Inglewood Fault System, is near the San Andreas Fault, and is surrounded by other earthquake faults; and

WHEREAS, the Newport-Inglewood Fault System is a right lateral, local reverse slip type of faulting, approximately 75 km in length extending from Culver City to the north to Costa Mesa to the south of the City, has a slip rate of 0.6 mm/yr with a probable magnitude of 6.0 to 7.2, and is generally considered a major Southern California earthquake fault which may experience rupture at any time; and

WHEREAS, the City is located by the International Building Code in Seismic Design Category D, E or F, and the International Residential Code in Seismic Design Category D2 or E, which is considered by experts to be one of the most active seismic regions in the world; and

WHEREAS, the Northridge Earthquake that occurred on January 17, 1994, was only a moderate Richter Magnitude 6.8 earthquake, yet caused damage in the Los

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Angeles Basin area to more than 115,000 buildings and the vacation of 21,000 residential units including 2,000 homes; and

WHEREAS, there were 57 persons who lost their lives in this earthquake, but there could have been several thousand more casualties, if the earthquake had occurred at midday during the workweek when most buildings would be occupied instead of at 4:31 a.m. on a holiday; and

WHEREAS, seismic experts report a significantly high probability for a larger earthquake occurring in the greater Los Angeles Basin area within the next 30 years; and

WHEREAS, unusually large earthquakes cause extraordinary stresses on buildings and structures and Fire Department resources which require more stringent building regulations than would otherwise be required; and

WHEREAS, the City requires the extra margin of safety due to the necessity of providing on site fire protection in a seismic emergency when Fire Department resources could be greatly delayed or overwhelmed; and

WHEREAS, the Northridge Earthquake provided valuable insight into the vulnerabilities of some building systems, designs and materials to the unanticipated level of damage; and

WHEREAS, the City, in cooperation with other major jurisdictions within the region, are continuing efforts to protect the community from the hazards of future earthquakes through the Los Angeles Regional Uniform Code Program (LARUCP) which creates uniformity of building regulations adopted by the cities and county of the Los Angeles region; and

WHEREAS, the California Building Code, California Residential Code and California Fire Code have not yet fully addressed the lessons learned from the Northridge Earthquake; and

WHEREAS, the City is located within the Los Angeles Basin, one of the most polluted metropolitan areas and one of the most heavily modified watersheds in the

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nation, with a climate system capable of producing major winds, fire and rain related disasters and is a densely populated area having residential and nonresidential buildings constructed within a region where environmental resources are scarce; and

WHEREAS, in February 2010, the Long Beach City Council adopted a Sustainable City Action Plan, which includes initiatives, goals and actions to create a more sustainable Long Beach, and specifically calls out goals for green building and sustainable development, urban nature, waste reduction, and water and energy conservation.

NOW, THEREFORE, in order to provide adequate protection under the unique local geologic and climatic conditions set forth above, the City of Long Beach makes the following findings and determinations relative to the adoption of administrative amendments, and where appropriate, the adoption of more restrictive Building Standards Code provisions than those of the California Building Code, California Residential Code, California Green Building Standards Code, California Fire Code and the Uniform Housing Code:

Section 1. Findings for the amendments to the California Building Code are attached as Exhibit "A" and incorporated herein by this reference as if set forth in full.

Section 2. The Director of Development Services is instructed to, and shall, transmit a copy of this resolution together with any appropriate supporting documentation, to the California Building Standards Commission in accordance with California Health and Safety Code Section 17958.7.

This resolution shall take effect on January 1, 2011, upon its adoption by the City Council, and the City Clerk shall certify to the vote adopting this resolution.

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OFFICE OF THE CITY ATTORNEY
ROBERT E. SHANNON, City Attorney
333 West Ocean Boulevard, 11th Floor
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I hereby certify that the foregoing resolution was adopted by the City Council of the City of Long Beach at its meeting of November 9, 2010, by the following vote:

Ayes: Councilmembers: Garcia, Lowenthal, DeLong, O'Donnell, Schipske, Andrews, Johnson, Gabelich, Neal.

Noes: Councilmembers: None.

Absent: Councilmembers: None.

City Clerk

OFFICE OF THE CITY ATTORNEY
ROBERT E. SHANNON, City Attorney
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Section 18.40.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Building Code and makes minor editorial changes.

Section 18.40.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.40.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment reference the various amendments proposed to the California Building Code.

Section 18.40.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.40.050 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference to a dictionary to be used for words not defined in the code since the IBC does not have such a reference.

Section 18.40.060 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to clarify that the Building Official is authorized to make the final determination on the proposed occupancy of a structure where such use is not specifically provided for in the code.

Section 18.40.070 – Amendment is necessary on the basis of a local geologic condition. Additional reinforcement for heavy veneer, stone and masonry veneer was needed after the 1994 Northridge Earthquake. There were numerous observations of veneer pulling away from wood stud framing following the Northridge Earthquake. Most of it was due to corrosion and weakness in the anchor ties and mesh connections to the framing. Where sheathing was beneath the veneer, nail attachments were often not attached to the wall framing below. A joint SEAOSC and LA City committee findings indicated significant loss of veneer from buildings due to inadequate design and construction. Design provisions were developed based on a detailed study of the 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.080 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for submission of construction documents.

Section 18.40.090 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the appropriate flood hazard information.

Section 18.40.100 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for flood related inspections.

Section 18.40.110 – Amendment is necessary on the basis of a local geologic condition. The modification to omit the importance factor from Equation 16-44 will ensure that a safe seismic separation distance is maintained for important facilities from adjoining structures. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.120 – Amendment is necessary on the basis of a local geologic condition. The steel Buckling Restrained Braced Frame (BRBF) system was first approved for use in the 2003 NEHRP Provisions. The values for the approximate period perimeters C_t and x were also approved as part of that original BSSC Proposal 6-6R (2003). It was an oversight that these parameters were not carried forward into the 2005 Edition of the ASCE 7. Currently, these two factors can be found in Appendix R of AISC 341-05. There, they function only as a placeholder that will be removed in the next version upon approval by ASCE 7 Task Committee on Seismic. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.130 – Amendment is necessary on the basis of a local geologic condition. Observed damages to one and two family dwellings of light frame construction after the Northridge Earthquake may have been partially attributed to vertical irregularities common to this type of occupancy and construction. In an effort to improve quality of construction and incorporate lesson learned from studies after the Northridge Earthquake, the modification to ASCE 7-05 Section 12.2.3.1 limits the number of stories and height of the structure to two stories will significantly minimize the impact of vertical irregularities and concentration of inelastic behavior from mixed structural systems. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.140 – Amendment is necessary on the basis of a local geologic condition. The importance factor, I, was dropped from equation 12.8-16 by mistake while transcribing it from NEHRP Recommended Provisions (2003) equation 5.2-16. For buildings with importance factor, I, higher than 1.0, stability coefficient should include the importance factor. The modification is consistent with the provisions adopted by OSPHD and DSA-SS as reflected in Section 1615.10.5 of the 2010 California Building Code. SEAOSC Steel Committee had supported the proposed modification during the 2007 code adoption process. The modification is intended to improve the likelihood that important and critical buildings and structures remain operational in the event of an emergency resulting from seismic activities. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.150 – Amendment is necessary on the basis of a local geologic condition. A joint Structural Engineers Association of Southern California (SEAOSC), Los Angeles County and Los Angeles City Task Force investigated the performance of concrete and masonry construction with flexible wood diaphragm failures after the Northridge earthquake. It was concluded at that time that continuous ties are needed at specified spacing to control cross grain tension in the interior of the diaphragm. Additionally, there was a need to limit subdiaphragm allowable shear loads to control combined orthogonal stresses within the diaphragm. Recognizing the importance and need to continue the recommendation made by the task force while taking into consideration the improve performances and standards for diaphragm construction today, this amendment require continuous tie spacing limit to 40 ft and to use 75% of the allowable code diaphragm shear to determine the depth of the sub-diaphragm in lieu of the 300 plf and is deemed appropriate and acceptable. Due to the frequency of this type of failure during the past significant earthquakes, various jurisdictions within the Los Angeles region have taken this additional step to prevent roof or floor diaphragms from pulling away from concrete or masonry walls. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.160 – Amendment is necessary on the basis of a local geologic condition. The California Building Code has little to no information regarding the safe design and construction

requirements for ceiling suspension systems subject to seismic loads. It is through the experience of prior earthquakes, such as the Northridge Earthquake, that this amendment is proposed so as to minimize the amount of bodily and building damage within the spaces in which this type of ceiling will be installed. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.170 – Amendment is necessary on the basis of a local geologic condition. Results from studies after the 1994 Northridge Earthquake indicated that a lot of the damages were attributed to lack of quality control during construction resulting in poor performance of the building or structure. Therefore, this amendment requires special inspection for concrete with a compressive strength greater than 2,500 pounds per square inch. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.180 – Amendment is necessary on the basis of a local geologic condition. Studies after the Northridge Earthquake revealed that great confusion exist in the field over what is required by the code in the way of special inspection beyond just piles and caissons. Connecting grade beams used in driven deep foundations will generally act like concrete beams and should not be treated like typical footings. Section 1704.4 requires concrete beams to have special inspection, but exempts the footings of buildings three stories or less in height. This amendment clarifies that the grade beams that connect driven deep foundations are not exempt from special inspection even if they are used as part of the foundation system. They are an essential part of the driven deep foundation system and should receive the same level of inspection, particularly since this type of system must resist the higher seismic demand loads in this region. The modification to require special inspection of connecting grade beams ensures adequate performance of the foundation system. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.190 – Amendment is necessary on the basis of a local geologic condition. Studies after the Northridge Earthquake revealed that great confusion exist in the field over what is required by the code in the way of special inspection beyond just piles and caissons. Connecting grade beams used in cast-in-place deep foundations will generally act like concrete beams and should not be treated like typical footings. Section 1704.4 requires concrete beams to have special inspection, but exempts the footings of buildings three stories or less in height. This amendment clarifies that the grade beams that connect cast-in-place deep foundations are not exempt from special inspection even if they are used as part of the foundation system. They are an essential part of the cast-in-place deep foundation system and should receive the same level of inspection, particularly since this type of system must resist the higher seismic demand loads in this region. The modification to require special inspection of connecting grade beams ensures adequate performance of the foundation system. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.200 – Amendment is necessary on the basis of a local geologic condition. In southern California, very few detached one- or two-family dwellings not exceeding two stories above grade plane are built as "box-type" structures, specially for those in hillside areas and near the oceanfront. Many steel moment frames or braced frames and/or cantilevered columns within buildings can still be shown as "regular" structures by calculations. With the higher seismic demand placed on buildings and structures in this region, the language in Sections 1705.3 Item 3 of the California Building Code would permit many detached one- or two-family dwellings not exceeding two stories above grade plane with complex structural elements to be constructed without the benefit of special inspections. By requiring special inspections, the quality of major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. The exception should only be allowed for detached one- or two-family dwellings not exceeding two stories above grade plane assigned to Seismic Design Category A, B and C. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.210 – Amendment is necessary on the basis of a local geologic condition. The language in Section 1710.1 of the California Building Code permits the owner to employ any registered design professional to perform structural observations with minimum guideline. However, it is important to recognize that the registered design professional responsible for the structural design has thorough knowledge of the building he/she designed. By requiring the registered design professional responsible for the structural design or their designee who were involved with the design to observe the construction, the quality of the observation for major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. Additional requirements are provided to help clarify the role and duties of the structural observer and the method of reporting and correcting observed deficiencies to the building official. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.220 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, the language in Section 1710.2 Item 3 of the California Building Code would permit many low-rise buildings and structures with complex structural elements to be constructed without the benefit of a structural observation. By requiring a registered design professional to observe the construction, the quality of the observation for major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. An exception is provided to permit simple structures and buildings to be excluded. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.230 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for alternate test procedure.

Section 18.40.240 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that wood foundation is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood foundation systems, when they are not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result in using wood foundation systems that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic or climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.250 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, it is deemed necessary to take precautionary steps to reduce or eliminate potential problems that may result by following prescriptive design provisions that does not take into consideration the surrounding environment. Plain concrete performs poorly in withstanding the cyclic forces resulting from seismic events. In addition, no substantiating data has been provided to show that under-reinforced foundation walls are effective in resisting seismic loads and may potentially lead to a higher risk of failure. It is important that the benefit and expertise of a registered design professional be obtained to properly analyze the structure and take these issues into consideration. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.260 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result for under reinforced footings located on sloped surfaces. Requiring minimum reinforcement for stepped footings is intended to address the problem of poor performance of plain or under-reinforced footings during a seismic event. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.270 – Amendment is necessary on the basis of a local geologic condition. No substantiating data has been provided to show that under-reinforced footings are effective in resisting seismic loads and may potentially lead to a higher risk of failure. Therefore, the amendment requires minimum reinforcement in continuous footings to address the problem of poor performance of plain or under-reinforced footings during a seismic event. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result by following prescriptive design provisions for footing that does not take into consideration the surrounding environment. It was important that the benefit and expertise of a registered design professional be obtained to properly analysis the structure and takes these issues into consideration. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.280 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that timber footings is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Timber footings, when they are not properly treated and protected against deterioration, have performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result by using timber footings that experience relatively rapid decay due to the face that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic or climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.290 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that timber deep foundation is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Timber deep foundation, when they are not properly treated and protected against deterioration, has performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result by using timber deep foundation that experience relatively rapid decay due to the face that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic or climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.300 – Amendment is necessary on the basis of a local geologic condition. This amendment is intended to carry over critical provisions for the design of concrete columns in moment frames from the UBC. Increased confinement is critical to the integrity of such columns and these

modifications ensure that it is provided when certain thresholds are exceeded. In addition, this amendment carries over from the UBC a critical provision for the design of concrete shear walls. It essentially limits the use of very highly gravity-loaded walls in being included in the seismic load resisting system, since their failure could have catastrophic effect on the building. Furthermore, this amendment was incorporated in the code based on observations from the 1994 Northridge Earthquake. Rebar placed in very thin concrete topping slabs have been observed in some instances to have popped out of the slab due to insufficient concrete coverage. This modification ensures that critical boundary and collector rebars are placed in sufficiently thick slab to prevent buckling of such reinforcements. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.310 – Amendment is necessary on the basis of a local geologic condition. By virtue of ACI 318 Section 21.1.1.7(d), intermediate precast structural walls designed under Section 21.4, material requirements intended under provisions 21.1.4, 21.1.5, 21.1.6, and 21.1.7 would be excluded for structures assigned to Seismic Design Category D, E or F. Clarification of ACI 318 Chapter 21 is needed to ensure that structural walls designed under ASCE 7 Table 12.2-1 using the intermediate wall panel category would conform to ductility requirements comparable to special structural wall; and conformance to the long standing practice of ACI 318 to impose special requirements for high seismic design regions. This amendment gives explicit requirement under which design and detailing need to conform to special structural wall system provision in ACI-318 Section 21.9, which covers both cast-in-place as well as precast. This amendment further gives building officials the tools to enforce minimum life safety building performance under earthquake forces in Seismic Design Category D, E or F. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.320 – Amendment is necessary on the basis of a local geologic condition. The design provision for wall pier detailing was originally introduced by SEAOC in 1987 to legacy Uniform Building Code (UBC) and was included in the 1988 UBC through the 1997 UBC (2002 CBC). The wall pier detailing provision prescribed under Section 1908.1.4 was intended for high seismic zones equivalent to current Seismic Design Category D, E or F. Section 1908.1.3 was added as a complement of wall pier detailing in Seismic Design Category C (formerly seismic zones 2A and 2B under the legacy model code). ACI 318 Commentary R 21.1.1 emphasized "it is essential that structures assigned to higher Seismic Design Categories possess a higher degree of toughness", and further encourages practitioners to use special structural wall system in regions of high seismic risk. ASCE 7 Table 12.2-1 permits intermediate precast structural wall system in Seismic Design Category D, E or F. Current Section 1908.1.3 does not limit to just structures assigned to Seismic Design Category C. The required shear strength under 21.3.3, referenced in current Section 21.4.5, is based on V_u under either nominal moment strength or two times the code prescribed earthquake force. The required shear strength in 21.6.5.1, referenced in Section 21.9.10.2 (IBC 1908.1.4), is based on the probable shear strength, V_e under the probable moment strength, M_{pr}. In addition, the spacing of required shear reinforcement is 8 inches on center under current Section 21.4.5 instead of 6 inches on center with seismic hooks at both ends under Section 21.9.10.2. Requirement of wall pier under Section 21.9.10.2 would enhance better ductility. Current practice in commercial buildings constructed using precast panels wall system have large window and door openings and/or narrow wall piers. Wall panels varying up to three stories high with openings resembles wall frame which is not currently recognized under any of the defined seismic-force resisting systems other than consideration of structural wall system. Conformance to special structural wall system design and detailing of wall piers ensures minimum life safety performance in resisting earthquake forces for structures in Seismic Design Category D, E or F. Proposed modification separates wall piers designed for structures assigned to Seismic Design Category C from those assigned to Seismic Design Category D, E or F. This modification is consistent with the amendment adopted by DSA-SS as reflected in Section 1916.4.4 of the 2010 Edition of the California Building Code; and reflects code change proposal approved for 2012 IBC during the 2009/2010 code development hearing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.330 – Amendment is necessary on the basis of a local geologic condition. This amendment requires minimum reinforcement in continuous footings to address the problem of poor

performance of plain or under-reinforced footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.340 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, the amendment takes the precautionary steps to reduce or eliminate potential problems that may result permitting a reduced edge thickness of the footing that support walls without taking into consideration the surrounding environment. In addition, no substantiating data has been provided to show that the reduced edge thickness is effective in resisting seismic loads and may potentially lead to a higher risk of failure. It is important that the benefit and expertise of a registered design professional be obtained to properly analyze the structure and take these issues into consideration. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.350 – Amendment is necessary on the basis of a local geologic condition. A number of significant technical modifications have been made since the adoption of AISC 341-05. One such change incorporates AWS D1.8/D1.8M by reference for welding related issues. This change will be included in AISC 341-10 that is to be incorporated by reference into the 2012 Edition of the International Building Code. This amendment is consistent with actions taken by both DSA-SS and OSHPD to incorporate such language in the 2010 Edition of the California Building Code. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.360 – Amendment is necessary on the basis of a local geologic condition. Past test results on braces used in steel concentrically braced frames (SCBF) indicated that many commonly used sections and brace configurations do not meet seismic performance expectations. Specific parameters that were shown to affect the ductility of braces included net-section, section type, width-thickness ratio of the cross section and member slenderness. Square and rectangular cross-section HSS were shown to be particularly susceptible to fracture due to local buckling behavior of the cross section and, therefore, are not recommended by SEAOSC Seismology and Steel Committee for special concentric braced frame applications. Grout-filled HSS members exhibit more favorable local buckling characteristics, significantly altering the post-yield behavior of these sections. Both SEAOSC Seismology and Steel Committee recommended this modification during the 2007 code amendment process. Furthermore, OSPHD has taken the same position and is continuing this recommendation as reflected in Section 2205A.4.1.5.1 to Chapter 22 of the 2010 Edition of the California Building Code. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.370 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that wood used in retaining or crib walls are effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood used in retaining or crib walls, when they are not properly treated and protected against deterioration, have performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result by using wood in retaining or crib walls that experience relatively rapid decay due to the face that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic or climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.380 – Amendment is necessary on the basis of a local geologic condition. The overdriving of nails into the structural wood panel still remains a concern when pneumatic nail guns are used for wood structural panel shear wall nailing. Box nails were observed to cause massive and multiple failures of the typical 3/8-inch thick plywood during the 1994 Northridge Earthquake. The use of clipped head nails continues to be restricted from being used in wood structural panel shear walls where the minimum nail head size must be maintained in order to minimize nails from pulling through sheathing materials. Clipped or mechanically driven nails used in wood structural panel shear wall construction were found to perform much less in previous wood structural panel shear wall testing done at the University of California Irvine. The existing test results indicated that, under cyclic loading, the wood structural panel shear walls were less energy absorbent and less ductile. The panels reached ultimate load capacity and failed at substantially less lateral deflection than those using same size hand-driven nails. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.390 – Amendment is necessary on the basis of a local geologic condition. Many of the hold-down connectors currently in use do not have any acceptance report based on dynamic testing protocol. This amendment continues to limit the allowable capacity to 75% of the acceptance report value to provide an additional factor of safety for statically tested anchorage devices. Cyclic forces imparted on buildings and structures by seismic activity cause more damage than equivalent forces that are applied in a static manner. Steel plate washers will reduce the additional damage that can result when hold-down connectors are fastened to wood framing members. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.400 – Amendment is necessary on the basis of a local geologic condition. The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with staples are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic testing. Furthermore, the cities and county within the Los Angeles region has taken extra measures to maintain the structural integrity of the framing of shear walls and diaphragms designed for high levels of seismic forces by requiring wood sheathing be applied directly over the framing members and prohibiting the use of panels placed over gypsum sheathing. This amendment is intended to prevent the undesirable performance of nails when gypsum board softens due to cyclic earthquake displacements and the nail ultimately does not have any engagement in a solid material within the thickness of the gypsum board. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.410 – Amendment is necessary on the basis of a local geologic condition. The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task

Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with stapled nails are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with stapled nails would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with stapled nails appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of stapled nail as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic testing. Furthermore, the cities and county within the Los Angeles region has taken extra measures to maintain the structural integrity of the framing of shear walls and diaphragms designed for high levels of seismic forces by requiring wood sheathing be applied directly over the framing members and prohibiting the use of panels placed over gypsum sheathing. This amendment is intended to prevent the undesirable performance of nails when gypsum board softens due to cyclic earthquake displacements and the nail ultimately does not have any engagement in a solid material within the thickness of the gypsum board. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.420 – Amendment is necessary on the basis of a local geologic condition. Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this amendment limits the location where shear walls sheathed with lath, plaster or gypsum board are used in multi-level buildings. The poor performance of such shear walls sheathed with other materials in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force and formed the basis for this amendment. Considering that shear walls sheathed with lath, plaster or gypsum board are less ductile than steel moment frames or wood structural panel shear walls, the cities and county of the Los Angeles region has taken the necessary measures to limit the potential structural damage that may be caused by the use of such walls at the lower level of multi-level building that are subject to higher levels of seismic loads. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.430 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, interior walls can easily be called upon to resist over half of the seismic loading imposed on simple buildings or structures. Without a continuous foundation to support the braced wall line, seismic loads would be transferred through other elements such as non-structural concrete slab floors, wood floors, etc. The change is to limit the use of the exception to structures assigned to Seismic Design Category A, B or C where lower seismic demands are expected. Requiring interior braced walls be supported by continuous foundations is intended to reduce or eliminate the poor performance of buildings or structures. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.440 – Amendment is necessary on the basis of a local geologic condition. Additional weight attributed to the use of heavy veneer substantially increases loads to conventionally braced walls in an earthquake. Moreover, normal to wall loads that occur in an earthquake can seriously overstress wood bearing walls in combined seismic/gravity load combinations. Numerous conventionally framed veneer covered structures sustained serious damages in the Northridge Earthquake as a result of the heavy weight of the veneer. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.450 – Amendment is necessary on the basis of a local geologic condition. This amendment specifies minimum sheathing thickness and nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands placed on buildings or structure in this region. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.460 – Amendment is necessary on the basis of a local geologic condition. Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this amendment limit the use of staple fasteners in resisting or transferring seismic forces. In September 2007, limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as the nailed wood structural shear panels. The test results of the stapled wood structural shear panels appeared much lower in strength and drift than the nailed wood structural shear panel test results. Therefore, the use of staples as fasteners to resist or transfer seismic forces shall not be permitted without being substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.470 – Amendment is necessary on the basis of a local geologic condition. Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this amendment limit the use of staple fasteners in resisting or transferring seismic forces. In September 2007, limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as the nailed wood structural shear panels. The test results of the stapled wood structural shear panels appeared much lower in strength and drift than the nailed wood structural shear panel test results. Therefore, the use of staples as fasteners to resist or transfer seismic forces shall not be permitted without being substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.480 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for inspection related requirements.

Section 18.40.490 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to clarify the requirement for changes in occupancy and to reflect the appropriate reference to the City's Municipal Code.

Section 18.40.500 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for moving buildings or structures.

Section 18.40.510 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes by deleting a non-mandatory provision.

Section 18.40.520 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety

Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for permit related requirements.

Section 18.40.530 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes by deleting the last two sentences that are non-mandatory provisions.

Section 18.40.540 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for when permits are exempt.

Section 18.40.550 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for permit application related requirements.

Section 18.40.560 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for submittal document related requirements.

Section 18.40.570 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for inspection related requirements.

Section 18.41.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Residential Code and makes minor editorial changes.

Section 18.41.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.41.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the various amendments proposed to the California Residential Code.

Section 18.41.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.41.050 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference to a dictionary to be used for words not defined in the code since the IRC does not have such a reference.

Section 18.41.060 – Amendment is necessary on the basis of a local geologic condition. After the 1994 Northridge Earthquake, the Wood Frame Construction Joint Task Force recommended that the quality of wood frame construction needed to be greatly improved. One such recommendation identified by the Task Force is to improve the quality and organization of structural plans prepared by the engineer

or architect so that plan examiners, building inspectors, contractors and special inspectors may logically follow and construct the presentation of the seismic force-resisting systems in the construction documents. For buildings or structures located in Seismic Design Category D_0, D_1, D_2 or E that are subject to a greater level of seismic forces, the requirement to have a California licensed architect or engineer prepare the construction documents is intended to minimize or reduce structural deficiencies that may cause excessive damage or injuries in wood frame buildings. Structural deficiencies such as plan and vertical irregularities, improper shear transfer of the seismic force-resisting system, missed details or connections important to the structural system, and the improper application of the prescriptive requirements of the California Residential Code can be readily addressed by a registered design professional. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.070 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate climatic and geographic design criteria for buildings and structures within the City.

Section 18.41.080 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result by limiting the type of irregular conditions specified in the International Residential Code. Such limitations are intended to reduce the potential structural damage expected in the event of an earthquake. The cities and county of the Los Angeles region has taken extra measures to maintain the structural integrity of the framing of the shear walls and all associated elements when designed for high levels of seismic loads. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.090 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that wood foundation is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood foundation, when they are not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result in using wood foundation that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. However, an exception is made for non-occupied, single-story storage structures that pose significantly less risk to human safety and may utilize the wood foundation guidelines specified in this Chapter. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic and climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.100 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result for under-reinforced footings located on sloped surfaces. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.110 – Amendment is necessary on the basis of a local geologic condition. The amendment limit the use of the exception to structures assigned to Seismic Design Category A, B or C where lower seismic demands are expected. Requiring interior braced walls be supported by continuous foundations is intended to reduce or eliminate the poor performance of buildings or structures. The amendment makes modification and changes to better limit personal injury and property damage as a

result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.120 – Amendment is necessary on the basis of a local geologic condition. Requiring minimum reinforcement for stepped footings is intended to address the problem of poor performance of plain or under-reinforced footings during a seismic event. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.130 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that wood foundation wall is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood foundation walls, when they are not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result in using wood foundation walls that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic and climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.140 – Amendment is necessary on the basis of a local geologic condition. There is no limitation for weight of mechanical and plumbing fixtures and equipments in the International Residential Code. Requirements from ASCE 7-05 and the International Building Code would permit equipment weighing up to 400 lbs when mounted at 4 feet or less above the floor or attic level without engineering design. Where equipment exceeds this requirement, it is the intent of this amendment that a registered design professional is required to analyze if the floor support is adequate and structurally sound. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.150 – Amendment is necessary on the basis of a local geologic condition. Section R502.10 of the Code does not provide any prescriptive criteria to limit the maximum floor opening size nor does Section R503 provide any details to address the issue of shear transfer near larger floor openings. With the higher seismic demand placed on buildings and structures in this region, it is important to ensure that a complete load path is provided to reduce or eliminate potential damages caused by seismic forces. Requiring blocking with metal ties around larger floor openings and limiting opening size is consistent with the requirements of Section R301.2.2.2.5. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.160 – Amendment is necessary on the basis of a local geologic condition. The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with staples are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels

fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D_0, D_1 and D_2 unless it can be substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.170 – Amendment is necessary on the basis of a local geologic condition. The cities and county of the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of the shear wall system for buildings and structures subject to high seismic loads by eliminating single top plate construction. The performance of modern day braced wall panel construction is directly related to an adequate load path extending from the roof diaphragm to the foundation system. A single top plate is likely to be over nailed due to the nailing requirements at a rafter, stud, top plate splice, and braced wall panel edge in a single location. In addition, notching on a single top plate for plumbing, ventilation and electrical wiring may reduce the load transfer capacity of the plate without proper detailing. Majority of buildings and structures designed and built per the California Residential Code with a single top plate may not need structural observation and special inspections. The potential construction mistakes mentioned above could not be caught and corrected by knowledgeable engineers and inspectors, and could jeopardize structural performance of buildings and structures located in high seismic areas. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.180 – Amendment is necessary on the basis of a local geologic condition. The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with staples are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D_0, D_1 and D_2 unless it can be substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.190 – Amendment is necessary on the basis of a local geologic condition. Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this proposed local amendment increase the length and limits the location where shear walls sheathed with lath, plaster or gypsum board are used in multi-level buildings. In addition, shear walls sheathed with other materials are prohibited in Seismic Design Category D_0, D_1 and D_2 to be consistent with the design limitation for similar shear walls found in the California Building Code. The poor performance of such shear walls in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force and formed the basis for this amendment. Considering that shear walls sheathed with lath, plaster or gypsum board are less ductile than steel moment frames or wood structural panel shear walls, the cities and county of the Los Angeles region has taken the necessary measures to limit the potential structural damage that may be caused by the use of such walls at the lower level of multi-level building that are subject to higher levels of seismic loads. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.200 – Amendment is necessary on the basis of a local geologic condition. 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D_0, D_1 and D_2 unless it can be substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.210 – Amendment is necessary on the basis of a local geologic condition. 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.220 – Amendment is necessary on the basis of a local geologic condition. 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.230 – Amendment is necessary on the basis of a local geologic condition. The modification to increase the lap splice requirement will improve performance of buildings and structures and is consistent with ACI 318. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.240 – Amendment is necessary on the basis of a local geologic condition. 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic

demands and reduce and limit potential damages to property. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D_0, D_1 and D_2 unless it can be substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.250 – Amendment is necessary on the basis of a local geologic condition. 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.260 – Amendment is necessary on the basis of a local geologic condition. The addition of the word "or" will prevent the use of unreinforced parapets in Seismic Design Category D_0, D_1 or D_2, or on townhouses in Seismic Design Category C. The modification prohibits the use of unreinforced masonry and is intended to prevent non-ductile failures and sudden structural collapses. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.270 – Amendment is necessary on the basis of a local geologic condition. Reinforcement using longitudinal wires for buildings and structures located in high seismic areas are deficient and not as ductile as deformed rebar. Having vertical reinforcement closer to the ends of masonry walls helps to improve the seismic performance of masonry buildings and structures. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.280 – Amendment is necessary on the basis of a local geologic condition. The number of nails required for the heel joint connection per Table R802.5.1(9) can be excessive depending on the rafter slope, spacing, and roof span. This footnote is intended to help prevent the splitting of connecting wood members when large numbers of nail are required as stated in the National Design Specification for Wood Construction (NDS). The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.290 – Amendment is necessary on the basis of a local geologic condition. This amendment provides provisions to ensure that the ends of wood members and the points of bearing have adequate lateral support to prevent rotation and to help stabilized the members during construction. This amendment is consistent with and similar to requirements contained in the National Design Specification for Wood Construction (NDS). The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.300 – Amendment is necessary on the basis of a local geologic condition. Wood trusses are engineered structural elements that require engineered design and calculations. This amendment provides clarifications that all wood truss design drawings are to be prepared by a registered professional. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.310 – Amendment is necessary on the basis of a local geologic condition. Section R802 of the Code does not provide any prescriptive criteria to limit the maximum roof opening size nor does Section R803 provide any details to address the issue of shear transfer near larger roof openings. With the higher seismic demand placed on buildings and structures in this region, it is important to ensure that a complete load path is provided to reduce or eliminate potential damages caused by seismic forces. Requiring blocking with metal ties around larger roof openings and limiting opening size is consistent with the requirements of Section R301.2.2.2.5. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.320 – Amendment is necessary on the basis of a local geologic condition. The performance of fireplace/chimney without anchorage to the foundation has been observed to be inadequate during major earthquakes. The lack of anchorage to the foundation can result in the overturning or displacement of the fireplace/chimney. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.42.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Electrical Code and makes minor editorial changes.

Section 18.42.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.42.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the various amendments proposed to the California Electrical Code.

Section 18.42.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.43.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Plumbing Code and makes minor editorial changes.

Section 18.43.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.43.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety

Code. This amendment makes minor editorial changes to reference the various amendments proposed to the California Plumbing Code.

Section 18.43.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.44.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Mechanical Code and makes minor editorial changes.

Section 18.44.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.44.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the various amendments proposed to the California Mechanical Code.

Section 18.44.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.45.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the Uniform Housing Code and makes minor editorial changes.

Section 18.45.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.45.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the various amendments proposed to the Uniform Housing Code.

Section 18.45.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.45.050 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to prohibit certain uses and provide provisions for the maintenance and repair of existing building and structures.

Section 18.46.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Energy Code.

Section 18.46.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.47.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Green Building Standards Code and makes minor editorial changes.

Section 18.47.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.47.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the various amendments proposed to the California Green Building Standards Code.

Section 18.47.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.47.050 – Amendment is necessary on the basis of a local climatic and environmental condition. Under the existing definition of Low-Rise Residential Building, measures in the California Green Building Standards Code would not be applicable to new residential buildings and structures four stories and greater. With the amendment in Section 18.47.070 that defines Low-Rise Residential Building, this amendment would allow application of the measures in Chapter 5 and Appendix Chapter A5 for new residential buildings greater than six stories. This amendment would also allow applicability Chapter 5 and Appendix Chapter A5 to OSHPD 3 occupancies. The modification to require higher efficiencies of energy usage and greater beneficial use of environmental material will be achieved with the expansion of the Mandatory and Voluntary requirements. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.060 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference to a dictionary to be used for words not defined in the code since the code does not have such a reference.

Section 18.47.070 – Amendment is necessary on the basis of a local climatic and environmental condition. Under the existing definition of Low-Rise Residential Building, measures in the California Green Building Standards Code would not be applicable to new residential buildings and structures four stories and greater. This amendment would allow application of the measures in Chapter 4 and Appendix Chapter A4 for new residential buildings and structures six stories and less. The 2010 California Green Building Standards Code contains the word "sustainable" but does not define it. Although it is a term used in association with green building, the word "sustainability" is often confused to mean the same as green building. The amendment allows clarity and distinguishing understanding while providing for a general definition. The modification to require higher efficiencies of energy usage and greater beneficial use of environmental material will be achieved with the expansion of Low Rise Residential Building. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.080 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment is intended to reduce the impact of buildings and structures on the Earth by requiring the use of more environmentally friendly materials that emits less pollution and are healthier for its occupants. By requiring more buildings or structures to be "green", better indoor air quality and less expensive operational cost due to demand for heating, cooling and use of water will be achieved. It is estimated that the average green building uses 30% less energy and 30-50% less water than a comparable building. In addition, conventional buildings account for 30% of greenhouse gas emissions. The construction of green buildings will result in a smaller carbon footprint as compared to a conventional building, thus reducing the City's contribution to climate change. Green building will help to foster an environment whereby residents are more likely to get out of their cars and into their neighborhoods which helps to reduce emissions by decreasing car use. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.090 – Amendment is necessary on the basis of a local climatic and environmental condition. Requiring topsoil protection promotes air quality and the objectives of the previously adopted construction and demolition recycling program. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.100 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment is deemed appropriate and feasible at furthering the goals of the Sustainable City Action Plan that promotes water permeability and supports water conservation policies. This helps to further the City's efforts in improving water quality through the reduction of urban runoff associated with non-permeable surfaces. The Los Angeles and San Gabriel Rivers watershed receives an estimated 840,000 pounds of waste per year. By increasing permeability, the City seek to reduce the peak flow-rate and excess volume of runoff that with it carries waste and pollutants, and contributes to erosion of the rivers and natural drainage systems. The California Department of Water Resources continues to categorize the drought condition within the state as a Year 3 "Dry" Drought. As a result, the Long Beach Board of Water Commissioners in 2008 called on all Southern California cities to implement a more aggressive, permanent, extraordinary conservation measures, particularly prohibitions on certain outdoor water uses, in light of the rapid depletion of critical in-state water supply reserves. The City is preparing for future "Severe" or "Extreme" drought conditions through water conservation efforts and increasing potable water supplies. The City on average uses 60 million gallons of potable water every day. To meet the goals of the Sustainable City Action Plan and to prepare for an indefinite and uncertain number of days with higher drought risk, the amendment incorporates the objectives associated with the City's model landscaping ordinance. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.110 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment is deemed appropriate and feasible at furthering the goals of the Sustainable City Action Plan that promotes water permeability and supports water conservation policies. This helps to further the City's efforts in improving water quality through the reduction of urban runoff associated with non-permeable surfaces. The Los Angeles and San Gabriel Rivers watershed receives an estimated 840,000 pounds of waste per year. By increasing permeability, the City seek to reduce the peak flow-rate and excess volume of runoff that with it carries waste and pollutants, and contributes to erosion of the rivers and natural drainage systems. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.120 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment ensures that the achievements associated with the City's Green Building Ordinance adopted on May 5, 2009 will incorporate the principles of environmental sustainability, resource usage and efficiency, and ensures the health and productivity of the City's residents, its workforce and visitors. The amendment maintains the City's previously approved bicycle amenities requirement that contains higher thresholds than the CalGreen Code and demonstrates the City's continued leadership in energy and resource efficiency and alternative forms of transport. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.130 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment requires that weather-based or soil moisture-based irrigation controllers shall be provided regardless of which entity provides and installs landscaping. The amendment will then capture a larger number of landscaping projects with greater flexibility for water savings. The existing code requirement that conditions a smart controller when landscaping is provided and installed at the time of final inspection will remain as it appears in the CalGreen Code. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.140 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment adopts the voluntary measure associated with Tier 1 standards relating to the efficient use of resources, recycling excessive waste produced during the construction process, and to advance and promote a culture of conservation. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.150 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment adopts the voluntary measure associated with Tier 1 standards relating to water resistance and moisture management that promotes the efficient use of resources. The amendment seeks to prevent the excess waste associated with premature replacements and repairs that can be avoided through proper maintenance and practices. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.160 – Amendment is necessary on the basis of a local climatic and environmental condition. In 2006, the City was able to divert 69% of its waste into recycling or reuse. Among large cities, this diversion rate was the second highest in the nation. Through various programs such as residential curbside recycling, household hazard waste roundups, consistent public outreach, elementary school recycling education, and classes for at-home composting, the City has been able to remain at the forefront of sustainable practices. To this extent, construction and demolition waste contributes to about 25 to 30% of the entire waste in the United States according to the Sustainable Cities Institute. The amendment references the City's Construction and Demolition Recycling Program Ordinance adopted on May 15, 2007 in lieu of the CalGreen Code provisions, stipulating a diversion rate of 60% (10% more than the CalGreen Code), and expanding the recycling efforts the City has previously enacted that helps continue to keep landfills from prematurely reaching capacity and by reducing overall resource consumption. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.170 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment references the City's previously approved bicycle amenities requirement

which contains higher thresholds than the CalGreen Code and demonstrates the City's continued leadership in energy and resource efficiency. The City has made significant progress in encouraging bicycle activity with a number of innovative bicycle facilities including Southern California's first bike boulevard, green painted bike lanes with "sharrows" (shared bicycle and automobile lanes) and two dedicated bike lanes in downtown Long Beach. The City Council has proclaimed Long Beach to be the most bicycle friendly city in the nation and the City has amassed $17 million dollars in grant funding to implement 200 miles of new Class I and II bicycle facilities, new bike racks, a car and bike-share program, bicycle safety and awareness campaign, and bike boulevards. This amendment requiring bicycle parking supports the use of alternative transportation modes as viable alternatives to the automobile, thus reducing the number of vehicle miles traveled and fuel consumption within the City and thus limiting the environmental impact to the Earth. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.180 – Amendment is necessary on the basis of a local climatic and environmental condition. Adopting voluntary prescriptive measures relating to building orientation is a form of energy efficiency practices that utilize natural processes of cooling and heating to help deter excess usage of HVAC systems. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.190 – Amendment is necessary on the basis of a local climatic and environmental condition. Adopting voluntary prescriptive measures relating to roofing and hardscape are forms of energy efficiency practices that utilize natural processes of cooling and heating to help deter excess usage of HVAC systems. More efficient hardscapes reduces the heat-island effect that tends to increase the demand for energy. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.200 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment is deemed appropriate and feasible at furthering the goals of the Sustainable City Action Plan that promotes water permeability and supports water conservation policies. This helps to further the City's efforts in improving water quality through the reduction of urban runoff associated with non-permeable surfaces. The Los Angeles and San Gabriel Rivers watershed receives an estimated 840,000 pounds of waste per year. By increasing permeability, the City seek to reduce the peak flow-rate and excess volume of runoff that with it carries waste and pollutants, and contributes to erosion of the rivers and natural drainage systems. The California Department of Water Resources continues to categorize the drought condition within the state as a Year 3 "Dry" Drought. As a result, the Long Beach Board of Water Commissioners in 2008 called on all Southern California cities to implement a more aggressive, permanent, extraordinary conservation measures, particularly prohibitions on certain outdoor water uses, in light of the rapid depletion of critical in-state water supply reserves. The City is preparing for future "Severe" or "Extreme" drought conditions through water conservation efforts and increasing potable water supplies. The City on average uses 60 million gallons of potable water every day. To meet the goals of the Sustainable City Action Plan and to prepare for an indefinite and uncertain number of days with higher drought risk, the amendment incorporates the objectives associated with the City's model landscaping ordinance. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.210 – Amendment is necessary on the basis of a local climatic and environmental condition. Adopting voluntary measures regarding energy efficient equipment and appliances encourages the usage of cleaner and more efficient technology which helps reduce the demand and transport of energy. In 2007, the City's residents and businesses used 2.9 billion kilowatt-hours of electricity. The

Sustainable City Action Plan is committed to reducing this amount by 15% over the next 10 years. As a result, more energy efficient, technological mandates will contribute to reducing energy consumption through the use of efficient appliances and equipment that is used on a daily basis. To further meet this objective and reduce the City's carbon footprint, the amendment requires that the source of energy be sustainable. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.220 – Amendment is necessary on the basis of a local climatic and environmental condition. In 2006, the City was able to divert 69% of its waste into recycling or reuse. Among large cities, this diversion rate was the second highest in the nation. Through various programs such as residential curbside recycling, household hazard waste roundups, consistent public outreach, elementary school recycling education, and classes for at-home composting, the City has been able to remain at the forefront of sustainable practices. To this extent, construction and demolition waste contributes to about 25 to 30% of the entire waste in the United States according to the Sustainable Cities Institute. The amendment references the City's Construction and Demolition Recycling Program Ordinance adopted on May 15, 2007 in lieu of the CalGreen Code provisions, stipulating a diversion rate of 60% (10% more than the CalGreen Code), and expanding the recycling efforts the City has previously enacted that helps continue to keep landfills from prematurely reaching capacity and by reducing overall resource consumption. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.48.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adopts the latest edition of the California Fire Code and makes minor editorial changes.

Section 18.48.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.48.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment reference the various amendments proposed to the California Fire Code.

Section 18.48.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions

Section 18.48.050 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment names this code as the Fire Code for the City of Long Beach.

Section 18.48.060 – Amendment is necessary on the basis of local topography conditions. This amendment adds ocean waters under Long Beach jurisdiction to the Fire Code.

Section 18.48.070 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adds supplemental rules and regulations to carry out the intent of the code.

Section 18.48.080 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies the appointment of the fire code official.

Section 18.48.090 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment provides special requirements for ocean areas and the vessels that operate there.

Section 18.48.100 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies length of time records shall be retained.

Section 18.48.110 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to provide for three types of permits.

Section 18.48.120 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include inspections permits.

Section 18.48.130 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment provides for a declaration of intended use.

Section 18.48.140 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include inspections permits

Section 18.48.150 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include additional operational permits.

Section 18.48.160 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include additional operational permits.

Section 18.48.170 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include inspection permits.

Section 18.48.180 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include additional construction and inspection permits.

Section 18.48.190 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies applicable code reference.

Section 18.48.200 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for the responsibility of keeping an accurate count of building occupants.

Section 18.48.210 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies language for violation penalties.

Section 18.48.220 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies language for stop work orders.

Section 18.48.230 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies language for permit fees.

Section 18.48.240 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for cost recovery and reporting requirements.

Section 18.48.250 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment defines a "high rise structure".

Section 18.48.260 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment provides definitions for fire chief and fire code official.

Section 18.48.270 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment provides definitions for boat yard, safety container and small craft.

Section 18.48.280 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies responsibility of property owners to maintain alleys free of hazards.

Section 18.48.290 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment establishes conditions for open burning.

Section 18.48.300 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment establishes conditions for recreational burning.

Section 18.48.310 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for installation of guard posts.

Section 18.48.320 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for fire access roads.

Section 18.48.330 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for fire access roads.

Section 18.48.340 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify location and illumination of address numbers.

Section 18.48.350 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for key box maintenance.

Section 18.48.360 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D_2 or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these densely populated occupancies have this added means of escape.

Section 18.48.370 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment directs the code user to the proper section for protection of vehicular damage.

Section 18.48.380 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D_2 or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site fire protection in a seismic emergency when fire department resources could be greatly delayed and overwhelmed. This amendment provides clarifications for fire sprinkler systems.

Section 18.48.390 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D_2 or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site fire protection in a seismic emergency when fire department resources could be greatly delayed and overwhelmed. This amendment provides fire sprinkler requirements for non residential buildings.

Section 18.48.400 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D_2 or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site fire protection in a seismic emergency when fire department resources could be greatly delayed and overwhelmed. This amendment provides fire sprinkler requirements for residential buildings.

Section 18.48.410 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment provides for a safety margin when performing hydraulic calculations.

Section 18.48.420 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify fire alarm signal reporting.

Section 18.48.430 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for exterior alarm device.

Section 18.48.440 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D_2 or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site fire protection in a seismic emergency when

fire department resources could be greatly delayed and overwhelmed. This amendment adds language for interior alarm device.

Section 18.48.450 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adds language to clarify minimum pressure requirements.

Section 18.48.460 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adds language to clarify building evacuation and fire alarm systems.

Section 18.48.470 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D_2 or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site life safety systems in a seismic emergency when fire department resources could be greatly delayed and overwhelmed. This amendment adds language for fire alarm and smoke removal systems.

Section 18.48.480 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify temperature ratings of smoke and heat vents.

Section 18.48.490 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D_2 or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires this extra margin of safety due to the probability of damage to water supplies. This amendment provides requirements for fire department connections.

Section 18.48.500 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify location of fire department connections.

Section 18.48.510 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify access to fire department connections.

Section 18.48.520 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify protection of exit ways from vehicular damage.

Section 18.48.530 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify stairways to roof.

Section 18.48.540 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adds language to clarify access to roof hatch or trap doors.

Section 18.48.550 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify designation of stairway 1.

Section 18.48.560 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify this does not apply to temporary situations.

Section 18.48.570 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the protection against physical damage from vehicles.

Section 18.48.580 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for the installation and maintenance of vapor processing systems.

Section 18.48.590 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adds language for welding and cutting aboard vessels.

Section 18.48.600 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the City of Long Beach insurance requirements.

Section 18.48.610 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the City of Long Beach prohibition of fireworks and associated insurance requirements.

Section 18.48.620 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify underground tank installation.

Section 18.48.630 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the amounts of flammable or combustible liquids in residential occupancies.

Section 18.48.640 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for the storage of liquefied petroleum gas in buildings.

Section 18.48.650 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for the use of liquefied petroleum gas.

Section 18.48.660 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for the installation of liquefied petroleum gas in tanks.

Section 18.48.670 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the type of cabinet.

Section 18.48.680 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the requirement for fire safety officer.

Section 18.48.690 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D_2 or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site fire protection in a seismic emergency when fire department resources could be greatly delayed and overwhelmed. This amendment provides language to clarify reduction of fire flow requirements.