DRAFT

BEFORE THE CITY COUNCIL OF THE CITY OF LAFAYETTE

In the Matter of:

Ordinance adopting the (1) 2010 California Building Code; (2) 2010 California Residential Code; (3) 2010 California Green Building Standards Code; (4) 2010 California Electrical Code; (5) 2010 California Plumbing Code; and (6) 2010 California Mechanical Code, with changes, additions and deletions	)	Ordinance No. 600

WHEREAS, the California Building Standards Commission ("Commission") has adopted and published the 2010 California Building Standards Code ("CBSC"), which became effective January 1, 2011;

WHEREAS, the CBSC is set forth in Title 24 of the California Code of Regulations ("CCR"), and includes the: California Building Standards Administrative Code; California Building Code; California Residential Code; California Electrical Code; California Mechanical Code; California Plumbing Code; California Energy Code; State Historical Building Code; California Fire Code; California Existing Building Code; California Green Building Standards Code; and the California Reference Standards Code;

WHEREAS, California Health and Safety Code Sections 17958, 17960, 18938(b) and 18948 require all California cities and counties to enforce the CBSC through a local building department and or fire district, as it applies to all buildings constructed, repaired, altered, and added to, that are not subject to state agency enforcement such as public schools and hospital buildings;

WHEREAS, California Health and Safety Code Sections 17958 *et seq*. and 18941.5(b) authorize cities to adopt the CBSC with modifications that make the standards set forth therein more restrictive, so long as such modifications are determined to be reasonably necessary because of local climatic, geological, or topographical conditions;

WHEREAS, the City of Lafayette desires to adopt the 2010 California Building Code; 2010 California Residential Code; 2010 California Green Building Standards Code; 2010 California Electrical Code; 2010 California Plumbing Code; and 2010 California Mechanical Code, and certain provisions of the Contra Costa County Ordinance Code, with certain amendments to the CBSC codes to ensure those codes are tailored to the particular safety needs of the City as required by its unique climatic, geological and topographical conditions;

WHEREAS, the City is authorized by California Government Code Section 50022.1 *et seq*. to adopt those codes contained in the CBSC and the provisions of the Contra Costa County Ordinance Code, by reference;

WHEREAS, the City Council held a public hearing on June 11, 2012 at which time all interested persons had the opportunity to appear and be heard on the matter of adopting the 2010 California Building Code; 2010 California Residential Code; 2010 California Green Building Standards Code; 2010 California Electrical Code; 2010 California Plumbing Code; and 2010 California Mechanical Code, as amended herein;

WHEREAS, the City published notice of the aforementioned public hearing pursuant to California Government Code Section 6066 on May 25, 2012 and June 1, 2012; and

WHEREAS, all other legal and procedural prerequisites relating to the adoption of this Ordinance have occurred.

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

Section 1. Findings. To the extent that the following changes and modifications to the CBSC are deemed more restrictive than the standards contained therein, thus requiring that findings be made pertaining to local conditions justifying such modifications, the City Council adopted Resolution No. 2012-19 that found and determined that the following changes and modifications are reasonably necessary due to the City's local climatic, geological, or topographical conditions.

Section 2. Amendments. Section 3-304 of the Lafayette Municipal Code, entitled "County Ordinance Code Division 74—Building code," is hereby re-titled "City of Lafayette Building Code."

Section 3. Amendments. Section 3-304 of the Lafayette Municipal Code, entitled "City of Lafayette Building Code," is hereby amended to read as follows:

"3-304 - City of Lafayette Building Code.

Chapter 74-2
ADOPTION

74-2.002 Adoption.

(a) The building code of this city is the 2010 California Building Code (California Code of Regulations, Title 24, Part 2, Volumes 1 and 2), the 2010 California Residential Code (California Code of Regulations, Title 24, Part 2.5), and the 2010 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), as amended by the changes, additions, and deletions set forth in this chapter and Title 7, Division 72 of the Contra Costa County Ordinance Code.

(b) The 2010 California Building Code, with the changes, additions, and deletions set forth in this chapter and Title 7, Division 72 of the Contra Costa County Ordinance Code, is hereby adopted by this reference as though fully set forth in this ordinance.

(c) The 2010 California Residential Code, with the changes, additions, and deletions set forth in this chapter and Title 7, Division 72 of the Contra Costa County Ordinance Code, is hereby adopted by this reference as though fully set forth in this ordinance.

(d) The 2010 California Green Building Standards Code, with the changes, additions, and deletions set forth in this chapter and Title 7, Division 72 of the Contra Costa County Ordinance Code, is hereby adopted by this reference as though fully set forth in this ordinance.

(e) At least one copy of this building code is now on file in the office of the city clerk for public inspection, and the other requirements of Government Code section 50022.6 have been and shall be complied with.

(f) As of the effective date of this ordinance, the provisions of the building code are controlling and enforceable within the city.

Chapter 74-4
MODIFICATIONS

74-4.002 Amendments to CBC. The 2010 California Building Code ("CBC") is hereby amended by the changes, additions, and deletions set forth in this chapter and Title 7, Division 72 of the Contra Costa County Ordinance Code. Section numbers used below are those of the 2010 California Building Code.

(a) CBC Chapter 1, entitled Scope and Administration, is hereby amended by the provisions of Title 7, Division 72 of the Contra Costa County Ordinance Code, and as follows:

(1) Sections 103, 109, 112, 113, 114, and 116 of CBC Chapter 1 are deleted in their entirety.

(2) Section 105.2, entitled "Work exempt from permit," is amended to read as follows:

"105.2 Work exempt from permit. Exemptions from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. *Permits* shall not be required for the following:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11 m2).
2. Fences not over 6 feet (1829 mm) high.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
5. Retaining walls that are not more than three feet in height, measured from the top of the footing to the top of the wall, unless supporting a surcharge or ground slope exceeding 1:2 or impounding class I, II, or III-a liquids.
6. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons (18 925 L) and the ratio of height to diameter or width does not exceed 2:1.
7. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or *story* below and are not part of an *accessible route.*
8. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
9. Temporary motion picture, television and theater stage sets and scenery.
10. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, do not exceed 5,000 gallons (18 925 L) and are installed entirely above ground.
11. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
12. Swings and other playground equipment accessory to detached one- and two-family *dwellings*.

13. Window *awnings* supported by an *exterior wall* that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support of Groups R-3 and U occupancies.
14. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

Electrical:
Repairs and maintenance**:** Minor repair work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.
Radio and television transmitting stations: The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for a power supply and the installations of towers and antennas.
Temporary testing systems: A *permit* shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

Gas:
1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:
1. Portable heating appliance.
2. Portable ventilation equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any part that does not alter its approval or make it unsafe.
6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (5 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.

Plumbing:
1. The stopping of leaks in drains, water, soil, waste or vent pipe, provided, however, that if any concealed trap, drain pipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with the new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures."

(3) Section 107.1, entitled "General," of Section 107 entitled, "Submittal documents," is amended to read as follows:

"107.1 General. Submittal documents consisting of *construction documents*, statement of *special inspections*, geotechnical report and other data shall be submitted in two or

more sets with each *permit* application. The *construction documents* shall be prepared by a *registered design professional* where required by applicable federal, state or local laws, rules or regulations. Where special conditions exist, the *building official* is authorized to require additional *construction documents* to be prepared by a *registered design professional*."

(4) Section 107.2.1, entitled "Information on construction documents," is amended to read as follows:

"**107.2.1. Information on construction documents.** Plans and specifications shall be drawn to scale on substantial paper or cloth and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and to show in detail that it will conform to this code and all other applicable federal, state and local laws, rules and regulations. The first sheet of each set of plans shall give the house and street address of the work and the name and address of the owner and of the person who prepared the plans. Plans shall include a plot plan showing the location of the lot corners as established on the ground, the elevation of the top and toe of cuts and fills, and the location of the proposed building and of every existing building on the property. Instead of detailed specifications, the county building official may approve references on the plans to a specific section or part of this code or other ordinances or laws."

(5) Section 110.1, entitled "General," of Section 110, entitled "Inspections," is amended to read as follows:

"110.1 General. Construction or work for which a *permit* is required shall be subject to inspection by the *building official* and such construction or work shall remain accessible and exposed for inspection purposes until *approved*. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of any other applicable federal, state or local laws, rules or regulations. Inspections presuming to give authority to violate or cancel the provisions of this code or of other applicable federal, state or local laws, rules or regulation shall not be valid. It shall be the duty of the *permit* applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the *building official* nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

At the time of first inspection by the county building official, property corners (including angle points) shall be identified with monuments in accordance with the legal description furnished with the application to build, sufficient to locate the proposed structure in relation to the lot lines, except that this requirement shall not apply to minor alterations or repairs to existing structures not affecting the exterior limits thereof, and construction of accessory buildings or structures of a building permit value of less than $500.Monuments shall be driven flush with the ground and tagged as required by the Land Surveyor Act (Business and Professions Code section 8772). The plot plan required by Section 107.2.1 shall indicate the locations and identification of all property comer monuments. Property corner monuments shall consist of one of the following:

(A) Redwood hub not less than two inches square and twelve inches long;

(B) Galvanized iron pipe not less than one inch in diameter and thirty inches long filled with concrete; or

(C) Other material of sufficient durability, placed as not to be readily disturbed, acceptable to the county building official."

(b) Section 907.2.11.5.1, entitled "Flat roof buildings," is hereby added to Section 907.2.11.5, entitled "Existing Group R-3 Occupancies," of CBC Chapter 9, entitled "Fire Protection Systems," to read as follows:

"**907.2.11.5.1 Flat roof buildings.** In existing flat roof buildings, the installation of a smoke detector that complies with Section 907.2.10 shall be required when a pitch roof is added on top of the existing flat roof and the solid sheathing of the flat roof is not removed."

(c) Section 1406.5, entitled "Wood shakes or shingles," is hereby added to Section 1406, entitled "Combustible Materials on the Exterior Side of Exterior Walls," of CBC Chapter 14, entitled "Exterior Walls," to read as follows:

"**1406.5 Wood shakes or shingles.** Wood shakes or shingles used for exterior wall covering shall be fire treated unless there is a minimum of 10 feet from the exterior wall (including shakes or shingles) to the property line of all sides, except for any sides of exterior walls facing the street."

(d) Equation 12.8-5 contained in Section 1615A.1.7 ASCE 7, Section 12.8.1.1 of CBC Chapter 1614A, entitled "Structural Design," is hereby amended to read as follows:

"$C_s = 0.044\, S_{DS} I \geq 0.01$ (12.8-5)

where S_{DS} is the 5 percent damped design spectral response acceleration parameter at short periods as defined in Section 11.4.4 and *1* is the importance factor in Section 11.5.1."

(e) Section 1809.8, entitled "Plain concrete footings," of CBC Chapter 18, entitled "soils and foundations," is hereby deleted in its entirety.

(f) Section 1810.3.9.3, entitled "Placement of reinforcement," of CBC Chapter 18, entitled "Soils and Foundations," is hereby amended to read as follows:

"**1810.3.9.3 Placement of reinforcement**. Reinforcement where required shall be assembled and tied together and shall be placed in the deep foundation element as a unit before the reinforced portion of the element is filled with concrete.

Exceptions:
1. Steel dowels embedded 5 feet (1524 mm) or less shall be permitted to be placed after concreting, while the concrete is still in a semifluid state.
2. For deep foundation elements installed with a hollow-stem auger, tied reinforcement shall be placed after elements are concreted, while the concrete is still in a semifluid state. Longitudinal reinforcement without lateral ties shall be placed either through the hollow stem of the auger prior to concreting or after concreting, while the concrete is still in a semifluid state."

(g) Section 1908.1, entitled "General," of Section 1908, entitled "Modifications to ACI 318," of CBC Chapter 19, entitled "Concrete," is hereby amended to read as follows:

> "**1908.1 General.** The text of ACI 318 shall be modified as indicated in Sections 1908.1.1 through 1908.1.11."

(h) Section 1909, entitled "Structural Plain Concrete," of CBC Chapter 19, entitled "Concrete," is hereby deleted in its entirety.

(i) Section 1910.1, entitled "General" of Section 1910, entitled "Minimum Slab Provisions," of CBC Chapter 19, entitled "Concrete," is hereby amended to read as follows:

> "**1910.1 General.** The thickness of concrete floor slabs supported directly on the ground shall not be less than $3^1/_2$ inches (89 mm). A 6-mil (0.006 inch; 0.15 mm) polyethylene vapor retarder with joints lapped not less than 6 inches (152 mm) shall be placed between the base course or subgrade and the concrete floor slab, or other *approved* equivalent methods or materials shall be used to retard vapor transmission through the floor slab. Slabs shall have six inches by six inches by ten gauge wire mesh or equal at mid-height.
>
> **Exception:** A vapor retarder is not required:
> 1. For detached structures accessory to occupancies in Group R-3, such as garages, utility buildings or other unheated facilities.
> 2. For unheated storage rooms having an area of less than 70 square feet (6.5 m^2) and carports attached to occupancies in Group R-3.
> 3. For buildings of other occupancies where migration of moisture through the slab from below will not be detrimental to the intended occupancy of the building.
> 4. For driveways, walks, patios and other flatwork which will not be enclosed at a later date.
> 5. Where *approved* based on local site conditions."

(j) Appendix A, Appendix B, Appendix D, Appendix E, Appendix G, Appendix H, Appendix J, and Appendix K of the CBC are hereby deleted in their entirety.

74-4.004 Amendments to CRC. The 2010 California Residential Code ("CRC") is amended by the changes, additions, and deletions set forth in this chapter and Title 7, Division 72 of the Contra Costa County Ordinance Code. Section numbers used below are those of the 2010 California Residential Code.

(a) Sections R103 entitled "Department of Building Safety", R108 entitled "Fees", R111 entitled "Service Utilities", R112 entitled "Board of Appeals", R113 entitled "Violations", and R114 entitled "Stop Work Order" of CRC Chapter 1, entitled "Scope and Application," are hereby deleted in their entirety.

(b) Section R105.2, entitled "Work exempt from permit," of CRC Chapter 1, entitled "Scope and Application," is hereby amended to read as follows:

> **"R105.2 Work exempt from permit.** *Permits* shall not be required for the items listed in this section below. Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other applicable federal, state or local laws, rules or regulations.
>
> **Building:**

1. One-story detached *accessory structures* used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed *120* square feet (*11.15* m^2).
2. Fences not over 6 feet (1829 mm) high.
3. Retaining walls that are not more than three feet in height, measured from the top of the footing to the top of the wall, unless supporting a surcharge or ground slope exceeding 1:2 or impounding class I, II, or III-a liquids.
4. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet (18.58 m^2) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a *dwelling* and do not serve the exit door required by Section R311.4.

Electrical:
1. *Listed* cord-and-plug connected temporary decorative lighting.
2. Reinstallation of attachment plug receptacles but not the outlets therefor.
3. Replacement of branch circuit overcurrent devices of the required capacity in the same location.
4. Electrical wiring, devices, *appliances,* apparatus or *equipment* operating at less than 25 volts and not capable of supplying more than 50 watts of energy.
5. Minor repair work, including the replacement of lamps or the connection of *approved* portable electrical *equipment* to *approved* permanently installed receptacles.

Gas:
1. Portable heating, cooking or clothes drying *appliances*.
2. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
3. Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

Mechanical:
1. Portable heating *appliances*.
2. Portable ventilation *appliances*.
3. Portable cooling units.
4. Steam, hot- or chilled-water piping within any heating or cooling *equipment* regulated by this code.
5. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
6. Portable evaporative coolers.
7. Self-contained refrigeration systems containing 10 pounds (4.54 kg) or less of refrigerant or that are actuated by motors of 1 horsepower (746 W) or less.
8. Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a *permit* shall be obtained and inspection made as provided in this code.

The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures."

(c) Section R403.1.3, entitled "Seismic reinforcing," of CRC Chapter 4, entitled "Foundations," is hereby amended to read as follows:

"**R403.1.3 Seismic reinforcing.** Concrete footings located in Seismic Design Categories D_0, D_1 and D_2, as established in Table R301.2 (1), shall have minimum reinforcement. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.

In Seismic Design Categories D_0, D_1 and D_2 where a construction joint is created between a concrete footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

In Seismic Design Categories D_0, D_1 and D_2 where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

In Seismic Design Categories D_0, D_1 and D_2 masonry stem walls without solid grout and vertical reinforcing are not permitted."

(d) Section R404.1.4.1, entitled "Masonry foundation walls," of CRC Chapter 4, entitled "Foundations," is hereby amended to read as follows:

"**R404.1.4.1 Masonry foundation walls**. In addition to the requirements of Table R404.1.1 (1), plain masonry walls in buildings assigned to Seismic Design Category D_0, D_1 or D_2 shall comply with the seismic requirements of Section 1.17.4.4 of TMS 402, ACI 530, or ASCE 5."

(e) Section R404.1.4.2, entitled "Concrete foundation walls," of CRC Chapter 4, entitled "Foundations," is hereby amended to read as follows:

"**R404.1.4.2 Concrete foundation walls**. Concrete foundation walls in buildings assigned to Seismic Design Category D_0, D_1 or D_2 shall comply with ACI318, ACI 332, or PCA 100."

Section 4. Amendments. Section 3-305 of the Lafayette Municipal Code, entitled, "County Ordinance Code Division 76—Electrical code," is hereby re-titled "City of Lafayette Electrical Code."

Section 5. Amendments. Chapter 76-2, entitled "Adoption," of Section 3-305 of the Lafayette Municipal Code, entitled "City of Lafayette Electrical Code," is hereby amended to read as follows:

"Chapter 76-2
ADOPTION

76-2.002 Adoption.
(a) The electrical code of this city is the 2010 California Electrical Code (California Code of Regulations, Title 24, Part 3), as amended by the changes, additions, and deletions set forth in Title 7, Division 76 of the Contra Costa County Building Regulations.

(b) The 2010 California Electrical Code, with the changes, additions, and deletions set forth in Title 7, Division 76 of the Contra Costa County Building Regulations, is hereby adopted by this reference as though fully set forth in this ordinance.

(c) At least one copy of this electrical code is now on file with the office of the city clerk for public inspection, and the other requirements of Government Code section 50022.6 have been and shall be complied with.

(d) As of the effective date of this ordinance, the provisions of the electrical code are controlling and enforceable within the city."

Section 6. Amendments. Article 76-4.2 of Chapter 76-4, entitled "Modifications" of Section 3-305 of the Lafayette Municipal Code, entitled "City of Lafayette Electrical Code," is hereby re-titled "Deleted," deleted in its entirety, and amended to read as follows:

"Article 76-4.2
Deleted"

Section 7. Amendments. Section 3-306 of the Lafayette Municipal Code, entitled, "County Ordinance Code Division 78—Plumbing Code," is hereby re-titled "City of Lafayette Plumbing Code."

Section 8. Amendments. Chapter 78-2, entitled "Adoption," of Section 3-306 of the Lafayette Municipal Code, entitled "City of Lafayette Plumbing Code," is hereby amended to read as follows:

"Chapter 78-2
ADOPTION

78-2.002 Adoption.
(a) The plumbing code of this city is the 2010 California Plumbing Code (California Code of Regulations, Title 24, Part 5), as amended by the changes, additions, and deletions set forth in this chapter and Title 7, Division 72 of the Contra Costa County Code.

(b) The 2010 California Plumbing Code, with the changes, additions, and deletions set forth in this chapter and Title 7, Division 72 of the Contra Costa County Ordinance Code, is adopted by this reference as though fully set forth in this ordinance.

(c) At least one copy of this plumbing code is now on file in the office of the city clerk for public inspection, and the other requirements of Government Code section 50022.6 have been and shall be complied with.

(d) As of the effective date of this ordinance, the provisions of the plumbing code are controlling and enforceable within the city."

Section 9. Amendments. Section 3-307 of the Lafayette Municipal Code, entitled "County Ordinance Code Division 710 – Mechanical Code," is hereby re-titled "City of Lafayette Mechanical Code."

Section 10. Amendments. Chapter 710-2, entitled "Adoption," of Section 3-307 of the Lafayette Municipal Code, entitled "City of Lafayette Mechanical Code," is hereby amended to read as follows:

"Chapter 710-2
ADOPTION

710-2.002 Adoption.
(a) The mechanical code of this city is the 2010 California Mechanical Code (California Code of Regulations, Title 24, Part 4), as amended by the changes, additions, and deletions set forth in this ordinance and Title 7, Division 72 of the Contra Costa County Code.

(b) The 2010 California Mechanical Code, with the changes, additions, and deletions set forth in this chapter and Title 7, Division 72 of the Contra Costa County Code, is adopted by this reference as though fully set forth in this ordinance.

(c) At least one copy of this mechanical code is now on file in the office of the city clerk for public inspection, and the other requirements of Government Code section 50022.6 have been and shall be complied with.

(d) As of the effective date of this ordinance, the provisions of the mechanical code are controlling and enforceable within the city."

Section 11. Amendments. Section 3-309 of the Lafayette Municipal Code, entitled, "Repeals" is hereby amended to read as follows:

"**3-309 Repeals.**

Ordinance No. 570 and all ordinances adopting a previous edition of the Uniform Codes or California Codes that are adopted by this chapter are superseded and repealed."

Section 12. CEQA. The City Council finds that adoption of this Ordinance is not a "project," as defined in the California Environmental Quality Act because it does not have a potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment and concerns general policy and procedure making.

Section 13. Severability. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance, or any part thereof is for any reason held to be unconstitutional, invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the

remaining portions of this Ordinance or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance irrespective of the fact that one or more sections, subsections, subdivision, paragraphs, sentences, clauses or phrases be declared unconstitutional, invalid or ineffective. To this end the provisions of this Ordinance are declared to be severable.

Section 14. Publication. The City Clerk shall either (a) have this ordinance published in a newspaper of general circulation once within fifteen (15) days after its adoption, or (b) have a summary of this ordinance published twice in a newspaper of general circulation, once five (5) days before its adoption and again within fifteen (15) days after adoption.

Section 15. Filing with California Building Standards Commission. The City Clerk shall file a certified copy of this Ordinance with the California Building Standards Commission within 10 days of its adoption.

Section 16. Effective Date. This ordinance shall become effective thirty (30) days after its adoption.

The foregoing ordinance was introduced at a regular meeting of the City Council of the City of Lafayette on June 11, 2012 and was adopted at a regular meeting of the City Council on June 25, 2012, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Carol Federighi, Mayor

ATTEST:

_____
Joanne Robbins, City Clerk

DRAFT

BEFORE THE CITY COUNCIL OF THE CITY OF LAFAYETTE
IN THE MATTER OF:

Resolution Making Findings to Support the Changes, Additions and Deletions Made by the City of Lafayette to the 2010 California Building Standards Code, because of Local Climatic, Geological and Topographical Conditions	)	Resolution 2012-19

WHEREAS, the California Building Standards Commission has adopted and published the 2010 Building Standards Code, which is comprised of the 2010 California Building, Residential, Green Building Standards, Electrical, Plumbing, and Mechanical codes (collectively, "CBSC"). CBSC are enforced in Contra Costa County by the Building Inspection Division of the Department of Conservation and Development.

WHEREAS, these CBSC apply statewide, however Health and Safety Code sections 17958.5 and 18941.5 authorize a local jurisdiction to modify or change these codes and establish more restrictive building standards if the jurisdiction finds that the modifications and changes are reasonably necessary because of local climatic, geological or topographical conditions.

WHEREAS, on _____, 2012, the Lafayette City Council adopted Ordinance No. 600, adopting the CBSC, with certain changes, additions and deletions, as specified in Ordinance No. 600, made to address local climatic, geological and topographical conditions.

WHEREAS, pursuant to Health and Safety Code section 17958.7, any changes, additions and deletions made to the CBSC by Ordinance No. 600 that establish more restrictive building standards than those contained in the CBSC were necessary as a result of local climatic, geological, and topographic conditions, as described in more detail below.

WHEREAS, the City's amendments to the CBSC that address seismicity are necessary as a result of the following local geological and topographic conditions:

Lafayette lies within Contra Costa County, which is located in Seismic Risk Zone 4, which is the worst earthquake area in the United States. Buildings and other structures in Zone 4 can experience major seismic damage. Contra Costa County is in close proximity to numerous earthquake faults including the San Andreas Fault and contains all or portions of the Hayward, Calaveras, Concord, Antioch, Mt. Diablo, and other lesser faults. A 4.1 earthquake with its epicenter in Concord occurred in 1958, and a 5.4 earthquake with its epicenter also in Concord occurred in 1955. The Concord and Antioch faults have a potential for a Richter 6 earthquake and the Hayward and Calaveras faults have the potential for a Richter 7 earthquake. Minor tremblers from seismic activity are not uncommon in the area.

A study released in 1990 by the United States Geological Survey states that there is a 67% chance of another earthquake the size of Loma Prieta during the next 30 years, and that the quake could strike at any time, including today. Scientists, therefore, believe that an earthquake of a magnitude 7 or larger is now twice as likely to happen as to not happen.

Interstates 680, 80, 580 and State Route 4 run throughout Contra Costa County. These interstates and state routes divide the County into west, south, north and east. An overpass or undercrossing collapse would significantly alter the response route and time for responding emergency equipment. This is due to limited crossings of the interstate and that in some areas there is only one surface street, which runs parallel to the interstate, which would be congested during a significant emergency.

Earthquakes of this magnitude experienced locally can cause major damage to electrical

transmission facilities and to gas and electrical lines in buildings, which in turn start fires throughout the County. The occurrence of multiple fires will quickly deplete existing fire department resources, thereby reducing and/or delaying their response to any given fire.

A major earthquake could severely restrict the response of all Contra Costa County Fire Districts and their capability to control fires involving buildings of wood frame construction, with ordinary roofing materials and flammable exteriors, or with large interior areas not provided with automatic smoke and fire control systems. Also, when buildings not equipped with earthquake structural support move off their foundations, gas pipes may rupture. Fires develop from line ruptures and spread from house to house, causing an extreme demand for fire protection resources. The proximity of large areas within the County to fault traces necessitates adopting stricter structural construction standards.

WHEREAS, the City's amendments to the CBSC that address soils are necessary as a result of the following local climatic, geological and topographic conditions:

The area is replete with various soils, which are unstable, clay loam and alluvial fans being predominant. These soil conditions are moderately to severely prone to swelling and shrinking, are plastic, and tend to liquefy.

Throughout Contra Costa County, the topography and development growth has created a network of older, narrow roads. These roads vary from gravel to asphalt surface and vary in percent of slope, many exceeding twenty (20) percent. Several of these roads extend up through the winding passageways in the hills providing access to remote, affluent housing subdivisions. The majority of these roads are private with no established maintenance program. During inclement weather, these roads are subject to rock and mudslides, as well as downed trees, obstructing all vehicle traffic. It is anticipated that during an earthquake, several of these roads would be impassable so as to prevent fire protection resources from reaching fires caused by gas line ruptures or other sources.

WHEREAS, the City's amendments to the CBSC that address vegetation, surface features, buildings, landscaping and terrain are necessary as a result of the following local climatic, geological and topographic conditions:

Highly combustible dry grass, weeds, and brush are common in the hilly and open space areas adjacent to built-up locations six (6) to eight (8) months of each year. Many of these areas frequently experience wildland fires, which threaten nearby buildings, particularly those with wood roofs, or sidings. This condition can be found throughout Contra Costa County, especially in those developed and developing areas of the County. Earthquake gas fires due to gas line ruptures can ignite grasslands and stress Fire District resources.

The arrangement and location of natural and manmade surface features, including hills, creeks, canals, freeways, housing tracts, commercial development, fire stations, streets and roads combine to limit feasible response routes for Fire District resources in and to District areas.

Many of the newer large buildings and building complexes have building access and landscaping features and designs, which preclude or greatly limit any approach or operational access to them by Fire District vehicles. In addition, the presence of security gates and roads of inadequate width and grades that are too steep for Fire District vehicles adversely affect fire suppression efforts.

When Fire District vehicles cannot gain access to buildings involved with fire, the potential for complete loss is realized. Difficulty reaching a fire site often requires an increase in fire personnel both in numbers and in stamina. Access problems often result in severely delaying, misdirecting or

making impossible fire and smoke control efforts. In existing structures where pitch roofs have been built over an existing roof, smoke detectors should be required to warn residents of smoke and fire before the arrival of fire personnel.

The above local climatic, geological and topographical conditions increase the magnitude, exposure, accessibility problems, and fire hazards presented to the County fire resources. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself. Most earthquake fires are created by natural gas developed from gas line ruptures. Hazardous materials, particularly toxic gases, could pose the greatest threat to the largest number, should a significant seismic event occur. Public safety resources would have to be prioritized to mitigate the greatest threat, and may likely be unavailable for smaller single dwellings that were caused by broken gas lines.

Other variables may tend to intensify the situation:

1. The extent of damage to the water system
2. The extent of isolation due to bridge and/or freeway overpass collapse.
3. The extent of roadway damage and/or amount of debris blocking the roadways.
4. Climatic condition (hot, dry weather with high winds).
5. Time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours.
6. The availability of timely mutual aid or military assistance.
7. The large portion of dwellings with wood shake or shingle coverings (both on the roof diaphragm and sides of the dwellings) could result in conflagrations.
8. The large number of dwellings that slip off their foundations and rupture gas lines and electrical systems resulting in further conflagrations.

WHEREAS, the City's amendments to the CSBC that address precipitation and relative humidity are necessary as a result of the following local climatic, geological and topographic conditions:

Precipitation ranges from 15 to 24 inches per year with an average of approximately 20 inches per year. Ninety-six (96) percent falls during the months of October through April and four (4) percent from May through September. This is a dry period of at least five (5) months each year. Additionally, the area is subject to occasional drought. Relative humidity remains in the middle range most of the time. It ranges from forty-five (45) to sixty-five (65) percent during spring, summer, fall, and from sixty (60) to ninety (90) percent in the winter. It occasionally falls as low as fifteen (15) percent.

Locally experienced dry periods cause extreme dryness of untreated wood shakes and shingles on buildings and non-irrigated grass, brush and weeds, which are often near buildings with wood roofs and sidings. Such dryness causes these materials to ignite very readily and burn rapidly and intensely. Gas fires due to gas line ruptures can also spark and engulf a single family residence during these dry periods.

Because of dryness, a rapidly burning gas fire or exterior building fire can quickly transfer to other buildings by means of radiation or flying brands, sparks or embers. A small fire can rapidly grow to a magnitude beyond the control capabilities of the Fire District resulting in an excessive fire loss.

WHEREAS, the City's amendments to the CSBC that address temperature are necessary as a result of local climactic conditions:

Temperatures in Contra Costa County have been recorded as high as 114º F. Average summer

highs are in the 75º - 90º range, with average maximums of 105º F in some areas of unincorporated Contra Costa County.

High temperatures cause rapid fatigue and heat exhaustion of firefighters, thereby reducing their effectiveness and ability to control large building, wildland fires, and fires caused by gas line ruptures. Another impact from high temperatures is that combustible building material and non-irrigated weeds, grass and brush are preheated, thus causing these materials to ignite more readily and burn more rapidly and intensely. Additionally, the resultant higher temperature of the atmosphere surrounding the materials reduces the effectiveness of the water being applied to the burning materials. This requires that more water be applied, which in turn requires more fire resources in order to control a fire on a hot day. High temperatures directly contribute to the rapid growth of fires to an intensity and magnitude beyond the control capabilities of the Fire Districts in Contra Costa County. The change of temperatures throughout the County between very low and extreme highs contributes to a voltage drop in conductors used for power pole lines. This necessitates that voltage drops be considered.

WHEREAS, the City's amendments to the CBSC that address winds are necessary as a result of the following local climactic conditions:

Prevailing winds in many parts of Contra Costa County are from the north or northwest in the afternoons. However, winds are experienced from virtually every direction at one time or another. Velocities can reach fourteen (14) mph to twenty-three (23) mph ranges, gusting to twenty-five (25) to thirty-five (35) mph. Forty (40) mph winds are experienced occasionally and winds up to fifty-five (55) mph have been registered locally. During the winter half of the year, strong, dry, gusty winds from the north move through the area for several days, creating extremely dry conditions.

Winds such as those experienced locally can and do exacerbate fires, both interior and exterior, to burn and spread rapidly. Fires involving non-irrigated weeds, grass, brush, and fires caused by gas line ruptures can grow to a magnitude and be fanned to an intensity beyond the control capabilities of the fire services very quickly even by relatively moderate winds. When such fires are not controlled; they can extend to nearby buildings, particularly those with untreated wood shakes or shingles. Winds of the type experienced locally also reduce the effectiveness of exterior water streams used by all Contra Costa County Fire Districts on fires involving large interior areas of buildings, fires which have vented through windows and roofs due to inadequate built-in fire protection and fires involving wood shake and shingle building exteriors. Local winds will continue to be a definite factor toward causing major fire losses to buildings not provided with fire resistive roof and siding materials and buildings with inadequately separated interior areas, or lacking automatic fire protection systems, proper gas shut-off devices to shut off gas when pipes are ruptured, or proper electrical systems. National statistics frequently cite wind conditions, such as those experienced locally, as a major factor where conflagrations have occurred.

WHEREAS, to address the local climactic, geological and topographical conditions described in this Resolution, Ordinance No. 600 amends the CBSC by, among other things: requiring the installation of a smoke detector in existing flat roof buildings when a pitch roof is added on top of the existing flat roof and the solid seating of the flat roof is not removed; requiring most wood shakes or shingles used for exterior wall covering to be fire treated; increasing the minimum base shear in certain buildings to a level consistent with previous building codes; and requiring masonry foundation walls and concrete foundation walls of residential structures to comply with more restrictive seismic requirements.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF LAFAYETTE DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Adoption of Recitals and Facts Contained in Staff Reports. The Recitals set forth above and all the facts contained in the staff reports of June 11, 2012 and June 25, 2012 are hereby adopted as the Council's official record and incorporated into this Resolution by reference as if restated in full.

Section 2. Modifications to CBSC. To the extent that the changes and modifications to the CBSC made by Ordinance No. 600, adopted by the City Council on _____, 2012, are deemed more restrictive than the standards contained in the CBSC, pursuant to Health and Safety Code section 17958.7, the City Council hereby finds that those changes and modifications are reasonably necessary to address the local climactic, geological and topographical conditions described in this Resolution.

Section 3. CEQA. The City finds that the adoption of this Resolution is not a "project" within the meaning of the California Environmental Quality Act ("CEQA") because it does not have a potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment, but rather concerns general policy and procedure making.

The foregoing Resolution was PASSED AND ADOPTED by the City Council of the City of Lafayette at a regular meeting of said Council on _____, 2012, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

ATTEST: **APPROVED:**

_____ _____

Joanne Robbins, City Clerk Carol Federighi, Mayor

Attachments:
Ord. No. 600

To: **Board of Supervisors**

From: **Jason Crapo, County Building Official**

Date: **January 26, 2011**

Contra Costa County

Subject: California Building, Mechanical, Plumbing, Electrical, Residential, and Green Building Standards Codes

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RECOMMENDATION(S):

INTRODUCE Ordinance No. 2011-03, adopting the 2010 California Building Code, the 2010 California Residential Code, The 2010 California Green Building Standard Code, the 2010 California Electrical Code, the 2010 California Plumbing Code and the 2010 California Mechanical Code, with changes, additions, and deletions, WAIVE reading, and FIX February 15, 2011 at 10:00 AM for a public hearing to consider adoption of the proposed ordinance and adoption of findings of local conditions to justify construction standards stricter than those imposed by Health and Safety Code section 19180 et seq.

AUTHORIZE the preparation of an ordinance summary by County Counsel and the publication of the summary in accordance with Government Code section 25124.

FISCAL IMPACT:

None.

CHILDREN'S IMPACT STATEMENT:

None.

☑ APPROVE ☐ OTHER

☑ RECOMMENDATION OF CNTY ADMINISTRATOR ☐ RECOMMENDATION OF BOARD COMMITTEE

Action of Board On: **02/08/2011** ☐ APPROVED AS RECOMMENDED ☐ OTHER

Clerks Notes:

VOTE OF SUPERVISORS

AYES _____ NOES _____

ABSENT _____ ABSTAIN _____

RECUSE _____

Contact: Jason Crapo, 925-335-1108

cc:

I hereby certify that this is a true and correct copy of an action taken and entered on the minutes of the Board of Supervisors on the date shown.

ATTESTED: February 8, 2011

David J. Twa, County Administrator and Clerk of the Board of Supervisors

By: , Deputy

BACKGROUND:

The California Building Standards Commission has adopted and published the 2010 Building Standards Code, which is comprised of the 2010 California Building, Mechanical, Plumbing, Electrical, Residential and Green Building Codes. These State-wide codes become effective January 1, 2011. These codes are enforced in Contra Costa County by the Department of Conservation and Development Building Inspection Division.

Although these codes apply State-wide, Health and Safety Code sections 17958.5 and 18941.5 authorize a local jurisdiction to modify or change these codes and establish more restrictive building standards if the local jurisdiction finds that the changes and modifications are reasonably necessary because of local climatic, geological or topographical conditions. The attached proposed ordinance would adopt the State-wide codes and amend them to address local conditions.

Staff has reviewed the State-wide codes and recommends their adoption with a minimum of technical changes in order to retain as much State-wide uniformity as possible. The State did not adopt the new International Housing Codes, and therefore the 1997 Uniform Housing Code (UHC), with local amendments, continues as the adopted housing code for the County.

However, Ordinance No. 2011-03 would amend the State-wide codes in some respects to address certain local climatic, geological or topographical conditions. These conditions are described in the attached Findings. All of the recommended amendments continue existing amendments to the State Building Code and do not create any new requirements. The local amendments recommended to be continued through this proposed ordinance are predominately designed to address the risk of seismic activity within the County.

The proposed ordinance would amend the State-wide codes by increasing the minimum base shear in certain buildings to a level consistent with previous building codes. The ordinance will eliminate the use of unreinforced plain concrete where allowed by the State-wide codes. The ordinance would further amend the State-wide codes by requiring the installation of a smoke detector in existing flat roof buildings when a pitch roof is added on top of the existing flat roof and the solid sheathing of the flat roof is not removed.

Staff has determined that the adoption of this ordinance is not subject to the California Environmental Quality Act (CEQA), pursuant to CEQA Guideline Section 15061(b)(3). The adoption of the California building standards codes with local amendments will not have a significant effect on the environment.

CONSEQUENCE OF NEGATIVE ACTION:

If the proposed ordinance is not approved, the County will not be able to adopt the 2010 California Building Code, the 2010 California Residential Code, The 2010 California Green Building Standard Code, the 2010 California Electrical Code, the 2010 California Plumbing Code and the 2010 California Mechanical Code, as amended.

ORDINANCE NO. 2011-03

(Adoption of California Building Standards Codes)

The Contra Costa County Board of Supervisors ordains as follows (omitting the parenthetical footnotes from the official text of the enacted or amended provisions of the County Ordinance Code):

SECTION I. SUMMARY. This ordinance adopts the 2010 California Building Code, the 2010 California Residential Code, the 2010 California Green Building Standards Code, the 2010 California Electrical Code, the 2010 California Plumbing Code, and the 2010 California Mechanical Code, with changes, additions, and deletions.

SECTION II. Chapter 74-2 of the County Ordinance Code is amended to read:

Chapter 74-2
ADOPTION

74-2.002 Adoption.

(a) The building code of this county is the 2010 California Building Code (California Code of Regulations, Title 24, Part 2, Volumes 1 and 2), the 2010 California Residential Code (California Code of Regulations, Title 24, Part 2.5), and the 2010 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), as amended by the changes, additions, and deletions set forth in this ordinance and Division 72.

(b) The 2010 California Building Code, with the changes, additions, and deletions set forth in this chapter and Division 72, is adopted by this reference as though fully set forth in this ordinance.

(c) The 2010 California Residential Code, with the changes, additions, and deletions set forth in this chapter and Division 72, is adopted by this reference as though fully set forth in this ordinance.

(d) The 2010 California Green Building Standards Code, with the changes, additions, and deletions set forth in Division 72, is adopted by this reference as though fully set forth in this ordinance.

(e) At least one copy of this building code is now on file with the building inspection division, and the other requirements of Government Code section 50022.6 have been and shall be complied with.

(f) As of the effective date of this ordinance, the provisions of the building code are controlling

and enforceable within the county. (Ords. 2011-03 § 2, 2007-54 § 3, 2002-31 § 3, 99-17 § 5, 99-1, 90-100 § 5, 87-55 § 4, 80-14 § 5, 74-30.)

SECTION III. Chapter 74-4 of the County Ordinance Code is amended to read:

Chapter 74-4
MODIFICATIONS

74-4.002 Amendments to CBC. The 2010 California Building Code ("CBC") is amended by the changes, additions, and deletions set forth in this chapter and Division 72. Section numbers used below are those of the 2010 California Building Code.

(a) CBC Chapter 1 is amended by the provisions of Division 72 of this code and as follows:

(1) Sections 103, 109, 112, 113, 114, and 116 of CBC Chapter 1 are deleted.

(2) Section 105.2 (Work Exempt from Permit) of CBC Chapter 1 is amended to provide that a building permit is not required for the following work:

> Retaining walls that are not more than three feet in height, measured from the top of the footing to the top of the wall, unless supporting a surcharge or ground slope exceeding 1:2 or impounding class I, II, or III-a liquids.

All other work listed in Section 105.2 of CBC Chapter 1 is also exempt from a permit.

(3) Section 107.1 (Submittal Documents) of CBC Chapter 1 is amended by deleting the exception.

(4) Section 107.2.1 (Information on Construction Documents) of CBC Chapter 1 is amended to read:

> **107.2.1.** Plans and specifications shall be drawn to scale on substantial paper or cloth and shall be sufficient clarity to indicate the location, nature and extent of the work proposed and to show in detail that it will conform to this code and all relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give the house and street address of the work and the name and address of the owner and of the person who prepared the plans. Plans shall include a plot plan showing the location of the lot corners as established on the ground, the elevation of the top and toe of cuts and fills, and the location of the proposed building and of every existing building on the property. Instead of detailed specifications, the county building official may approve references on the plans to a specific section or part of this code or other ordinances or laws.

Sections 107.2.2, 107.2.5, and 107.3 are not amended and remain in effect.

(5) Section 110.1 (Inspections – General) is amended by adding the following to the end of the section:

At the time of first inspection by the county building official, property corners (including angle points) shall be identified with monuments in accordance with the legal description furnished with the application to build, sufficient to locate the proposed structure in relation to the lot lines, except that this requirement shall not apply to minor alterations or repairs to existing structures not affecting the exterior limits thereof, and construction of accessory buildings or structures of a building permit value of less than $500. The plot plan required by Section 107.2.1 shall indicate the locations and identification of all property corner monuments. Property corner monuments shall consist of one of the following:

(A) Redwood hub not less than two inches square and twelve inches long;

(B) Galvanized iron pipe not less than one inch in diameter and thirty inches long filled with concrete; or

(C) Other material of sufficient durability, placed as not to be readily disturbed, acceptable to the county building official.

Monuments shall be driven flush with the ground and tagged as required by the Land Surveyor Act (Business and Professions Code section 8772).

(b) Section 907.2.11.5.1 is added to Section 907.2.11.5 (Existing Group R-3 Occupancies) of CBC Chapter 9 (Fire Protection Systems), to read:

907.2.11.5.1 In existing flat roof buildings, the installation of a smoke detector that complies with Section 907.2.10 shall be required when a pitch roof is added on top of the existing flat roof and the solid seating of the flat roof is not removed.

(c) Section 1406.5 is added to Section 1406 (Combustible Materials on the Exterior Side of Exterior Walls) of CBC Chapter 14 (Exterior Walls), to read:

1406.5 Wood shakes or shingles. Wood shakes or shingles used for exterior wall covering shall be fire treated unless there is a minimum of 10 feet from the exterior wall (including shakes or shingles) to the property line of all sides, except for any sides of exterior walls facing the street.

(d) Section 1615A.1.7 ASCE 7, Section 12.8.1.1 of CBC Chapter 1614A (Structural Design) is amended to read:

Section 1614A.1.7 ASCE 7, Section 12.8.1.1. Modify ASCE 7 Section 12.8.1.1 by amending Equation 12.8-5 as follows:

$$C_S = 0.044\, S_{DS}\, I \geq 0.01 \qquad (12.8\text{-}5)$$

where S_{DS} is the 5 percent damped design spectral response acceleration parameter at short periods as defined in Section 11.4.4 and I is the importance factor in Section 11.5.1.

(e) Section 1809.8 (Plain Concrete Footings) of CBC Chapter 18 (Soils and Foundations) is deleted.

(f) Section 1810.3.9.3 (Placement of reinforcement) of CBC Chapter 18 (Soils and Foundations) is amended by deleting Exception No. 3.

(g) Section 1908.1 of CBC Chapter 19 (Concrete) is amended to read:

1908.1 General. The text of ACI 318 shall be modified as indicated in Sections 1908.1.1 through 1908.11.

(h) Section 1909 (Structural Plain Concrete) of CBC Chapter 19 (Concrete) is deleted.

(i) Section 1910.1 of CBC Chapter 19 (Concrete) is amended by adding the following sentence to Section 1910.1:

Slabs shall have six inches by six inches by ten gauge wire mesh or equal at midheight.

(j) Appendix C, Appendix F, and Appendix I of the CBC are incorporated into the County building code. Appendix A, Appendix B, Appendix D, Appendix E, Appendix G, Appendix H, Appendix J, and Appendix K of the CBC are excluded from the County building code. (Ords. 2011-03 § 3, 2007-54 § 4, 2002-31 § 3, 99-17 § 6, 99-1, 90-100 § 6, 87-55 § 5, 80-14 § 6, 74-30 § 1.)

74-4.004 Amendments to CRC. The 2010 California Residential Code ("CRC") is amended by the changes, additions, and deletions set forth in this chapter and Division 72. Section numbers used below are those of the 2010 California Residential Code.

(a) Sections R103, R108, R111, R112, R113, and R114 of CRC Chapter 1 are deleted.

(b) In Section R105.2 of CRC Chapter 1, subsection 3 of the paragraph exempting certain building work from the requirement to obtain a permit is amended to exempt the following retaining walls from the requirement to obtain a permit:

3. Retaining walls that are not more than three feet in height, measured from the top of the footing to the top of the wall, unless supporting a surcharge or ground slope exceeding 1:2 or impounding class I, II, or III-a liquids.

(c) Section R403.1.3 of CRC Chapter 4 is amended to delete the exception.

(d) Section R404.1.4.1 of CRC Chapter 4 is amended to read:

R404.1.4.1 Masonry foundation walls. In addition to the requirements of Table R404.1.1(1), plain masonry walls in buildings assigned to Seismic Design Category D_0, D_1, or D_2 shall comply with the seismic requirements of Section 1.17.4.4 of TMS 402, ACI 530, or ASCE 5.

(e) Section R404.1.4.2 of CRC Chapter 4 is amended to read:

Section R404.1.4.2 Concrete foundation walls. Concrete foundation walls in buildings assigned to Seismic Design Category D_0, D_1, or D_2 shall comply with ACI 318, ACI 332, or PCA 100.

(Ord. 2011-03 § 3.)

SECTION IV. Division 76 of the County Ordinance Code is amended to read:

Division 76
ELECTRICAL CODE

Chapter 76-2
ADOPTION

76-2.002 Adoption.

(a) The electrical code of this county is the 2010 California Electrical Code (California Code of Regulations, Title 24, Part 3), as amended by the changes, additions, and deletions set forth in this ordinance.

(b) The 2010 California Electrical Code, with the changes, additions, and deletions set forth in this division and Division 72, is adopted by this reference as though fully set forth in this ordinance.

(c) At least one copy of this electrical code is now on file with the building inspection division, and the other requirements of Government Code section 50022.6 have been and shall be

complied with.

(d) As of the effective date of this ordinance, the provisions of the electrical code are controlling and enforceable within the county. (Ords. 2011-03 § 4, 2007-54 § 5, 2002-31 § 4, 99-17 § 11, 89-60 § 2, 82-23 § 2, 79-67, 76-24.)

Chapter 76-4
MODIFICATIONS

76-4.002 Unlawful wiring, electric fences, warning.

(a) Prohibition. Except as provided in subsection (b), a person may not construct or maintain any spring gun, or any electric wiring device, designated or intended to injure and/or shock animals or persons, or any contrivance or apparatus for that purpose.

(b) Livestock Exception. Persons principally engaged in the business of handling livestock as a primary means of production or income may electrify fences to control or confine livestock upon complying with all the following requirements:

(1) Any contrivance or mechanism to control electrical current in such fences shall be listed by an approved testing laboratory, and shall include a suitable interrupting device and such other safety devices to prevent dangerous currents getting on the fence at any time.

(2) Any electrical fence to which the public may have access, except cross fences to confine and control livestock, shall be posted with a warning notice containing the following or similar wording: "DANGER. ELECTRIC FENCE," or "DANGER. HIGH VOLTAGE." This notice shall be posted along any such main fence at intervals of not more than 200 feet and in letters at least two inches high. (Ords. 2011-03 § 4, 2007-54 § 5, 2002-31 § 4, 99-17 § 11, 89-60 § 2, 82-23 § 2, 79-57, 76-24.)

76-4.004 Boat docks. Whether open or roofed, lighting shall be provided to insure sufficient protective lighting at least two foot candles at all points for pedestrians on the docks, within covered berths, and on all walkways or ramps to shore and to the nearest access road within or adjacent to the harbor property. (Ords. 2011-03 § 4, 2007-54 § 5, 2002-31 § 4, 99-17 § 11, 89-60 § 2, 82-23 § 2, 79-67, 76-24.)

76-4.006 Power from generators.

(a) All occupancies that have commercially supplied electricity shall connect to the commercial supplier.

(b) Any occupancy that has commercially supplied electricity shall not use a permanent or temporary generator(s), provided that a generator(s) may be used for commercial purposes

when authorized by the county building official. (Ords. 2011-03 § 4, 2007-54 §5, 2005-32 § 2.)

76-4.008 Public nuisance lighting. Lighting fixtures shall be installed, controlled or directed so that the light will not glare or be blinding to pedestrians or vehicular traffic or on adjoining property. (Ords. 2011-03 § 4, 2007-54 § 5, 2002-31 § 4, 99-17 § 11, 89-60 § 2, 82-23 § 2, 79-67, 76-24.)

SECTION V. Division 78 of the County Ordinance Code is amended to read:

Division 78
PLUMBING CODE

Chapter 78-2
ADOPTION

78-2.002 Adoption.

(a) The plumbing code of this county is the 2010 California Plumbing Code (California Code of Regulations, Title 24, Part 5), as amended by the changes, additions, and deletions set forth in this ordinance.

(b) The 2010 California Plumbing Code, with the changes, additions, and deletions set forth in Division 72, is adopted by this reference as though fully set forth in this ordinance.

(c) At least one copy of this plumbing code is now on file with the building inspection division, and the other requirements of Government Code section 50022.6 have been and shall be complied with.

(d) As of the effective date of this ordinance, the provisions of the plumbing code are controlling and enforceable within the county. (Ords. 2011-03 § 5, 2007-54 § 6, 2002-31 § 5, 99-17 § 12, 74-29.)

SECTION VI. Division 710 of the County Ordinance Code is amended to read:

Division 710
MECHANICAL CODE

Chapter 710-2
ADOPTION

710-2.002 Adoption.

(a) The mechanical code of this county is the 2010 California Mechanical Code (California

Code of Regulations, Title 24, Part 4), as amended by the changes, additions, and deletions set forth in this ordinance.

(b) The 2010 California Mechanical Code, with the changes, additions, and deletions set forth in Division 72, is adopted by this reference as though fully set forth in this ordinance.

(c) At least one copy of this mechanical code is now on file with the building inspection division, and the other requirements of Government Code section 50022.6 have been and shall be complied with.

(d) As of the effective date of this ordinance, the provisions of the mechanical code are controlling and enforceable within the county. (Ords. 2011-03 § 6, 2007-54 § 7, 2002-31 § 6, 99-17 § 13, 88-91 § 5, 74-31.)

SECTION VII. Chapter 74-8 of the County Ordinance Code is deleted.

SECTION VIII. Chapter 78-4 of the County Ordinance Code is deleted.

SECTION IX. EFFECTIVE DATE. This ordinance becomes effective 30 days after passage, and within 15 days after passage shall be published once with the names of supervisors voting for and against it in the Contra Costa Times, a newspaper published in this County.

PASSED on February 15, 2011, by the following vote:

AYES: Gioia, Wilhelm, Mitchoff, Glover
NOES: None
ABSENT: Piepho
ABSTAIN: None

ATTEST: DAVID TWA,
Clerk of the Board of Supervisors
and County Administrator

[redacted]
Board Chair

By: [redacted]
Deputy

[redacted]

THE SEAL OF CONTRA COSTA COUNTY CALIFORNIA

CONTRA COSTA COUNTY
FINDINGS IN SUPPORT OF CHANGES, ADDITIONS, AND DELETIONS TO STATEWIDE BUILDING STANDARDS CODE

The California Building Standards Commission has adopted and published the 2010 Building Standards Code, which is comprised of the 2010 California Building, Residential, Green Building Standards, Electrical, Plumbing, and Mechanical codes. These codes are enforced in Contra Costa County by the Building Inspection Division of the Department of Conservation and Development.

Although these codes apply statewide, Health and Safety Code sections 17958.5 and 18941.5 authorize a local jurisdiction to modify or change these codes and establish more restrictive building standards if the jurisdiction finds that the modifications and changes are reasonably necessary because of local climatic, geological or topographical conditions.

Ordinance No. 2011-03 adopts the statewide codes and amends them to address local conditions. Pursuant to Health and Safety Code section 17958.7, the Contra Costa County Board of Supervisors finds that the more restrictive standards contained in Ordinance No. 2011-03 are reasonably necessary because of the local climatic, geological, and topographic conditions that are described below.

I. Local Conditions

A. Geological and Topographic

1. Seismicity

(a) Conditions

Contra Costa County is located in Seismic Risk Zone 4, which is the worst earthquake area in the United States. Buildings and other structures in Zone 4 can experience major seismic damage. Contra Costa County is in close proximity to numerous earthquake faults including the San Andreas Fault and contains all or portions of the Hayward, Calaveras, Concord, Antioch, Mt. Diablo, and other lesser faults. A 4.1 earthquake with its epicenter in Concord occurred in 1958, and a 5.4 earthquake with its epicenter also in Concord occurred in 1955. The Concord and Antioch faults have a potential for a Richter 6 earthquake and the Hayward and Calaveras faults have the potential for a Richter 7 earthquake. Minor tremblers from seismic activity are not uncommon in the area.

A study released in 1990 by the United States Geological Survey says that there is a 67% chance of another earthquake the size of Loma Prieta during the next 30 years, and that the quake could strike at any time, including today. Scientists, therefore, believe that an earthquake of a magnitude 7 or larger is now twice as likely to happen as to not happen.

Interstates 680, 80, 580 and State Route 4 run the length throughout Contra Costa County. These interstates and state routes divide the County into a west, south, north and east. An overpass or undercrossing collapse would significantly alter the response route and time for responding emergency equipment. This is due to limited crossings of the interstate and that in some areas there is only one surface street, which runs parallel to the interstate, which would be congested during a significant emergency.

Earthquakes of the magnitude experienced locally can cause major damage to electrical transmission facilities and to gas and electrical lines in buildings, which in turn start fires throughout the County. The occurrence of multiple fires will quickly deplete existing fire department resources; thereby reducing and/or delaying their response to any given fire.

(b) Impact

A major earthquake could severely restrict the response of all Contra Costa County Fire Districts and their capability to control fires involving buildings of wood frame construction, with ordinary roofing materials and flammable exteriors, or with large interior areas not provided with automatic smoke and fire control systems. Also, when buildings not equipped with earthquake structural support move off their foundations, gas pipes may rupture. Fires develop from line ruptures and spread from house to house, causing an extreme demand for fire protection resources. The proximity of large areas within the County to fault traces, necessitates adopting stricter structural construction standards.

2. Soils

(a) Conditions

The area is replete with various soils, which are unstable, clay loam and alluvial fans being predominant. These soil conditions are

moderately to severely prone to swelling and shrinking, are plastic, and tend to liquefy.

Throughout Contra Costa County, the topography and development growth has created a network of older, narrow roads. These roads vary from gravel to asphalt surface and vary in percent of slope, many exceeding twenty (20) percent. Several of these roads extend up through the winding passageways in the hills providing access to remote, affluent housing subdivisions. The majority of these roads are private with no established maintenance program. During inclement weather, these roads are subject to rock and mudslides, as well as down trees, obstructing all vehicle traffic. It is anticipated that during an earthquake, several of these roads would be unpassable so as to prevent fire protection resources from reaching fires cause by gas line ruptures or other sources.

3. Topographic

(a) Conditions

i. Vegetation

Highly combustible dry grass, weeds, and brush are common in the hilly and open space areas adjacent to built-up locations six (6) to eight (8) months of each year. Many of these areas frequently experience wildland fires, which threaten nearby buildings, particularly those with wood roofs, or sidings. This condition can be found throughout Contra Costa County, especially in those developed and developing areas of the County. Earthquake gas fires due to gas line ruptures can ignite grasslands and stress fire district resources.

ii. Surface Features

The arrangement and location of natural and manmade surface features, including hills, creeks, canals, freeways, housing tracts, commercial development, fire stations, streets and roads, combine to limit feasible response routes for Fire District resources in and to District areas.

iii. Buildings, Landscaping and Terrain

Many of the newer large buildings and building complexes

have building access and landscaping features and designs, which preclude or greatly limit any approach or operational access to them by Fire District vehicles. In addition, the presence of security gates and roads of inadequate width and grades that are too steep for Fire District vehicles adversely affect fire suppression efforts.

When Fire District vehicles cannot gain access to buildings involved with fire, the potential for complete loss is realized. Difficulty reaching a fire site often requires that fire personnel both in numbers and in stamina. Access problems often result in severely delaying, misdirecting or making impossible fire and smoke control efforts. In existing structures where pitch roofs have been built over an existing roof, smoke detectors should be required to warn residents of smoke and fire before the arrival of fire personnel.

(b) Impact

The above local geological and topographical conditions increase the magnitude, exposure, accessibility problems, and fire hazards presented to the County fire resources. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself. Most earthquake fires are created by natural gas developed from gas line ruptures. Hazardous materials, particularly toxic gases, could pose the greatest threat to the largest number, should a significant seismic event occur. Public safety resources would have to be prioritized to mitigate the greatest threat, and may likely be unavailable for smaller single dwellings that were caused by broken gas lines.

Other variables may tend to intensify the situation:

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

coverings (both on the roof diaphragm and sides of the dwellings) could result in conflagrations.

8. The large number of dwellings that slip off their foundations and rupture gas lines and electrical systems resulting in further conflagrations.

B. Climatic

1. Precipitation and Relative Humidity

(a) Conditions

Precipitation ranges from 15 to 24 inches per year with an average of approximately 20 inches per year. Ninety-six (96) percent falls during the months of October through April and four (4) percent from May through September. This is a dry period of at least five (5) months each year. Additionally, the area is subject to occasional drought. Relative humidity remains in the middle range most of the time. It ranges from forty-five (45) to sixty-five (65) percent during spring, summer, fall, and from sixty (60) to ninety (90) percent in the winter. It occasionally falls as low as fifteen (15) percent.

(b) Impact

Locally experienced dry periods cause extreme dryness of untreated wood shakes and shingles on buildings and non-irrigated grass, brush and weeds, which are often near buildings with wood roofs and sidings. Such dryness causes these materials to ignite very readily and burn rapidly and intensely. Gas fires due to gas line ruptures can also spark and engulf a single family residence during these dry periods.

Because of dryness, a rapidly burning gas fire or exterior building fire can quickly transfer to other buildings by means of radiation or flying brands, sparks or embers. A small fire can rapidly grow to a magnitude beyond the control capabilities of the Fire District resulting in an excessive fire loss.

2. Temperature

(a) Conditions

Temperatures have been recorded as high as 114° F. Average summer

highs are in the 75° - 90° range, with average maximums of 105° F in some areas of unincorporated Contra Costa County.

(b) Impact

High temperatures cause rapid fatigue and heat exhaustion of firefighters, thereby reducing their effectiveness and ability to control large building, wildland fires, and fires caused by gas line ruptures.

Another impact from high temperatures is that combustible building material and non-irrigated weeds, grass and brush are preheated, thus causing these materials to ignite more readily and burn more rapidly and intensely. Additionally, the resultant higher temperature of the atmosphere surrounding the materials reduces the effectiveness of the water being applied to the burning materials. This requires that more water be applied, which in turn requires more fire resources in order to control a fire on a hot day. High temperatures directly contribute to the rapid growth of fires to an intensity and magnitude beyond the control capabilities of the Fire Districts in Contra Costa County. The change of temperatures throughout the County between very low and extreme highs contributes to a voltage drop in conductors used for power pole lines. This necessitates that voltage drops be considered.

3. Winds

(a) Conditions

Prevailing winds in many parts of Contra Costa County are from the north or northwest in the afternoons. However, winds are experienced from virtually every direction at one time or another. Velocities can reach fourteen (14) mph to twenty-three (23) mph ranges, gusting to twenty-five (25) to thirty-five (35) mph. Forty (40) mph winds are experienced occasionally and winds up to fifty-five (55) mph have been registered locally. During the winter half of the year, strong, dry, gusty winds from the north move through the area for several days, creating extremely dry conditions.

(b) Impact

Winds such as those experienced locally can and do exacerbate fires, both interior and exterior, to burn and spread rapidly. Fires involving non-irrigated weeds, grass, brush, and fires caused by gas line ruptures can grow to a magnitude and be fanned to an intensity

beyond the control capabilities of the fire services very quickly even by relatively moderate winds. When such fires are not controlled; they can extend to nearby buildings, particularly those with untreated wood shakes or shingles.

Winds of the type experienced locally also reduce the effectiveness of exterior water streams used by all Contra Costa County Fire Districts on fires involving large interior areas of buildings, fires which have vented through windows and roofs due to inadequate built-in fire protection and fires involving wood shake and shingle building exteriors. Local winds will continue to be a definite factor toward causing major fire losses to buildings not provided with fire resistive roof and siding materials and buildings with inadequately separated interior areas, or lacking automatic fire protection systems, or lacking proper gas shut-off devices to shut off gas when pipes are ruptured, or lacking proper electrical systems. National statistics frequently cite wind conditions, such as those experienced locally, as a major factor where conflagrations have occurred.

II. Necessity of More Restrictive Standards

Because of the conditions described above, the Contra Costa County Board of Supervisors finds that there are building and fire hazards unique to Contra Costa County that require the increased fire protection and structural and design load requirements set forth in Ordinance No. 2011-03. The ordinance amends the statewide codes by requiring the installation of a smoke detector in existing flat roof buildings when a pitch roof is added on top of the existing flat roof and the solid seating of the flat roof is not removed. (§ 74-4.002(b).) The ordinance amends the statewide codes by requiring most wood shakes or shingles used for exterior wall covering to be fire treated. (§ 74-4.002(c).) The ordinance amends the statewide codes by increasing the minimum base shear in certain buildings to a level consistent with previous building codes. (§ 74-4.002(d).) The ordinance modifies the statewide codes by requiring masonry foundation walls and concrete foundation walls of residential structures to comply with more restrictive seismic requirements. (§§ 74-4.004(d), 74-4.004(e).)

2010 CAL Green (CGBSC)
Issues that may affect Planning Department Reviews
New *Residential* Projects

Application—Hotels, motels, lodging houses, apartment houses, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities including accessory buildings, facilities and uses thereto.

Mixed occupancy buildings. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

Newly Constructed (or New Construction). A newly constructed building (or new construction) does not include additions, alterations or repairs.

1. Storm water control/design.

4.106.2 Storm water drainage and retention during construction.
Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.
1. Retention basins of sufficient size shall be utilized to retain storm water on the site.
2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
3. Compliance with a lawfully enacted storm water management ordinance.
4.106.3 Surface drainage. The site shall be planned and developed to keep surface water from entering buildings. Construction plans shall indicate how the site grading or drainage system will manage surfacewater flows. Examples of methods to manage surface water include, but are not limited to, the following:
1. Swales
2. Water collection and disposal systems
3. French drains
4. Water retention gardens
5. Other water measures which keep surface water away
from buildings and aid in groundwater recharge.

2. Outdoor Water Use.

4.304.1 Irrigation controllers. Automatic irrigation system controllers for landscaping provided by the builder and installed at the time of final inspection shall comply with the

following:
1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.
Note: More information regarding irrigation controller function and specifications is available from the Irrigation Association.

3. Construction Waste Reduction, Disposal and Recycling.

4.408.1 Construction waste reduction of at least 50 percent.
Recycle and/or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition debris, or meet a local construction and demolition waste management ordinance, whichever is more stringent.
Exceptions:
1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
4.408.2 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, a construction waste management plan shall be submitted for approval to the enforcing agency that:
1. Identifies the materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.
2. Specifies if materials will be sorted on-site or mixed for transportation to a diversion facility.
3. Identifies the diversion facility where the material collected will be taken.
4. Identifies construction methods employed to reduce the amount of waste generated.
5. Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.
4.408.2.1 Documentation. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, Items 1 through 5. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.
4.408.2.2 Isolated jobsites. The enforcing agency may make exceptions to the requirements of this section when jobsites are located in areas beyond the haul boundaries of the diversion facility.
Notes:
1. Sample forms found in Chapter 8 may be used to assist in documenting compliance with the waste management plan.
2. Mixed construction and demolition debris (C&D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

4. Building Maintenance and Operation.

4.410.1 Operation and maintenance manual. At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:
1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
a. Equipment and appliances, including water-saving devices and systems, HVAC systems, water-heating systems and other major appliances and equipment.
b. Roof and yard drainage, including gutters and downspouts.
c. Space conditioning systems, including condensers and air filters.
d. Landscape irrigation systems.
e. Water reuse systems.
3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
4. Public transportation and/or carpool options available in the area.
5. Educational material on the positive impacts of an interior relative humidity between 30–60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
9. Information about state solar energy and incentive programs available.
10. A copy of all special inspection verifications required by the enforcing agency or this code.

5. Fireplaces.

4.503.1 General. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA Phase II emission limits where applicable. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

2010 CAL Green (CGBSC)
Issues that may affect Planning Department Reviews
New *Non-Residential* Projects

Application— All occupancies *other than* the following:
Hotels, motels, lodging houses, apartment houses, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities including accessory buildings, facilities and uses thereto.

Mixed occupancy buildings. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

Newly Constructed (or New Construction). A newly constructed building (or new construction) does not include additions, alterations or repairs.

1. Storm water control/design.

5.106.1 Storm water pollution prevention plan. For projects of one acre or less, develop a Storm Water Pollution Prevention Plan (SWPPP) that has been designed, specific to its site, conforming to the State Storm water NPDES Construction Permit or local ordinance, whichever is stricter, as is required for projects over one acre. The plan should cover prevention of soil loss by storm water run-off and/or wind erosion, of sedimentation and/or of dust/particulate matter air pollution.
A5.106.2 Storm water design. Design storm water runoff rate and quantity in conformance with Section A5.106.3.1 and storm water runoff quality by Section A5.106.3.2 or by local requirements, whichever are stricter.
A5.106.2.1 Storm water runoff rate and quantity. Implement a storm water management plan resulting in no net increase in rate and quantity of storm water runoff from existing to developed conditions.
Exception: If the site is already greater than 50 percent impervious, implement a storm water management plan resulting in a 25 percent decrease in rate and quantity.
A5.106.2.2 Storm water runoff quality. Use post construction treatment control best management practices (BMPs) to mitigate (infiltrate, filter or treat) storm water runoff from the 85th percentile 24-hour runoff event (for volume-based BMPs) or the runoff produced by a rain event equal to two times the 85th percentile hourly intensity (for flow-based BMPs).

2. Bicycle Parking.

5.106.4 Bicycle parking. Comply with Sections 5.106.4.1 and 5.106.4.2; or meet local ordinance, whichever is stricter.

5.106.4.1 Short-Term bicycle parking. If the project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.
5.106.4.2 Long-Term bicycle parking. For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and may include:
1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; and
3. Lockable, permanently anchored bicycle lockers.

3. Parking for low-emitting, fuel-efficient and carpool/van pool vehicles.

5.106.5.2 Designated parking. Provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2.

TABLE 5.106.5.2

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0–9	0
10–25	1
26–50	3
51-75	6
76-100	8
101-150	11
151-200	16
201 and over	8 percent of total

5.106.5.2.1 Parking stall marking. Paint, in the paint used for stall striping, the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle:

CLEAN AIR
VEHICLE

4. Light Pollution Reduction.

5.106.8 Light pollution reduction. Comply with lighting power requirements in the *California Energy Code*, CCR, Part 6, and design interior and exterior lighting such that zero direct-beam illumination leaves the building site. Meet or exceed exterior light levels and uniformity ratios for lighting zones 1–4 as defined in Chapter 10 of the *California Administrative Code*, CCR, Part 1, using the following strategies:
1. Shield all exterior luminaires or provide cutoff luminaires per Section 132 (b) of the *California Energy Code.*
2. Contain interior lighting within each source.
3. Allow no more than .01 horizontal lumen footcandles to escape 15 feet beyond the site boundary.

4. Automatically control exterior lighting dusk to dawn to turn off or lower light levels during inactive periods.

Exceptions:

1. Part 2, Chapter 12, Section 1205.6 for campus lighting requirements for parking facilities and walkways.
2. Emergency lighting and lighting required for nighttime security.

5. Site Grading and Paving.

5.106.10 Grading and paving. The site shall be planned and developed to keep surface water away from buildings. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows.

6. Outdoor Water Use.

5.304.1 Water budget. A water budget shall be developed for landscape irrigation use.
5.304.2 Outdoor potable water use. For new water service, separate meters or sub-meters shall be installed for indoor and outdoor potable water use for landscaped areas between 1,000 square feet and 5,000 square feet.
A5.304.2.1 Outdoor potable water use. For new water service not subject to the provisions of *Water Code* Section 535, separate meters or sub-meters shall be installed for indoor and outdoor potable water use for landscaped areas between 500 square feet and 1,000 square feet.
5.304.3 Irrigation design. In new nonresidential projects with between 1,000 and 2,500 square feet of landscaped area (the level at which the MLO applies), install irrigation controllers and sensors which include the following criteria and meet manufacturer's recommendations.
5.304.3.1 Irrigation controllers. Automatic irrigation system controllers installed at the time of final inspection shall comply with the following:
1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

7. Construction Waste Reduction, Disposal and Recycling.

5.408.1 Construction waste diversion. Establish a construction waste management plan or meet local ordinance, whichever is more stringent.
5.408.2 Construction waste management plan. Submit plan per this section to enforcement authority.
5.408.2.1 Documentation. Provide documentation of the waste management plan that meets the requirements listed in Section 5.408.2 Items 1 thru 4 and the plan is accessible to the enforcement authority.

5.408.2.2 Isolated jobsites. The enforcing agency may make exceptions to the requirements of this section when jobsites are located in areas beyond the haul boundaries of the diversion facility.
5.408.3 Construction waste. Recycle and/or salvage for reuse a minimum of 50 percent of nonhazardous construction and demolition debris or meet local ordinance, whichever is more stringent.
Exceptions:
1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
A5.408.3.1.1 Verification of compliance. A copy of the completed waste management report shall be provided.
Exceptions:
1. Excavated soil and land-clearing debris
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
5.408.4 Excavated soil and land clearing debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled.

8. Building Maintenance and Operation.

5.410.1 Recycling by occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling.

9. Pollutant Control.

5.504.7 Environmental tobacco smoke (ETS) control. Prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows where outdoor areas are provided for smoking and in buildings; or as enforced by ordinances, regulations or policies of any city, county, city and county, whichever are more stringent.