

Agenda Item 10/25/10

October 25, 2010

TO: Honorable Mayor and City Council

THROUGH: Public Safety Committee

FROM: Planning Department

SUBJECT: PREPARATION OF AN ORDINANCE ADOPTING THE CALIFORNIA CODE OF REGULATIONS TITLE 24 INCORPORATING THE 2010 CALIFORNIA BUILDING CODE CHAPTERS 1-35 AND APPENDIX CHAPTERS C, D, H, I, AND J. THE 2010 CALIFORNIA RESIDENTIAL BUILDING CODE; THE 2010 CALIFORNIA MECHANICAL CODE; THE 2010 CALIFORNIA PLUMBING CODE; THE 2010 CALIFORNIA ELECTRICAL CODE; THE 2010 CALIFORNIA FIRE CODE AND 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE.

STAFF RECOMMENDATION:

It is recommended that City Council direct the City Attorney to prepare an ordinance adopting the California code of regulations Title 24 incorporating the 2010 California Building Code chapters 1-35 and appendix chapters C, D, H, I, and J. The 2010 California Residential Building Code; the 2010 California Mechanical Code; the 2010 California Plumbing Code, the 2010 California Electrical Code; the 2010 California Fire Code and 2010 California Green Buildings Standards Code, with modifications consistent with the provisions set forth herein.

COMMISSION RECOMMENDATION:

The staff recommendation regarding adoption of the CALGreen Code was presented to the Environmental Advisory Commission (EAC) on October 19, 2010. The EAC voted 3-1 to approve the staff recommendation.

BACKGROUND:

Every three years the California Building Standards Commission adopts a new set of building codes which include building, electrical, mechanical, plumbing, and fire standards. This year, for the first time, the State also adopted the California Green Building Standards Code and the California Residential Building Code. Local jurisdictions must adopt and enforce these newly adopted codes and apply the minimum requirements to all construction projects that file a building permit application after January 1, 2011.

Local jurisdictions may add to or amend these state codes to be more restrictive, but not less restrictive. The City has generally adopted amended versions of the California Code in order to better meet local needs. Staff is recommending limited amendments to the codes including amendments to the California Green Building Standards to ensure that the new regulations are not only as strong as the City's existing Green Building ordinance, but somewhat more progressive.

New California Green Building Standards Code

Title 24, Part 11, is the new California Green Building Standards Code. CALGreen, as this State code is sometimes referred to, offers state-wide uniformity to many established and emerging local green building ordinances such as that in Pasadena.

The current Pasadena Green Building ordinance only applies to new multi-family, mixed use and commercial buildings of four stories or more and alterations or construction over 25,000 sq. ft. and municipal buildings of 5,000 sq. ft. or more. Buildings meeting this threshold are required to meet LEED Certification standards. The new CALGreen regulations as drafted would require buildings meeting this threshold to meet a lower standard. Therefore, staff is recommending that the CALGreen standards be amended to be equivalent to the current Pasadena green building standards.

Pasadena's current ordinance does not apply to any buildings below the above stated thresholds. The CALGreen standards would apply to all new construction regardless of size, but would not apply to additions or alterations. Staff is recommending that the CALGreen Code be amended to apply to all projects, including residential and non-residential additions and alterations except where exempted elsewhere in the codes. As proposed, these smaller projects which were previously below the green buildings ordinance threshold, will now be required to meet minimum state standards less stringent than LEED.

Whereas there are many voluntary measures included in CALGreen which developers may select as part of their compliance, staff is recommending that some of these provisions be mandatory in order to align with the sustainable development goals of the Green City Action Plan (2006), especially with regard to energy efficiency, water conservation and greenhouse gas emissions reduction. For example, a few of the provisions that staff is recommending become mandatory include:

- All new and re-roofs of low-slope roofs be "Cool Roof" certified;
- Energy budgets for all new and added energy consuming fixtures are reduced by at least 15% under the requirements of the California Energy Code;
- Provide water-resistant flushing to comply with industry standards or manufacturer's instructions;
- Pre-install conduits in all new buildings for future photovoltaic systems.

It is not anticipated that these changes will incur additional project costs. Recent studies of the financial impacts of sustainable design and construction have shown that projects typically experience between 1% and 3% increase in capital costs. These figures are based on a broad range of variables depending on the project. Capital costs however are generally offset by reductions in energy costs over several years. Although these numbers vary by project, most sustainable design is cost neutral when balanced with building operations costs.

Staff has prepared a draft communications program to inform the community of the changes to the City's green codes. Communications will include an article in the City newsletter, press releases, an e-mail communication to constituents, designers and developers, and posting of information on the City's webpage. In addition, training on the new regulations will be offered to the community in December, before implementation of the new code in January.

New Residential Code

Title 24, Part 2.5 is the new California Residential Code. It moves all of the building standards pertaining to one and two-family dwellings and townhomes into a separate and distinct code. The current residential standards are located throughout the California Building Code, interspersed with other types of occupancies. In addition to consolidating the residential standards, the new California Residential Code provides simplified prescriptive standards, as opposed to design guidelines, to allow non-design professionals to use the code more easily.

The only significant change in the new residential standards is the mandatory requirement for installation of a fire sprinkler system in all newly constructed one- and two-family dwellings and townhomes. This was previously required only for residential buildings of three units or more.

Staff is also recommending an amendment to the residential standards. As written, the Code allows for a single-family home of up to three stories to be built without a licensed design professional. However, studies have shown that homes of two stories or more do not perform well in an earthquake unless designed by a licensed architect or engineer. For this reason, staff is recommending that the Residential Code be amended to require a licensed design professional for the design of anything greater than a single story building.

Staff is also recommending amendments that would prohibit the use of wood for foundations and the use of staples as fasteners. Staff has been working in coordination with the eighty-seven other cities in Los Angeles County through the Los Angeles Regional Uniform Code Program to minimize variations and promote consistency among proposed amendments adopted by cities in the region.

Building Code

Staff is recommending that most of the existing amendments for the Building Code be carried through unchanged from the previous code cycle. These provisions have served Pasadena well in the past and are mostly related to construction in the high fire hazard areas and regional structural changes that are adopted by most cities throughout the Los Angeles Basin. Some of the previous amendments are not being carried forward because they have been incorporated into the new codes.

In addition, staff is recommending language to clarify that Chapter 7A, *Materials and Construction Methods for Exterior Wildfire Exposure*, applies to additions and alterations as well as new construction.

Fire Code

Title 24, Part 9 is the California Fire Code. The Fire Department is responsible for enforcement of these regulations and is recommending a number of amendments. The majority of amendments are carrying forward amendments from previous years. In addition, staff is also recommending adoption of the current International Wildland-Urban Interface Code, 2009 Edition, as the adopted reference standard. These regulations focus on landscaping and construction standards in high fire hazard areas.

Staff is recommending several new amendments including the following:

- Adoption of California State Fire Marshal guidelines for the installation of photovoltaic systems;
- Changes to the existing requirements for upgrading fire sprinkler, fire alarm and in-building public safety radio coverage to include required to upgrade when an additional level is created or total floor area is expanded by 50%;
- Codification of the existing practice of accounting for a ten percent decrease in the water source when designing fire sprinkler systems;
- Prohibition against combining domestic water supply and fire sprinkler water supplies for certain systems;
- Clarifications to the design requirements for emergency alarm systems for toxic, flammable or other similar gas systems; and
- Clarifications that the Fire Department is responsible for enforcement of fire and panic safety and other regulations of the State Fire Marshal under specific circumstances.

COUNCIL POLICY CONSIDERATION:

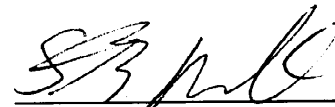
The recommended action furthers the City Council strategic plan goal to ensure public safety by adopting the most currently available codes including the California Green Building Standards Code for all types of construction in the City. The staff recommendation also supports the City's commitment to increase conservation and sustainability. The United Nations (UN) Urban Environmental Accords were endorsed by the City in 2006 and form the framework of the Pasadena's Green City Action Plan. The recommendation supports UN Accords Action 2 – Energy Efficiency; Action 3 –

Reduce Greenhouse Gas Emissions; Action 7 – Green Building; Action 19 –Reduce Water Consumption; and Action 21 – Reduce Wastewater Discharge.

FISCAL IMPACT:

All costs associated with implementing these code changes will be recovered through the adopted fees.

Respectfully submitted,



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Concurred by:



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