

## What Do the New Green Building Standards Mean?

The City of Glendale adopted 12 measures in addition to the mandatory Green Building Standards for new construction projects. These sustainable construction practices will contribute to a healthier environment and help protect the City's future. The 12 additional measures went into affect on July 7, 2011 and are explained below:

**1) *Expand applicability of green building standards to residential buildings over 3-stories.***

What does this mean? – Due to a “glitch” in the CAL Green Code, residential buildings over 3-stories in height are not required to comply with the green building standards. Eventually, this will be corrected by the state. In the mean time, Glendale has closed this “hole” in the code. Therefore, residential buildings over 3-stories will have to comply.

**2) *Exceed California Energy Code requirements by 15%.***

What does this mean? – The California Energy Code has already established basic requirements that are intended to reduce consumption of electricity and natural gas. This new measure will require newly constructed buildings to not only meet the California Energy Code standards, but exceed them by at least 15%. While this may result in a slight increase in construction costs (for example, better insulation), such additional expenditures are likely to be recovered quickly due to reduced electric and gas bills.

**3) *Reduce baseline water usage by 20%.***

What does this mean? – Newly constructed buildings will be required to utilize water-conserving fixtures. Any combination of fixtures which can demonstrate an aggregate savings of at least 20% relative to a defined “baseline” will be acceptable. This will afford the owner some flexibility in determining which water-conserving fixtures suit their lifestyle best. Since water-conserving fixtures are gaining popularity, the additional cost for such fixtures is diminishing. Furthermore, any additional cost that remains will quickly be offset by reduced water bills.

**4) *A radiant roof barrier shall be installed.***

What does this mean? – All newly constructed buildings will require the installation of a radiant roof barrier. These low-cost features reduce the amount of heat that enters through a building's roof. They will reduce the amount of energy needed to cool the building, especially during summer months. This low-cost building enhancement will result in energy savings during the full life span of the building.

**5) *Gas-fired tankless water heaters shall have an energy factor of at least 0.80.***

What does this mean? – Some manufacturers make very efficient tankless water heaters, while other manufacturers produce lower quality appliances. This measure will require builders to select a high-efficiency device, which can easily be identified by an “energy factor” of at least 0.80. By carefully selecting a high-efficiency tankless water heater, less natural gas will be consumed to heat water for showers, washing dishes, laundry, etc. The marginal cost differential between a high-efficiency water heater and a lower quality appliance will be recovered through savings on the gas bill.

**6) *Gas-fired storage-tank type water heaters shall have an energy factor of at least 0.61.***

What does this mean? – Similar to tankless water heaters, a high efficiency storage-type water heater will consume less natural gas. The marginal cost differential will also be recovered through savings on the gas bill.

**7) *Buildings shall be “solar ready”.***

What does this mean? – During the construction of a new building, simple steps need to be taken to preserve a suitable space on the roof that is free of obstructions such as plumbing vents and other roof-top equipment. By preserving this space during the initial construction, future decisions to add solar panels to a roof will not be hindered by the additional expense of relocating such obstructing building elements. In addition to preserving a suitable roof space, an empty conduit needs to be installed at the time of construction to facilitate future wiring. These easy construction steps cost almost nothing, yet will facilitate future solar panel installation dramatically.

**8) *At least 20% of certain paved areas in residential projects shall be permeable.***

What does this mean? – If paving is installed as part of a new residential construction project for walkway, patios or uncovered parking, at least 20% of it must be permeable. This can easily be achieved by integrating bricks, paving stones, or other permeable material into the pavement design. While such paving features generally cost more than plain concrete, they tend to add value to the property by an equal amount. Furthermore, this measure only requires 20% of the area to be permeable. Additional use of more expensive, decorative paving would be left to the sole discretion of the property owner.

**9) *Residential gas-fired heating equipment shall be high-efficiency units.***

What does this mean? – This measure will require new residential buildings to install high efficiency gas fired heating equipment that shall have an annual fuel utilization ration (AFUE) of 0.90 or higher. Higher efficiency residential heating equipment costs slightly more than low efficiency units, but the marginal cost differential will be offset by lower gas bills.

**10) Residential air conditioning equipment shall be high-efficiency units.**

What does this mean? – Newly constructed residential buildings shall install air conditioning equipment that has a seasonal energy efficiency ratio higher than 13.0 and energy efficiency ratio of at least 11.5. Selecting high efficiency air conditioning equipment in new residential buildings can enhance the comfort of your home while cutting your cooling cost by up to 30%.

**11) Natural light and ventilation in residential habitable rooms shall be increased.**

What does this mean? – All newly constructed residential buildings shall be designed to incorporate natural light equal to at least 10% of the floor area and to incorporate ventilation equal to at least 5% of the floor area in each habitable room. Enlarging windows and doors increases the available natural light and ventilation.

**12) New single-family dwellings with floor area greater than 5,000 square feet shall be required to meet CAL Green Tier-1.**

What does this mean? – This standard is applicable only to new residential buildings greater than 5,000 square feet. New single family dwellings greater than 5000 square feet in size will be required to comply with the higher sustainable construction standards of CAL Green Tier-1.

For more information regarding Green Building Standards for new construction in Glendale, please visit the Permit Services Center at 633 E. Broadway, Room 101, Glendale, California, or call (818) 548-3200.