

NEW YORK STATE HOUSING FINANCE AGENCY'S MANDATORY GREEN BUILDING GUIDELINES

The New York State Housing Finance Agency (“HFA”) is pleased to present the following Green Building Guidelines. These guidelines explain the mandatory minimum green building standards for all HFA financed projects funded on or after June 1, 2008. As a point of reference, these guidelines, as well as the mandatory standards which the guidelines seek to explain, are taken from and are substantially the same as those adopted by the Division of Housing & Community Renewal in early 2008.

Standard #1 *Utilize Energy Star appliances, light fixtures, and heating systems or the equivalent which will produce the same or comparable energy efficiency or savings.*

Explanatory Guideline

How

Install Energy Star refrigerators and any other provided appliances. Install Energy Star labeled, or equivalent heating systems (Energy Star qualified furnaces have an annual fuel utilization efficiency (AFUE) of 90% or greater; Energy Star qualified boilers have an annual fuel utilization efficiency (AFUE) rating of 85% or greater). Install Energy Star labeled lighting fixtures or the Energy Star Advanced Lighting Package in all interior units, and use Energy Star or high-efficiency commercial grade fixtures in all common areas and outdoors.

Intent

In 1992, EPA introduced Energy Star, a voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. Energy Star products must meet strict energy efficiency criteria set by EPA. These products reduce utility costs and greenhouse gas emissions. Energy Star-qualified lighting uses 2/3 less energy and lasts six to 10 times longer than traditional lighting. Reduced energy use lowers utility costs and greenhouse gas emissions. For more information on Energy Star labeled appliances, lighting and heating systems go to the products section of the Energy Star homepage, www.energystar.gov

Standard #2 *Landscaping: Where appropriate, select and place native trees and plants to minimize water usage and maximize energy efficiency.*

Explanatory Guideline

How

Provide a landscape plan showing that the selection of new trees and plants are non-invasive native species appropriate to the site’s location soils and microclimate, and that any newly planted trees are located to provide shading in the summer and allow for heat gain in the winter.

Intent

Native vegetation is well adapted to the climate and provides excellent erosion, sediment, dust and pollution control. Native plants are also more resistant to naturally occurring disease, insects and low levels of nutrients, thereby reducing the need for fertilizers, pesticides or herbicides.

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Things to Consider

- Consult a local arborist and involve a landscape architect in the architectural design process to identify appropriate areas for landscaping and energy savings.
- Combine landscape plan with storm-water management to provide surface water filtration and aesthetic benefits.
- Non-native turf needs about 35 inches of water per year to thrive, whereas native turf needs much less water per year.
- While lawns are appropriate for some landscaping, such as for play areas, they should be minimized wherever possible, except in climates where they need no irrigation.

Standard #3 Use water conserving fixtures.

Explanatory Guideline

How

Install water-conserving fixtures with the following specifications:

Toilets – 1.6 GPF (gallons per flush) or better

Showerheads – 2.2 GPM (gallons per minute) or better

Kitchen faucets – 2.2 GPM or better

Bathroom faucets – 2.0 GPM or better

Intent

Showers and faucets account for approximately 25 percent of indoor water use. Toilets account for approximately 20 percent of indoor water use. Saving water translates into utility savings, both by conserving water and reducing the energy required for water heating. Compared with pre-1992 fixtures, water-conserving fixtures can reduce the amount of water used in showers and sinks by 75 percent and 50 percent, respectively.

Standard #4 Use daylight sensors or timers on outdoor lighting to maximize energy efficiency.

Explanatory Guideline

How

Install daylight sensors or timers on all outdoor lighting.

Intent

Daylight sensors automatically turn off the exterior lighting when sufficient day lighting is available or lighting is otherwise not required. Proper aiming of exterior fixtures and the use of shade trees and plants help prevent unwanted glare (light trespass) into neighboring buildings and natural areas, and limit disturbance of the night sky (light pollution).

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Things to Consider

- Design outdoor lighting to eliminate light trespass from the building and site, and to minimize impact on nocturnal environments.
- Use downlighting instead of up lighting.
- Consult the Illuminating Engineering Society of North America's Recommended Practice Manual: Lighting for Exterior Environments.

Standard #5 For new construction projects, install a passive radon-reduction system to be activated should tests confirm the presence of radon gas in the building. For rehabilitation projects, install an active radon reduction system and introduce radon-reduction measures should test confirm the presence of radon gas in the building (in EPA Zones 1 and 2).

Explanatory Guideline

How

In EPA Zones 1 and 2, for new construction, install passive radon-resistant features below the slab along with a vertical vent pipe with junction box available, if an active system should prove necessary. For rehabilitation projects, install an active radon-reduction system and introduce radon-reduction measures, should test confirm the presence of radon gas in the building.

Intent

Water can migrate through concrete and most other masonry materials. Proper foundation drainage prevents water from saturated soils from being pushed by hydrostatic pressure through small cracks. Vapor barriers and waterproofing materials can greatly reduce the migration of moisture that can occur even in non-saturated soils. Installation of radon resistant features will reduce concentrations of radon, a cancer-causing soil gas that can leak into homes through cracks in the slab and foundation.

Things to Consider

- Consult www.epa.gov/iaq/radon/zonemap, or contact your state radon coordinator through the state health office, if your development is located in a Zone 1 and 2 radon area.
- For rehab, test the homes or building for presence of radon. If elevated levels of radon exist, introduce radon-reduction measurements. Check technical guidance at www.epa.gov/iaq/radon/pubs/index.html.
- EPA's "Building Radon Out;" U.S. Environmental Protection Agency, 2006. (#EPA/402-K-01-002, available at www.epa.gov/iaq/radon/pubs)

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Standard #6 *Use lead-safe work practices during renovation, remodeling, painting and demolition (for properties built before 1978).*

Explanatory Guideline

How

For properties built before 1978, use lead-safe work practices during renovation, remodeling, painting and demolition. There can be no exemptions from all requirements of 24 CFR Part 35, HUD Guidelines for the Evaluation and Control of Lead-Based Hazards in Housing.

Intent

Any activity that disturbs painted surfaces or building components in pre-1978 dwellings that contain lead-based paint may generate and spread lead dust and debris, increasing the risk of lead poisoning for exposed children and families. Controlling lead dust and debris helps minimize lead in the environment.

Things to Consider

Get a lead-based paint inspection or risk assessment if it is likely that the surfaces to be disturbed contain lead-based paint. Information about lead-safe work practices can be found at www.epa.gov/lead/pubs/traincert.htm and www.hud.gov/offices/lead/training/index.cfm.