

Green building has become an increasingly important topic in the light of escalating energy costs and diminishing natural resources. In keeping with HUD guidelines DHCD is advocating green building to encourage applicants to incorporate modern, energy-efficiency improvements in rehabilitation activities to promote long-term savings and increased sustainability.

Introducing practices that promote better insulation, EnergyStar-efficient appliances and windows, can mean energy savings of up to 30% for LMI homeowners. S

The attached “Go-Green” checklist includes methods and materials relating to energy efficiency, landscaping, construction, indoor air quality, and building materials.

Note that many green building systems and materials are evolving and becoming increasingly available, particularly as energy prices escalate. Some of these practices involve no additional costs. Others may involve marginally or higher initial costs. Check the following websites for resources for products, materials and practices.

#### **Standards and Practices**

- NAHB’s Annual Smart Market Report (Green Home Building Guidelines):

<http://www.nahb.org/>

- Viridiant (formerly Earthcraft Virginia): [www.viridiant.org](http://www.viridiant.org)
- Home Energy Rating: <http://www.resnet.us/energy-rating>
- Federal Government: [www.energysavers.gov](http://www.energysavers.gov)
- The ReBuilding Center of Our United Villages: [www.rebuildingcenter.org](http://www.rebuildingcenter.org)
- Green Affordable Housing: [www.greenaffordablehousing.org](http://www.greenaffordablehousing.org)
- Energy Star Homes: [www.northwestenergystar.com](http://www.northwestenergystar.com)
- Habitat For Humanity ReStore: <http://www.habitat.org/restores/>
- Building Science Corporation Guide to Mixed-Humid Climates: [www.buildingscience.com](http://www.buildingscience.com)

#### **Green Building Products**

- Green Depot Environmental Building Supplies: [www.ecohaus.com](http://www.ecohaus.com)
- Oikos Green Building Source: <http://oikos.com/library/index.html>
- Building Green Products: [www.buildinggreen.com](http://www.buildinggreen.com)
- Energy Efficient Windows: <http://www.efficientwindows.org/>
- Green Seal Certified Products: [www.greenseal.org](http://www.greenseal.org)
- Forest Product Solutions: [www.forestproductsolutions.com](http://www.forestproductsolutions.com)

## DHCD “Go-Green” Recommended Building Checklist

Item	Description	Benefit	Include in Bid Package
<b>Planning &amp; Design</b>	Infill and adaptive reuse maximize existing space. Close to public transit. Accommodate walking/bicycling	Maximize, stabilize or renew existing sites with infill and adaptive reuse. Proximity to public transit and side paths allow increased mobility and exercise	
<b>Energy Efficiency</b>	Creating efficient thermal envelope by efficiently insulating exterior walls, crawl space, ceiling, duct chambers; and using properly sized HVAC systems	A well-insulated structure can improve acoustics and reduce heating and cooling costs up to 30%	
<b>Lighting</b>	Lighting (i.e. Exterior, sodium; Interior fluorescent bulbs and fixtures)	Reduced consumption, less energy expended, lower utility bill	
<b>Appliances &amp; Windows</b>	EnergyStar appliances (refrigerators, water heater, stoves, dishwasher, washing machines); and windows	Efficient refrigerators and water heaters can save 15-20%; Windows can effect both heat loss and solar radiation (U-Factor >0.40 and SHG >0.40 in Va.)	
<b>Engineered products</b>	Engineered products like oriented strand board (OSB), fiber-cement boards (Hardiplank <sup>tm</sup> ), structural insulated panels (SIPs), laminated veneer lumber (LVL), Straight <sup>tm</sup> finger-jointed (FJ) studs, plastic (recycled) lumber, decking and fencing	Lessens impact on natural resources, maximizes recycled products and reduction of waste on the jobsite; more often increasing durability with better performance (i.e. rot or termite damage), and may also reduce labor	
<b>Landscaping</b>	Practices like xeriscaping emphasize native or drought tolerant plants and decrease large turf areas that require irrigation	Low-No water designs lower consumption and water bills, minimizes maintenance and reduces strain on supply infrastructure	
<b>Health</b>	Use of Low-No Volatile Organic Compounds (VOC), i.e. adhesives, paint, sealants	Using products with low VOC reduce noxious odors, respiratory irritation and curtail ozone depletion	

# DHCD Go-Green Bid Checklist

Green Item	Bid Cost Variance	Standard Item	Bid Cost
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