

# GREEN AFFORDABLE HOUSING CHECKLIST

## **Purpose and Use of the Green Affordable Housing Checklist**

The City of Santa Monica Housing and Redevelopment Division strongly encourages the use of environmentally sensitive ("green") building materials and systems in affordable housing developments.

This checklist is intended to encourage developers to consider green building methods and practices in the earliest stages of project planning. On the checklist are a number of recommended green practices, including practices related to energy efficiency; landscaping; framing and carpentry; indoor air quality; and other building systems and materials. Keeping in mind the intended scope of each project, budgetary constraints, availability of materials, and other factors, our goal is that as many of these practices as possible be incorporated into each project.

It should be noted that many green building systems and materials are evolving and becoming increasingly available. Therefore, this checklist is a living document, to be updated as technology and construction practices change.

## ***Costs***

Some of these practices involve no additional costs. Others may involve marginally or significantly higher initial costs. Please do not dismiss some items just because they may cost more, as the City may be willing to fund the increased cost in the interest of promoting a healthy environment.

## ***Contractor Bid Packages***

If you do not have, or cannot obtain, current costs for certain items on the checklist, please include these as alternatives as part of the contractor bid package in order to determine the cost.

## **Completing the Checklist**

Please complete this checklist to show which green building practices will be included in the project. If you do not intend to include certain practices, or if the practice is not applicable to the project, please provide an explanation on the checklist. Also, please indicate which items will be included as alternatives in the contractor bid package. To facilitate completion of the checklist, the City's Project Analyst is available to assist you.

**City of Santa Monica Housing and Redevelopment Division  
- Green Affordable Housing Checklist -**

<i>Item and Santa Monica Green Building Design and Construction Guideline (SMGBD&amp;CG) reference</i>	<i>Description</i>	<i>Benefit</i>	<i>Included in Project</i>			
			<i>Yes</i>	<i>No</i>	<i>Not Sure--Will Include in Bid Package to Determine Cost</i>	<i>N/A</i>

**Energy Efficiency**

<b>Energy Efficient Lighting</b> <i>SM GBD&amp;CG-ES2</i>	<p>Energy efficient exterior lighting, such as high-pressure sodium. Should be appropriately sized for the location.</p> <p>Interior fluorescent bulbs and (where practical and appropriate) fixtures produce light quantity and quality that is comparable to incandescents, while expending less energy.</p>	<p>Energy efficient lighting reduces energy consumption and lowers utility bills. One compact florescent bulb will pay itself back over ten times over the course of its life through reduced energy use.</p>				
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<b>Resource Efficient Appliances</b> <i>SM GBD&amp;CG-WS1</i>	<p>Refrigerators, water heaters, stoves, dishwashers, and washing machines that are designed to use less energy and water. Most efficient appliances qualify for Energy Star designation.</p>	<p>Appliances, particularly refrigerators and water heaters, are some of the major sources of residential energy use. Reducing energy and water use lowers utility bills while benefiting the environment.</p>				
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<b>Combined Hydronic Heating</b> <i>SM GBD&amp;CG-HS8</i>	This system uses hot water from the water heater for space heating. Applicable for new construction and major rehab only.	Using the water heater for two purposes uses energy more efficiently.				
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**Landscaping**

<b>Low-Water Landscape Designs</b> <i>SM GBD&amp;CG-LA3</i> <i>See Zoning Ordinance Section 9.04.010.04.110 Water Conservation Landscaping</i>	Low-water landscape designs, such as xeriscape, reduce water use by emphasizing native and/or drought tolerant plants, elimination of turf areas, and minimizing maintenance.	Low-water designs reduce water and maintenance bills and impacts on local water supply infrastructure.				
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<b>Water-Efficient Irrigation</b> SM GBD&CG-LAb	Water efficient systems, such as drip irrigation, place the correct amount of water directly at the base of each plant thus reducing water use and waste from overwatering.	Water efficient systems help plant growth and overall health by eliminating over watering or excessive drying. They also lower water bills and reduce impacts on water supply infrastructure.				
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**Engineered Lumber and Wood Alternatives**

<b>Oriented Strand Board (OSB)</b> SM GBD&CG-MA3	OSB is an alternative to plywood for sheathing, flooring, and roofing.	Plywood requires the use of large-size, typically old growth trees. OSB is made from small pieces of wood, thus eliminating or reducing impacts to forests.				
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<b>Wood I-Beam</b> SM GBD&CG-MA3	Wood I-Beams are an alternative to 2x6s or 2x8s used for floor and roof joists.	Wood I-Beams are engineered to use less wood to perform the same function and are often straighter, thus minimizing wood waste.				
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<b>Laminated Wood Fiber Products</b> <i>SM GBD&amp;CG-MA3</i>	Gluelam, parlam, microlam, etc. are alternatives to large dimension lumber for trusses, beams, and headers.	Laminate products provide the same strength while eliminating the need to use large-dimension lumber from old-growth sources.				
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<b>Certified Wood</b> <i>SM GBD&amp;CG-MA6</i>	Certified wood is used like conventional lumber for framing, etc. Based on 2001 availability, may be appropriate for new construction and major rehab projects only.	Wood certified by the Forest Stewardship Council has been monitored from the forest to the local supplier to ensure that the wood is harvested, milled, and delivered under environmentally, and socially responsible conditions.				
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<b>Plastic Lumber</b> <i>SM GBD&amp;CG-Mab</i> <i>SM GBD&amp;CG-LA7</i>	Plastic lumber is made from recycled plastic products. It can be used as an alternative to wood in non-structural applications such as decking and fencing, depending on field conditions.	Plastic lumber is highly durable and is not susceptible to rot or termite damage. It is also an excellent use of recycled plastics.				
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<i>If not included, please describe why.</i>						
<b>Fiber-Cement Siding</b> <i>SM GBD&amp;CG-Mab</i> <i>SM GBD&amp;CG-MA4</i>	Fiber cement siding can be used as an alternative to redwood or other types of siding.	Fiber cement siding is not susceptible to rot or termites and is fire resistant.				
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**Indoor Air Quality**

<b>No-VOC (volatile organic compound) Paint</b> <i>SM GBD&amp;CG-MA7</i>	No-VOC paint is used exactly like conventional paint. Current no-VOC paints are suitable for indoor use only, subject to ongoing maintenance viability.	No-VOC paint does not emit odors related to VOCs. Organic chemicals are widely used as ingredients in household products like paint, adhesives, cleaning supplies, etc. VOCs can cause eye, nose, and throat irritation, loss of coordination, and potentially damage the liver and central nervous system. Outside, VOCs can bond with other pollutants and create ground-level ozone.				
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<b>Carbon Monoxide Detector</b>	Carbon monoxide detectors monitor the level of this gas in individual dwelling units.	Carbon monoxide is a common indoor air pollutant created by the combustion of natural gas from stoves and heaters and is harmful to human health.				
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<b>Seal Exposed Particle Board</b> <i>SM GBD&amp;CG-MA7</i>	Particleboard typically includes formaldehyde. Sealing with a flat, latex-based primer or other suitable material can prevent the off gassing of formaldehyde.	EPA ranks formaldehyde as a probable human carcinogen. Exposure to formaldehyde can cause eye, nose and throat irritation, skin rashes, headaches, nosebleeds, and nausea.				
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<b>Formaldehyde-Free Cabinets and Counters</b> <i>SM GBD&amp;CG-MA7</i>	Particleboard or medium density fiberboard (MDF) in cabinets and counters can be substituted with formaldehyde-free MDF alternatives or products such as strawboard and wheatboard made from agricultural waste.	Cabinets and counters are typically made of particleboard that uses formaldehyde as the binding agent. Minimizing or eliminating formaldehyde-based materials has a positive impact on indoor air quality.				
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**Building Materials**

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<b>Ceramic Tile</b> SM GBD&CG-MA4	Ceramic tile can be used in kitchen and bathroom and counter tops. May be applicable to new construction and major rehab only.	Ceramic tile is long lasting and does not off gas.				
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<i>If not included, please describe why.</i>						
<b>Linoleum Flooring</b> SM GBD&CG-MA4	Linoleum flooring is made of natural, renewable substances such as amber, chalk, cork, and jute. It can be used as an alternative to sheet vinyl, vinyl composite tiles, or carpet.	Most flooring products such as sheet vinyl and carpet off gas volatile organic compounds (VOCs) and are made from non-renewable petroleum-based products. In contrast, linoleum minimizes off gassing and is made from renewable substances.				
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<b>Recycled Content Insulation</b> <i>SM GBD&amp;CG-MAb</i>	Both fiberglass and blown cellulose insulation have recycled content. Fiberglass products are used identically to standard products. Blown cellulose (made of recycled newsprint) requires a special installer.	Recycled-content products support Statewide solid waste diversion goals. Cellulose insulation provides a tighter enclosure than fiberglass.				
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