

October 28, 2009

Executive Summary of Changes for GreenPoint Rated Single Family New Home Program

Introduction

The GreenPoint Rated program is updated every three years in conjunction with changes to the California Building Energy Efficiency Standards (Title 24, Part 6). Updated GreenPoint Rated materials will be available for use in unison with the implementation of the 2008 Building Energy Efficiency Standards, which is scheduled for January 1, 2010.

GreenPoint Rated New Home, Single Family, Version series 3.0 and Multifamily Version series 1.0 have been updated to series 4.0 and 2.0 respectively. Policy for use of GreenPoint Rated Version #'s is outlined below.

All measure numbers refer to the updated checklist versions 4.0 unless otherwise noted. The specific criteria for qualification for each measure, and other details, can be found in the GreenPoint Rated Single Family (4.0) Rating Manual. These manuals will be available for purchase or Rater's download after January 1, 2010.

The update process reviews all of the measures on the checklist, current trends and current code. This analysis results in the following alterations to the checklists:

- Remove measures that have become code required
- Add new measures for current best practices
- Revise, improve and clarify definitions of current measures
- Revise and clarify criteria for qualification of current measures

Policy for Use of GreenPoint Rated Version #

- Single Family Version 3.7 (Applicable to 2005 Title 24 Energy Code)
 - For use with projects permitted under the 2005 Building Energy Efficiency Standards.
 - Applications accepted until January 1, 2011 for projects permitted under 2005 Title 24.
 - Current projects may continue to use Version 3.7 up to January 1, 2011. Extended use is allowed for projects in completion under the 2005 Title 24 as identified by local jurisdiction permitting.
- Single Family Version 4.0 (Updated checklist, applicable to 2008 Title 24 Energy Code)
 - For use with projects permitted under the 2008 Building Energy Efficiency Standards.
- Multifamily Version 1.7 (Applicable to 2005 Title 24 Energy Code)
 - For use with projects currently in progress with GreenPoint Rated
 - Will not be available for use with new projects starting January 1, 2010
 - May be used for current projects until January 1, 2011. Extended use is allowed for projects in completion under the 2005 Title 24 as identified by Local Jurisdiction permitting.

- Multifamily Version 1.8 / 2.0 (Updated checklist, applicable to 2005 and 2008 Title 24 Energy Code)
 - Checklist is programmed with a drop down menu in Measure J1 to accept projects under the 2005 (Version 1.8) or 2008 (Version 2.0) Title 24 Building Energy Efficiency Standards
 - For use with all new projects
 - Version 1.8 (2005 Title 24) may be used for current projects until January 1, 2011. Extended use is allowed for projects in completion under the 2005 Title 24 as identified by Local Jurisdiction permitting.

Summary of Updates to GreenPoint Rated Single Family New Home

The following is a summary of changes to Single Family New Home and is organized by the sections in the checklist. There is a separate Executive Summary of Changes for GreenPoint Rated Multifamily New Home Measures. No changes to GreenPoint Rated Existing Home checklist have been made at this time.

A. Site. Site measures include practices for managing the construction process to minimize disruptions to the building site, reduce waste, and prevent pollution of air, soil and waterways.

- Revised - A3. Divert/ Recycle Jobsite Construction Waste, for waste diversion minimum requirement of 50% diversion remains the same. Additional points are awarded for diversion of 65% and 80% waste diversion excluding asphalt and concrete. This measure includes deconstruction of existing buildings, so this is no longer a separate measure.
- Added - A5. Construction Environmental Quality Management Plan, Duct Sealing, and Pre-Occupancy Flushout, with strategies for mitigating pollution during the construction process and reducing source of pollutants in the home.
- Moved – A.4 Cool Site was moved Section P, Innovation.

B. Foundation. This section includes practices for incorporating recycled content in concrete, radon mitigation, pest control and moisture management. No new measures have been added.

- Moved - B4 Install Foundation Drainage System and B5 Moisture Controlled Crawlspace were moved from Section P, Innovations.

C. Landscaping. These measures offer strategies for creating landscapes that use less water, conserve resources, promote healthy soils, and reduce excessive outdoor lighting. A limited number of points are available for projects with a small landscape area.

A number of new measures have been added, reflecting the increasing urgency of water conservation in California.

- Moved - C8 Rainwater Harvesting System and C9. Irrigation System Uses Recycled Water were moved from Section P, Innovations, to encourage the practice.
- Added - C10. Use Submeters for Irrigation, was added, as studies have indicated sub-metering can result in reduced water consumption.

- Added - C11. Design Landscape to Meet Water Budget, was added in response to the State Water Efficient Landscape Ordinance. This measure has a tier that is equivalent to the performance metric of the Ordinance and a tier that exceeds the Ordinance. This measure has prerequisites in order to receive credit. Prerequisites included the installation of mulch for both tiers and high efficiency irrigation for the second tier.
- Revised - C12. Use Environmentally Preferable Materials for 70% of the Non-Plant Landscape Elements and Fencing to include fencing materials.
- Removed - (C3a on checklist Version 3.7) giving credit for turf equal to tall fescue.

D. Structural Frame and Building Envelope. These measures provide energy- and resource-efficient strategies for building the structural frame and envelope, including the walls and roof.

- Added - D2. Construction Materials Efficiencies. This measure addresses panelized construction as well as modular components.
- Removed - (D8 on checklist Version 3.7) for use of recycled content steel.
- Removed – (D9 on checklist Version 3.7) 5/8” drywall for thermal mass.

E. Exterior Finish. This section focuses on siding, roofing and decking materials that are durable and help protect the home from moisture damage and fire. No new measures have been added.

- Moved - E2. Flashing Installation Techniques Specified and Third Party Verified was moved from Section P, Innovations.

F. Insulation. The measures in this section encourage the use of insulation products with recycled content.

- Revised - F1. Insulation with 75% Recycled Content has been expanded to address wall, floors and ceilings separately.
- Removed - (F2. on the checklist Version 3.7) for low emitting insulation has been removed.

G. Plumbing. This section addresses designing the plumbing system to distribute hot water efficiently and installing water-efficient faucets, showerheads and toilets. No new measures have been added.

- Removed – (G1 On checklist Version 3.7) Insulating hot water pipes from the water heater to the kitchen has been removed as this is now required by code for all diameters of pipe.
- Moved - G2. Install Water-Efficient Fixtures (faucets and showerheads), was moved from the Section P, Innovations.

H. Heating, Ventilation and Air Conditioning. These measures address energy efficiency and better indoor environmental quality through considerations for furnaces, air conditioners, water heaters, mechanical ventilation, ductwork, and fireplaces.

- Moved - H1b. Test Total Supply Air Flow Rates was moved from Section P, Innovations
- Added - H1c. Third Party Testing of Mechanical Ventilation Rates for IAQ, giving credit for third party testing of mechanical ventilation rates to comply with ASHRAE 62.2 has been added.
- Revised - H3. Install High Performing Hydronic Radiant Heating has been revised to include best practices for design and installation of the system.
- Removed - (H8c. on checklist Version 3.7) installing a vented range hood has been removed as this will be required by code under the 2008 Energy Efficiency Standards.
- Revised - H8a. Install ENERGY STAR Bathroom Fans Vented to the Outside has been revised to require a humidistat and or a timer to control the fan.
- Revised - H9. Advanced Mechanical Ventilation for IAQ has been revised from (H10 on checklist Version 3.7) to include
 - Added - 10a Compliance with ASHRAE 62.2 Mechanical Ventilation Standards is a new Required measure.
 - Added – 10b Advanced Ventilation Practices (continuous operation, some limit, minimum efficiency, minimum ventilation rate) gives credit for better ventilation practice.
 - Added – 10c Outdoor Air Ducted to Bedroom and Living Areas of Home gives credit for best ventilation practice.

I. Renewable Energy. These measures address renewable energy systems (solar electricity, solar thermal, and wind energy) in single-family homes.

- Revised – I3 Offset Energy Consumption with Onsite Renewable Generation (solar PV, solar thermal, wind): Enter % total energy consumption offset now gives credit for offsetting the total energy consumption of the home using any renewable resource including photovoltaics, wind or solar thermal.

J. Building Performance. This section includes practices for designing and building energy-efficient homes that improve upon California’s code requirements and recommendations for third-party home performance testing and certification.

- Moved – J1a Quality Insulation Installation has been moved from Section F, Insulation and includes the thermal bypass checklist as well as insulation installation practices.
- Added - J1c. Blower Results for Unbalanced and Balanced Systems gives credit for jointly addressing mechanical ventilation and building envelope tightness.
- Added - J3. Design and Build Near Zero Energy Homes gives credit for building an exceptionally high performance home which meets Building America Builder’s Challenge or Passive House standards. This replaces the measure for extraordinary passive solar design.
- Revised - J4. Obtain EPA Indoor airPLUS Certification is revised to reflect the current checklist for participation in the EPA Indoor airPLUS program.

- Moved - J5. Title 24 Prepared and Signed by CABEC CEPE and J6. Participation in Utility Incentive Program with Third Party Plan Review, were moved from Section P, Innovations.

K. Finishes. Measures in this section describe healthier and environmentally preferable options for paints, trim, cabinets, countertops, and other interior finishes.

- Revised - The thresholds for K2 Use Low-VOC or Zero-VOC Paint, K3 Use Low-VOC Coatings that meet SCAQMD Rule 1113 and K4 Use Low-VOC Caulk and Construction Adhesives and Sealants (SCAQMD rule 1168) for All Adhesives now reference the South Coast Air Quality Management District Thresholds.
- Added – K7 Reduce Formaldehyde in Interior Finish – Meet Current CARB Airborne Toxic Control Measure (ATCM) for Composite Wood Formaldehyde Limits by Mandatory Compliance Dates (Required) is a new required measure to address formaldehyde levels in composite wood products. This measure applies to composite wood products including medium density fiberboard, plywood, and particle board.
- Revised - The threshold for K8. Reduced Formaldehyde for Interior Finishes including shelving, subfloor, trim and cabinets and countertops has been changed and now references the California Air Resources Board Air Toxic Control Measure. Credit is awarded for materials that exceed current required thresholds for appropriate products.

L. Flooring. This section includes measures for a wide range of flooring materials that are durable and environmentally preferable. No new measures have been added to this section.

M. Appliances and Lighting. This section includes measures addressing efficient appliances, built-in recycling/composting centers, and high efficacy lighting.

- Revised – The threshold for M1 Install ENERGY STAR Dishwasher now includes a water factor. The measure giving credit for a minimum water factor of a dishwasher was removed.
- Added - M5. Install High-Efficacy Lighting and Design Lighting System has been added to award credit for installing 100% high efficacy lighting (measure M5a.) and for having the lighting system designed by a lighting professional or using lighting design standards (measure M5b.).

N. Other. This section includes a variety of green building measures that are not included in the other sections.

- Added - N2. Pre-construction Kick-off Meeting with Rater and Subs gives credit for holding a pre-construction team meeting with the project team and GreenPoint Rater has been added.
- Added – N5 Install a Home System Monitor OR Participate in a Time-of-Use Pricing or Demand-Response Program gives credit for including either an energy and water monitoring system or participate in a demand response program to encourage a reduction in consumption of resources.

O. Community Design and Planning. This section includes strategies to help preserve open space and utilize existing infrastructure, design subdivisions for solar access, promote social interaction and community safety, and make homes more accessible to people of all physical abilities.

- Revised - O4. Design for Walking and Bicycling has been restructured with tiers based on frequency of use.
- Added - O5d. Development Includes Social Gathering Space, gives credit for projects that design-in areas to encourage social interaction between residents.

P. Innovation. Several measures that were previously listed in the innovations section have been moved to the main checklist. The following new measures rewarding innovative practices have been added or modified.

- Added - PA1 Stormwater Control: Prescriptive Path and PA2 Stormwater Control: Performance Path: Perform Soil Percolation Test and Capture and Treat 85% of Total Annual runoff give credit for addressing stormwater either by using prescriptive practices (measure PA1) or a performance based approach (measure PA2.).
- Revised - PC1. Meet Local Landscape Program Requirement has been revised to give credit for participation in a regional landscape certification program.
- Added – PG5 Install Drain Water Heat-Recovery System gives credit for utilizing waste heat recovery system for domestic hot water.
- Added – PH2 Design HVAC system to Manual T for Register Design gives credit when system registers are designed to ACCA Manual T.
- Added – PH1 Materials Meet SMaRT Criteria gives credit for the use of products included in the SMaRT criteria, a sustainable product evaluation and certification tool. (http://mts.sustainableproducts.com/SMART_Building_Product_Standard)
- Revised – PN1 Detailed Durability Plan and Third-Party Verification of Plan Implementation were two measures that have been combined into one.
- Added – PN2 Educational Signage of Project's Green Features credits for providing education signage during and after construction of a project.
- Removed – (PN4 on checklist Version 3.7) for Local Sourced Materials has been removed. Local sourcing of materials is a criterion that is included in Environmentally Preferable Materials and is no longer an independent measure.