City and County of San Francisco Green Building Submittal:

**Residential Additions and Alterations**

**REQUIREMENTS**

**VERIFICATION**

The following items are required for all additions and alterations to residential occupancy which increase conditioned area, volume, or size of a residential building. Requirements apply only to areas and systems within the scope of addition and alteration, with the exception of “Existing Noncompliant Plumbing Fixtures” (below). An abbreviated summary of each requirement is included for reference. To determine if this form is appropriate for a project, see Administrative Bulleting 93, Attachment A, Table 1. Projects required to meet a LEED standard must use C-3 “Submittal for LEED Projects”, and projects required to meet GreenPoint Rated must use the C-4 “Submittal for GreenPoint Rated Projects.” Projects seeking certification may use the C-3 “Submittal for LEED Projects” or C-4 “Submittal for GreenPoint Rated” as alternatives to this form.

Indicate below who is responsible for ensuring green building requirements are met. **Projects that increase total conditioned floor area by ≥1,000 square feet are required to have a Green Building Compliance Professional of Record as described in Administrative Bulletin 93.** For projects that increase total conditioned floor area by

<1,000 square feet, the applicant or design professional may sign below, and no license or special qualifications are required.

**FINAL COMPLIANCE VERIFICATION form will be required prior to Certificate of Completion**.

Project Name

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| --- |
| **Construction and Demolition Debris:** 100% of mixed debris must be transported by a registered hauler to a registered facility and be processed for recycling, in compliance with the San Francisco Construction & Demolition Debris  Ordinance (San Francisco Building Code Chapter 13B and Environment Code Chapter 14) |
| **Recycling by Occupants:** Provide adequate space and equal access for storage, collection and loading of compostable, recyclable and landfill materials. - See Administrative Bulletin 088. |
| **Water Efficient Irrigation:** Projects that include ≥ 1,000 square feet of new or modified landscape must comply with the San Francisco Water Efficient Irrigation Ordinance. (See [www.sfwater.org/landscape)](http://www.sfwater.org/landscape)) |
| **Stormwater Control Plan:** Projects disturbing ≥ 5,000 square feet must implement a Stormwater Control Plan meeting SFPUC Stormwater Design Guidelines. (See [www.sfwater.org/sdg)](http://www.sfwater.org/sdg)) |
| **Grading and paving:** Construction plans shall indicate how the site grading or drainage system will manage surface water flows to keep water from entering the building, such as swales, drains, or water retention gardens. (CalGreen 4.106.3) |
| **Smart Irrigation Controller:** Automatically adjust irrigation based on weather and soil moisture. Controllers must have either an integral or separate rain sensors that connects or communicates with the controller. (CalGreen 4.304.1) |
| **Indoor Water Efficiency:**Install water-efficient fixtures and fittings as summarized in CalGreen 4.303 (See “Indoor Water Efficiency” at left.) Replace all noncompliant fixtures in project area (CalGreen 3.301.1.1, San Francisco Housing Code 12A) |
| **Energy Efficiency:** Comply with California Energy Code (Title 24, Part 6 2013) |
| **Rodent Proofing:** Annular spaces around pipes, electric cables, conduits, or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing with cement mortar, concrete masonry, or a similar method acceptable to the San Francisco Department of Building Inspection. (CalGreen 4.406.1) |
| **Moisture content:** Verify wall and floor framing shall be verified to not exceed 19% moisture content prior to enclosure as detailed below. Materials with visible signs of moisture damage shall not be installed. (CalGreen 4.505.3)  1) Moisture content shall be determined with either a probe-type or a contact-type moisture meter. Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements in Section 101.8.  2) Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade-stamped end of each piece to be verified.  3) At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing. Insulation prod- ucts which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Manufacturers’ drying recommendations shall be followed for wet-applied insulation products prior to enclosure |
| **Capillary break for concrete slab on grade:** Concrete slab on grade foundations required to have a vapor retarder must also have a capillary break, including at least one of the following: (CalGreen 4.505.2)  1) A 4-inch (101.6 mm) thick base of 1/2-inch (12.7 mm) or larger clean aggregate shall be provided with a vapor retarder in direct contact with concrete and a concrete mix design which will address bleeding, shrinkage and curling shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.  2) A slab design specified by a licensed design professional. |
| **Fireplaces and woodstoves:** Install only direct-vent or sealed-combustion appliances; comply with US EPA Phase II limits. (CalGreen 4.503.1) |
| **Design and Install HVAC System to ACCA Manual J, D, and S** (CalGreen 4.507.2) |
| **HVAC Installer Qualifications:** HVAC system installers must be trained and certified in the proper installation of HVAC systems, such as via a state certified apprenticeship program, public utility training program (with certification as installer qualification), or other program acceptable to the Department of Building Inspection. (CalGreen 702.1) |
| **Covering duct openings and protecting mechanical equipment during construction:** Duct openings and other air distribution component openings shall covered during all phases of construction with tape, plastic, sheetmetal, or other acceptable methods to reduce the amount of water, dust, and debris entering the system. (CalGreen 4.504.1) |
| **ENERGY STAR Compliant Bathroom exhaust fans:** Must be ENERGY STAR compliant, ducted to terminate outside the building, and controlled by humidistat capable of adjustment between relative humidity of less than 50% to maximum of 80%. Humidity control may be a separate component from the exhaust fan. (CalGreen 4.506.1) |
| **Carpet:** All carpet must meet one of the following: (CalGreen 4.504.3)  1. Carpet and Rug Institute Green Label Plus Program,  2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350),  3. NSF/ANSI 140 at the Gold level,  4. Scientific Certifications Systems Sustainable Choice, OR  5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database  AND carpet cushion must meet Carpet and Rug Institute Green Label, AND indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. |
| **Resilient flooring systems:** For 80% of floor area receiving resilient flooring, install resilient flooring complying with (CalGreen 4.504.4):  1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program,  2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1,  3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR  4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria. |
| **Composite wood products:** Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on interior or exterior shall meet CARB Air Toxics Control Measure for Composite Wood. See CalGreen Table 4.504.5. |
| **Interior paints and coatings:** Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3. |
| **Low-VOC aerosol paints and coatings:** Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for ROC. (CalGreen 4.504.2.3.) |
| **Low VOC Caulks, Construction adhesives, and Sealants:** Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2. (CalGreen 4.504.2.1) |

Block/Lot

Address

Primary Occupancy

Gross Building Area

Increase In Conditioned Floor Area

I will assure that approved construction documents and construction fulfill the requirements of San Francisco Green Building Code. It is my professional opinion that the requirements of the San Francisco Green Building Code will be met. I will notify the Department of Building Inspection if the project will, for any reason, not substantially comply with these requirements, if I am no longer the Green Building Compliance Professional of Record for the project, or if I am otherwise no longer responsible for assuring the compliance of the project with the San Francisco Green Building Code.

Licensed Professional: Sign & Date

(May be signed by the applicant when less than 1,000 square feet is added.)

Affix professional stamp:

Attachment C-7:

Residential Additions and Alterations

Insert Project Name / Titleblock here

Version: January 1, 2015

**INDOOR WATER USE**

All fixtures must not exceed the following flow rates (CalGreen Section 4.303.1):

|  |  |  |
| --- | --- | --- |
| **Fixture Type** | **Maximum Prescriptive Flow Rate** | **Referenced Standard from**  **California Plumbing Code Table 1401.1** |
| **Showerheads2** | 2.0 gpm @ 80 psi per valve and per showerhead**2** | n/a |
| **Lavatory faucets - residential** | 1.5 gpm @ 60 psi | n/a |
| **Lavatory faucets - common and public use areas** | 0.5 gpm @ 60 psi | n/a |
| **Metering faucets** | .25 gallons/cycle | ASME A112.18.1/CSA B125.1 |
| **Kitchen faucets** | 1.8 gpm @ 60 psi default,  allowed to temporarily increase to 2.2 gpm | n/a |
| **Tank-type water closets** | 1.28 gallons/flush1 and  EPA WaterSense Certified | U.S. EPA WaterSense Tank-Type  High-Efficiency Toilet Specification |
| **Flushometer valve water closets** | 1.28 gallons/flush1 | ASME A112.19.2/CSA B45.1 - 1.28 gal |
| **Urinals** | 0.5 gallons/flush | ASME A112.19.2/CSA B45.1 - 0.5 gal |

1) For dual flush toilets, effective flush volume is defines as the average volume of two reduced flushes and one full flush. The referenced standard is ASME A112.19.14 and USEPA WaterSense Tank-Type High Efficiency Toilet Specification – 1.28 gal (4.8 L).

2) The combined flow rate of all showerheads in one shower stall not exceed the maximum flow rate for one showerhead, or the shower shall be designed to allow only one showerhead to be in operation at a time. (CalGreen 4.303.1.3)

**EXISTING NONCOMPLIANT PLUMBING FIXTURES**

All fixtures that are not compliant with the San Francisco Residential Water Conservation Ordinance that serve or are located within the project area must be replaced with fixtures or fittings meeting the maximum flow rates and standards at left. For more information, see the DBI brochure, “San Francisco’s Residential Energy and Water Conservation Requirements”, available at SFDBI.org, and also see the “Residential Water Conservation” section of the SFPUC website - SFWATER.org.

Noncompliant plumbing fixtures include:

• Any toilet manufactured for use more than 1.6 gallons of water per flush.

• Any urinal manufactured for use more than 1 gallon of water per flush.

• Any showerhead manufactured to have a flow capacity of more than 2.5 gallons of water per minute.

• Any interior faucet that emits more than 2.2 gallons of water per minute.

Exceptions to this requirement are limited to situations where replacement of fixture(s) would detract from the historic integrity of the building, as determined by the Department of Building Inspection pursuant to San Francisco Building Code Chapter 13A.

***Projects that increase total conditioned floor area by ≥1,000 square feet:***

**The Green Building Compliance Professional of Record for this project is:**

Green Building Compliance Professional - Name and Contact Phone Number

Green Building Compliance Professional - Firm

□ I am a LEED Accredited Professional

□ I am a GreenPoint Rater

□ I am an ICC Certified CalGreen Inspector

Green Building Compliance Professional - Sign & Date

Signature by a professional holding at least one of the above certifications is required. If the Licensed Professional does not hold a certification for green design and/or inspection, this section may be completed by another party who will verify applicable green requirements are met.