

# PROPOSED SAN FRANCISCO GREEN BUILDING CODE AMENDMENTS 2016 Edition

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## Chapter 1 ADMINISTRATION

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### SECTION 101 – GENERAL

*Revise this section as follows:*

101.1 Title. These regulations shall be known as the ~~California~~ **San Francisco Green Building Standards Code** and may be cited as such and will be referred to herein as "this code". ~~It is intended that it shall also be known as the CALGreen Code.~~ The ~~California~~ **San Francisco Green Building Standards Code** consists **of the combination of** ~~is Part 11 of twelve parts~~ of the official compilation and publication of the adoption, amendment and repeal of building regulations to the California Code of Regulations, Title 24, ~~also referred to as~~ **and Chapter 13C of San Francisco Building Inspection Commission Amendments** to the California Building Standards Code.

*Revise this section as follows:*

101.2 Purpose. The purpose of this ~~code~~ **chapter** is to ~~improve public~~ **promote the** health, safety and ~~general~~ **welfare of San Francisco residents, workers, and visitors** by **minimizing waste of energy, water, and other resources in the construction and operation of buildings in the City and County of San Francisco and by providing a healthy indoor environment.** **The green building practices required by this chapter will also further the goal of reducing the greenhouse gas emissions in the City and County of San Francisco to 25 percent below 1990 levels by the year 2017, as stated in Board of Supervisors Resolution No. 158-02 and San Francisco Environment Code Chapter 9.** ~~enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact, or positive environmental impact and encouraging sustainable construction practices in the following categories:~~

- ~~1. Planning and design.~~
- ~~2. Energy efficiency.~~
- ~~3. Water efficiency and conservation.~~
- ~~4. Material conservation and resource efficiency.~~
- ~~5. Environmental quality.~~

*Revise this section as follows:*

101.3 Scope. The provisions of this code shall apply to the planning, design, operation, construction, use and occupancy of every newly constructed building or structure, unless otherwise indicated in this code, **as well as alterations to existing buildings** throughout the State of California. **the City and County of San Francisco.**

~~It is not the intent that~~ **While** this code substitute or be identified as meeting references **green building programs**, the **City and County of San Francisco does not confer** certification requirements of under any green building program.

*Revise this section as follows:*

101.3.1 ~~State-regulated~~ **Regulated** buildings, structures and applications. Provisions of this code shall apply to the following buildings, structures, and applications regulated by state agencies as specified in Sections 103 through 106 of California Green Building Standards Code Title 24 Part 11, ~~except where modified by local ordinance~~ **with supplemental requirements applicable to occupancy types A, B, I, M, E and R as defined by California Building Code Title 24 Section 302 (2013 2016) as amended** pursuant to Section 101.7. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by statute.

*Revise this section as follows:*

101.4 Appendices. ~~Provisions contained in the appendices of this code are not mandatory unless specifically adopted by a State agency or adopted by a city, county, or city and county in compliance with Health and Safety Code Sections 18930 and 18941.5, respectively, for Building Standards Law; Health and Safety Code Section 17950 for State Housing Law; and Health and Safety Code Section 13869.7 for Fire Protection Districts. See Section 101.7 of this code. [Reserved]~~

*Revise this section as follows:*

101.6.1 Differences. In the event of any differences between these building standards and the standard reference documents, the text of ~~these building standards~~ **this Chapter** shall govern. ~~In the event a local amendment to this code results in differences between these building standards and the amendment, the text of the amendment shall govern.~~

*Revise this section as follows:*

101.6.3 Conflicts. When the requirements of this code conflict with the requirements of any other part of the California Building Standards Code, Title 24, ~~the most restrictive requirement shall prevail.~~ **any provision contained elsewhere in the San Francisco Municipal Code, or any regulation or requirement adopted by the Public Utilities Commission or other City agency under its Charter authority, the most restrictive requirement shall prevail.**

*Revise this section as follows:*

101.7 ~~City, county, or city and county amendments, additions or and deletions. This code is intended to set mandatory minimum Green Building Standards and includes optional tiers that may, at the discretion of any city, county or city and county, be applied.~~ **This code includes the amendments, deletions, and additions to California green building requirements which maintain stricter local green building standards.**

*Revise this section as follows:*

~~101.10 Mandatory requirements. This code contains both mandatory and voluntary green building measures. Mandatory and voluntary measures are identified in the appropriate application checklist contained in this code. Equivalency. Wherever reference is made to the LEED® or GreenPoint Rated systems, a comparable equivalent rating system may be used if approved by the Director. The applicable LEED®, GreenPoint Rated or equivalent versions of performance standards for applications subject to this chapter are:~~

**LEED v4 for Interior Design and Construction (LEED v4 ID+C)**  
**LEED v4 for Building Design and Construction (LEED v4 BD+C)**  
**LEED v4 for Homes Design and Construction**  
**GreenPoint Rated (GPR) Single Family New Home Construction -v7.0**  
**GreenPoint Rated (GPR) Multifamily New Home Construction -v7.0**  
**GreenPoint Rated (GPR) Existing Multifamily -v1.0**

Wherever specific LEED prerequisites or credits are cited, such references are to LEED v4 BD+C. More recent LEED and GreenPoint Rated versions may be used, provided the credits and points achieved are as or at least as stringent as LEED v4 BD+C or GPR v7.0.

Wherever the LEED or GreenPoint Rated systems include a minimum energy or other performance requirement, the permit applicant may choose to meet the minimum performance requirements with an alternative equivalent method approved by the Director.

Compliance with any of these requirements may be verified and/or certified by any means, including third-party review or equivalent requirements verified via other rating systems, as approved by the Director.

*Revise this section as follows:*

101.11 Effective use of this code. The following steps may be used to establish which provisions of this code are applicable to a specific occupancy:

1. Establish the type of occupancy.
- ~~2. Verify which state agency has authority for the established occupancy by reviewing the authorities list in Sections 103 through 106.~~
- ~~2.3. Once the appropriate agency has been identified, find~~ **Find** the section which covers the established occupancy.
- ~~3. 4. The Matrix Adoption Tables at the beginning of Chapters 4 and 5 i~~ **Identify** the mandatory green building measures necessary to meet the minimum requirements of this code for the established occupancy **in Sections 4 and 5.**
- ~~5. Voluntary tier measures are contained in Appendix Chapters A4 and A5. A Checklist containing each green building measure, both required and voluntary is provided at the end of each appendix chapter. Each measure listed in the application checklist has a section number which correlates to a section where more information about the specific measure is available.~~
- ~~6. The Application Checklist identifies which measures are required by this code and allows users to check off which voluntary items have been selected to meet voluntary tier levels if desired or mandated by a city, county, or city and county.~~
- 4. Administrative Bulletin 93, provided by the Department of Building Inspection, summarizes how the requirements of San Francisco Green Building Code and relevant local requirements may be**

met. Appendices to Administrative Bulletin 93 include tabular summaries of required measures, and provide submittal forms.

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## Chapter 2

# DEFINITIONS

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### SECTION 202 – DEFINITIONS

*Add and amend the following definitions:*

**GREENPOINT RATED, GREENPOINTS and GREENPOINTS CHECKLIST.** The residential green building rating system and checklist and certification methodology of the non-profit organization Build It Green.

**HIGH-RISE RESIDENTIAL BUILDING.** For the purposes of ~~this code~~ CalGreen, a building that is of Occupancy Group R and is four stories or greater.

**HISTORICAL RESOURCE.** A property that meets the terms of the definitions in Section 21084.1 of the CEQA Statute (The California Environmental Quality Act [Public Resources Code Section 21084.1]) and Section 15064.5 of the CEQA Guidelines, as determined by the San Francisco Planning Department.

**LARGE COMMERCIAL BUILDING.** A commercial building or addition of Group B, M, A, ~~or I, or E,~~ occupancy that is 25,000 gross square feet or more.

**LEED® and LEED® Checklist.** The Leadership in Energy and Environment Design rating system, certification methodology, and checklist of the United States Green Building Council (USGBC).

**LOW-RISE RESIDENTIAL BUILDING.** For the purposes of ~~CalGreen~~ ~~this code~~, a building that is of Occupancy Group R and is three stories or less ~~or that is a one or two family dwelling or townhouse.~~

**MAJOR ALTERATIONS.** Alterations where interior finishes are removed and significant upgrades to structural and mechanical, electrical and/or plumbing systems are proposed where areas of such construction are 25,000 gross square feet or more in Group B, M or R occupancies of existing buildings.

**NEWLY CONSTRUCTED (or NEW CONSTRUCTION).** A newly constructed building (or new construction) is a building that has never before been used or occupied for any purpose and does not include additions, alterations or repairs.

**NEW LARGE COMMERCIAL INTERIORS.** First-time tenant improvements where areas of such construction are over 25,000 gross square feet or more in Group B or M occupancy areas of existing buildings.

**NONRESIDENTIAL COMPLIANCE MANUAL.** The document published by the California Energy Commission to aid in compliance and enforcement of the Title 24 California Building Energy Standards, for buildings of nonresidential occupancy and high-rise residential buildings.

**RESIDENTIAL COMPLIANCE MANUAL.** The document published by the California Energy Commission to aid in compliance and enforcement of the Title 24 California Building Energy Standards, for low-rise residential buildings.

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## Chapter 3 GREEN BUILDING

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### SECTION 301 – GENERAL

*Revise this section as follows:*

301.1 Scope. Buildings **in the City and County of San Francisco** shall be designed to include the green building measures specified as mandatory ~~in the application checklists contained in this code.~~ Voluntary green building measures are also included ~~in under the application checklists and may be included~~ **California Green Building Standards Code (CalGreen).** ~~in the design and construction of structures covered by this code but are not required unless adopted by a city, county or city and county as specified in Section 101.7~~

Additional green building requirements established by the City and County of San Francisco are mandatory for:

- (1) Newly constructed Group R occupancy buildings,
- (2) Newly constructed buildings of Group B, M, A, and I occupancies that are 25,000 gross square feet or more,
- (3) New first-time build-outs of commercial interiors that are 25,000 gross square feet or more in buildings of Group B or M occupancies, and
- (4) Major alterations that are 25,000 gross square feet or more in existing buildings of Group B, M or R occupancies, where interior finishes are removed and significant upgrades to structural and mechanical, electrical and/or plumbing systems are proposed.

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### SECTION 302 – MIXED OCCUPANCY BUILDINGS

*Revise this section as follows:*

302.1 Mixed occupancy buildings. In mixed occupancy buildings, each portion of a building shall comply with the specific ~~green building~~ **California Title 24 Part 11 required** measures applicable to each specific occupancy. **However, to fulfill any additional local green building requirements, the project sponsor may apply a single required green building standard to the entire building.**

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### SECTION 303 – PHASED PROJECTS

*Add the following section:*

**303.1.1.1 Maintenance of required features.** Any structure subject to this chapter shall maintain the green building features required herein, or equivalent, regardless of subsequent alterations, additions, or changes of use, unless subject to subsequent or more stringent requirements.

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*Modify the following section:*

## **SECTION 304 – VOLUNTARY TIERS**

**This section not applicable in San Francisco.**

~~304.1 Purpose. Voluntary tiers are intended to further encourage building practices that improve public health, safety and general welfare by promoting the use of building concepts which minimize the building's impact on the environment and promote a more sustainable design.~~

~~304.1.1 Tiers. The provisions of Divisions A4.6 and A5.6 outline means, in the form of voluntary tiers, of achieving enhanced construction levels by incorporating additional measures for residential and nonresidential new construction. Voluntary tiers may be adopted by local governments and, when adopted, enforced by local enforcing agencies. Buildings complying with tiers specified for each occupancy contain additional prerequisite and elective green building measures necessary to meet the threshold of each tier. See section 101.7 of this code for procedures and requirements related to local amendments, additions or deletions, including changes to energy standards.~~

~~[BSC] Where there are practical difficulties involved in complying with the threshold levels of a tier, the enforcing agency may grant modifications for individual cases. The enforcing agency shall first find that a special individual reason makes the strict letter of the tier impractical and that modification is in conformance with the intent and purpose of the measure. The details of any action granting modification shall be recorded and entered in the files of the enforcing agency.~~

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*Modify the following section:*

## **SECTION 305 [OSHPD 1] – CALGREEN TIER 1 AND CALGREEN TIER 2**

**This section not applicable in San Francisco.**

~~305.1 CALGreen Tier 1 and CALGreen Tier 2 buildings contain voluntary green building measures necessary to meet the threshold of each level.~~

~~305.1.1 CALGREEN Tier 1. To achieve CALGreen Tier I, buildings must comply with the latest edition of "Savings By Design, Healthcare Modeling Procedures" found online at <http://www/energysoft.com/ep/2007SBDHPProcedures.pdf>~~

~~305.1.2 CALGREEN Tier 2. To achieve CALGreen Tier 2, buildings must exceed the latest edition of "Savings By Design, Healthcare Modeling Procedures" by a minimum of 15%.~~

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*Modify the following section:*

## **SECTION 306 [DSA-SS] – VOLUNTARY MEASURES**

**This section not applicable in San Francisco.**

~~306.1 Purpose. Voluntary measures are intended to further encourage building practices that improve public health, safety and general welfare by promoting the use of building concepts which minimize the building's impact on the environment, promote a more sustainable design, and high performance educational facilities.~~

~~306.1.1 The provisions of Appendix A5 outline means of achieving enhanced construction levels by incorporating additional measures.~~

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## **Chapter 4**

# **RESIDENTIAL MANDATORY MEASURES**

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### **Division 4.1**

## **PLANNING AND DESIGN**

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### **SECTION 4.101 –GENERAL**

*Modify the following section:*

4.101.1 Scope. The provisions of this division outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore, enhance the environmental quality of the site, and respect the integrity of adjacent properties, **and promote the health, safety and welfare of San Francisco residents.**

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*Replace the following section:*

### **SECTION 4.103 – REQUIREMENTS FOR GROUP R OCCUPANCY BUILDINGS**

**4.103.1 New low-rise residential buildings.**

**4.103.1.1 Rating requirements**

**New residential buildings must be GreenPoint Rated and applicants must submit documentation demonstrating that a minimum of 75 GreenPoints from the GreenPoints Single Family New Construction Checklist or the GreenPoints Multifamily New Construction Checklist will be achieved. Alternatively, this rating requirement may be met by obtaining LEED Silver certification.**

**4.103.1.2 Stormwater management**

**Projects subject to this section shall meet the San Francisco Public Utilities Commission stormwater management requirements.**

**4.103.2 New high-rise residential buildings**

**4.103.2.1 Rating requirement**

Permit applicants must submit documentation to achieve LEED® “Silver” certification. Alternatively, this rating requirement may be met by obtaining the GreenPoint Rated designation and submitting documentation demonstrating that a minimum of 75 GreenPoints from the GreenPoint Rated Multifamily New Construction checklist will be achieved.

#### 4.103.2.2 [Reserved]

4.103.2.3 Construction debris management. Permit applicants must submit documentation verifying the diversion of a minimum 75 percent of the projects construction and demolition debris. The waste management plan necessary to meet this requirement shall be updated as necessary and shall be accessible during construction for examination by the Department of Building Inspection. Permit applicants must also meet the requirements of San Francisco Environment Code Chapter 14 and San Francisco Building Code Chapter 13B (Construction and Demolition Debris Recovery Program.)

4.103.2.4 Stormwater management. Projects subject to this section shall meet the San Francisco Public Utilities Commission stormwater management requirements.

4.103.2.4.1 Construction activity stormwater pollution prevention. All projects, whether greater or lesser than one acre, must develop and implement construction activity pollution prevention and site run-off controls adopted by the San Francisco Public Utilities Commission.

### 4.103.3 MAJOR ALTERATIONS TO EXISTING GROUP R OCCUPANCY BUILDINGS

#### 4.103.3.1 RATING REQUIREMENT

Permit applicants must submit documentation to achieve a LEED® Gold rating. Alternatively, this rating requirement may be met by obtaining the GreenPoint Rated designation and submitting documentation demonstrating that a minimum of 75 GreenPoints from the GreenPoint Rated Multifamily checklist will be achieved. Major alterations applying to less than 80% of the building’s gross floor area may alternately obtain the GreenPoint Rated Elements designation and submit documentation demonstrating that 49 points from the GreenPoint Rated Multifamily checklist have been achieved.

#### 4.103.3.2 LOW-EMITTING MATERIALS

Alterations utilizing LEED must submit documentation verifying that low-emitting materials are used, subject to on-site verification, meeting at least the following categories of materials covered under LEED EQ Credit Low-Emitting Materials wherever applicable: interior paints and coatings applied on-site, interior sealants and adhesives applied on site, flooring, and composite wood.

Alterations utilizing GreenPoint Rated must submit documentation to verify the use of low-emitting materials meeting the GreenPoint Rated Multifamily New Homes measures for low-emitting coatings, adhesives and sealants, and carpet systems.

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*Replace the following section:*

## **SECTION 4.104 – HISTORIC PRESERVATION**

4.104.1 On-site retention of historical features. For alterations of buildings determined to be historical resources, after demonstrating compliance with all applicable codes, including the 2013

**2016 California Building Energy Efficiency Standards (Title 24, Part 6) and the 2013 2016 California Historical Building Code (Title 24, Part 8), the minimum points or credits required under this chapter shall be reduced for retention and in-situ reuse or restoration of certain character defining features, as described in Table 4.104A. Retention includes the rehabilitation and repair of character-defining features that conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties.**

**TABLE 4.104.A**

<b>SIGNIFICANT HISTORICAL ARCHITECTURAL FEATURES</b>	<b>PERCENT RETAINED*</b>	<b>ADJUSTMENT TO MINIMUM LEED POINT REQUIREMENT</b>	<b>ADJUSTMENT TO MINIMUM GREENPOINTS REQUIREMENT</b>
Windows @ principal façade(s)	100%	4	15
Other windows	At least 50%	1	3
Other windows	100%	2	6
Exterior doors @ principal façade(s)	100%	1	3
Siding or wall finish @ principal façade(s)	<u>100%</u>	1	4
Trim & casing @ wall openings on principal façade(s)	100%	1	3
Roof cornices or decorative eaves visible from right-of-way	100%	1	3
Sub-cornices, belt courses, water tables, and running trim visible from right-of-way	<u>100%</u>	1	3
Character-defining elements of significant interior spaces	100%	4	15

Other exterior ornamentation (e.g. cartouches, corbels, quoins, etc.) visible from right-of-way	80%	1	3
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**4.104.2. Adjustment to Green Credit for Retention of Historic Features. Where the historical resource is a portion of the total project, the LEED or GreenPoint Rated requirement shall be adjusted to equal the percentage of gross floor area of the historical resource compared to the total project gross floor area.**

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*Replace the following section:*

## **SECTION 4.105 – DEMOLITION OF EXISTING STRUCTURES**

**4.105.1 Adjustments to Rating Requirements for Building Demolition and Density. Applications subject to the San Francisco Green Building Code, whereby construction of a new building is proposed within five years of the demolition of a building on the site, where such demolition occurred after the effective date of the Green Building Ordinance - November 3, 2008 - the sustainability requirements for new buildings pursuant to the San Francisco Green Building Code shall be increased as follows:**

**4.105.1.1 LEED® Projects. For projects attaining a LEED® certification:**

- (1) Where the building demolished was an historical resource, the required points shall be increased by 10 points.**
- (2) Where the building demolished was not an historical resource, the required points shall be increased by 6 additional points.**
- (3) Where the building demolished was not an historical resource and the number of dwellings in the residential portion of the replacement structure are tripled, the required points shall be increased by 5 additional points.**

**4.105.1.2 GreenPoint Rated Projects. For projects attaining GreenPoint Rated:**

- (1) Where the building demolished was an historical resource, the required points shall be increased by 25 additional points.**
- (2) Where the building demolished was not an historical resource, the required points shall be increased by 20 additional points.**
- (3) Where the building demolished was not an historical resource and the number of dwellings in the residential portion of the replacement structure are tripled, the required points shall be increased by 17 additional points.**

## **Division 4.2 ENERGY EFFICIENCY**

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## **SECTION 4.201 – GENERAL**

*Add the following section:*

### **4.201.2. RENEWABLE ENERGY AND BETTER ROOFS**

**(a) Newly constructed Group R occupancy buildings of 10 occupied floors or less and that apply for a building permit on or after January 1, 2017 shall install solar photovoltaic systems and/or solar thermal systems in the solar zone required by California Code of Regulations (CCR), Title 24, Part 6 Section 110.10.**

**(b) The minimum solar zone area for the project shall be calculated under Title 24, Part 6, Section 110.10(b) through (e), as applicable, and Residential Compliance Manual Chapter 7 or Nonresidential Compliance Manual Chapter 9, as applicable, except as provided below.**

**(1) For single family residences, Exceptions 3 and 5 to Title 24, Part 6, Section 110.10(b)1A may be applied in the calculation of the minimum solar zone area. Exceptions 1, 2, 4, 6, and 7 may not be applied in the calculation.**

**(2) For Group R Occupancy buildings other than single family residences, Exceptions 3 and 5 to Title 24, Part 6, Section 110.10(b)1B may be applied in the calculation of the minimum solar zone area. Exceptions 1, 2, and 4 may not be applied in the calculation.**

**(3) Buildings with a calculated minimum solar zone area of less than 150 contiguous square feet due to limited solar access under Exception 5 to Title 24, Part 6, Section 110.10(b)1A or Exception 3 to Title 24, Part 6, Section 110.10(b)1B are exempt from the solar energy requirements in this Section 4.201.2.**

**(c) The sum of the areas occupied by solar photovoltaic collectors and/or solar thermal collectors must be equal to or greater than the solar zone area. The solar zone shall be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building or on covered parking installed with the building project. Solar photovoltaic systems and solar thermal systems shall be installed in accord with: all applicable State code requirements, including access, pathway, smoke ventilation, and spacing requirements specified in CCR Title 24, Part 9; all applicable local code requirements; manufacturer's specifications; and the following performance requirements:**

**(1) Solar photovoltaic systems: The total nameplate capacity of photovoltaic collectors shall be at least 10 Watts<sub>DC</sub> per square foot of roof area allocated to the photovoltaic collectors.**

**(2) Solar thermal systems: Single family residential solar domestic water heating systems shall be OG-300 System Certified by either the Solar Rating and Certification Corporation (SRCC) or the International Association of Plumbing and Mechanical Officials (IAPMO). Solar thermal systems installed in all Group R occupancy buildings other than single family residences shall use collectors with OG-100 Collector Certification by SRCC or IAPMO, shall be designed to generate annually at least 100 kBtu per square foot of roof area allocated to the solar thermal**

**collectors. Systems with at least 500 square feet of collector area shall include a Btu meter installed on either the collector loop or potable water side of the solar thermal system.**

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# Chapter 5

## NONRESIDENTIAL MANDATORY MEASURES

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### Division 5.1

### PLANNING AND DESIGN

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#### SECTION 5.101 –GENERAL

*Modify the section as follows:*

5.101.1 Scope. The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore, and enhance the environmental quality of the site, ~~and~~ respect the integrity of adjacent properties, **and promote the health, safety and welfare of San Francisco residents.**

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*Replace the following section:*

#### SECTION 5.103 – REQUIREMENTS FOR GROUP A, B, I, E and M BUILDINGS

##### 5.103.1 New Large Commercial Buildings.

5.103.1.1 Rating requirement. Permit applicants must submit documentation to achieve LEED "Gold" certification.

5.103.1.2 Indoor water use reduction. Permit applicants must submit documentation verifying that project meets maximum prescriptive fixture flow rates in accordance with the California Plumbing Code. The project must also achieve the LEED WE Prerequisite Indoor Water Use Reduction (WEp2) and a minimum 30 percent reduction in the use of indoor potable water, as calculated to meet the LEED WE credit Indoor Water Use Reduction (WEc2).

5.103.1.3 Construction waste management. Permit applicants must submit documentation verifying the diversion of a minimum 75 percent of the project's construction and demolition waste, as calculated to meet LEED MR Prerequisite Construction and Demolition Waste Management Planning and LEED MR Credit Construction and Demolition Waste Management. Permit applicants must also meet the requirements of San Francisco Environment Code Chapter 14 and San Francisco Building Code Chapter 13B (Construction and Demolition Debris Recovery Program.) The waste management plan necessary to meet this requirement shall be updated as necessary and shall be accessible during construction for examination by the Department of Building Inspection.

5.103.1.4 Commissioning. Permit applicants must submit documentation verifying that the facility has been or will meet the criteria necessary to achieve CALGreen section 5.410.2 and Option 1 of LEED EA credit (Enhanced Commissioning), in addition to LEED EA Prerequisite (Fundamental Commissioning) and Verification.

**5.103.1.6 Stormwater management.** Projects subject to this section shall meet the San Francisco Public Utilities Commission stormwater management requirements. All new building projects must develop and implement an Erosion and Sediment Control Plan or Stormwater Pollution Prevention Plan and implement site run-off controls adopted by the San Francisco Public Utilities Commission as applicable.

**5.103.1.7 Energy performance.** [Reserved]

**5.103.1.8 Temporary ventilation and IAQ management during construction.** Permit applicants must submit documentation verifying that an Indoor Air Quality Management Plan is prepared and implemented which meets LEED EQ Credit Construction Indoor Air Quality Management and Title 24 Part 11 Sections 5.504.1 and 5.504.3.

**5.103.1.9 Low-Emitting Materials.** Permit applicants must submit documentation verifying that low-emitting materials are used, subject to on-site verification, meeting at least the following categories of materials covered under LEED EQ Credit Low-Emitting Materials wherever applicable: interior paints and coatings applied on-site, interior sealants and adhesives applied on site, flooring, and composite wood.

**5.103.1.10 CALGreen mandatory measures.** The following measures are mandatory in California for new non-residential buildings. Optionally, similar LEED credits can be used as alternative compliance paths, as noted below:

Title 24 Part 11 Section(s)	Topic/Requirement	Alternate Compliance Option:
5.106.8	Light pollution reduction	Meet LEED <u>SS Credit Light Pollution Reduction</u>
5.508.1.2	Halons not allowed in HVAC, refrigeration and fire suppression equipment.	Meet LEED <u>EA Credit Enhanced Refrigerant Management</u> , and additionally document that all HVAC&R systems do not contain CFCs or halons.

**5.103.3 Major Alterations to Existing Non Residential Buildings.**

**5.103.3.1 Rating requirement.** Permit applicants must submit documentation to achieve LEED "Gold" certification.

**5.103.3.2 Low emitting materials.** Permit applicants must submit documentation verifying that low-emitting materials are used, subject to in-site verification, meeting at least the following categories of materials covered under LEED EQ Credit Low-Emitting Materials: interior paints and coatings applied on-site, interior sealants and adhesives applied on site, flooring, and composite wood.

**5.103.4 New Large Commercial Interiors.**

**5.103.4.1 Rating requirement.** Permit applicants must submit documentation to achieve LEED "Gold" certification.

**5.103.4.2 Low emitting materials.** Permit applicants must submit documentation verifying that low-emitting materials are used, subject to in-site verification, meeting at least the following categories of materials covered under LEED EQ Credit Low-Emitting Materials: interior paints and coatings applied on-site, interior sealants and adhesives applied on site, flooring, and composite wood.

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*Replace the following section:*

## **SECTION 5.104– HISTORIC PRESERVATION**

**5.104.1 On-site Retention of Historical Features.** For alterations of buildings determined to be historical resources, after demonstrating compliance with all applicable codes, including the 2013 2016 California Building Energy Efficiency Standards (Title 24, Part 6) and the 2013-2016 California Historical Building Code (Title 24, Part 8), the minimum points or credits required under this chapter shall be reduced for retention and in-situ reuse or restoration of certain character defining features, as described in Table 5.104A. Retention includes the rehabilitation and repair of character-defining features that conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties.

**TABLE 5.104.A**

<b>SIGNIFICANT HISTORICAL ARCHITECTURAL FEATURES</b>	<b>PERCENT RETAINED*</b>	<b>ADJUSTMENT TO MINIMUM LEED POINT REQUIREMENT</b>	<b>ADJUSTMENT TO MINIMUM GREENPOINTS REQUIREMENT</b>
<b>Windows @ principal façade(s)</b>	<b>100%</b>	<b>4</b>	<b>15</b>
<b>Other windows</b>	<b>At least 50%</b>	<b>1</b>	<b>3</b>
<b>Other windows</b>	<b>100%</b>	<b>2</b>	<b>6</b>
<b>Exterior doors @ principal façade(s)</b>	<b>100%</b>	<b>1</b>	<b>3</b>
<b>Siding or wall finish @ principal façade(s)</b>	<b><u>100%</u></b>	<b>1</b>	<b>4</b>
<b>Trim &amp; casing @ wall openings on principal</b>	<b>100%</b>	<b>1</b>	<b>3</b>

façade(s)			
Roof cornices or decorative eaves visible from right-of-way	100%	1	3
Sub-cornices, belt courses, water tables, and running trim visible from right-of-way	<u>100%</u>	1	3
Character-defining elements of significant interior spaces	100%	4	15
Other exterior ornamentation (e.g. cartouches, corbels, quoins, etc.) visible from right-of-way	80%	1	3

**5.104.2. Adjustment to Green Credit for Retention of Historic Features. Where the historical resource is a portion of the total project, the LEED or GreenPoint Rated point requirement shall be adjusted to equal the percentage of gross floor area of the historical resource compared to the total project gross floor area.**

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*Replace the following section:*

## **SECTION 5.105 – DEMOLITION OF EXISTING STRUCTURES**

**5.105.1 Adjustments to Rating Requirements.** Applications subject to the San Francisco Green Building Code, whereby construction of a new building is proposed within five years of the demolition of a building on the site, where such demolition occurred after November 3, 2008, the sustainability requirements for new buildings pursuant to the San Francisco Green Building Code shall be increased as follows:

**5.105.1.1 LEED® Projects.** For projects attaining a LEED® certification:

- (1) Where the building demolished was an historical resource, the required points shall be increased by 10 points, which is 10% of the total available in the LEED® rating system, absent demolition.

- (2) Where the building demolished was not an historical resource, the required points shall be increased by 6 additional points, which is 10% of the maximum total required points under this chapter, absent demolition.**
- (3) Where the building demolished was not an historical resource and the number of dwellings in the residential portion of the replacement structure are tripled, the required points shall be increased by 5 additional points, which is 8% of the maximum total required points under this chapter, absent demolition.**

**5.105.1.2 GreenPoint Rated Projects. For projects attaining GreenPoint Rated:**

- (1) Where the building demolished was an historical resource, the required points shall be increased by 25 additional points.**
- (2) Where the building demolished was not an historical resource, the required points shall be increased by 20 additional points.**
- (3) Where the building demolished was not an historical resource and the number of dwellings in the residential portion of the replacement structure are tripled, the required points shall be increased by 17 additional points.**

## **Division 5.2**

# **ENERGY EFFICIENCY**

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### **SECTION 5.201 –GENERAL**

*Add the following section:*

**5.201.1.1 Energy performance. [Reserved]**

#### **5.201.1.2. RENEWABLE ENERGY AND BETTER ROOFS**

**(a) Newly constructed buildings of nonresidential occupancy that are of 10 occupied floors or less, are 2000 square feet or greater in gross floor area, and apply for a building permit on or after January 1, 2017 shall install solar photovoltaic systems and/or solar thermal systems in the solar zone required by California Title 24, Part 6 Section 110.10.**

**(b) The required solar zone area for the project shall be calculated under California of Regulations (CCR), Title 24, Part 6, Section 110.10(b) through (e), and Nonresidential Compliance Manual Chapter 9; provided, however that Exceptions 3 and 5 to Title 24, Part 6, Section 110.10(b)1B may be applied in the calculation of the minimum solar zone area and Exceptions 1, 2, and 4 shall not be applied in the calculation. Buildings with a calculated minimum solar zone area of less than 150 contiguous square feet due to limited solar access under Exception 3 are exempt from the solar energy requirements in this Section 5.201.1.2.**

**(b) The sum of the areas occupied by solar photovoltaic collectors and/or solar thermal collectors must be equal to or greater than the solar zone area. The solar zone shall be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building or on covered parking installed with the building project. Solar photovoltaic systems and solar thermal systems shall be installed in accord with all applicable state and local code requirements, manufacturer's specifications, and the following performance requirements:**

**(1) Solar photovoltaic systems: The total nameplate capacity of photovoltaic collectors shall be at least 10 Watts<sub>DC</sub> per square foot of roof area allocated to the photovoltaic collectors.**

**(2) Solar thermal systems: Solar thermal systems installed to serve non-residential building occupancies shall use collectors with OG-100 Collector Certification by the Solar Rating and Certification Corporation (SRCC) or the International Association of Plumbing and Mechanical Officials (IAPMO), shall be designed to generate annually at least 100 kBtu per square foot of roof area allocated to the solar thermal collectors, and, for systems with at least 500 square feet of collector area, shall include a Btu meter installed on either the collector loop or potable water side of the solar thermal system.**

**5.201.1.3 Renewable energy. Permit applicants constructing new buildings of 11 floors or greater must submit documentation verifying either:**

**(1) Acquisition of renewable on-site energy (demonstrated via EA Credit Renewable Energy Production) or purchase of green energy credits (demonstrated via EA Credit Green Power and Carbon Offsets) OR**

(2) Enhance energy efficiency (demonstrated via at least 5 LEED points under EA Credit Optimize Energy Performance) in addition to compliance with Title 24 Part 6 2016 California Energy Standards

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## Chapter 7

# INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS

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### SECTION 701–GENERAL

*Add the following section:*

**701.1** These requirements apply to installers and Special inspectors with regards to the requirements of this chapter.

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### SECTION 702 – QUALIFICATIONS

*Modify the following section:*

702.2 Special inspection. ...

2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors, **and ICC Certified CALGreen Inspectors.**

*Add the section as follows:*

**702.3 Special inspection.** The Director of the Department of Building Inspection may require special inspection to verify compliance with this code or other laws that are enforced by the agency. The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the Director of the Department of Building Inspection, for inspection of the particular type of construction or operation requiring special inspection. In addition, the special inspector shall have a certification from a recognized state, national, or international association, as determined by the Director of the Department of Building Inspection. The area of certification shall be closely related to the primary job function, as determined by the local agency.

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### SECTION 703 – VERIFICATIONS

*Modify the section as follows:*

**703.1 Documentation.** Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the ~~enforcing agency~~ **Director of the Department of Building**

**Inspection** which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified in the application checklist **Administrative Bulletin 93**.