Chapter 13C
GREEN BUILDING REQUIREMENTS

[Added 9-4-2008 by Ord. No. 180-08]

SECTION 1301C – INTENT

The purpose of this chapter is to promote the health, safety and welfare of San Francisco residents, workers, and visitors by minimizing the use and waste of energy, water and other resources in the construction and operation of the City and County of San Francisco’s building stock 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 20 percent below 1990 levels by the year 2012, as stated in Board of Supervisors Resolution No. 158-02 and the City’s 2004 Climate Action Plan.

SECTION 1302C – DEFINITIONS

For the purposes of this chapter, certain terms are defined as follows:

DEMOLITION means, where the existing building is determined to be an historical resource under the California Environmental Quality Act, proposed removal of sufficient material from an existing building to meet the definition in Planning Code Section 1005(f), or, where the existing building is determined not to be an historical resource under the California Environmental Quality Act, proposed removal of sufficient material from an existing building to meet the definition in Planning Code Section 317(b)(2), whether the occupancy of the existing building is residential or commercial.

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

HIGH-RISE BUILDING means a building that meets the definition of “high-rise building” in Section 202 of this Code.

HIGH-RISE RESIDENTIAL BUILDING means a Group R occupancy residential building that is a high-rise building.

HISTORICAL RESOURCE is 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 means a commercial building or addition of Group B or M occupancy that is 25,000 gross square feet or more or is a high-rise building.

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

MAJOR ALTERATIONS means 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.

MID-SIZE COMMERCIAL BUILDING means a commercial building of Group B or M occupancy that is 5,000 or more and less than 25,000 gross square feet, and is not a high-rise building.

MID-SIZE RESIDENTIAL BUILDING means a Group R occupancy residential building that has five or
more dwelling units and is not a high-rise building.

NEW LARGE COMMERCIAL INTERIORS means 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.

SMALL RESIDENTIAL BUILDING means a Group R occupancy building that has four or fewer dwelling units and is not a high-rise building.

SECTION 1303C – SCOPE

Projects in the City and County of San Francisco that are within the scope of this chapter are: (1) newly constructed Group R occupancy buildings, (2) newly constructed commercial buildings of Group B or M occupancies that are 5,000 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.

Exempt from this chapter are (1) City and County of San Francisco projects, which are subject to Chapter 7 of the San Francisco Environment Code, (2) any new building in which laboratory use of any occupancy classification is the primary use, and (3) any building undergoing renovation in which the area of renovation will be primarily for laboratory use of any occupancy classification.

All buildings within the scope of this chapter must meet or exceed the energy requirements contained in the 2005 California Building Energy Efficiency Standards, including California Code of Regulations, Title 24, Parts 1 and 6, or the version of those standards that is applicable at the time a permit application is filed. If the increased minimum energy efficiency standards specified in this chapter do not apply, a project must comply with the applicable California Building Energy Efficiency Standards.

SECTION 1304C – GREEN BUILDING REQUIREMENTS

1304.0 Applicability. The following green building requirements shall apply to all projects within the scope of this chapter. 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 any applications subject to this chapter, regardless of application dates, are:

LEED®-CI v2.0 - LEED® for Commercial Interiors (June 2005)
LEED®-CS v2.0 - LEED® for Core and Shell (July 2006)
LEED®-NC v2.2 - LEED® for New Construction (July 2007)
GreenPoint Rated (GPR) – GPR v2007 (March 2007)

Wherever specific LEED® prerequisites or credits are cited, such references are to LEED® -NC v2.2. More recent LEED® and GreenPoint Rated versions may be used, provided the credits and points achieved are as or more stringent than LEED® -NC v2.2 or GPR v2007.

Wherever the LEED® or GreenPoint Rate 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.

1304C.0.1 Compliance. Compliance with any of these requirements may be verified and/or certified by any means, including third-party equivalent, as approved by the Director.

1304C.0.2 Solar electric systems. The installation of any solar photovoltaic energy system must meet all installation criteria the California Energy Commission’s Guidebook “Eligibility Criteria and Conditions for...
Incentives for Solar Energy Systems.” An energy credit from solar photovoltaic (PV) energy systems may be used to demonstrate compliance with the Ordinance’s general compliance requirements. This credit is available if the solar PV energy system is capable of generating electricity from sunlight, supplying the electricity directly to the building, and the system is connected, through a reversible meter, to the utility grid. The methodology used to calculate the energy equivalent to the photovoltaic credit shall be the CECPV Calculator, using the most recent version prior to the permit application date, which may be found on the web site of the California Energy Commission.

1304C.0.3 Stormwater. Stormwater management shall meet the “Best Management Practices” and “Stormwater Design Guidelines” of the San Francisco Public Utilities Commission, and shall meet or exceed the applicable LEED SS 6.1 and 6.2 guidelines.

1304C.0.4 Solid waste. Areas provided for recycling, composting and trash storage, collection and loading, including any chute systems, must be designed for equal convenience for all users to separate those three material streams, and must provide space to accommodate a sufficient quantity and type of containers to be compatible with current methods of collection.

1304C.0.5 Building demolition. Applications subject to this Section, 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 this ordinance, shall be subject to the following requirements:

1304C.0.5.1 The sustainability requirements for new buildings pursuant to Sections 1304C.1, et seq. shall be increased as follows:

1304C.0.5.1.1 For projects attaining a LEED® certification and where the building demolished was an historical resource, the required points shall be increased by 10 percent of the total available in the required LEED® system. Where the building demolished was not an historical resource, the required points shall be increased by 10 percent of the total required of the applicable LEED certification requirements absent a demolition. For projects opting to be GreenPoint Rated, 25 additional points must be achieved, where the building demolished was an historical resource, or 20 additional points must be achieved where the building demolished was not an historical resource. The Director shall determine, on a case-by-case basis, increased requirements in similar proportions for projects achieving compliance using other green building rating systems.

For projects subject to 1304C.2.1, Mid-Size Commercial Buildings, and this Section 1304C.0.5, where the building demolished was not an historical resource, the following requirements apply:

The water use reduction required in 1304C.2.1.4 shall take effect on January 1, 2009, and permit applicants must submit documentation to verify that a minimum 30 percent reduction in the use of potable water was achieved. (LEED® WE3.2)

The enhanced commissioning required by Section 1304C.2.1.6 shall take effect January 1, 2010.

The energy generation or purchase required by Section 1304C.2.1.7 shall take effect January 1, 2011.

Effective January 1, 2012 permit applicants must submit documentation to verify achievement of one additional credit in accord with LEED® MR3, MR4, MR5, MR6, or MR7.

In addition to the above, where the building demolished was an historical resource, effective January 1, 2009 through January 1, 2011 permit applicants must submit documentation to verify achievement of one additional credit in accord with LEED® MR3, MR4, MR5, MR6, or MR7. Effective January 1, 2012, two additional credits in accord with LEED® MR3, MR4, MR5, MR6, or MR7 are required.

1304C.0.5.1.2 Except where the demolished building was determined to be an historical resource, if the occupant loads of the commercial portion of the replacement structure calculated in accord with Section 1004 of this Code and the number of dwellings in the residential portion are each tripled, for those buildings attaining LEED® certification, the required points shall be increased by 8 percent of the total points required absent a demolition. For such projects pursuant to demolitions opting to be GreenPoint Rated, 17 additional points must
be achieved. Where occupant loads and residential density are quadrupled, the required points for projects
attaining LEED® certification shall be increased by 6% of the total required absent a demolition, and for those
opting to be GreenPoint Rated, 15 additional points must be achieved. The Director shall determine, on a
case-by-case basis, appropriate increased requirements in similar proportions for projects achieving compliance
using other green building rating systems.

1304C.0.6 On-site retention of historical features. For alterations of buildings determined to be historical
resources, additional points or credits shall be granted for retention and in-situ reuse or restoration of certain
character defining features, as follows:

<table>
<thead>
<tr>
<th>SIGNIFICANT HISTORICAL ARCHITECTURAL FEATURES</th>
<th>PERCENT RETAINED*</th>
<th>LEED POINTS FOR RETENTION</th>
<th>GREENPOINTS FOR RETENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows @ principal façade(s)</td>
<td>At least 50</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Windows @ principal façade(s)</td>
<td>At least 75</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Windows @ principal façade(s)</td>
<td>100</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Other windows</td>
<td>At least 50</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Other windows</td>
<td>100</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Exterior doors @ principal façade(s)</td>
<td>100</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Siding or wall finish @ principal façade(s)</td>
<td>80</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Trim &amp; casing @ wall openings on principal façade(s)</td>
<td>100</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Roof cornices or decorative eaves visible from right-of-way</td>
<td>100</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Sub-cornices, belt courses, water tables, and running trim visible from right-of-way</td>
<td>80</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Character-defining elements of significant interior spaces</td>
<td>At least 50</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Character-defining elements of significant interior spaces</td>
<td>100</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Other exterior ornamentation (e.g. cartouches, corbels, quoins, etc.) visible from right-of-way</td>
<td>80</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

* 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.
1304C.0.7 Maintenance of required features. Any structure subject to this chapter shall maintain the green building features required herein, regardless of subsequent alterations, additions, or changes of use, unless subject to more stringent requirements.

1304C.1 Requirements for New Group R Occupancy Buildings.

1304C.1.1 Small Residential Buildings. Upon the operative date of this chapter, the permit applicant must submit a GreenPoints New Home Construction Checklist but no points are required to be achieved. Effective January 1, 2009, applicants must submit documentation demonstrating that a minimum of 25 GreenPoints from the checklist will be achieved. Effective January 1, 2010 through 2011, a new building must be GreenPoint Rated and applicants must submit documentation demonstrating that a minimum of 50 GreenPoints from the checklist will be achieved. Effective January 1, 2012, a new building must be GreenPoint Rated and applicants must submit documentation demonstrating that a minimum of 75 GreenPoints from the checklist will be achieved.

1304C.1.2 Midsize Residential Buildings. Upon the operative date of this chapter, permit applicants must submit a GreenPoints Multifamily Checklist but no points are required to be achieved. Effective January 1, 2009, applicants must submit documentation demonstrating that a minimum of 25 GreenPoints from the checklist will be achieved. Effective January 1, 2010, a new building must be GreenPoint Rated and applicants must submit documentation demonstrating that a minimum of 50 GreenPoints from the checklist will be achieved. Effective January 1, 2011, a new building must be GreenPoint Rated and applicants must submit documentation demonstrating that a minimum of 75 GreenPoints from the checklist will be achieved.

1304C.1.3 High-Rise Residential Buildings.

1304C.1.3.1 Rating requirement. Upon the operative date of this chapter, permit applicants must submit documentation to achieve LEED® “Certified” certification. Effective January 1, 2010, applicants must submit documentation to achieve a LEED® “Silver” certification. Alternatively, GreenPoint Rated 50 points minimum may be achieved to meet this requirement upon the operative date of this ordinance, and GreenPoint Rated 75 points minimum effective January 1, 2010, providing all LEED®-NC Prerequisites are also met.

1304C.1.3.2 Water efficient landscaping. Upon the operative date of this chapter, permit applicants must submit documentation verifying that a minimum 50 percent reduction in use of potable water for landscaping was achieved. (LEED® WE1.1)

1304C.1.3.3 Water use reduction. Upon the operative date of this chapter, permit applicants must submit documentation demonstrating achievement of a minimum 20 percent reduction in the use of potable water. (LEED® WE3.2) Effective January 1, 2011, the required reduction in use of water is 30 percent. (LEED® WE3.2)

1304C.1.3.4 Construction debris management. Effective January 1, 2009, permit applicants must submit documentation to verify that diversion of at least 75 percent of the project’s construction debris was achieved. (LEED® MR2.2)

1304C.2 Requirements for New Group B and M Occupancy Buildings.

1304C.2.1 Mid-Size Commercial Buildings.

1304C.2.1.1 Rating requirement. Upon the operative date of this chapter, permit applicants must complete and submit a LEED® Checklist but no points are required to be achieved.

1304C.2.1.2 Fundamental commissioning of the building energy systems. Effective January 1, 2009, permit applicants must submit documentation prepared by a Commissioning Agent demonstrating compliance with LEED® EA Prereq 1.

1304C.2.1.3 Water efficient landscaping. Effective January 1, 2009, permit applicants must submit documentation verifying that a minimum 50 percent reduction in use of potable water for landscaping was
achieved. (LEED® WE1.1)

1304C.2.1.4 Water use reduction. Effective January 1, 2009, and effective through 2010, permit applicants must submit documentation demonstrating achievement of a minimum 20 percent reduction in the use of potable water. (LEED® WE3.1) Effective January 1, 2011, the required reduction in use of water is 30 percent. (LEED® WE3.2)

1304C.2.1.5 Construction debris management. Effective January 1, 2009, permit applicants must submit documentation to verify that diversion of at least 75 percent of the project’s construction debris was achieved. (LEED® MR2.2)

1304C.2.1.6 Enhanced commissioning. Effective January 1, 2011, a new building must achieve enhanced commissioning. (LEED® EA3.0)

1304C.2.1.7 Energy. Effective January 1, 2012, permit applicants must submit documentation to verify renewable on-site energy or purchase green energy credits in accord with LEED® EA2 or EA6.

1304C.2.2 New Large Commercial Buildings.

1304C.2.2.1 Rating requirement. Upon the operative date of this chapter, permit applicants must submit documentation to achieve LEED® “Certified” Certification. Effective January 1, 2009, permit applicants must submit documentation to achieve a LEED® Silver rating. Effective January 1, 2012, permit applicants must submit documentation to achieve a LEED® Gold rating.

1304C.2.2.2 Water efficient landscaping. Upon the operative date of this chapter, permit applicants must submit documentation verifying that a minimum 50 percent reduction in use of potable water for landscaping was achieved. (LEED® WE1.1)

1304C.2.2.3 Water use reduction. Upon the operative date of this chapter, permit applicants must submit documentation demonstrating achievement of a minimum 20 percent reduction in the use of potable water. (LEED® WE3.2) Effective January 1, 2011, the required reduction in use of potable water is 30 percent. (LEED® WE3.1)

1304C.2.2.4 Construction debris management. Upon the operative date of this chapter, permit applicants must submit documentation to verify that diversion of at least 75 percent of the project’s construction debris was achieved. (LEED® MR2.2)

1304C.2.2.5 Enhanced commissioning. Effective January 1, 2010, a new building must achieve enhanced commissioning. (LEED® EA3.0)

1304C.2.2.6 Energy. Effective January 1, 2012, permit applicants must submit documentation to verify achievement of renewable on-site energy or purchase of green energy credits in accord with LEED® EA2 or EA6.

1304C.3 New Large Commercial Interiors and Major Alterations to Existing Buildings.

1304C.3.2.1 Rating requirement. Upon the operative date of this chapter, permit applicants for such construction must submit documentation to achieve LEED® “Certified” Certification. Effective January 1, 2009, applicants must submit documentation to achieve a LEED® Silver rating. Effective January 1, 2012, applicants must submit documentation to achieve a LEED® Gold rating.

1304C.3.2.2 Use of low-emitting materials. Upon the operative date of this chapter, permit applicants for alterations subject to this subsection must submit documentation to verify the use of low-emitting materials under LEED® EQ4.1, 4.2, and 4.3.

SECTION 1305C – IMPLEMENTATION

Rules and regulations regarding the implementation of this chapter shall be detailed in an Administrative
SECTION 1306C – HARDSHIP OR INFEASIBILITY EXEMPTION

1306C.1 Exemption. If a permit applicant for a project believes that circumstances exist that make it a hardship or infeasible to meet fully the requirements of this chapter, the applicant may apply to the Director for an exemption as set forth below. In applying for an exemption, the burden is on the permit applicant to demonstrate hardship or infeasibility.

1306C.2 Application. A permit applicant seeking an exemption shall submit the following information in support of the application:

1. the maximum number of credits or other compliance that the permit applicant believes is practical or feasible
2. the circumstances that the permit applicant believes make it a hardship or infeasible to comply fully with this chapter. Such circumstances may include, but are not limited to, availability of markets for materials to be recycled, availability of green building materials and technologies, and compatibility of green building requirements with other regulations.

1306C.3 Granting an Exemption. If the Director determines that it is a hardship or infeasible for the applicant to meet fully the requirements of this chapter based on the information submitted with the application for an exemption, the Director shall determine the maximum feasible number of credits or other compliance reasonably achievable for the project and shall indicate this on the documentation submitted by the permit applicant. If an exemption is granted, the permit applicant must achieve the number of credits or compliance the Director determines to be achievable and shall comply with this chapter in all other respects.

1306C.4 Exemption for Historic Structure. The Director shall grant an exemption for an historic structure if the Director determines that compliance with certain requirements would impair the structure’s historic integrity. The historic structure shall comply with this chapter in all other respects.

1306C.5 Denial of Exemption. If the Director determines that it is possible for the application to meet fully the requirements of this chapter, the Director shall notify the permit applicant in writing. The permit applicant must then submit all documentation required by Section 1304C. If the applicant does not submit the documentation within the time period required by Section 106A.3.7, or the documentation does not comply with the requirements of Section 1304C, the Director shall disapprove the building permit.

SECTION 1307C – APPEAL

Determinations of the Director related to this chapter are appealable to the Building Inspection Commission pursuant to the procedure set forth in Chapter 77 of the San Francisco Administrative Code. Denial of a building permit is appealable to the Board of Appeals pursuant to the procedure set forth in Section 8 et seq. of the San Francisco Business and Tax Regulations Code.

SECTION 1308C – ENFORCEMENT

The applicant’s failure to build a project in accordance with approved construction documents and plans shall be subject to the procedures governing abatement of unsafe structures set forth in Section 102A of this Code. In addition, the Director may require other reasonable green building measures to mitigate the failure to comply fully with this chapter.

SECTION 1309C – CONFLICT WITH OTHER PROVISIONS OF THIS OR OTHER CODES

In the event that the requirements of this chapter conflict with other provisions of this Code or the other codes enforced by the Department of Building Inspection, the requirements of this chapter shall apply and the more restrictive building design standards of this or the other codes shall prevail.

SECTION 1310C – OPERATIVE DATE
This ordinance shall become operative 90 days after it is adopted by the Board of Supervisors and signed by the Mayor. If, however, the California Energy Commission has not approved the legislation by that time, this ordinance shall not become operative until the Energy Commission has approved it.

Notes

1 This section contains a change from the original publication of the 2007 San Francisco Building Code.

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