



DEPARTMENT OF BUILDING INSPECTION
City & County of San Francisco
1660 Mission Street, San Francisco, California 94103

ADMINISTRATIVE BULLETIN

NO. AB-093

DATE : September 24, 2008

SUBJECT : Administration and General Design

TITLE: **Implementation of Green Building Regulations**

PURPOSE : The purpose of this Administrative Bulletin is to detail standards and procedures for the implementation of the Green Building requirements of Chapter 13C of the San Francisco Building Code.

REFERENCE : 2007 San Francisco Building Code, Chapter 13C

DISCUSSION : Project submittal documents, approved construction documents, and completed projects must conform to the Green Building code requirements that are established in Chapter 13C of the San Francisco Building Code. At various project time points, particularly at the conclusion of construction, the Department of Building Inspection must be provided with verification that all Green Building requirements have been met. Under these implementation procedures, this verification is required to be provided to the Department of Building Inspection via a formal third-party certification under green building rating systems referenced in Chapter 13C of the San Francisco Building Code or by a third-party licensed design professional.

Note: Future local, state or other regulations may change the scope and implementation of Green Building requirements. Project sponsors should verify that they are meeting all such requirements, which may modify the standards and procedures addressed in this Administrative Bulletin.

IMPLEMENTATION:

Green Building Requirements to be Applied

The Green Building performance requirements and timelines of Chapter 13C are summarized in Attachment A, Table 1 of this bulletin. For mixed occupancy buildings, that portion of the building containing an occupancy classification covered by this ordinance shall meet the green building requirements for that occupancy. For mixed occupancy buildings containing any combination of B, R and M occupancies, the project sponsor may select a single occupancy classification to determine which green building standards to apply to the entire building.

Applicability of Green Building regulations based on date of Building Permit Application

Under the current Chapter 13C regulations, the date of applicability of these Green Building requirements is November 3, 2008. Application of the Green Building requirements will be based on the date of submittal of a building permit application.

In the case of Site Permits, the effective date shall be the date that the Site Permit application (not an addendum) is filed with the Department of Building Inspection. Neither addenda to site permits nor revisions to permit applications received before the effective date of the ordinance will be required to meet the green building requirements, unless such site permit addendum or revisions change the scope of the project such that a project that would have been previously exempt from green building requirements would be covered.

New Large Commercial Interiors and Major Alterations to Existing Buildings

The application of Section 1304C.3 to Major Alterations to Existing Buildings is based on a determination as to whether a "significant upgrade" is proposed to both the structural system and to one or more of the mechanical, electrical and/or plumbing systems in an area of 25,000 gross square feet or more in a Group B, M or R occupancy. For the purpose of enforcement of Chapter 13C, a significant structural upgrade shall be determined to take place when a structural alteration takes place in thirty percent or more of the area of proposed construction. Areas to be counted toward the thirty percent include areas tributary to the vertical load carrying components (joists, beams, columns, walls and other structural components) that have been or will be removed, added or altered.

The application of Section 1304C.3 to New Large Commercial Interiors requires that the first time tenant improvement work in an area over 25,000 square feet must meet the green building standards detailed in the ordinance. This requirement applies regardless of the date of construction of the building.

Historic Building Requirements for "Historic Resources" Based on Planning Department Determination

For purposes of applying the specific provisions of Chapter 13C related to historic buildings, the Planning Department shall determine whether a building is an historical resource. This Planning Department review applies a standard based on the California Environmental Quality Act (CEQA) as to whether a structure is or might be considered an "historic resource". Based on such information, the Green Building Compliance Professional of Record shall assure that submittal documents properly reflect the requirements of the Ordinance.

Projects that retain, rehabilitate or repair significant historical architectural features may receive credit toward Green Building requirements, per Attachment A, Table 3.

Alternate Building Code Applicability Under the California Historical Building Code, Based on Department of Building Inspection Qualification

For buildings that are qualified to use the California Historical Building Code, project sponsors may apply the alternate provisions of that code. Buildings are determined to be qualified to use the California Historical Building Code upon specific request to the Department of Building Inspection. This broader standard differs from the determination of an "historic resource" by the Planning Department; determination that a building qualifies to use the California Historical Building Code does not classify the building as an "historic resource." Buildings that qualify to use the California Historical Building Code include buildings that are on federal, state or local adopted lists or surveys, or buildings that are

determined by the City to be eligible for such a list or survey, or buildings that have otherwise been determined by the City to be potential historic resources. The Department of Building Inspection coordinates with the Planning Department on the review of such requests for qualification. Alternate code provisions for historic buildings are to be applied on either a case-by-case, item-by-item basis, or, where specifically addressed in the California Historical Building Code, may apply to general provisions or alternatives.

Demolition

For a replacement building which is to be constructed on a site on which one or more buildings were demolished after the effective date of this ordinance, the Planning Department, during the course of permit review, shall confirm applicable Green Building requirements. Additional Green Building requirements for these projects may be found in Attachment A, Table 2.

Project Submittal Requirements

Screening of Building Permit Applications for Applicability

Department of Building Inspection Initial Permit Review staff will screen all building permit applications to determine if Green Building regulations apply to that project. If it is determined that Green Building regulations apply, Initial Permit Review staff will verify that a copy of the "Green Building Submittal" form (Attachment B-1 or B-4), confirming that the submittal conforms with the Green Building Ordinance, is properly completed and incorporated into permit submittal documents. Permit applications will not be accepted for processing without this form.

Every permit application for a building covered by the Green Building Ordinance, including revisions and addenda to projects covered by these regulations, must be accompanied by a copy of Attachment B-1 or B-4, Green Building Submittal form.

Submittal documents for all projects must include a checklist incorporated into the project plans indicating the required green building features, referencing, as appropriate, location of green building features in the submittal documents. Where submittal documents do not contain a complete set of construction details, such as in a site permit application, the submitted Attachment B shall, at a minimum, detail the specific green building requirements to be met and shall indicate which addendum or other document will provide compliance details for each required performance measure or credit.

LEED or GreenPoint Rated checklists in the format similar to Attachment B-1 or B-4 will be sufficient to meet this submittal requirement. This submittal checklist may be reformatted as needed to conform to plan submittal size if all information is provided.

Compliance with the submittal requirements of Chapter 13C, Green Building Requirements, may be met in any of four ways:

1. Registration and submittal for certification under LEED. For buildings that propose to meet LEED standards, the permit applicant must provide submittal documentation showing that the project will meet the appropriate LEED standards.
2. Registration for and achievement of for GreenPoint Rated status. For buildings that propose to meet GreenPoint Rated standards, the permit applicant must provide submittal documentation showing that the project will meet the appropriate GreenPoint Rated standards.

3. Documentation of compliance with either LEED or GreenPoint Rated standards without registration and certification from those systems. The Green Building Compliance Professional of Record must provide submittal documentation showing that the project will meet the appropriate standards.
4. Registration and submittal for another rating system or documentation of equivalency as approved by the Director. For buildings that propose to meet such alternate standards, the Green Building Compliance Professional of Record must provide submittal documentation detailing compliance with the proposed standards.

For both case 3 and 4 above, the qualifications for Green Building Compliance Professional of Record include a license or registration as an Architect or Engineer, and specialized understanding of Green Building standards and technologies, except that

- for LEED projects, such specialized understanding shall include LEED accreditation and successful completion of at least one LEED certified project
- for Green Point Rated projects, such specialized understanding shall include GreenPoint Rater, or the project team shall include a person who is a GreenPoint Rater.

The Department of Building Inspection may request verification of such training or experience and may make an administrative determination as to the qualification of a person to act as such a Green Building Compliance Professional of Record. A Green Building Compliance Professional of Record is responsible for providing verification to the Department of Building Inspection that all Green Building design and construction requirements are met.

Energy Compliance Guidelines

The conformance of San Francisco's green building ordinance with California Energy Code requires that certain building permit submittals must be shown to exceed the state's Building Energy Efficiency Standards. The following guidelines explain when additional calculations and documentation, beyond the standard Title 24 submittals, are required. Attachment C, Supplementary Energy Compliance Documentation, provides a sample form that may be used to document such additional energy efficiency compliance.

- Any building for which the ordinance requires compliance with a LEED standard must demonstrate energy compliance using one of the following methods:
1. Use the published LEED rules in reducing the annual energy cost of the LEED baseline building (Title 24 or ASHRAE-90.1-2004) by 14% or greater. This analysis must include a detailed accounting of all on-site building energy use, including all exterior and security lighting, elevators, all process loads and receptacle loads. Documentation to be retained in the records of the project must include the full information required for USGBC LEED certification, or
 2. Use an appropriate version of software to run the LEED ASHRAE 90.1-2004 calculations. Approved software shall be capable of automatically setting the baseline or reference building from the data input for the proposed building. Currently such approved software includes EnergyPro. In addition to submittal of required Title 24 performance documentation, submit documentation showing the annual energy costs for the reference

- building and the proposed building demonstrating that the proposed building reduces the annual energy cost from the reference building by at least 14%, or
3. Perform the standard Title 24 performance analysis and submit documentation to demonstrate that the proposed building uses at least 14% less energy than the standard design, excluding exterior lighting, process and receptacle loads. LEED-equivalent energy points for this calculation method are listed in Table 1.

Table 1: Energy Equivalence of Title 24 Energy Performance with LEED v2.2 EAc1 points

LEED Requirements ECB Method: Must Exceed the Baseline by	Equivalent Requirement Title 24 TDV Energy: Must Exceed Standard Design by	Points Earned
14.0%	14.0%	2 (Minimum)
17.5%	17.5%	3
21.0%	21.0%	4
24.5%	24.5%	5
28.0%	28.0%	6
31.5%	31.5%	7
35.0%	35.0%	8
38.5%	38.5%	9
42.0%	42.0%	10

For major renovation projects using the LEED NC standard, energy performance standards may be reduced as detailed in that LEED standard, but in no case shall such reduction fall below the California Energy Code requirements. (Certain exceptions may apply for Historic Buildings as noted above.)

- The methodology used to calculate solar photovoltaic credit shall be the California Energy Commission PV Calculator or an SB 1 compliant calculator. Installation of solar PV systems shall meet all requirements specified in the "Guidelines for California's Solar Electric Incentive Programs Pursuant to Senate Bill 1" available online at <http://www.gosolarcalifornia.ca.gov/nshpcalculator/index.html>.

Stormwater Design Compliance

In order to assure compliance with green building stormwater management requirements, San Francisco Public Utilities Commission, Urban Watershed Management Program will provide guidelines for review and approval of all such plans. Application packets, including interim guidelines, are available online at <http://stormwater.sfwater.org>.

Requests for Approval of Equivalencies

Project sponsors wishing to submit alternates or equivalencies for the specific requirements referenced in Chapter 13C or its referenced standards may do so by these methods:

1. With project submittal documents or at any later date, provide a specific request to use an alternate or equivalent method of compliance. Each alternative must be separately presented.
2. Requests must be accompanied by a complete analysis of the Green Building and other code-related issues, and must be recommended by and signed by the Green Building Compliance Professional of Record. The analysis must include calculations or other documentation for each

- specific element of equivalency confirming that the equivalent proposal meets or exceeds the requirements of the Ordinance.
3. The Department of Building Inspection staff will review the equivalency and may, at its discretion, request review by other City staff or outside professional persons who are expert in the matter under review. The project sponsor will be responsible for all additional costs incurred for such review, including review time by City staff, charged at the hourly rate as set forth in the San Francisco Building Code, or direct costs for other consultant review.
 4. The Department of Building Inspection staff may request additional information as part of the review.
 5. The Department of Building Inspection will issue a decision to approve, deny or require modifications to any submitted alternate or equivalency.
 6. Project sponsors may appeal any decision to the Deputy Director, Director, and appeal bodies as detailed in the San Francisco Building Code.

Project Completion: Verification that Green Building Requirements are Met

Verification that green building requirements have been met requires either submittal of Attachment D, Green Building: Final Compliance Verification, or submittal of final certification as meeting LEED or GreenPoint Rated requirements. Attachment D may be filled out in any of the following ways:

1. If the project has been submitted for certification under LEED, project shall provide documentation that US Green Building Council/Green Building Certification Institute has certified the project.
2. If the project has been submitted to be GreenPoint Rated, project shall provide documentation that Build It Green has certified the project.
3. If project is built to meet LEED or GreenPoint Rated standards but will not be certified, then Attachment D must be signed by the Green Building Compliance Professional of Record.
4. If the Director has approved use of an alternate rating system, or documentation of equivalency as approved by the Director. For buildings that propose to meet such alternate standards, then Attachment D must be signed by the Green Building Compliance Professional of Record.

Temporary Certificate of Occupancy

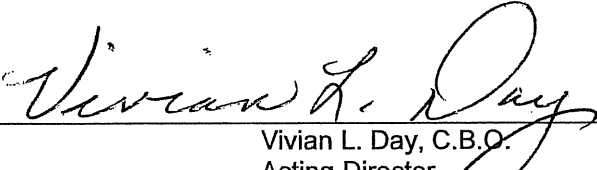
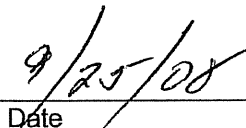
While a Temporary Certificate of Occupancy may be issued pending final compliance certification, no final Certificate of Completion may be issued until Attachment D: Green Building: Final Compliance Verification has been received, reviewed and accepted by the Department of Building Inspection.

Quality Assurance and Compliance Review

All projects are subject to comprehensive review by the Department of Building Inspection or its agents; all project sponsors must maintain comprehensive records to allow verification that all requirements have been met; buildings that receive certification through LEED or GreenPoint Rated will generally be accepted as being fully compliant. It is the intent of the Department of Building Inspection to undertake comprehensive review of a significant percentage of green building projects.

Failure to Comply with Green Building Requirements

Failure to meet all required Green Building requirements will subject a project sponsor to all of the enforcement and abatement remedies detailed in the San Francisco Building Code.

Vivian L. Day, C.B.O. Date
Acting Director
Department of Building Inspection

Approved by the Building Inspection Commission September 24, 2008

Attachment A, Table 1, Green Building Ordinance: Summary of Performance Standards and Timelines
Attachment A, Table 2, Additional Requirement if a Building has been Demolished
Attachment A, Table 3, Retention of Significant Historical Architectural Features
Attachment B-1, Green Building Submittal sample template - LEED
Attachment B-2, Green Building Submittal sample – LEED, Example
Attachment B-3, Green Building Submittal sample – LEED checklist
Attachment B-4, Green Building Submittal sample template – GreenPoint Rated
Attachment B-5, Green Building GreenPoint Rated checklist sample
Attachment C, Supplementary Energy Compliance Documentation
Attachment D, Final Compliance Verification
Attachment E, Recommended Project Implementation Procedures
Attachment F, Selected Green Building Resources
Attachment G, Text of Green Building Ordinance



Green Building Ordinance: Summary of Requirements Table 1: Performance Standards and Timelines

Attachment A Table 1

Building Type	Requirement and Code Reference	Effective Date			
		2008 (November 3)	2009	2010	2011
1304C.2. New Group B and M Occupancy Buildings					
New Mid-Size Commercial Buildings: 5,000 to 25,000 sq ft (1304C.2.1)	Rating Requirement (1304C.2.1.1)	Submit LEED checklist; no certification required			
	Commissioning of Building Systems (1304C.2.1.2)	No Requirement	Commission building's energy related systems (LEED prerequisite EAp1)	PLUS: Enhanced Commissioning (LEED credit EA3)	
	Water Efficient Landscaping (1304C.2.1.3)	No Requirement	Min. of 50% reduction in use of potable water for landscaping (LEED credit WE1.1)		
	Water Use Reduction (1304C.2.1.4)	No Requirement	Min. of 20% reduction of potable water use (LEED credit WE3.1)	Min. of 30% reduction in potable water use (LEED credit WE3.2)	
	Stormwater Management (1304C.0.3)	Comply with "SFPUC Stormwater Design Guidelines". As Applicable: LEED NC SS 6.2 and SS 6.1.			
	Construction Debris Management (1304C.2.1.5)	No Requirement	Divert at least 75% of construction debris (LEED credit MR 2.2)		
	Renewable Energy (1304C.2.1.7)	No Requirement			Renewable on-site energy or purchase renewable energy credits (select LEED credit EA2 or EA6)
	Rating Requirement (1304C.2.2.1)	Achieve LEED Certified	Achieve LEED Silver certification		Achieve LEED Gold certification
	Water Efficient Landscaping (1304C.2.2.2)	Min. of 50% reduction in use of potable water for landscaping (LEED credit WE1.1)			
	Water Use Reduction (1304C.2.2.3)	Min. of 20% reduction of potable water use (LEED credit WE3.1)			Min. of 30% reduction in potable water use (LEED credit WE3.2)
New Large Commercial Buildings ≥ 25,000 sq ft (1304C.2.2)	Stormwater Management (1304C.0.3)	Comply with "SFPUC Stormwater Design Guidelines". As Applicable: LEED NC SS 6.2 and SS 6.1.			
	Construction Debris Management (1304C.2.2.4)	Divert at least 75% of construction debris (LEED credit MR 2.2)			
	Energy (1304C.2.2.5 AND 1304C.2.2.6)	Commission building's energy related systems (LEED prerequisite EAp1)	PLUS: Enhanced Commissioning (LEED credit EA3)		Renewable on-site energy or purchase renewable energy credits (select LEED credit EA2 or EA6)
	1304C.3. New Large Commercial Interiors, OR Major Alterations to Existing Buildings with B, M, and R Occupancies >25,000 sq ft				
New Commercial Interiors or Alterations to Existing B, M, or R occupancy >25,000 sq ft (1304C.3)	Rating Requirement (1304C.3.2.1)	Achieve LEED Certified	Achieve LEED Silver certification		Achieve LEED Gold certification
	Use of Low-Emitting Materials (1304C.3.2.2)	Use low-emitting materials for adhesives, sealants, paints, coatings, and carpets, as applicable (LEED credits IEQ4.1, IEQ4.2, and IEQ4.3)			



**Green Building Ordinance: Summary of Requirements
Table 1: Performance Standards and Timelines**

**Attachment A
Table 1**

Building Type	Requirement and Code Reference	Effective Date			
		2008 (November 3)	2009	2010	2011
1304C.1. New Group R Occupancy Buildings					
Small Residential: 4 or fewer units (1304C.1.1)	Rating Requirement (1304C.1.1)	Submit GreenPoints new home construction checklist; no points required	Submit GreenPoints new home construction checklist; 25 GreenPoints required	GreenPoint Rated; minimum 50 GreenPoints	GreenPoint Rated; minimum 75 GreenPoints
	Stormwater Management (1304C.0.3)	Meet "SFPUUC Stormwater Design Guidelines", if applicable			
Midsize Residential: 5+ units and < 75' height to highest occupied floor (1304C.1.2)	Rating Requirement (1304C.1.2)	Submit GreenPoints multi-family checklist; no points required	Submit GreenPoints new home construction checklist; 25 GreenPoints required	GreenPoint Rated; minimum 50 GreenPoints	GreenPoint Rated; minimum 75 GreenPoints
	Stormwater Management (1304C.0.3)	Comply with "SFPUUC Stormwater Design Guidelines". As Applicable: LEED NC SS 6.2 and SS 6.1.			
High-Rise Residential: 5+ units and ≥ 75' height to highest occupied floor (1304C.1.3)	Rating Requirement (1304C.1.3.1)	Achieve LEED Certified OR GreenPoint Rated with minimum 50 points, plus requirements below		Achieve LEED Silver certification OR GreenPoint Rated with minimum 75 points, plus requirements below	
	Water Efficient Landscaping (1304C.1.3.2)	Min. of 50% reduction in use of potable water for landscaping (LEED credit WE1.1)			
	Water Use Reduction (1304C.1.3.3)	Min. of 20% reduction of potable water use (LEED credit WE3.1)			
Stormwater Management (1304C.0.3)	Comply with "SFPUUC Stormwater Design Guidelines". As Applicable: LEED NC SS 6.2 and SS 6.1.				
Construction Debris Management (1304C.1.3.4)	Divert at least 75% of construction debris (LEED credit MR 2.2)				



Green Building Ordinance: Summary of Requirements Table 2: Additional Requirements in Case of Demolition

Attachment A Table 2

For All Project Types, Except as noted below:	Demolished Building IS NOT a Historical Resource		Demolished Building IS a Historical Resource	
	LEED	GreenPoint Rated	LEED	GreenPoint Rated
If new density will be less than 3x current density:	Total Required LEED Points Increased by 10%	Obtain 20 additional GreenPoints		
OR: If new density is >3x current density:	Total Required LEED Points Increased by 8%	Obtain 17 additional GreenPoints		
OR: If new density is >4x current density:	Total Required LEED Points Increased by 6%	Obtain 15 additional GreenPoints	Obtain an additional 10% of Total Available LEED Points	Obtain 25 additional GreenPoints
Requirements for Mid-Sized Commercial where project includes demolition of existing building(s)				
Year	Baseline (Demolition does not include a Historical Resource)		Requirement, in addition to Baseline, for Demolition of Historical Resource	
2009	<ul style="list-style-type: none"> • LEED PR 1 - Fundamental Commissioning • LEED WE 1.1 - Water efficient landscaping (50% reduction) • LEED WE3.2 - 30% Reduction in potable water use • LEED MR2.1 - Construction Debris Management (75% diversion) 		<ul style="list-style-type: none"> • Obtain 1 additional LEED point from: MR3, MR4, MR5, MR6, or MR7 	
2010 (in addition to above)	<ul style="list-style-type: none"> • LEED EA3 - Enhanced Commissioning 		None	
2011 (in addition to above)	Either: <ul style="list-style-type: none"> • LEED EA2 - Generate at least 2.5% of electricity with on-site renewables, • OR EA6 - Purchase renewable energy credits for 35% of electricity needs for 2 years 		None	
2012 (in addition to above)	<ul style="list-style-type: none"> • Obtain 1 additional LEED point from: MR3, MR4, MR5, MR6, or MR7 		<ul style="list-style-type: none"> • Obtain a total of 2 additional LEED points from: MR3, MR4, MR5, MR6, or MR7 	



Green Building Ordinance: Summary of Requirements

**Attachment A
Table 3**

Table 3: Retention of Significant Historical Architectural Features

Significant Historical Architectural Feature	Percent Retained¹	Reduction in total required LEED points²	Reduction in total required GreenPoints²
Windows on Principal Façade(s)	At least 50%	2	7
	At least 75%	3	11
	100%	4	15
Other windows	At least 50%	1	3
	100%	2	6
Exterior doors on principal façade(s)	100%	1	3
Siding or wall finish on principal façade(s)	80%	1	4
Trim & Casing on 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	80%	1	3
Character-defining elements of significant interior spaces	At least 50%	2	7
	100%	4	15
Other exterior ornamentation (e.g. cartouches, corbels, quins, etc.) visible from right-of-way	80%	1	3

¹ 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.

² As summarized above, these measures are afforded greater weight by the City and County of San Francisco than in the reference green building rating systems. The table is presented as a reduction in local requirements for consistency in cases where projects are both meeting local requirements and seeking LEED certification or to be GreenPoint Rated.

City and County of San Francisco
Green Building Requirements
LEED Rating System

SELECT VERIFICATION OPTION 1 OR OPTION 2:

Option 1:
Verification of compliance for this project will be provided by USGBC/GBCI certification under the LEED Rating system. No Green Building Compliance Professional of Record is required.
Permit Applicant – Sign & Date _____

OR

Option 2:
This project will not be LEED certified. The Green Building Compliance Professional of Record for this project is:

Name _____
Firm _____
Architectural or Engineering License
 I am a LEED Accredited Professional Certified LEED Projects Completed: _____

To the best of my knowledge, it is my professional opinion the Green Building requirements of the City of San Francisco will be met for the above referenced project. I have been retained by the project sponsor to review all submittal documents and assure that approved construction documents and construction properly reflect the Green Building requirements of Chapter 13C. I will notify the Department of Building Inspection if I believe to the best of my knowledge that the project will, for any reason, not substantially comply with these green building requirements, or if I am no longer the Green Building Compliance Professional of Record for this project.

Licensed Professional: Sign & Date _____
Affix professional stamp: _____

Project

Block/Lot _____
Address _____
Primary Occupancy _____
Gross Building Area _____

Project is:
 New Construction
 Major Alteration
 New Large Commercial Interior

Summary of Green Building Requirements:	Required by LEED	Required by LEED	Required by LEED
Rating Requirement: _____	LEED points _____	_____	_____
LEED certification level (includes prerequisites): _____	_____	_____	_____
Supplemental Green Building Measures Required by Chapter 13C:			
50% Stormwater Design Guidelines (LEED WE 3.1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Efficient Landscaping (LEED WE 3.2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Use Reduction - 20% (LEED WE 3.3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction Waste Management - 75% Diversion (LEED WE 3.4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy Efficient Building Energy Systems (LEED EA prerequisite 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enhanced Commissioning (LEED EA 3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Either 2.5% of energy supplied by On-Site Renewable Energy OR Green Power (LEED EA 2) OR (LEED EA 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Green Power (LEED EA 2) OR (LEED EA 6) OR (LEED EA 7) OR (LEED EA 8) OR (LEED EA 9) OR (LEED EA 10) OR (LEED EA 11) OR (LEED EA 12) OR (LEED EA 13) OR (LEED EA 14) OR (LEED EA 15) OR (LEED EA 16) OR (LEED EA 17) OR (LEED EA 18) OR (LEED EA 19) OR (LEED EA 20) OR (LEED EA 21) OR (LEED EA 22) OR (LEED EA 23) OR (LEED EA 24) OR (LEED EA 25) OR (LEED EA 26) OR (LEED EA 27) OR (LEED EA 28) OR (LEED EA 29) OR (LEED EA 30) OR (LEED EA 31) OR (LEED EA 32) OR (LEED EA 33) OR (LEED EA 34) OR (LEED EA 35) OR (LEED EA 36) OR (LEED EA 37) OR (LEED EA 38) OR (LEED EA 39) OR (LEED EA 40) OR (LEED EA 41) OR (LEED EA 42) OR (LEED EA 43) OR (LEED EA 44) OR (LEED EA 45) OR (LEED EA 46) OR (LEED EA 47) OR (LEED EA 48) OR (LEED EA 49) OR (LEED EA 50)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To Be completed by DBI Intake Staff
Chapter 13C Requirements Verified by:
Name & Date _____

Notes:

LEED Checklist
Page 2

LEED Checklist
Page 1

Note: When pasting in a LEED checklist, make sure to modify the checklist to include references to the location(s) each applicable credit is shown in project documents.

This form may be reformatted as needed, provided that all necessary information is provided, legible, and conforms to submittal size requirements.

This Template and other useful documents may be downloaded from: www.sfgov.org/dbi.

LEED Checklist
Page 4

LEED Checklist
Page 3

City and County of San Francisco Green Building Requirements LEED Rating System

Attachment B Submittal Example

LEED for Core Checklist for Attachment B

Code	Element	Element Description	Element Status
1	1.1	1.1.1	1
1	1.2	1.2.1	1
1	1.3	1.3.1	1
1	1.4	1.4.1	1
1	1.5	1.5.1	1
1	1.6	1.6.1	1
1	1.7	1.7.1	1
1	1.8	1.8.1	1
1	1.9	1.9.1	1
1	1.10	1.10.1	1
1	1.11	1.11.1	1
1	1.12	1.12.1	1
1	1.13	1.13.1	1
1	1.14	1.14.1	1
1	1.15	1.15.1	1
1	1.16	1.16.1	1
1	1.17	1.17.1	1
1	1.18	1.18.1	1
1	1.19	1.19.1	1
1	1.20	1.20.1	1
1	1.21	1.21.1	1
1	1.22	1.22.1	1
1	1.23	1.23.1	1
1	1.24	1.24.1	1
1	1.25	1.25.1	1
1	1.26	1.26.1	1
1	1.27	1.27.1	1
1	1.28	1.28.1	1
1	1.29	1.29.1	1
1	1.30	1.30.1	1
1	1.31	1.31.1	1
1	1.32	1.32.1	1
1	1.33	1.33.1	1
1	1.34	1.34.1	1
1	1.35	1.35.1	1
1	1.36	1.36.1	1
1	1.37	1.37.1	1
1	1.38	1.38.1	1
1	1.39	1.39.1	1
1	1.40	1.40.1	1
1	1.41	1.41.1	1
1	1.42	1.42.1	1
1	1.43	1.43.1	1
1	1.44	1.44.1	1
1	1.45	1.45.1	1
1	1.46	1.46.1	1
1	1.47	1.47.1	1
1	1.48	1.48.1	1
1	1.49	1.49.1	1
1	1.50	1.50.1	1
1	1.51	1.51.1	1
1	1.52	1.52.1	1
1	1.53	1.53.1	1
1	1.54	1.54.1	1
1	1.55	1.55.1	1
1	1.56	1.56.1	1
1	1.57	1.57.1	1
1	1.58	1.58.1	1
1	1.59	1.59.1	1
1	1.60	1.60.1	1
1	1.61	1.61.1	1
1	1.62	1.62.1	1
1	1.63	1.63.1	1
1	1.64	1.64.1	1
1	1.65	1.65.1	1
1	1.66	1.66.1	1
1	1.67	1.67.1	1
1	1.68	1.68.1	1
1	1.69	1.69.1	1
1	1.70	1.70.1	1
1	1.71	1.71.1	1
1	1.72	1.72.1	1
1	1.73	1.73.1	1
1	1.74	1.74.1	1
1	1.75	1.75.1	1
1	1.76	1.76.1	1
1	1.77	1.77.1	1
1	1.78	1.78.1	1
1	1.79	1.79.1	1
1	1.80	1.80.1	1
1	1.81	1.81.1	1
1	1.82	1.82.1	1
1	1.83	1.83.1	1
1	1.84	1.84.1	1
1	1.85	1.85.1	1
1	1.86	1.86.1	1
1	1.87	1.87.1	1
1	1.88	1.88.1	1
1	1.89	1.89.1	1
1	1.90	1.90.1	1
1	1.91	1.91.1	1
1	1.92	1.92.1	1
1	1.93	1.93.1	1
1	1.94	1.94.1	1
1	1.95	1.95.1	1
1	1.96	1.96.1	1
1	1.97	1.97.1	1
1	1.98	1.98.1	1
1	1.99	1.99.1	1
1	1.100	1.100.1	1

EXAMPLE

Block/lot _____

Address _____

Primary Occupancy _____

Gross Building Area _____

Project is:

New Construction

Major Alteration

New Large Commercial Interior

Summary of Green Building Requirements: Required LEED points:

Supplemental Green Building Measures Required by Chapter 13C:

SFPU Stormwater Design Guidelines

Water Efficient Landscaping

LEED WE 1.1

Water Use Reduction - 30%

LEED WE 1.3

Water Use Reduction - 30%

LEED WE 1.21

Construction Waste Management - 75% Diversion

LEED MR 2.2

Fundamental Commissioning of Building Energy Systems

LEED EQ prerequisite 1)

Commissioning

LEED EA 1

Either 2.5% of energy supplied by on-site Renewable Energy OR Green Power (LEED EA 2) OR (LEED EA 6)

Low-Emitting Materials (Number of HQ credits required: _____)

(Choose from LEED EQ 4.1, 4.2, 4.3, and 4.4)

To Be completed by DBI Intake Staff

Chapter 13C Requirements Verified by: _____

Name & Date

Notes:

SELECT VERIFICATION OPTION 1 OR OPTION 2:

Option 1:
Verification of compliance for this project will be provided by USGBC/GBCI certification under the LEED Rating system. No Green Building Compliance Professional of Record is required.
Permit Applicant – Sign & Date

OR

Option 2:
This project will not be LEED certified. The Green Building Compliance Professional of Record for this project is:

Name _____

Firm _____

Architectural or Engineering License
 I am a LEED Accredited Professional Certified LEED Projects Completed: _____

To the best of my knowledge, it is my professional opinion the Green Building requirements of the City of San Francisco will be met for the above referenced project. I have been retained by the project sponsor to review all submittal documents and assure that approved construction documents and construction properly reflect the Green Building requirements of Chapter 13C. I will notify the Department of Building Inspection if I believe to the best of my knowledge that the project will, for any reason, not substantially comply with these green building requirements, or if I am no longer the Green Building Compliance Professional of Record for this project.

Licensed Professional: Sign & Date _____

Affix professional stamp:

Project

LEED

Green Building Submittal: LEED
City and County of San Francisco

LEED

LEED-NC v2.2 Checklist for Attachment B-1				Attachment B-3	
Credit included in project	Points	Credit Number	Credit Description	Location(s) Credit is Shown in Plans AND/OR Specifications Include: Plan Page & Detail, Spec Section Name/Number/Location NOTE: SPECIFICATIONS ARE NOT SUBMITTAL DOCUMENTS, BUT ARE SUBJECT TO REVIEW.	
8 Required Prerequisites, 68 Possible Points					
Sustainable Sites: 1 Prerequisite, 14 Possible Points					
Y	R	Prereq 1	Construction Activity Pollution Prevention	C1.2 Detail 2b drainage control methods	
	1	SS 1	Site Selection		
	1	SS 2	Development Density and Community Connectivity		
	1	SS 3	Brownfield Redevelopment		
	1	SS 4.1	Alternative Transportation, Public Transportation Access		
	1	SS 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms		
	1	SS 4.3	Alternative Transportation, Low Emission and Fuel Efficient Vehicles		
	1	SS 4.4	Alternative Transportation, Parking Capacity		
	1	SS 5.1	Site Development, Protect or Restore Habitat		
	1	SS 5.2	Site Development, Maximize Open Space		
	1	SS 6.1	Stormwater Design, Quantity Control		
	1	SS 6.2	Stormwater Design, Quality Control		
	1	SS 7.1	Heat Island Effect, Non-Roof		
	1	SS 7.2	Heat Island Effect, Roof		
	1	SS 8	Light Pollution Reduction		
Water Efficiency: 5 Possible Points					
	1	WE 1.1	Water Efficient Landscaping, Reduce by 50%		
	1	WE 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation		
	1	WE 2	Innovative Wastewater Technologies		
	1	WE 3.1	Water Use Reduction, 20% Reduction		
	1	WE 3.2	Water Use Reduction, 30% Reduction		
Energy & Atmosphere: 3 Prerequisites, 17 Possible Points					
	R	EA Prereq 1	Fundamental Commissioning of Building Energy Systems		
	R	EA Prereq 2	Minimum Energy Performance		
	R	EA Prereq 3	Fundamental Refrigerant Management		
	1	EA 1.1	Optimize Energy Performance, 10.5%		
	1	EA 1.2	Optimize Energy Performance, 14%		
	1	EA 1.3	Optimize Energy Performance, 17.5%		
	1	EA 1.4	Optimize Energy Performance, 21%		
	1	EA 1.5	Optimize Energy Performance, 24.5%		
	1	EA 1.6	Optimize Energy Performance, 28%		
	1	EA 1.7	Optimize Energy Performance, 31.5%		
	1	EA 1.8	Optimize Energy Performance, 35%		
	1	EA 1.9	Optimize Energy Performance, 38.5%		
	1	EA 1.10	Optimize Energy Performance, 42%		
	1	EA 2.1	On-Site Renewable Energy, 2.5%		
	1	EA 2.2	On-Site Renewable Energy, 7.5%		
	1	EA 2.3	On-Site Renewable Energy, 12.5%		
	1	EA 3	Enhanced Commissioning		
	1	EA 4	Enhanced Refrigerant Management		
	1	EA 5	Measurement & Verification		
	1	EA 6	Green Power		
Materials and Resources: 1 Prerequisite, 4 Possible Points					
	R	MR Prereq 1	Storage & Collection of Recyclables		
	1	MR 1.1	Building Reuse, Maintain 75% of Existing Walls, Floors, and Roof		
	1	MR 1.2	Building Reuse, Maintain 95% of Existing Walls, Floors, and Roof		
	1	MR 1.3	Building Reuse, Maintain 50% of Interior Non-Structural Elements		
	1	MR 2.1	Construction Waste Management, Divert 50%		

Credit included in project	Points	Credit Number	Credit Description	Location(s) Credit is Shown in Plans AND/OR Specifications Include: Plan Page & Detail, Spec Section Name/Number/Location NOTE: SPECIFICATIONS ARE NOT SUBMITTAL DOCUMENTS, BUT ARE SUBJECT TO REVIEW.
	1	MR 2.2	Construction Waste Management, Divert 75%	
	1	MR 3.1	Materials Reuse, Specify 5%	
	1	MR 3.2	Materials Reuse, Specify 10%	
	1	MR 4.1	Recycled Content, 10%	
	1	MR 4.2	Recycled Content, 20%	
	1	MR 5.1	Regional Materials, 10%	
	1	MR 5.2	Regional Materials, 20%	
	1	MR 6	Rapidly Renewable Materials	
	1	MR 7	Certified Wood	
Indoor Environmental Quality: Prerequisites: Possible Points				
	R	IEQ Prereq 1	Minimum IAQ Performance	
	R	IEQ Prereq 2	Environmental Tobacco Smoke (ETS) Control	
	1	IEQ 1	Outdoor Air Delivery Monitoring	
	1	IEQ 2	Increased Ventilation	
	1	IEQ 3.1	Construction IAQ Management Plan, During Construction	
	1	IEQ 3.2	Construction IAQ Management Plan, Before Occupancy	
	1	IEQ 4.1	Low-Emitting Materials, Adhesives & Sealants	
	1	IEQ 4.2	Low-Emitting Materials, Paints & Coatings	
	1	IEQ 4.3	Low-Emitting Materials, Carpet Systems	
	1	IEQ 4.4	Low-Emitting Materials, Composite Wood and Agrifiber Products	
	1	IEQ 5	Indoor Chemical & Pollutant Source Control	
	1	IEQ 6.1	Controllability of Systems, Lighting	
	1	IEQ 6.2	Controllability of Systems, Thermal Comfort	
	1	IEQ 7.1	Thermal Comfort, Design	
	1	IEQ 7.2	Thermal Comfort, Verification	
	1	IEQ 8.1	Daylight & Views, Daylight 75% of Spaces	
	1	IEQ 8.2	Daylight & Views, Views for 90% of Spaces	
Innovation in Design: Prerequisites: Possible Points				
	1	ID 1.1	Innovation in Design: TBD	
	1	ID 1.2	Innovation in Design: TBD	
	1	ID 1.3	Innovation in Design: TBD	
	1	ID 1.4	Innovation in Design: TBD	
	R	ID 2	LEED™ Accredited Professional	
Certified 26 to 32 points Silver 33 to 39 points Gold 39 to 51 points Platinum 52 or more points				

City and County of San Francisco Green Building Requirements GreenPoint Rated

Attachment B-4
Submittal Template

GreenPoint Rated Checklist
Page 2

GreenPoint Rated Checklist
Page 1

This Template and other useful documents may be downloaded from: www.sfgov.org/dbi.

Note: When inserting the GreenPoint checklist from Excel, double-check the following:

- Use the "Planning Scoresheet" worksheet, which includes "Notes" and "Blueprint Page No" columns to indicate where each proposed green building measure is shown in the submittal documents.
- Complete the "Notes" and/or "Blueprint Page No" columns to indicate where each green building measure is indicated in the submittal documents, as applicable.
- When preparing a page to paste onto this sheet, be sure to select, fit to 1 page wide by 4 tall" in Page Setup, under the file menu.
- This template is provided for your convenience; you may reformat as needed, provided that all required information is complete and clearly legible.

GreenPoint Rated Checklist
Page 4

GreenPoint Rated Checklist
Page 3

Date: _____
 Block/Lot: _____
 Address: _____
 Primary Occupancy: _____
 # of Dwelling Units: _____
 Height to highest occupied floor: _____

Summary of Green Building Requirements:	Minimum	Maximum	Not Applicable
Rating Requirement:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GreenPoint Rated (i.e. includes prerequisites)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supplemental green building measures required by Chapter 13C SFPUC Stormwater Design Guidelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To be completed by DBI Intake Staff

Chapter 13C Requirements Verified by:
 Name: _____
 Date: _____

Notes:

SELECT VERIFICATION OPTION 1 OR OPTION 2:

Option 1:
 Verification of compliance for this project will be provided by a GreenPoint Rated under the GreenPoint Rated system. No Green Building Compliance Professional of Record is required.

Green Point Rater – Name: _____ Contact Phone No: _____
 Green Point Rater – Sign & Date _____
 Permit Applicant – Sign & Date _____

OR

Option 2:
 This project will not be GreenPoint Rated. The Green Building Compliance Professional of Record for this project is:

Name _____
 Firm _____
 Architectural or Engineering License _____

I am a Certified GreenPoint Rater
 I am NOT a Certified GreenPoint Rater
 GreenPoint Rated Projects Completed: _____

If the above licensed professional is not a Certified GreenPoint Rater, additional signature by a Certified GreenPoint Rater is required:

Green Point Rater – Name (Print) & Contact Phone No _____
 Green Point Rater – Sign & Date _____

To the best of my knowledge, it is my professional opinion the Green Building requirements of the City of San Francisco will be met for the above referenced project. I have been retained by the project sponsor to review all submittal documents and assure that approved construction documents and construction properly reflect the green building requirements of Chapter 13C. I will notify the Department or Building Inspection if I believe to the best of my knowledge that the project will, for any reason, not substantially comply with these green building requirements, or if I am no longer the Green Building Compliance Professional of Record for this project.

Licensed Professional: Sign & Date _____
 Affix professional stamp: _____

Project

GPR

Green Building Submittal: Green Point Rated
City and County of San Francisco

GPR

GreenPoint Rated Checklist: Single Family

The GreenPoint rated checklist tracks green features incorporated into the home. The recommended minimum requirements for a green home are: Earn a total of 50 points or more; obtain the following minimum points per category: Energy (30), Indoor Air Quality/Health (5), Resources (6), and Water (9); and meet the prerequisites.

A.3.a (50% construction waste diversion), J.1 (Exceed Title 24 by 15%), and N.1 (Incorporate Green Points checklist in blueprints).

The green building practices listed below are described in the New Home Construction Green Building Guidelines, available at www.builditgreen.org. Build It Green is a non-profit organization providing the GreenPoint Rated program as a public service. Build It Green encourages local governments to leverage program resources to support voluntary, market-based programs and strategies. 2007 New Home v.3.4 August 2007



Build It Green
Smart Solutions From The Ground Up

Total Points Achieved: 0

0	0	0	0	0	0
0	0	0	0	0	0

Project Name	Rater Name	Rater Number	Planning Scoresheet	Points Achieved	Possible Points					Plan Review	Rough Inspection	Final Inspection	Documentation	Blueprint Page No.	Notes
					Community	Energy	IAQ/Health	Resources	Water						
A. SITE															
1. Protect Topsoil and Minimize Disruption of Existing Plants & Trees															
<input type="checkbox"/>	a. Protect Topsoil from Erosion and Reuse after Construction	0	1					1		R	A	A	R		
<input type="checkbox"/>	b. Limit and Delineate Construction Footprint for Maximum Protection	0						1		R	A	A	R		
2. Deconstruct Instead of Demolishing Existing Buildings On Site															
0		0				3							R		
3. Recycle Job Site Construction Waste (Including Green Waste)															
<input type="checkbox"/>	a. Minimum 50% Waste Diversion by Weight (Recycling or Reuse) - Required	0					R							R	
<input type="checkbox"/>	b. Minimum 65% Diversion by Weight (Recycling or Reuse)	0					2							R	
<input type="checkbox"/>	c. Minimum 80% Diversion by Weight (Recycling or Reuse)	0					2							R	
4. Use Recycled Content Aggregate (Minimum 25%)															
<input type="checkbox"/>	a. Walkway and Driveway	0					1							R	
<input type="checkbox"/>	b. Roadway Base	0					1							R	
Total Points Available in Site = 12															
B. FOUNDATION															
1. Replace Portland Cement in Concrete with Recycled Flyash or Slag															
<input type="checkbox"/>	a. Minimum 20% Flyash or Slag	0					1							R	
<input type="checkbox"/>	b. Minimum 25% Flyash or Slag	0					1							R	
2. Use Frost-Protected Shallow Foundation in Cold Areas (C.E.C. Climate Zone 16)															
0		0					3			R	R				
3. Use Radon Resistant Construction (In At-Risk Locations Only)															
<input type="checkbox"/>	[*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0				1				A	A				
4. Design and Build Structural Pest Control															
<input type="checkbox"/>	a. Install Termite Shields & Separate All Exterior Wood-to-Concrete Connections by Metal or Plastic Fasteners/Dividers	0					1				R				
<input type="checkbox"/>	b. All New Plants Have Trunk, Base, or Stem Located At Least 36 Inches from Foundation	0					1							R	
Total Points Available in Foundation = 8															
C. LANDSCAPING															
1. Construct Resource-Efficient Landscapes															
<input type="checkbox"/>	a. No Invasive Species Listed by Cal-IPC Are Planted	0						1						R	
<input type="checkbox"/>	b. No Plant Species Will Require Hedging	0					1							R	
<input type="checkbox"/>	c. 75% of Plants Are California Natives or Mediterranean Species or Other Appropriate Species	0						3						R	
2. Use Fire-Safe Landscaping Techniques															
0		0	1							A		A	R		
3. Minimize Turf Areas in Landscape Installed by Builder															
<input type="checkbox"/>	a. All Turf Will Have a Water Requirement Less than or Equal to Tall Fescue (<= 0.8 plant factor)	0						2		A		A	R		
<input type="checkbox"/>	b. Turf Shall Not Be Installed on Slopes Exceeding 10% or in Areas Less than 8 Feet Wide	0						2		A		A	R		
<input type="checkbox"/>	c. Turf is <33% of Landscaped Area (total 2 points)	0						2		A		R			
<input type="checkbox"/>	d. Turf is <10% of Landscaped Area (total 4 points)	0						2		A		R			
4. Plant Shade Trees															
0		0						3		A		A	R		
5. Group Plants by Water Needs (Hydrozoning)															
0		0						2		A		A	R		
6. Install High-Efficiency Irrigation Systems															
<input type="checkbox"/>	a. System Uses Only Low-Flow Drip, Bubblers, or Low-flow Sprinklers	0						2		A		A	R		
<input type="checkbox"/>	b. System Has Smart (Weather-Based) Controllers	0						3		A		A	R		
7. Incorporate Two Inches of Compost in the Top 6 to 12 Inches of Soil															
0		0						1						R	
8. Mulch All Planting Beds to the Greater of 2 Inches or Local Water Ordinance Requirement															
0		0						2						R	
9. Use 50% Salvaged or Recycled-Content Materials for 50% of Non-Plant Landscape Elements															
0		0						1						R	R
10. Reduce Light Pollution by Shielding Fixtures and/or Directing Light Downward															
0		0	1											R	R
Total Points Available in Landscaping = 31															
D. STRUCTURAL FRAME & BUILDING ENVELOPE															
1. Apply Optimal Value Engineering															
<input type="checkbox"/>	a. Place Rafters and Studs at 24-Inch On Center Framing	0						1						R	
<input type="checkbox"/>	b. Size Door and Window Headers for Load	0						1						R	
<input type="checkbox"/>	c. Use Only Jack and Cripple Studs Required for Load	0						1						R	
2. Use Engineered Lumber															
<input type="checkbox"/>	a. Beams and Headers	0						1						R	
<input type="checkbox"/>	b. Insulated Engineered Headers	0				1								R	
<input type="checkbox"/>	c. Wood Joists or Web Trusses for Floors	0						1						R	
<input type="checkbox"/>	d. Wood Joists for Roof Rafters	0						1						R	
<input type="checkbox"/>	e. Engineered or Finger-Jointed Studs for Vertical Applications	0						1						R	
<input type="checkbox"/>	f. Oriented Strand Board for Subfloor	0						1						R	
<input type="checkbox"/>	g. Oriented Strand Board for Wall and Roof Sheathing	0						1						R	
3. Use FSC-Certified Wood															
<input type="checkbox"/>	a. Dimensional Lumber, Studs and Timber: Minimum 40%	0						2						A	A
<input type="checkbox"/>	b. Dimensional Lumber, Studs and Timber: Minimum 70%	0						2						A	A
<input type="checkbox"/>	c. Panel Products: Minimum 40%	0						1						A	A
<input type="checkbox"/>	d. Panel Products: Minimum 70%	0						1						A	A
4. Use Solid Wall Systems (Includes SIPs, ICFs, & Any Non-Stick Frame Assembly)															
<input type="checkbox"/>	a. Floors	0				2		2		A	A				
<input type="checkbox"/>	b. Walls	0				2		2		A	A				
<input type="checkbox"/>	c. Roofs	0				2		2		A	A				
5. Reduce Pollution Entering the Home from the Garage															
[*Points automatically granted when project qualifies for measure J3: ES with IAQ]															
<input type="checkbox"/>	a. Tightly Seal the Air Barrier between Garage and Living Area	0					1				R				
<input type="checkbox"/>	b. Install Garage Exhaust Fan OR Build a Detached Garage	0					1					R			
6. Design Energy Heels on Trusses (75% of Attic Insulation Height at Outside Edge of Exterior Wall)															
0		0				1				A	A				
7. Design Roof Trusses to Accommodate Ductwork															
0		0				1				A	A				
8. Use Recycled-Content Steel Studs for 90% of Interior Wall Framing															
0		0						1						A	
9. Thermal Mass Walls: 5/8-Inch Drywall on All Interior Walls or Walls Weighing more than 40 lbs/cu.ft.															
0		0				1				A	A				
10. Install Overhangs and Gutters															
<input type="checkbox"/>	a. Minimum 16-Inch Overhangs and Gutters	0						1		A		A			
<input type="checkbox"/>	[*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0													

Project Name		Points Achieved	Community	Energy	IAQ/Health	Resources	Water	Plan Review	Rough Inspection	Final Inspection	Documentation	Blueprint Page No.	Notes
Rater Name													
Rater Number													
Planning Scoresheet													
<input type="checkbox"/> b. Minimum 24-Inch Overhangs and Gutters		0		1				A		A			
Total Points Available in Structural Building Frame and Envelope = 36		0											
E. EXTERIOR FINISH													
Points Available Per Measure													
<input type="checkbox"/> 1. Use Recycled-Content (No Virgin Plastic) or FSC-Certified Wood Decking		0			2					A	A		
<input type="checkbox"/> 2. Install a Rain Screen Wall System		0			2			A	A				
<input type="checkbox"/> 3. Use Durable and Non-Combustible Siding Materials		0			1			A		A	A		
<input type="checkbox"/> 4. Use Durable and Non-Combustible Roofing Materials		0			2			A		A	A		
Total Points Available in Exterior Finish = 7		0											
F. INSULATION													
Points Available Per Measure													
1. Install Insulation with 75% Recycled Content													
<input type="checkbox"/> a. Walls and/or Floors		0			1					A	A		
<input type="checkbox"/> b. Ceilings		0			1					A	A		
2. Install Insulation that is Low-Emitting (Certified Section 01350)													
<input type="checkbox"/> a. Walls and/or Floors		0			1					A	A		
<input type="checkbox"/> b. Ceilings		0			1					A	A		
3. Inspect Quality of Insulation Installation before Applying Drywall [*Points automatically granted when project qualifies for measure J3: ES with IAQ]		0		1						A	A		
Total Points Available in Insulation = 5		0											
G. PLUMBING													
Points Available Per Measure													
1. Distribute Domestic Hot Water Efficiently (Additive, Maximum 7 Points)													
<input type="checkbox"/> a. Insulate Hot Water Pipes from Water Heater to Kitchen		0		1		1				R			
<input type="checkbox"/> b. Insulate All Hot Water Pipes		0		1		1				R			
<input type="checkbox"/> c. Use Engineered Parallel Piping		0				1		A	A				
<input type="checkbox"/> d. Use Engineered Parallel Piping with Demand Controlled Circulation Loop		0				1		A	A				
<input type="checkbox"/> e. Use Structured Plumbing with Demand Controlled Circulation Loop		0		1		2		A	A				
<input type="checkbox"/> f. Use Central Core Plumbing		0		1		1	1	A	A				
<input type="checkbox"/> 2. Install Only High Efficiency Toilets (Dual-Flush or ≤1.3 gpf)		0					4			R	R		
Total Points Available in Plumbing = Total 11		0											
H. HEATING, VENTILATION & AIR CONDITIONING													
Points Available Per Measure													
1. Design and install HVAC System to ACCA Manual J, D, and S Recommendations [*Points automatically granted when project qualifies for measure J3: ES with IAQ]		0					4			R	R		
2. Install Sealed Combustion Units [*Points automatically granted when project qualifies for measure J3: ES with IAQ]													
<input type="checkbox"/> a. Furnaces		0			2					R			
<input type="checkbox"/> b. Water Heaters		0			2					R			
<input type="checkbox"/> 3. Install Zoned, Hydronic Radiant Heating with Slab Edge Insulation		0		1	1			A	A				
<input type="checkbox"/> 4. Install High Efficiency Air Conditioning with Environmentally Responsible Refrigerants		0		1							R		
5. Design and Install Effective Ductwork [*Sb,d,e are automatically granted when project qualifies for measure J3: ES with IAQ]													
<input type="checkbox"/> a. Install HVAC Unit and Ductwork with Conditioned Space		0		3				A	A				
<input type="checkbox"/> b. Use Duct Mastic on All Duct Joints and Seams		0		1						R			
<input type="checkbox"/> c. Install Ductwork under Attic Insulation (Buried Ducts)		0		1						R			
<input type="checkbox"/> d. Pressure Balance the Ductwork System		0		1						R			
<input type="checkbox"/> e. Protect Ducts during Construction and Clean All Ducts before Occupancy		0		1						R			
<input type="checkbox"/> 6. Install High Efficiency HVAC Filter (MERV 8+) [*Points automatically granted when project qualifies for measure J3: ES with IAQ]		0			1					R	R		
<input type="checkbox"/> 7. Don't Install Fireplaces or Install Sealed Gas Fireplaces with Efficiency Rating NOT Less Than 60% using CSA Standards		0			1					R	R		
8. Install Effective Exhaust Systems in Bathrooms and Kitchens [*B&C are automatically granted when project qualifies for measure J3: ES with IAQ]													
<input type="checkbox"/> a. Install ENERGY STAR Bathroom Fans Vented to the Outside		0			1					R			
<input type="checkbox"/> b. All Bathroom Fans Are on Timer or Humidistat		0			1					R			
<input type="checkbox"/> c. Install Kitchen Range Hood Vented to the Outside		0			1					R			
9. Install Mechanical Ventilation System for Cooling (Additive, Maximum 4 Points)													
<input type="checkbox"/> a. Install ENERGY STAR Ceiling Fans & Light Kits in Living Areas & Bedrooms		0		1						A	A		
<input type="checkbox"/> b. Install Whole House Fan with Variable Speeds		0		1						R			
<input type="checkbox"/> c. Automatically Controlled Integrated System		0		2						R	R		
<input type="checkbox"/> d. Automatically Controlled Integrated System with Variable Speed Control		0		3						R	R		
10. Install Mechanical Fresh Air Ventilation System (Maximum 3 Points)													
<input type="checkbox"/> a. Any Whole House Ventilation System That Meets ASHRAE 62.2		0			2			A	A				
<input type="checkbox"/> b. Install Air-to-Air Heat Exchanger that meets ASHRAE 62.2 [*Points automatically granted when project qualifies for measure J3: ES with IAQ]		0			1	2		A	A				
<input type="checkbox"/> 11. Install Carbon Monoxide Alarm(s) [*Points automatically granted when project qualifies for measure J3: ES with IAQ]		0			1					R			
Total Points Available in Heating, Ventilation and Air Conditioning = 30		0											
I. RENEWABLE ENERGY													
Points Available Per Measure													
<input type="checkbox"/> 1. Pre-Plumb for Solar Hot Water Heating		0					4	A	A				
<input type="checkbox"/> 2. Install Solar Water Heating System		0					10	A	A	A			
<input type="checkbox"/> 3. Install Wiring Conduit for Future Photovoltaic Installation & Provide 200 ft² of South-Facing Roof		0					2			A	A		
4. Install Photovoltaic (PV) Panels													
<input type="checkbox"/> a. 30% of electric needs OR 1.2 kW (total 6 points)		0					6					R	
<input type="checkbox"/> b. 60% of electric needs OR 2.4kW (total 12 points)		0					6					R	
<input type="checkbox"/> c. 90% of electric need OR 3.6 kW (total 18 points)		0					6					R	
Total Available Points in Renewable Energy = 28		0											
J. BUILDING PERFORMANCE													
Points Available Per Measure													
1. Diagnostic Evaluations													
<input type="checkbox"/> a. House Passes Blower Door Test [*Points automatically granted when project qualifies for measure J3: ES with IAQ]		0			1						R		
<input type="checkbox"/> b. House Passes Combustion Safety Backdraft Test		0			1						R		
<input checked="" type="checkbox"/> 2. Design and Build High Performance Homes - 15% above Title 24 - Required		0			≥30					R			
<input type="checkbox"/> 3. House Obtains ENERGY STAR with Indoor Air Package Certification - Pilot Measure (Total 45 points; read comment)		0			5	2					R		
Total Available Points in Building Performance = 109		0											
K. FINISHES													
Points Available Per Measure													
<input type="checkbox"/> 1. Design Entryways to Reduce Tracked In Contaminants		0			1					R			
2. Use Low-VOC or Zero-VOC Paint (Maximum 3 Points)													
<input type="checkbox"/> a. Low-VOC Interior Wall/Ceiling Paints (<50 gpl VOCs (Flat) and <150 gpl VOCs (Non-Flat))		0			1						R		
<input type="checkbox"/> b. Zero-VOC: Interior Wall/Ceiling Paints (<5 gpl VOCs (Flat))		0			3						R		
<input type="checkbox"/> 3. Use Low VOC, Water-Based Wood Finishes (<250 gpl VOCs)		0			2						R		
<input type="checkbox"/> 4. Use Low-VOC Caulk and Construction Adhesives (<70 gpl VOCs) for All Adhesives		0			2						R		
<input type="checkbox"/> 5. Use Recycled-Content Paint		0				1					R		
6. Use Environmentally Preferable Materials for Interior Finish: A) FSC-Certified Wood, B) Reclaimed, C) Rapidly Renewable, D) Recycled-Content or E) Finger-Jointed													
<input type="checkbox"/> a. Cabinets (50% Minimum)		0			1					A	A		

Project Name		Points Achieved	Community	Energy	IAQ/Health	Resources	Water	Plan Review	Rough Inspection	Final Inspection	Documentation	Blueprint Page No.	Notes	
Rater Name														
Rater Number		Planning Scoresheet												
<input type="checkbox"/>	b. Interior Trim (50% Minimum)	0				1				A	A			
<input type="checkbox"/>	c. Shelving (50% Minimum)	0				1				A	A			
<input type="checkbox"/>	d. Doors (50% Minimum)	0				1				A	A			
<input type="checkbox"/>	e. Countertops (50% Minimum)	0				1				A	A			
7. Reduce Formaldehyde in Interior Finish (CA Section 01350)														
<input type="checkbox"/>	a. Subfloor & Stair Treads (50% Minimum)	0			1				A	A	A			
<input type="checkbox"/>	b. Cabinets & Countertops (50% Minimum)	0			1					A	A			
<input type="checkbox"/>	c. Interior Trim (50% Minimum)	0			1					A	A			
<input type="checkbox"/>	d. Shelving (50% Minimum)	0			1					A	A			
<input type="checkbox"/>	8. After Installation of Finishes, Test of Indoor Air Shows Formaldehyde Level <27ppb	0			3						R			
Total Available Points in Finishes = 21		0												
L. FLOORING		Points Available Per Measure												
1. Use Environmentally Preferable Flooring: A) FSC-Certified Wood, B) Reclaimed or Refinished, C) Rapidly Renewable, D) Recycled-Content, E) Exposed Concrete. Flooring Adhesives Must Have <50 gpl VOCs.														
<input type="checkbox"/>	a. Minimum 15% of Floor Area	0			1					A	A			
<input type="checkbox"/>	b. Minimum 30% of Floor Area	0			1					A	A			
<input type="checkbox"/>	c. Minimum 50% of Floor Area	0			1					A	A			
<input type="checkbox"/>	d. Minimum 75% of Floor Area	0			1					A	A			
<input type="checkbox"/>	2. Thermal Mass Floors: Floor Covering Other than Carpet on 50% or More of Concrete Floors	0		1					A	A				
<input type="checkbox"/>	3. Flooring Meets Section 01350 or CRI Green Label Plus Requirements (50% Minimum) [Points automatically granted when project qualifies for measure J3: ES with IAQ]	0			2					A	A			
Total Available Points in Flooring = 7		0												
M. APPLIANCES AND LIGHTING		Points Available Per Measure												
1. Install Water and Energy Efficient Dishwasher														
<input type="checkbox"/>	a. ENERGY STAR (total 1 point)	0		1						A	A			
<input type="checkbox"/>	b. Dishwasher Uses No More than 6.5 Gallons/Cycle (total 2 points)	0				1					R			
<input type="checkbox"/>	2. Install ENERGY STAR Clothes Washing Machine with Water Factor of 6 or Less													
<input type="checkbox"/>	a. Meets Energy Star and CEE Tier 2 requirements (modified energy factor 2.0, Water Factor 6.0 or less) (total 3 points)	0		1		2				A	A			
<input type="checkbox"/>	b. Meets Energy Star and CEE Tier 3 requirements (modified energy factor 2.2, Water Factor 4.5 or less) (total 5 points)	0				2				A	A			
<input type="checkbox"/>	3. Install ENERGY STAR Refrigerator													
<input type="checkbox"/>	a. ENERGY STAR Qualified & < 25 Cubic Feet Capacity	0		1						A	A			
<input type="checkbox"/>	b. ENERGY STAR Qualified & < 20 Cubic Feet Capacity	0		1						A	A			
<input type="checkbox"/>	4. Install Built-In Recycling Center													
<input type="checkbox"/>	a. Built-In Recycling Center	0			2						R			
<input type="checkbox"/>	b. Built-In Composting Center	0			1						R			
Total Available Points in Appliances and Lighting = 12		0												
N. OTHER		Points Available Per Measure												
<input type="checkbox"/>	1. Incorporate GreenPoint Rated Checklist in Blueprints - Required	0							R					
<input type="checkbox"/>	2. Develop Homeowner Manual of Green Features/Benefits [Points automatically granted when project qualifies for measure J3: ES with IAQ]	0		1	1		1				R			
Total Available Points in Other = 3		0												
O. COMMUNITY DESIGN & PLANNING (maximum 20 points in this section)		Points Available Per Measure												
1. Develop Infill Sites														
<input type="checkbox"/>	a. Project is Located in a Built Urban Setting with Utilities in Place for Fifteen Years	0	1			1			A	A	A	R		
<input type="checkbox"/>	b. Development is Located within 1/2 Mile of a Major Transit Stop	0	2						A	A	A	R		
<input type="checkbox"/>	2. Cluster Homes & Keep Size in Check													
<input type="checkbox"/>	a. Cluster Homes for Land Preservation	0	1			1				R		R		
<input type="checkbox"/>	b. Conserve Resources by Increasing Density (10 Units per Acre or Greater)	0	2			2				R		R		
<input type="checkbox"/>	c. Home Size Efficiency	0				9				R				
<input type="checkbox"/>	3. Subdivision Layout & Orientation to Improve Natural Cooling and Passive Solar Attributes	0	3	7					R		R			
<input type="checkbox"/>	4. Design for Walking & Bicycling													
<input type="checkbox"/>	a. Pedestrian Access to 5 or More Neighborhood Services within 1/4 Mile: 1) Community Center/Library; 2) Grocery Store; 3) School; 4) Day Care; 5) Laundry; 6) Medical; 7) Entertainment/Restaurants; 8) Post Office; 9) Place of Worship; 10) Bank	0	2							A	A	R		
<input type="checkbox"/>	b. Development is Connected with a Dedicated Pedestrian Pathway to Places of Recreational Interest within 1/4 mile	0	1							A	A	R		
<input type="checkbox"/>	c. Builder Installs At Least Two of the Following Traffic-Calming Strategies: - Designated Bicycle Lanes are Present on Roadways; - Ten-Foot Vehicle Travel Lanes; - Street Crossings Closest to Site are Located Less Than 300 Feet Apart; - Streets Have Rumble Strips, Bumpouts, Raised Crosswalks or Refuge Islands	0	2							A	R	R		
<input type="checkbox"/>	5. Design for Safety & Social Gathering													
<input type="checkbox"/>	a. All Home Front Entrances Have Views from the Inside to Outside Cafers	0	1								R			
<input type="checkbox"/>	b. All Home Front Entrances Can be Seen from the Street and/or from Other Front Doors	0	1							A	A			
<input type="checkbox"/>	c. Orient Porches (min. 100sf) to Streets and Public Spaces	0	1						A	A	A			
<input type="checkbox"/>	6. Design for Diverse Households													
<input type="checkbox"/>	a. All Homes Have at Least One Zero-Step Entrance	0	1								R			
<input type="checkbox"/>	b. All Main Floor Interior Doors & Passageways Have a Minimum 32-Inch Clear Passage Space	0	1								R			
<input type="checkbox"/>	c. Locate at Least a Half-Bath on the Ground Floor with Blocking in Walls for Grab Bars	0	1							R				
<input type="checkbox"/>	d. Provide Full-Function Independent Rental Unit	0	1						A		A			
Total Achievable Points in Community Design & Planning = 20		0												
P. INNOVATION (maximum 20 points in this section)		Possible Points												
A. Site														
<input type="checkbox"/>	1. Reduce Heat-Island Effect - Install light-colored, high albedo materials (solar reflectance index >= 0.3) for at least 50% of site's non-roof impervious surfaces	0	1								R	R		
<input type="checkbox"/>	2. Build on EPA designated brownfield site	0	3									R		
B. Foundation [Points automatically granted when project qualifies for measure J3: ES with IAQ]														
<input type="checkbox"/>	1. Install a Foundation Drainage System	0			2				A	R		R		
<input type="checkbox"/>	2. Sealed and Moisture Controlled Crawlspace	0			2						R			
C. Landscaping														
<input type="checkbox"/>	1. Meets Bay-Friendly Landscape Program Requirement	0			4							R		
<input type="checkbox"/>	2. Meets California-Friendly Landscape Program Requirement	0			4							R		
<input type="checkbox"/>	3. Rain Water Harvesting System (1 point for <350 gallons, 2 points for > 350 gallons)				2									
<input type="checkbox"/>	a. Less than 350 gallon capacity	0			1					R	R			
<input type="checkbox"/>	b. Greater than 350 gallon capacity	0			2					R	R			
<input type="checkbox"/>	4. Assess Site Climate, Exposure, Topography, and Drainage	0			1			R			R			
<input type="checkbox"/>	5. Perform a Soil Analysis	0			1			A			R			
<input type="checkbox"/>	6. Irrigation System Uses Recycled Wastewater	0			1				A		R			
<input type="checkbox"/>	7. FSC Certified, Recycled Plastic or Composite Lumber - Fencing: 70%	0			1					R	R			
D. Structural Frame and Building Envelope														

Project Name		Rater Name		Rater Number		Planning Scoresheet		Points Achieved	Community	Energy	IAQ/Health	Resources	Water	Plan Review	Reg. Inspection	Final Inspection	Documentation	Blueprint Page No.	Notes	
1. Design, Build and Maintain Structural Pest and Rot Controls																				
<input type="checkbox"/>	a. Locate All Wood (Siding, Trim, Structure) At Least 12" Above Soil	0																		
<input type="checkbox"/>	b. All Wood Framing 3 Feet from the Foundation is Treated with Borets (or Use Factory-Impregnated Materials) OR Walls are Not Made of Wood	0								1										
2. Use Moisture Resistant Materials in Wet areas of Kitchens, Bathrooms, Utility Rooms, and Basements [*Points automatically granted when project qualifies for measure J3: ES with IAQ]																				
<input type="checkbox"/>		0																		
3. Use FSC Certified Engineered Lumber (3 points maximum)																				
<input type="checkbox"/>	a. Beams and Headers	0																		
<input type="checkbox"/>	b. Insulated Engineered Headers	0																		
<input type="checkbox"/>	c. Wood I-Joists or Web Trusses for Floors	0																		
<input type="checkbox"/>	d. Wood I-Joists for Roof Rafters	0																		
<input type="checkbox"/>	e. Engineered or Finger-Jointed Studs for Vertical Applications	0																		
<input type="checkbox"/>	f. Roof Trusses: 100%	0																		
4. FSC Certified Wood																				
<input type="checkbox"/>	a. Dimensional Lumber, Studs and Timber: 100%	0																		
<input type="checkbox"/>	b. Panel Products: 100%	0																		
E. Exterior Finish																				
<input type="checkbox"/>	1. Green Roofs (25% of roof area minimum)	0	1	1																
<input type="checkbox"/>	2. Flashing Installation Techniques Specified [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0																		
F. Insulation																				
G. Plumbing																				
<input type="checkbox"/>	1. Graywater Pre-plumbing (includes washing machine at minimum)	0																		
<input type="checkbox"/>	2. Graywater System Operational (includes washing machine at minimum)	0																		
<input type="checkbox"/>	3. Innovative Wastewater Technology (Constructed Wetland, Sand Filter, Aerobic System)	0																		
<input type="checkbox"/>	4. Composting or Waterless Toilet	0																		
<input type="checkbox"/>	5. Install Drain Water Heat-recovery System	0																		
<input type="checkbox"/>	6. Install Water Efficient Fixtures	0																		
<input type="checkbox"/>	a. Showerheads or Shower Towers Use <2.0 Gallons Per Minute (GPM) Total	0																		
<input type="checkbox"/>	b. Faucets - bathrooms <1.5 gpm	0																		
<input type="checkbox"/>	c. Faucets - Kitchen & Utility <2.0 gpm	0																		
H. Heating, Ventilation, and Air Conditioning																				
<input type="checkbox"/>	1. Humidity Control Systems (only in California humid/marine climate zones 1,3,5,6,7)	0																		
I. Renewable Energy																				
<input type="checkbox"/>	1. Extraordinary Passive Solar Design (> 50% of load) That is Not Already Reflected in T-24 Modeling	0																		
J. Building Performance																				
<input type="checkbox"/>	1. Test Total Supply Air Flow Rates	0																		
K. Finishes																				
1. Use Environmentally Preferable Materials for Interior Finishes																				
<input type="checkbox"/>	a. Cabinets (80% minimum)	0																		
<input type="checkbox"/>	b. Interior Trim (80% minimum)	0																		
<input type="checkbox"/>	c. Shelving (80% minimum)	0																		
<input type="checkbox"/>	d. Doors (80% minimum)	0																		
<input type="checkbox"/>	e. Countertops (80% minimum)	0																		
L. Flooring																				
<input type="checkbox"/>	1. Flooring Meets Section 01350 or CRI Green Label Plus Requirements (80% Minimum) [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0																		
M. Appliances																				
N. Other																				
<input type="checkbox"/>	1. Homebuilder's Management Staff are Certified Green Building Professionals	0	1																	
<input type="checkbox"/>	2. Detailed Durability Plan [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0																		
<input type="checkbox"/>	3. Third-Party Verification of Implementation of Durability Plan	0																		
<input type="checkbox"/>	4. Materials Sourced, Processed and Manufactured Within a 500 Mile Radius of the Home	0	1																	
<input type="checkbox"/>	5. Comprehensive Owner's Manual and Homeowner Educational Walkthroughs	0																		
Total Achievable Points in Innovation = 20																				
Summary																				
Total Available Points in Specific Categories		32	193	51	103	71														
Minimum Points Required in Specific Categories		0	30	5	6	9														
Total Points Achieved		0	0	0	0	0														

Project has not yet met the following recommended minimum requirements:

- Total Project Score of At Least 50 Points
- Required measures:
 - A3a: 50% waste diversion by weight
 - J2: 15% above Title 24
 - N1: Incorporate GreenPoint Rated Checklist into blueprints
- Minimum points in specific categories:
 - Energy (30 points)
 - IAQ/Health (5 points)
 - Resources (6 points)
 - Water (9 points)

Maximum 20 points pursued under Innovation
 -Maximum 20 points pursued under Innovation



Green Building Ordinance: Supplementary Energy Compliance Documentation

PERF-1-GBO

To demonstrate LEED energy equivalence using the 2005 Title 24 performance approach

Project Name/Address:			
Date of T24 Report:		Conditioned Floor Area (SF):	

1. Input Data from Title PERF-1, Part 2 of 3

Energy Component	Standard Design (TDV KBtu/sf-yr)	Proposed Design (TDV KBtu/sf-yr)	Instructions
Space Heating			Input Space Heating for every project.
Space Cooling			Input Space Cooling for every project.
Indoor Fans			Input Indoor Fans for every project.
Heat Rejection			Input Heat Rejection if including Mechanical compliance.
Pumps & Misc.			Input Pumps & Misc. if including Mechanical compliance.
DHW			Input DHW if service hot water is modeled for compliance.
Lighting			Input Lighting if including Lighting compliance.
TOTALS:			

2. Calculate Solar Photovoltaic (PV) System Credit in the Proposed Design:

When a proposed solar PV system is to receive credit, Annual TDV Production is obtained using the CEC PV Calculator which can be downloaded for free at:

http://www.gosolarcalifornia.ca.gov/nshpcalculator/download_calculator.html

Annual TDV Production (TDV KWh/yr)		Solar PV Credit (TDV KBtu/sf-yr)	
	X 3.413 (Floor Area)		<i>[used in Step #3]</i>
TOTAL Proposed Design		Revised Proposed Design (TDV KBtu/sf-yr)	
	- Solar PV Credit =		
<i>[from above]</i>			

3. Verify LEED Equivalent Energy Performance

Revised Proposed Design (TDV KBtu/sf-yr)		Standard Design (TDV KBtu/sf-yr)
	must be 14% <	
<i>[from above]</i>		<i>[from above]</i>

Revised Proposed Design is < Standard Title 24 by (%):
--



Green Building: Final Compliance Verification

Address: _____

Permit Application Numbers: _____

Please see attached LEED or GreenPoint Rated final approval/certification, or

As the Green Building Compliance Professional of Record for this project, I verify that, to the best of my knowledge, the above referenced project has been constructed to substantially comply with the green building requirements of the San Francisco building codes.

Mandatory follow-up for this project includes:

Signed: _____ Date: _____

Affix professional stamp here:



Green Building Recommended Project Procedures for Green Building Implementation

Introduction

1. Certification by referenced standards is not required but recommended.
2. LEED and GreenPoint Rated were selected by the Green Building Task Force primarily because of their credibility, existing program infrastructure, and verification performed by qualified review bodies.
3. For more information: www.usgbc.org, www.builditgreen.org

LEED Projects

1. Identify Project Administrator who is a LEED Accredited Professional (reports to Green Building Compliance Professional)
2. Register Project with USGBC
3. Develop Responsibility Matrix and assign credits to responsible design team member
4. Fill out preliminary LEED Checklist
5. Detailed design
6. Design Credits to USGBC for review
7. Construction
8. Construction Credits to USGBC for review
9. Maintain detailed project records showing that green building requirements have been met (DBI Q/A)

GreenPoint Rated Projects

1. Identify Project Administrator who is a Certified GreenPoint Rater (reports to Green Building Compliance Professional)
2. Register Project with Build It Green
3. As early in design process as possible, work with GreenPoint Rater to fill out GreenPoint Rated Checklist
4. Design
5. Plan Review Assessment by GreenPoint Rater
6. Construction
7. Rough Inspection (pre-dywall) by GreenPoint Rater
8. Construction
9. Final Inspection by GreenPoint Rater
10. Maintain detailed project records showing that green building requirements have been met (DBI Q/A)



Green Building: Selected Resources

- **SF Dept of Building Inspection – www.sfgov.org/dbi**
- **SF Environment Green Building Program – www.sfenvironment.org/our_programs/**
- **US Green Building Council – LEED Rating System – www.usgbc.org – Numerous resources, including Reference Guides to the LEED Rating System(s), find workshops, and register for LEED certification.**
 - **US Green Building Council Northern California Chapter – www.usgbc-ncc.org – Network with local green building professionals.**
 - **Green Building Certification Institute: www.gbci.org – The site to register for the LEED Accreditation Exam. As of Jan 1, 2009, www.gbci.org will assume the duties of processing LEED registrations and certifications.**
- **Build It Green – Learn the GreenPoint Rated System, identify opportunities to network, learn more about green building, obtain the Residential Guidelines referenced by GreenPoint Rated, and identify local Certified GreenPoint Raters – www.builditgreen.org**

A “Handbook to Building Green” in San Francisco, comprised of helpful information and more extensive references, is available at the Green Building Display in the DBI Permit Center lobby.



Green Building Requirements: Chapter 13C

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 1304C-A

SIGNIFICANT HISTORICAL ARCHITECTURAL FEATURES	PERCENT RETAINED*	LEED POINTS FOR RETENTION	GREENPOINTS FOR RETENTION
Windows @ principal façade(s)	At least 50	2	7
Windows @ principal façade(s)	At least 75	3	11
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)	80	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	80	1	3
Character-defining elements of significant interior spaces	At least 50	2	7
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

* 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 Bulletin to be prepared and issued by the Department of Building Inspection.

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.