

CITY OF PALO ALTO
Memorandum

Date: October 19, 2009

To: HONORABLE CITY COUNCIL

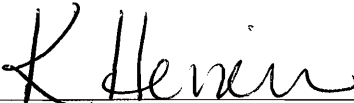
From: KRISTIN HEINEN

Subject: Adoption of a Resolution Revising Green Building Standards for Compliance for Private, Nonresidential and Residential Construction and Renovation, and Review of Report on Implementation of the City's Green Building Ordinance.


The green building agenda item was originally scheduled for the August 3, 2009 City Council meeting. The Council voted to postpone it to a later date, October 19, 2009. There were two major changes made to the CMR and/or attachments since the August 3, 2009 City Council meeting, outlined below.

1. With the City's Energy Efficiency Ordinance also on the agenda for consideration on October 19, 2009, staff took the opportunity to create more consistency between the two interrelated ordinances.
 - a. Definitions and project types found in both ordinances were simplified and made consistent. For example, the definitions for Energy Star Portfolio Manager and Time – Dependent Valuation. In addition, the number system was improved for easier cross-referencing.
 - b. The Green Building Tables A and B were enhanced with a new column explicitly calling out the Energy Efficiency Ordinance requirements and acceptable verification methods, where appropriate.
 - c. The Energy Efficiency Ordinance developments influenced the definition of large nonresidential or residential renovation construction. The old definition included HVAC system, building envelope, plumbing systems, lighting systems and interior finishes/partitions to determine the projects green building requirements, whereas the new definition is more responsive to energy efficiency, dropping interior finishes/partitions and changing plumbing systems to hot water system (Table A 3).

2. For small nonresidential renovation green building requirements to be triggered in the August 3rd version, a project must have been greater than or equal to 500 square feet. The indicator of \$100,000 in valuation was added to the definition to ensure a project was large enough to require the effort of obtaining an Energy STAR Portfolio Manager, Building Energy Performance Rating (Table A 4).



KRISTIN HEINEN
Associate Planner / Sustainability Coordinator



JAMES KEENE
City Manager

TO: HONORABLE CITY COUNCIL

FROM: CITY MANAGER

**DEPARTMENT: PLANNING AND
COMMUNITY ENVIRONMENT**

DATE: OCTOBER 19, 2009

CMR: 332:09

REPORT: ACTION

SUBJECT: Adoption of a Resolution Revising Green Building Standards for Compliance for Private, Nonresidential and Residential Construction and Renovation, and Review of Report on Implementation of the City's Green Building Ordinance.

EXECUTIVE SUMMARY

This report provides a first year summary of implementation of the City's Green Building Ordinance, (Palo Alto Municipal Code (PAMC) Chapter 18.44). Over the past year, the program covered 264 permits, valued at \$8,306,638 allowing 98,275 square feet of construction. This construction incorporated strategies that are environmentally and socially responsible, and improved occupant health.

Staff recommends that Council adopt amendments to the tables adopted in June 2008 in conjunction with the initial adoption of the Green Building Ordinance. The revised tables set forth green building compliance thresholds, rating systems, and compliance verification for private development by project type. The amendments increase requirements for existing buildings with a particular focus on energy efficiency and adjust the covered project definitions based on lessons learned from the first year of program implementation.

RECOMMENDATION

Staff and the Architectural Review Board recommend that the City Council review this report describing the past year's implementation of the City's Green Building Ordinance, and adopt the attached Resolution (Attachment A) referencing proposed amendments to Tables A & B (Resolution Exhibits 1 and 2).

BACKGROUND

In June of 2008, the City of Palo Alto adopted a mandatory Green Building Ordinance (PAMC Chapter 18.44) requiring specific project types to meet minimum standards for compliance and verification using the appropriate U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) or Build It Green (BIG) Green Point Rated (GPR) green building rating systems.

The goal of the Palo Alto Green Building Program is to design, build and operate a new generation of efficient, environmentally responsible, and healthy buildings in the City of Palo

The goal of the Palo Alto Green Building Program is to design, build and operate a new generation of efficient, environmentally responsible, and healthy buildings in the City of Palo Alto. Building green can have a significant impact on reducing energy, water and natural resource consumption, and can improve Palo Alto citizens' well being through improved indoor air quality and comfort. Green building is the practice of taking an integrated approach to building construction, building systems, and building sites to provide more environmentally responsive, healthy, productive, economical places to work, learn and live. Green building also goes beyond the physical buildings to consider how the site and buildings interact with the community and transportation infrastructure.

Standards for green building compliance adopted in conjunction with the Green Building Ordinance include:

- Table A, City of Palo Alto Green Building Standards for Compliance for Private, Nonresidential Construction and Renovation, and
- Table B, City of Palo Alto Green Building Standards for Compliance for Private, Residential Construction and Renovation.

PAMC Section 18.44.040 requires that any amendments to the standards for green building compliance be considered and recommended by the Architectural Review Board. There is also a need to update the Historic Resources Board and Planning and Transportation Commission on the progress made implementing the ordinance during the first year of the Palo Alto Green Building Program.

DISCUSSION

This report covers the first year of ordinance implementation and performance of the Palo Alto Green Building Program, and describes proposed amendments to the green building requirements (Tables A and B). Since the Green Building Ordinance requires staff to return to Council one year after the effective date to report on program implementation, this report covers program performance from July 1, 2008 – June 30, 2009. Staff anticipates that future program reports will be provided during the annual Earth Day report in April of each year, covering the previous year performance from January 1 – December 31.

Over the past year, the Palo Alto Green Building Program was created both to implement the Green Building Ordinance, and to address implementation of and interaction with the City's Energy Efficiency Ordinance and Construction and Demolition Debris Diversion (C&D) Ordinance. Staff has implemented several key Green Building measures over the last year, and has gained insight into areas where the program could be better optimized, as described below.

Green Building Implementation Activities

The following are staff and community building activities that were undertaken and completed during the past fiscal year to implement the Green Building Ordinance:

- *Hiring of Experienced Staff and Training of Existing Staff* - In early October 2008, the City filled the vacant C&D position (funded by Public Works Operations budget) with a qualified staff member who is a LEED Accredited Professional, with BIG's Green Point Rater (GPR)

Training, and experience in green building policy, and development project review. Additional staff members in the Planning and Community Environment, Public Works, and Utilities Departments have undergone training and/or have become accredited/certified under the USGBC LEED/BIG GPR programs, respectively.

- *Developing the Palo Alto Green Building Program Guide (Guide)* – The Guide was developed as a tool to assist the community in understanding the City’s program and to provide information on why green building is important. The Guide describes the City’s project requirements and submittal and review processes, as well as presents financial incentives and helpful outside resources to assist with compliance.
- *Developing a New Green Building Website* – The Planning and Community Environment Department website added a new green building section that allows applicants to view successful green projects in the City, the goals and purpose of the green building program, links to financial incentives for building green, and outside resources. From the site, users can download the Palo Alto Green Building Guide to find specific information regarding the project type the user is undertaking, at http://www.cityofpaloalto.org/depts/pln/green_building/default.asp.
- *Streamlining the C&D and Energy Ordinance Compliance Reviews* - C&D and building energy efficiency are a subset of the broader practice of green building; therefore, the requirements for both were merged into one program and application process, ease of implementation by the City and community. The C&D Debris Diversion Ordinance requires covered projects to achieve a 75% diversion rate and requires applicants to bring all debris to an approved facility. The Energy Efficiency Ordinance requires covered projects to achieve energy savings 15% beyond the California State Energy Code.
- *Integrating Green Building into the Permit and Inspection Process* – Staff established new review and enforcement protocol through the planning and building application processes, including updating existing forms, project checklists, and the Accela building permit tracking system to account for green building review and inspection.
- *Achieving Greater Cost Recovery* – Staff assessed the fiscal and staffing needs to run the green building program to ensure greater cost recovery. The FY 2010 budget passed in June 2009 includes new fees ranging from approximately \$100 - \$800 for projects covered under the Green Building Ordinance to fund staff time to review projects and enforce the requirements. Project fees were determined by the size of the project, and whether the City was providing verification in house, or through the Build It Green or the Green Building Certification Institute.
- *Adding New Enforcement Options* – The Ordinance requires compliance as its primary enforcement mechanism. Final building inspections are delayed until the project can show an adequate level of compliance. In order to expand compliance options, in July 2009, the administrative penalty schedule was updated to allow fines for non-compliant green building projects at \$500 per day of non-compliance. Rebates are offered for building green through the Utilities and Public Works Departments.

- *Creating a Performance Database* – Staff established performance indicators for determining the effectiveness of the program including number of projects by type, number of occupants in green buildings, square footage, points achieved, water reduction, energy savings, waste diverted, greenhouse gas emission reductions, and dollars spent on environmentally preferable materials. In addition, the system tracks review time to ensure green building review and inspection are not responsible for prolonging the building process.
- *Participating in City, Regional and National Events and Efforts* – City staff presented a session regarding the Green Building Ordinance and program implementation at the AIA (American Institute for Architects) International Conference and at the Bay Area City Attorney’s Association, participated on the Energy and Climate Taskforce to develop green building indicators for cities nationally through ICLEI (Local Governments for Sustainability), participated in the Build It Green Public Agency Council and in the Santa Clara County Cities Association Green Building Collaborative to develop policy recommendations for use throughout the county (Attachment E). In addition, the City’s ordinance was recognized as a model ordinance by the International Municipal Lawyers Association.

Looking Forward

The following are some of the green building activities planned for the coming years:

- *Increase Staff Review Capacity* – Reducing reliance on certifying bodies such as the Green Building Certification Institute and Build It Green by increasing capacity for staff reviews and on-site inspections of covered green building projects could reduce costs and time for applicants and can prepare the department for future code requirements for green building at the state level. In particular, staff proposes to increase training and certification in energy efficiency plan review and on-site compliance inspections. It will be necessary, however, to ensure that City review, inspection and costs are not duplicative of those done by outside bodies.
- *Develop a Recognition Program* – Establishing a recognition program to acknowledge all covered projects that have achieved compliance with mandatory green building requirements is particularly valuable for projects that are verified by the City rather than by an outside agency.
- *Improve Performance of Existing Buildings* – Focusing efforts on understanding the current performance of the existing building stock will result in the greatest environmental and performance improvements. These efforts are further outlined in the discussion on the proposed Ordinance amendments.
- *Continue to Track Rating Systems, Code and Policy Development and Integrate into the Green Building Program* – It is important for staff to stay current on green building rating system changes, technology and strategy innovations, and green building codes and policies at both regional and national levels. Staff is particularly interested in finding innovative ways to incorporate the LEED for Neighborhood Development (LEED-ND) program into large projects and within broad City planning strategies and integrating new requirements proposed for the CA Green Building Code changes.

Program Performance

Over the past year, 264 permits were issued for projects covered under the green building compliance standards with the following distribution:

- Residential vs Nonresidential Permits - 100 permits, or 38%, were nonresidential and 164 permits, or 62%, were residential;
- Mandatory Requirements vs Voluntary - 72 permits, or 27%, had mandatory green building requirements and 192, or 63% had construction and demolition debris diversion and/or voluntary requirements such as checklist submittal only;
- Mandatory Requirement Permits by Project Type - 22 permits, or close to 30% of those with mandatory green building requirements were for nonresidential existing buildings, and 50 permits or close to 70% were for new construction;
- Voluntary Permits by Project Type - 114 permits, or 43%, of the total number of permits were for residential renovations or small additions.

The mandatory requirements resulted in construction of 666,500 square feet of space valued at \$80,412.694. Only five (5) of the 72 permits with mandatory green building requirements have successfully completed the green building program.

These projects:

- totaled project valuations of \$8,306,638 and 98,275 square feet of construction;
- include 750 employees in Palo Alto;
- achieved on average 24% energy efficiency savings;
- reduced indoor water use by 69,500 gallons per year;
- reduced outdoor water use by 50,000 gallons per year;
- expended \$635,174 on environmentally preferable building materials;
- diverted 704.98 tons of waste from landfill; and
- reduced CO₂ emissions by over 200 tons;

It is important to note that projects with mandatory green building requirements are also typically those that have a longer construction period; therefore, many projects that were covered under the requirements when the program started, on July 1, 2008, have not yet completed construction. In addition, while only five projects have successfully completed the green building program, there are many other projects that predate the mandatory requirements and are voluntarily meeting the City's requirements. All completed projects achieved the exact number of points, or slightly exceeded the minimum number of green building points required for the project. However, staff is seeing (on average) more recent applicants striving for point targets 30-40% higher than the City minimum points.

compliance requirements, are consistent with the Green Building Ordinance adopted in June of 2008, which added Chapter 18.44 to the Palo Alto Municipal Code. The amendments are also consistent with the Energy Efficiency Ordinance, which added chapter 16.18 to the Palo Alto Municipal Code establishing local energy efficiency standards based on the 2005 California Energy Code.

The Green Building Program also promotes the City's Climate Protection Plan (CPP) and Zero Waste goals. In 2007, the City Council approved the Climate Protection Plan (CPP) that provided direction to reduce green house gas emissions associated with buildings as one method to reduce Palo Alto's impact on climate change. The plan proposed implementing specific requirements for green building and adopting the 2005 California Energy Code to achieve emission reduction goals.

Finally, the amendments support the City's Comprehensive Plan and Sustainability Plan, which identify several green building strategies as key categories of sustainability.

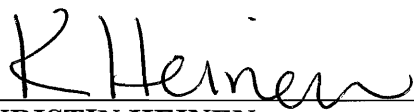
RESOURCE IMPACT

If the proposed amendments are adopted, relevant resource impacts would include increased staff workload. The amendments are unlikely to cause an increase in the applications submitted under the green building program, but are likely to increase the time necessary to review an individual application. The review time depends greatly upon whether a project with mandatory requirements chooses to use the City for verification instead of using GBCI or BIG. Applicants' motivation to choose one verification method over another may include recognition, time, cost and convenience. Staff is confident, based on the data derived over the past year that a manageable number of non-residential project applicants will choose City verification and the majority of residential projects will choose BIG verification. However, the City may need to adjust its permit fees to ensure cost recovery in the event that residential projects choose City verification.

ENVIRONMENTAL REVIEW

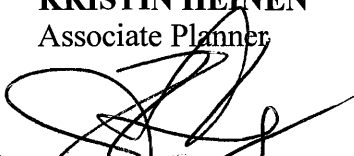
The adoption of the proposed amendments is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) per Section 15308 of CEQA Guidelines.

PREPARED BY:



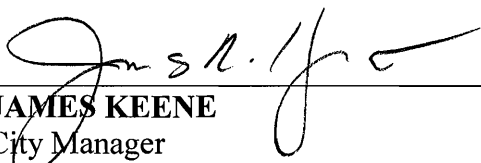
KRISTIN HEINEN
Associate Planner

DEPARTMENT HEAD:



for **CURTIS WILLIAMS**
Director of Planning and Community Environment

CITY MANAGER APPROVAL:



JAMES KEENE
City Manager

ATTACHMENTS

- Attachment A. Resolution
- Attachment B. Table A. City of Palo Alto Green Building Standards for Compliance for Private Nonresidential Construction and Renovation (Not Redlined / Redlined)
- Attachment C. Table B. City of Palo Alto Green Building Standards for Compliance for Private Residential Construction and Renovation (Not Redlined / Redlined)
- Attachment D. Letter from Silicon Valley Leadership Group dated June 16, 2009

NOT YET APPROVED

Resolution No. _____

**Resolution of the City Council of the City of Palo Alto
Revising Green Building Standards for Compliance for
Private Nonresidential and Residential Construction and
Renovation**

WHEREAS, on May 12, 2008, the City Council considered regulations for the incorporation of green building techniques and materials in private nonresidential and nonresidential development projects and adopted Ordinance No. 5006; and

WHEREAS, Ordinance No. 5006 specifies that green building standards for compliance shall be set forth by resolution of the City Council after recommendation from the Director of Planning and Community Environment and the Architectural Review Board. Such standards for compliance shall include the types of projects subject to regulation, green building rating systems to be applied to various types of projects, minimum thresholds for compliance and timing and methods of verification of compliance with green building regulations; and

WHEREAS, on May 12, 2008 the City Council adopted green building standards for compliance for private development projects set forth in two tables that were attached to Resolution No. 8825; and

WHEREAS, Ordinance No. 5006 also specifies that not later than one year after its effective date, a report shall be prepared for presentation to the Architectural Review Board, Historic Resources Board, Planning and Transportation Commission, and City Council regarding the results of implementation of the Ordinance.

WHEREAS, on October 19, 2009, the City Council received the report regarding the initial year of the Green Building program and considered revisions to the green building standards for compliance associated with Ordinance No. 5006; and

WHEREAS, the Director of Planning and Community Environment and the Architectural Review Board do hereby recommend that the City Council approve the proposed revisions to the green building standards for compliance for private nonresidential and residential construction and renovation set forth in Table A and Table B and attached to this resolution.

NOW, THEREFORE, the Council of the City of Palo Alto does hereby RESOLVE as follows:

NOT YET APPROVED

SECTION 1. The Council hereby approves the revised green building standards for compliance for private nonresidential and residential construction and renovation as set forth in Table A and Table B attached to this resolution.

SECTION 2. This resolution shall take effect on January 1, 2010, or upon the date that the 2008 edition of the California Energy Code becomes effective, whichever is later; provided that the City's Ordinance establishing local energy efficiency standards for certain buildings and improvements covered by the 2008 California Energy Code has been approved by the City Council and the California Energy Commission.

INTRODUCED AND PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

City Clerk

APPROVED AS TO FORM:

Deputy City Attorney

APPROVED:

Mayor

City Manager

Director of Planning and Community

Note: Applicants are advised to use this table only in conjunction with the entirety of requirements in Chapter 18.44 (Green Building Regulations)

TRACK CHANGED -- EFFECTIVE JANUARY 2010

Table A. City of Palo Alto Green Building Standards for Compliance for Private Development Nonresidential Construction and Renovation

Type of Project	<u>Rating System, Code or Program</u>	<u>Building Improvements Minimum Threshold Required</u>	<u>Requirement to Exceed CA Title 24 Part 6 (15%)*</u>	<u>Verification**</u>
<u>Nonresidential Construction and Renovation</u>				
1. New construction \geq 25,000 sf (including additions to existing buildings)	<u>USGBC LEED NC Checklist</u>	LEED Silver (33 points)	<u>YES</u>	<u>LEED/USGBC GBCI or CPA</u>
New construction \geq 5,000 sf and $<$ 25,000 sf	<u>LEED NC Checklist</u>	<u>LEED Silver</u>		<u>Threshold verification by LEED AP</u>
2. New Construction \geq 500 sf and $<$ 5,000 sf (including additions to existing buildings)	<u>USGBC LEED NC Checklist</u>	<u>LEED Pro-rated points-Prerequisites + 5 points (round up) required for every 500 sf. Pro-rated formula = (new construction sf/5,000) x 33 points, but not less than 17 points</u>	<u>YES</u>	<u>Threshold verification by LEED AP/GBCI or CPA</u>
3. Tenant improvements, renovations, or alterations \geq 5,000 sf that include replacement or alteration of at least two of the following: HVAC system, building envelope, hot water system, or lighting system. and \geq 50% of project sf and \geq \$0,000 ⁶ valuation ³	<u>USGBC LEED NC Checklist</u>	LEED Certified (26 points)	<u>NO</u>	<u>GBCI or CPA</u>
4. Tenant improvements, renovations or alterations $>$ 500 sf and $>$ \$100,000 in valuation that don't fall under Project Type 3, above.	<u>USGBC LEED AND Energy STAR Portfolio Manager</u>	<u>LEED Checklist Building Energy Performance Rating</u>	<u>NO</u>	<u>CPA</u>
Other renovation \geq \$100,000 ⁶ valuation	<u>LEED CI Checklist</u>	Submit checklist; include on building plans		<u>Self verification</u>
New construction $<$ 500 sf and renovation $<$ \$100,000 ⁶ of valuation	No requirement			

* The requirement to exceed CA Title 24 Part 6 by 15% is also referenced for these project types in the applicable green building rating system, and the City's Energy Efficiency Ordinance.

** For project types 1) and 2), if CPA is chosen for verification, performance 15% beyond California Energy Code, Title 24, Part 6 is an acceptable compliance equivalent to the LEED energy prerequisite. The project will not be required to do additional modeling beyond state requirements.

Special Considerations & Definitions Mixed Use or Other Development Commercial and residential criteria as applicable⁴

<u>Mixed Use Developments</u>	Mixed use projects must comply with the applicable project type requirements based on the scope of the project. Table applicability is to be determined by the Planning Director; generally the provisions of Table A will apply to the commercial portion of the development, and the provisions of Table B will apply to the residential portions of the development.
<u>Historic Structures</u>	Exemptions may be available for historic structures, pursuant to Section 18.44.070 of the ordinance Palo Alto Municipal Code. The Compliance Official may allow the use of alternative checklists for historic buildings or for buildings that retain or re-use substantial portions of the existing structure.
<u>Multi Year Cumulative</u>	Cumulative new construction or renovations over any 2-year period following adoption of these requirements shall be considered as a single project, subject to the highest level of green

Construction	building requirements for that project, unless exempted by the Planning Director as impractical for compliance.
Unusual Projects	Projects with an unusual scope of work or with unique circumstances may apply for an exemption to the green building requirements to be determined by the Planning Director, pursuant to Palo Alto Municipal Code Section 18.44.070.
<u>USGBC LEED</u>	USGBC LEED stands for the U.S. Green Building Council Leadership in Energy and Environmental Design. Projects must comply with the applicable and current -Compliance with other LEED® rating system checklists including but not limited to LEED - C (Core & Shell), LEED CI (Commercial Interiors), or LEED EB (Existing Buildings). An alternative, equivalent rating system or program may be substituted for the designated rating system where deemed appropriate as approved by the Planning Director, after recommendation by the applicant or Architectural Review Board (if ARB review is required).
<u>GBCI</u>	The Green Building Certification Institute provides 3rd party verification services for the LEED rating system.
<u>CPA</u>	City of Palo Alto staff with expertise in green building will provide in-house review similar in structure and stringency to that of the GBCI.
<u>Energy STAR Portfolio Manager</u>	Energy STAR Portfolio Manager (Portfolio Manager) shall mean the program managed by the U.S. Environmental Protection Agency that offers an energy management tool that allows an applicant to track and assess energy and water consumption of a building project. Tracked projects receive an energy performance rating on a scale of 1-100 relative to similar buildings nationwide. The applicant is not required to achieve a set rating.
<u>Building Envelope</u>	The building envelope is the ensemble of exterior and demising partitions of a building that enclose conditioned space. (Defined by California Energy Code Title 24, Part 6)
<u>Prerequisites</u>	Prerequisites are green building strategies required by the LEED rating system before points may be claimed for any project type. They are mandatory measures, not option.

~~To be adjusted annually to reflect changes to the City's valuation per square foot of new construction.~~

Note: Applicants are advised to use this table only in conjunction with the entirety of requirements in Chapter 18.44 (Green Building Regulations)

TRACK CHANGES ACCEPTED – EFFECTIVE JANUARY 2010

Table A. City of Palo Alto Green Building Standards for Compliance for Private Nonresidential Construction and Renovation

Type of Project	Rating System, Code or Program	Minimum Threshold Required	Requirement to Exceed CA Title 24 Part 6 (15%)*	Verification**
1. New construction \geq 5,000 sf (including additions to existing buildings)	USGBC LEED	LEED Silver (33 points)	YES	GBCI or CPA
2. New Construction \geq 500 sf and $<$ 5,000 sf (including additions to existing buildings)	USGBC LEED	LEED Prerequisites + 5 points (round up) required for every 500 sf	YES	GBCI or CPA
3. Tenant improvements, renovations, or alterations \geq 5,000 sf that include replacement or alteration of at least two of the following: HVAC system, building envelope, hot water system, or lighting system.	USGBC LEED	LEED Certified	NO	GBCI or CPA
4. Tenant improvements, renovations or alterations \geq 500 sf and \geq \$100,000 in valuation that don't fall under Project Type 3, above.	USGBC LEED AND Energy STAR Portfolio Manager	LEED Checklist Building Energy Performance Rating	NO	CPA

* The requirement to exceed CA Title 24 Part 6 by 15% is also referenced for these project types in the applicable green building rating system, and the City's Energy Efficiency Ordinance.

** For project types 1) and 2), if CPA is chosen for verification, performance 15% beyond California Energy Code, Title 24, Part 6 is an acceptable compliance equivalent to the LEED energy prerequisite. The project will not be required to do additional modeling beyond state requirements.

Special Considerations & Definitions

Mixed Use Developments	Mixed use projects must comply with the applicable project type requirements based on the scope of the project. Table applicability is to be determined by the Planning Director; generally the provisions of Table A will apply to the commercial portion of the development, and the provisions of Table B will apply to the residential portions of the development.
Historic Structures	Exemptions may be available for historic structures, pursuant to 18.44.070 Palo Alto Municipal Code.
Multi Year Cumulative Construction	Cumulative new construction or renovations over any 2-year period s shall be considered as a single project, subject to the highest level of green building requirements for that project, unless exempted by the Planning Director as impractical for compliance.
Unusual Projects	Projects with an unusual scope of work or with unique circumstances may apply for an exemption to the green building requirements to be determined by the Planning Director, pursuant to Palo Alto Municipal Code Section 18.44.070.
USGBC LEED	USGBC LEED stands for the U.S. Green Building Council Leadership in Energy and Environmental Design. Projects must comply with the applicable and current LEED® rating system. An alternative, equivalent rating system or program may be substituted as approved by the Planning Director, after recommendation by the applicant or Architectural Review Board (if ARB review is required).
GBCI	The Green Building Certification Institute provides 3 rd party verification services for the LEED rating system.
CPA	City of Palo Alto staff with expertise in green building will provide in-house review similar in structure and stringency to that of the GBCI.
Energy STAR Portfolio Manager	Energy STAR Portfolio Manager (Portfolio Manager) shall mean the program managed by the U.S. Environmental Protection Agency that offers an energy management tool that allows an applicant to track and assess energy and water consumption of a building project. Tracked projects receive an energy performance rating on a scale of 1–100 relative to similar buildings nationwide. The applicant is not required to achieve a set rating.
Building Envelope	The building envelope is the ensemble of exterior and demising partitions of a building that enclose conditioned space. (Defined by California Energy Code Title 24, Part 6)
Prerequisites	Prerequisites are green building strategies required by the LEED rating system before points may be claimed for any project type. They are mandatory measures, not option.

Note: Applicants are advised to use this table only in conjunction with the entirety of requirements in Chapter 18.44 (Green Building Regulations)

TRACK CHANGED – EFFECTIVE JANUARY 2010

Table B. City of Palo Alto Green Building Standards for Compliance for Private Development-Residential Construction and Renovation

Type of Project ⁴ Building Improvements	<u>Checklist Required</u> Rating System, Code or Program	Minimum Threshold <u>Required</u>	<u>Requirement to Exceed CA Title 24 Part 6 (15%)*</u>	Verification
Multi-Family Residential				
1. <u>New construction of 3 or more (attached) units²</u>	BIG GPR Multifamily Multifamily GreenPoint Checklist For any multi-family residential project with <u>≥ 30 or more new units proposed, complete the LEED-ND (Neighborhood Development) checklist shall also be completed and submitted with the application, for information only.</u>	70 points ⁴	<u>YES</u>	<u>GreenPoint Rated verification and/or CPA</u>
2. <u>Renovations or alterations > 50% of the existing unit sf and that include replacement or alteration of at least two of the following: HVAC system, building envelope, hot water system, or lighting system.</u>	<u>BIG GPR Multifamily</u>	<u>50 points</u>	<u>Follow the BIG GPR minimum energy requirements.</u>	<u>GreenPoint Rated and/or CPA</u>
3. <u>Renovations, Additions, and/or rebuilds to individual units and/or renovations with permit ≥ 250 sf and valuation ≥ \$100,000 in a single unit⁵</u>	BIG GPR Multifamily GreenPoint Checklist <u>HERS II</u>	<u>Checklist Submit checklist; include on building plans HERS Rating (requirement effective January 2011)</u>	<u>NO</u>	<u>CPA Self verification</u>
Additions and/or renovations with permit valuation < \$100,000 ⁵	No requirement			
Single-Family and Two-Family Residential				
4. <u>New construction of ≥ 1,250 sf 2,550-sf</u>	<u>BIG GPR Single-Family GreenPoint Checklist</u>	70 points + 1 point per additional 70 sf over 2,550 (150 points maximum) ⁴	<u>YES</u>	<u>GreenPoint Rated and/or CPA GreenPoint Rated verification</u>
New construction of ≥ 1,250 sf and < 2,550-sf	<u>Single-Family GreenPoint Checklist</u>	70 points ⁴		<u>GreenPoint Rated verification</u>
5B. Existing home additions or rebuilds ≥ 1,250 sf	<u>Chose one of the following two options:</u> Option 1: <u>BIG GPR Single Family or Existing Home</u>	50 points	<u>YES</u> <u>Use of the "Existing Alterations"</u>	<u>GreenPoint Rated and/or CPA</u>

	<u>OR</u> <u>Option 2: CA Energy Code T-24 Part 6 and HERS II</u>	<u>The whole house must demonstrate that the TDV Energy of the building is at least 15% less than the TDV energy of the standard building based on the prototypical house of its vintage and receive a HERS II rating. (requirement effective January 2011)</u>	<u>Performance Approach” as outlined under CA Title 24 Part 6 is acceptable.</u>	<u>HERS II Rater and CPA</u>
<u>6. Existing home renovations, rebuilds and/or additions totaling > 250 sf and < 1,250 sf and/or renovations > \$10075,000 valuation⁵</u>	<u>Home Remodeling Green Building Checklist</u> <u>BIG GPR Existing Home</u> <u>AND</u> <u>HERS II</u>	<u>Checklist Submit checklist; include on building plans</u> <u>HERS II Rating (requirement effective January 2011)</u>	<u>NO</u>	<u>CPA Self verification</u> <u>HERS II Rater and CPA</u>

* The requirement to exceed CA Title 24 Part 6 by 15% is referenced for these project types in the applicable green building rating system, and the City’s Energy Efficiency Ordinance. Additions and/or renovations of < \$75,000⁵ permit valuation No requirement

Special Considerations Mixed Use or Other Development Commercial and residential criteria as applicable³

<u>Mixed Use Developments</u>	Mixed use projects must comply with the applicable project type requirements based on the scope of the project. Table applicability is to be determined by the Planning Director; generally the provisions of Table A will apply to the commercial portion of the development, and the provisions of Table B will apply to the residential portions of the development.
<u>Historic Structures</u>	Exemptions may be available for historic structures, pursuant to Section 18.44.070 of the ordinance Palo Alto Municipal Code. The Compliance Official may allow the use of alternative checklists for historic buildings or for buildings that retain or re-use substantial portions of the existing structure, and may reduce the minimum threshold (points) required as outlined in Section 18.44.050.
<u>Multi Year Cumulative Construction</u>	Cumulative new construction or renovations over any 2-year period following adoption of these requirements shall be considered as a single project and subject to the highest level of green building requirements for that project, unless exempted by the Planning Director as impractical for compliance.
<u>Unusual Projects</u>	Projects with an unusual scope of work or with unique circumstances may apply for an exemption to the green building requirements to be determined by the Planning Director, pursuant to Palo Alto Municipal Code Section 18.44.070.

Definitions

<u>BIG GPR</u>	<u>BIG GPR stands for the Build It Green, Green Point Rated system. Projects must comply with the applicable, and current, GPR rating system, including, but not limited to Single Family, Multi Family and Existing Home. An alternative, equivalent rating system or program may be substituted as approved by the Planning Director, after recommendation by the applicant or Architectural Review Board (if ARB review is required).</u>
<u>CPA</u>	<u>City of Palo Alto staff with expertise in green building will provide in house review similar in structure and at least as stringent to that of Build It Green.</u>
<u>HERS II Rating</u>	<u>HERS shall mean the California Home Energy Rating System, a statewide program for residential dwellings administered by the California Energy Commission and defined in the 2008 California Building Energy Efficiency Standards. HERS Phase I provides field verification and diagnostic testing to show compliance with Title 24, Part 6, of the 2008 California Building Energy Efficiency Standards. HERS Phase II includes whole-house home energy efficiency ratings for existing and newly constructed homes. The applicant is not required to achieve a set rating.</u>
<u>Rebuild</u>	<u>Rebuild shall mean home improvements, or minor additions to an existing structure that do not maintain 75% of the existing roof and exterior walls.</u>
<u>TDV</u>	<u>Time-Dependent Valuation (TDV) accounts for the value of electricity differences depending on time-of-use (hourly, daily, seasonal), and the value of natural gas differences depending on season. TDV is based on the cost for utilities to provide the energy at different times. Refer to the City of Palo Alto Energy Efficiency Ordinance or the California Energy Efficiency Code Title 24, Part 6 for more a more detailed description.</u>
<u>Building Envelope</u>	<u>The building envelope is the ensemble of exterior and demising partitions of a building that enclose conditioned space. (Defined by California Energy Code Title 24,</u>

Part 6).

Renovations

Renovations are any work to an existing building needing a permit as defined by the California Building Code.

~~To be adjusted annually to reflect changes to the City's valuation per square foot of new construction.~~

Note: Applicants are advised to use this table only in conjunction with the entirety of requirements in Chapter 18.44 (Green Building Regulations)

TRACK CHANGES ACCEPTED – EFFECTIVE JANUARY 2010

Table B. City of Palo Alto Green Building Standards for Compliance for Private Residential Construction and Renovation

Type of Project	Rating System, Code or Program	Minimum Threshold Required	Requirement to Exceed CA Title 24 Part 6 (15%)*	Verification
Multi-Family Residential				
1. New construction of 3 or more attached units	BIG GPR Multifamily ≥ 30 units complete the LEED-ND (Neighborhood Development) checklist	70 points	YES	GreenPoint Rated and/or CPA
2. Renovations or alterations ≥ 50% of the existing unit sf and that include replacement or alteration of at least two of the following: HVAC system, building envelope, hot water system, or lighting system	BIG GPR Multifamily	50 points	Follow the BIG GPR minimum energy requirements.	GreenPoint Rated and/or CPA
3. Renovations, additions, and/or rebuilds to individual units ≥ 250 sf and valuation ≥ \$100,000 in a single unit	BIG GPR HERS II	Checklist HERS Rating (requirement effective January 2011)	NO	CPA
Single-Family and Two-Family Residential				
4. New construction of ≥ 1,250 sf	BIG GPR Single-Family	70 points + 1 point per additional 70 sf over 2,550 (150 points maximum)	YES	GreenPoint Rated and/or CPA
5. Existing home additions or rebuilds ≥ 1,250 sf	Chose one of the following two options: Option 1: BIG GPR Single Family or Existing Home OR Option 2: CA Energy Code T-24 Part 6 and HERS II	50 points The whole house must demonstrate that the TDV Energy of the building is at least 15% less than the TDV energy of the standard building based on the prototypical house of its vintage and receive a HERS II rating. (requirement effective January 2011)	YES Use of the “Existing Alterations Performance Approach” as outlined under CA Title 24 Part 6 is acceptable.	GreenPoint Rated and/or CPA HERS II Rater and CPA
6. Existing home renovations, rebuilds and/or additions totaling ≥ 250 sf and < 1,250 sf and ≥ \$100,000 valuation	BIG GPR Existing Home AND HERS II	Checklist HERS II Rating (requirement effective January 2011)	NO	CPA HERS II Rater and CPA

* The requirement to exceed CA Title 24 Part 6 by 15% is referenced for these project types in the applicable green building rating system, and the City's Energy Efficiency Ordinance.

Special Considerations

Mixed Use Developments	Mixed use projects must comply with the applicable project type requirements based on the scope of the project. Table applicability is to be determined by the Planning Director; generally the provisions of Table A will apply to the commercial portion of the development, and the provisions of Table B will apply to the residential portions.
Historic Structures	Exemptions may be available for historic structures, pursuant to 18.44.070 of the Palo Alto Municipal Code. The Compliance Official may allow the use of alternative checklists for historic buildings or for buildings that retain or re-use substantial portions of the existing structure, and may reduce the minimum threshold (points) required as outlined in Section 18.44.050.
Multi Year Cumulative Construction	Cumulative new construction or renovations over any 2-year period shall be considered as a single project and subject to the highest level of green building requirements for that project, unless exempted by the Planning Director as impractical for compliance.
Unusual Projects	Projects with an unusual scope of work or with unique circumstances may apply for an exemption to the green building requirements to be determined by the Planning Director, pursuant to Palo Alto Municipal Code Section 18.44.070.

Definitions

BIG GPR	BIG GPR stands for the Build It Green, Green Point Rated system. Projects must comply with the applicable, and current, GPR rating system, including, but not limited to Single Family, Multi Family and Existing Home. An alternative, equivalent rating system or program may be substituted as approved by the Planning Director, after recommendation by the applicant or Architectural Review Board (if ARB review is required).
CPA	City of Palo Alto staff with expertise in green building will provide in house review similar in structure and at least as stringent to that of Build It Green.
HERS II Rating	HERS shall mean the California Home Energy Rating System, a statewide program for residential dwellings administered by the California Energy Commission and defined in the 2008 California Building Energy Efficiency Standards. HERS Phase I provides field verification and diagnostic testing to show compliance with Title 24, Part 6, of the 2008 California Building Energy Efficiency Standards. HERS Phase II includes whole-house home energy efficiency ratings for existing and newly constructed homes. The applicant is not required to achieve a set rating.
Rebuild	Rebuild shall mean home improvements, or minor additions to an existing structure that do not maintain 75% of the existing roof and exterior walls.
TDV	Time-Dependent Valuation (TDV) accounts for the value of electricity differences depending on time-of-use (hourly, daily, seasonal), and the value of natural gas differences depending on season. TDV is based on the cost for utilities to provide the energy at different times. Refer to the City of Palo Alto Energy Efficiency Ordinance or the California Energy Efficiency Code Title 24, Part 6 for more a more detailed description.
Building Envelope	The building envelope is the ensemble of exterior and demising partitions of a building that enclose conditioned space. (Defined by California Energy Code Title 24, Part 6).
Renovations	Renovations are any work to an existing building needing a permit as defined by the California Building Code.



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RECEIVED
CITY MANAGER'S OFFICE

✓ Amy
Kristin

June 16, 2009

City Manager, James Keene
250 Hamilton Ave
City of Palo Alto, CA 94301

Dear James,

On behalf of the Silicon Valley Leadership Group, I wanted to thank you for your staff's participation in the Santa Clara County Cities Association Green Building Collaborative.

As you likely know, in June of 2007, the Cities Association and Leadership Group partnered together to form the Green Building Collaborative. The intent of the group was to develop green building policy recommendations that would spur a more rapid adoption of green building practices. One of the underlying goals was to facilitate the adoption of like-minded green building policies by Santa Clara County jurisdictions, helping to ensure the easy adoption of new building techniques by the private sector.

Since the formation of the group, we have had two major milestones. First, as you know, every city and the County in Santa Clara County adopted the Near Term Green Building Policy Recommendations in some form. As of last week, Phase II of the Green Building Collaborative's work was formally adopted by the Cities Association. This next phase of green building policy recommendations is intended to slightly raise the bar, transitioning jurisdictions from a voluntary approach to a modest set of private sector requirements. Many cities are already moving beyond these recommendations, which is fantastic. Their pioneering efforts have been a source of valuable information to the Green Building Collaborative. For those jurisdictions just starting to move beyond the initial Near Term Green Building Policy Recommendations, we hope the GBC's work can be of assistance.

Again, I want to thank you and your staff, (Kristen Heinen and Amy French), for helping to develop these recommendations. Their expertise, information sharing and thoughtful exchange of ideas has been invaluable throughout this process.

Please do not hesitate to call on the Leadership Group for assistance as your city moves forward in raising the bar on green building policy. We look forward to continuing to work with you and the Cities Association on this important solution to meeting our climate change goals.

Sincerely,

Shiloh Ballard
Vice President, Housing & Community Development
Silicon Valley Leadership Group