



Agenda Item #: _____

Staff Report

City of Manhattan Beach

TO: Honorable Mayor Cohen and Members of the City Council

THROUGH: Geoff Dolan, City Manager

FROM: Richard Thompson, Director of Community Development
Carol Jacobson, Building Official
Sona Kalapura, Environmental Programs Manager

DATE: June 16, 2009

SUBJECT: Consideration of Ordinance as Recommended by the Environmental Task Force Amending the Municipal Code for Sustainable Building Program and Energy Efficiency Standards for Municipal Buildings and Large Non-Residential Construction.

RECOMMENDATION:

Staff recommends that the City Council conduct the public hearing, waive formal reading, and introduce Ordinance No. 2124 approving amendments to the Manhattan Beach Municipal Code Title 9 Building Regulations to require U.S. Green Building Council "Leadership in Energy and Environmental Design" (LEED™) certification for municipal buildings and for large non-residential construction as recommended by the Environmental Task Force (Exhibit A).

FISCAL IMPLICATION:

Based on a review of several industry reports, there may be an initial cost impact to developers of 1%-3% by requiring LEED Silver certification and 2%-10% for LEED Gold. However, the associated benefits (such as energy savings) must also be considered. LEED-rated buildings have shown to obtain higher rents, quicker sales and higher occupancy rates. Return on investment (ROI) can be significant when considering the longer lifespan of public and many non-residential buildings. However, as discussed in a later section below, the market and other factors – rather than ROI - appear to motivate non-residential property owners and businesses to include sustainable practices and obtain certifications from green rating systems, such as LEED.

Fiscal impacts for the City to construct Gold LEED municipal buildings can range from 2%-10% as indicated above. There will be some nominal costs associated with staff training and public workshops to educate and gain the support of the construction community, which are included in the existing budget.

BACKGROUND:

Environmental Task Force

In June, 2008 City Council decided to form a resident-based Environmental Task Force (Task Force) to study environmental issues of priority to the community. Council reviewed applications and selected 14 residents to serve on the Task Force. Council then appointed two representatives to the Task Force, Mayor Portia Cohen, and Mayor Pro Tempore Mitch Ward. The remaining positions were appointed by the MB Unified School District, including Amy Howorth School Board Member, and two student representatives.

The 19-member Environmental Task Force had its first meeting on October 15, 2008, and divided into four subcommittees to tackle priority environmental issues identified by City Council: the Development of a Climate Action Plan; Water Conservation and Storm Water Management Issues; Waste Reduction and Recycling; and Sustainable ("Green") Design. Since this first meeting the Task Force subcommittees have made significant progress on the goals and tasks identified so far.

The Green Building Subcommittee developed recommendations for the environment in Manhattan Beach. The first two recommendations on LEED standards for public and large non-residential construction have been vetted with City staff, and by unanimous vote of the Environmental Task Force. The Subcommittee also conducted a focus group session with local architects, builders, and developers to gather some information and feedback on the practicality of the group's initial recommendation areas, any challenges, and suggestions for improvement. The discussion focused more on residential construction issues, which are being developed by the Subcommittee and will be presented to City Council at a later date.

On March 17, 2009 City Council considered the Environmental Task Force sustainable building recommendations from the Green Building (Sustainable Design) Subcommittee. Council directed staff to provide additional information regarding sustainable building requirements and to present a proposed ordinance to amend the municipal code. See Exhibit B for City Council minutes from March 17.

Through the Environmental Task Force review process, the Green Building Subcommittee recommended a minimum Gold rating for new public buildings of 5,000 square feet or more and a minimum Silver rating for new non-residential construction of 10,000 square feet or more. City Council concurred with the recommendations of requiring Leadership in Energy and Environmental Design (LEED) minimum ratings for municipal and non-residential buildings. Additionally, there were some questions regarding the standard used to determine when a project is considered a 50% renovation, which is the starting point for the LEED requirements. Council requested more information on the return on investment (ROI) for Gold and Silver-rated LEED construction and ROI information for the Wells Fargo building currently being built in Manhattan Beach.

Next steps

In order to educate the public and construction community, staff and the Green Building Subcommittee will conduct public outreach through additional focus meetings, construction community meetings and newsletter, City cable television public service announcements, and the City's website.

The Green Building Subcommittee will next concentrate on other aspects of the sustainable building program, presenting the following to the Environmental Task Force by Fall 2009:

- Sustainable practice requirements for all new construction, such as drainage, landscaping, storm water retention, water and energy conservation. The points or credit for these features could be included in any rating system, such as LEED
- Zoning issues, such as wind turbines, third-level green roof decks, solar panels above height

By Spring 2010, the Subcommittee expects to present to the Environmental Task Force:

- Tiered new residential requirements, which entails progressively more energy efficiency for larger new homes, similar to the successful Marin County program

DISCUSSION :

Green Building Subcommittee Recommendations

The Green Building Subcommittee’s recommendations for public and large non-residential construction as reviewed and supported through the Environmental Task Force are:

- New City buildings of 5,000 square feet or more shall be LEED Gold certified or better; and
- Renovations of City buildings of 5,000 gross square feet or more, which includes alteration or rehabilitation that exceeds the building valuation of 50%, shall be LEED Gold certified or better
- Private new non-residential projects of 10,000 square feet or more shall show LEED Silver equivalence or better, attested to by a LEED Accredited Professional.
- Renovations of non-residential projects of 10,000 square feet or more, which includes alteration or rehabilitation that exceeds the building valuation of 50%, shall show LEED Silver equivalence or better, attested to by a LEED Accredited Professional.

LEED Standards

Leadership in Energy and Environmental Design (LEED) is the most universally recognized non-residential third-party green building rating system. This system has four levels—Certified, Silver, Gold, and Platinum—that can be achieved by earning a series of points from seven categories: Sustainable Sites, Water Efficiency, Energy Efficiency, Materials and Resources, Indoor Environmental Quality, Innovation in Design, and Regional Priorities. Typical measures that can be used to obtain LEED- certification include:

LEED Category	Typical Measures
1.Sustainable Sites	Project near transit, bicycle racks/showers; on-site stormwater management; reduced night lighting; open space preservation
2. Water Conservation	Drought tolerant landscaping with native plants; low-water-using fixtures
3. Energy Efficiency	Energy efficient building envelope, solar power systems; purchasing green power
4. Materials & Resources Conservation	Construction waste recycling; recycled-content materials; locally sourced materials; certified wood products
5. Indoor Environmental Quality	Improved indoor air quality; construction air quality practices; low-toxic finishes; natural daylighting
6. Innovation in Design	Public education; use of LEED Accredited Prof. on design team; exemplary credit performance in categories 1-5
7. Regional Priorities	Local priorities given additional points, e.g. water & energy efficiency

The Green Building subcommittee charts below for LEED Cost Impact Studies show a wide variation in payback. In the examples, payback for Silver or Gold LEED sustainable features of a new 10,000 square foot office building ranges from 5 to 7 years. The premium cost of Silver and Gold LEED is less than 2%.

Office Building			
Life Span & Project Size	Private – 30 years 10,000 SF – New Building		
LEED level	Code Minimum	LEED Silver	LEED Gold
1 st Cost of Construction	\$3,000,000	\$3,000,000	\$3,000,000
LEED Premium	0	\$32,000	\$55,500
% over Code Minimum	0	1.07%	1.85%
Energy & Water Savings		20% Energy Efficient	30% Energy Efficient
% over Code Minimum		40% Water Efficient	40% Water Efficient
LEED Payback in Years		5.7 years	7.3 years

In the example below of a conventional community center renovation with LEED Gold construction, the premium costs for Gold are 3.6%. Also attached is a marked up Exhibit C. LEED™ Project Checklist that demonstrates some options in these categories for a Community Center renovation, such as Joslyn Center. The attached checklist shows credits in all categories of Sustainable Sites, Water and Energy Efficiency, Building Materials, Indoor Environmental Quality, Innovation in Design, and Regional Priorities. The estimated total for the renovation scenario equals 70 points, which places the project into the Gold LEED category range of 60 to 79 points. The same building with photovoltaic solar panels has premium costs estimated at 9%; or with green roof features, its premium costs would be almost 10%. In the LEED Gold examples for a public community center renovation, payback ranges from 12 to 24 years. The more expensive features, such as green roofs, add both to the cost and the return on investment cumulatively with other sustainable devices.

Community Center Renovation	Code Minimum	Gold level Conventional	Gold level with Solar Panels	Gold level with Green Roofs
Life Span & Project Size	Municipal - 45 years 12,400 SF existing – full renovation			
LEED level	Code Minimum	LEED Gold	LEED Gold	LEED Gold
1 st Cost of Construction	\$2,480,000	\$2,480,000	\$2,480,000	\$2,480,000
LEED Premium	0	\$89,620	\$225,210	\$240,120
% over Code Minimum	0	3.6%	9.08%	9.68%
Energy & Water Savings % over Code Minimum		30% Energy Efficient 40% Water Efficient	30% Energy Efficient 40% Water Efficient	30% Energy Efficient 40% Water Efficient
LEED Payback in Years		12.5 years	17.5 years	24.1 years

50% Valuation Standard

The proposed sustainability standards are required when a project of a certain size exceeds 50% of the valuation and is *not* based on square footage. Most cities base certain requirements triggered by 50% value or replacement costs. Various sections of the Manhattan Beach Municipal Code (MBMC) define the standard for valuation and the 50% determination when reconstructing, renovating, enlarging, altering, or remodeling existing structures. The source for these regulations can be found in MBMC 10.68.030. It states that the Community Development Director determines the valuation for construction or reconstruction the same as the Director would for building permit fees.

Department staff utilizes standard valuation data from the *Building and Safety Journal* and the International Code Council, which publishes the International Building and Residential codes. These are “average” construction costs per square foot. Staff obtains local jurisdiction information to incorporate the common costs/valuation per square foot from the neighboring communities.

Return on Investment vs. Market – Ongoing Manhattan Beach Projects

Staff spoke with representatives of the Wells Fargo project, the Regency property owners of the Wells Fargo center, and the architect/part owner of a new LEED – Gold office construction project in Manhattan Beach. It appears that these owners and tenants are motivated by the market and other factors rather than by return on investment (ROI) for the increased costs associated with LEED rating.

The LEED AP representative for Wells Fargo stated that Wells Fargo did not perform ROI calculations for this project at Manhattan Beach Blvd. and Sepulveda Blvd. The bank representative noted that the Manhattan Beach project is part of a “volume” pilot program with the US Green Building Council. It is a prototype and was pre-certified for LEED rating. Because this project was pre-certified, there are no extra costs or premiums for the LEED project, for either LEED-Silver or –Certified. The bank has internal LEED advocates, such as the representative, who perform the documentation and registration for the company. Also as the bank has a lot of buying power (can buy in bulk), there are no additional material costs for LEED.

Staff considers the Regency Center, property owners of the Wells Fargo project site, as representative of business and commercial property owners, who seek to have a competitive edge. Regency Center representatives have been open in discussions with staff regarding their green building initiatives and LEED developments. Such businesses have made a commitment to sustainable construction to obtain a marketing advantage to lease to tenants, obtain government-owned properties more easily, lower tenant operating costs, improve public relations, obtain permit processing priorities, and enhance the marketing brand of business centers and commercial properties.

In talking with a local architect/part owner of a proposed Gold LEED office project located at 2617 N. Sepulveda Blvd., no ROI was performed except for the solar panels. The proposed plans indicated that the panels would be part of a metal roofing system that contains solar panel film. The architect projected that this innovative solar project would take approximately 7 ½ years

before there is a return on investment, excluding unknown factors of actual usage. The fact that no overall ROI was performed can be construed to reflect that financial incentives are not a primary motivation for registration as a Gold LEED project.

Proposed Ordinance

For large non-residential projects, the Subcommittee concluded that LEED Silver equivalence, not certification, would be sufficient for projects of 10,000 square feet or more. Certification delays and documentation costs may discourage project developers. Most jurisdictions do not require full certification for private developments. However, the LEED Silver equivalence would have to be attested to in the permit application by a LEED Accredited Professional and compliance checked before issuance of a building permit. In the proposed ordinance (similar to other jurisdictions), the Community Development staff is also expected to compare the checklist with the plans. During construction, the inspection staff would compare the checklist with the building under construction and at final inspection. If there is a discrepancy to conform to the checklist, the Compliance Official (Building Official) may require additional reasonable sustainable building measures be included to resolve lack of compliance.

The Gold LEED certification reflects our City's dedication to sustainable goals and our leadership in this role. In California, 44 local governmental jurisdictions have Sustainable Building Ordinances. For the list of jurisdictions, see attached Exhibit D. As discussed in March, the City would be in the forefront of other jurisdictions when municipal projects are planned and constructed. The City would demonstrate its commitment and dedication, as stated in the City's Green Report:

...the ultimate goal is to not only improve municipal practices, but to lead a paradigm shift in community awareness and action.

Also, existing residential requirements for new homes formerly in another section of the Municipal Code have been moved into this chapter to unify the sustainable construction measures into one section. These features include insulation, solar pre-plumbing stub outs, and energy efficient mechanical fans.

CONCLUSION:

Staff recommends that City Council approve the attached ordinance as recommended by Green Building subcommittee of the Environmental Task Force, which amends the Manhattan Beach Municipal Code Title 9 Building Regulations to require LEED certification for municipal buildings and large non-residential construction.

Attached is a copy of the Power Point (Exhibit E), which will be presented by the Chairperson of the Green Building Subcommittee, Chris Conaway.

- Exhibits:
- A. Draft Ordinance No. 2124
 - B. Minutes from City Council meeting March 17, 2009
 - C. LEED™ Project Checklist – Example for Community Center
 - D. California Local Governments with Sustainable Building Ordinances
 - E. Power Point of 6-16-09 presentation

ORDINANCE NO. 2124

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MANHATTAN BEACH, CALIFORNIA, AMENDING MANHATTAN BEACH MUNICIPAL CODE SECTIONS 9.01.100 AND 9.36 REGARDING SUSTAINABLE BUILDING PROGRAM AND ENERGY EFFICIENCY STANDARDS

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF MANHATTAN BEACH, CALIFORNIA, DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. The Manhattan Beach City Council hereby finds as follows:

- a. In April of 2007, the City Council endorsed the US Mayors Climate Protection Agreement. Manhattan Beach acknowledges the dangers associated with climate change and has made a commitment to take steps to reduce greenhouse gas (GHG) emissions to seven percent below 1990 levels by 2012, a goal often referred to as the Kyoto Protocol; and
- b. In June of 2008, City Council decided to form a resident-based Environmental Task Force (Task Force) to study environmental issues of priority to the community. The Task Force is divided into four subcommittees to tackle priority environmental issues identified by City Council: the Development of a Climate Action Plan; Water Conservation and Storm Water Management Issues; Waste Reduction and Recycling; and Sustainable ("Green") Design; and
- c. The Green Building Subcommittee presented recommendations on LEED standards for public and large non-residential construction, which have been vetted with City staff, and approved by unanimous vote of the Environmental Task Force; and
- d. The Subcommittee also conducted a focus group session with local developers, architects and contractors to gather feedback on the practicality of the group's initial recommendation areas, any challenges, and suggestions for improvement; and
- e. On March 17, 2009, the City Council directed staff to prepare amendments to Manhattan Beach Municipal Code Title 9 Building Regulations to require U.S. Green Building Council "Leadership in Energy and Environmental Design" (LEED™) certification for municipal buildings and for large non-residential construction as recommended by the Environmental Task Force; and
- f. The design, construction, and maintenance of buildings and structures within the City can have a significant impact on the City's environmental sustainability, resource usage, energy efficiency, waste management, and the health and productivity of residents, workers, and visitors; and
- g. In accordance with CEQA Section 15061 (b) (3), "CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA." The proposed ordinance would not have a significant effect on the environment as defined by CEQA and would result in positive benefits to the environment, public health, safety and welfare; and therefore, the ordinance is exempt from CEQA review; and
- h. The California Health and Safety Code Sections 17958, 17985.7 and 17958.5 provide for certain amendments to the California Building Standard Codes provided findings of necessity can be made. Adverse climate conditions such as salt fog air and strong winds such as those in existence in the City of Manhattan Beach increase the likelihood of fire spreading (conflagration) from one building to another. Additionally, we must reduce potential impact to climate change through energy efficient materials and sustainable practices.

SECTION 2. Section 9.01.100 of the Manhattan Beach Municipal Code is hereby deleted in its entirety.

SECTION 3. Chapter 9.36 of the Manhattan Beach Municipal Code is hereby amended in its entirety to read as follows:

“9.36 Sustainable Building Program and Energy Efficiency Standards.

9.36.010 Program and purpose.

A. This chapter sets forth Sustainable Building Program as well as minimum Energy Efficiency Standards within the City of Manhattan Beach for new construction and renovation as set forth below.

B. The purpose of the chapter is to enhance the public health and welfare by promoting the environmental and economic health of the City through the design, construction, maintenance, operation and demolition of buildings and other site development by incorporating sustainable building practices into all development. The sustainable building provisions referred to in this Chapter are designed to achieve the following goals:

1. Increase energy efficiency in buildings;
2. Encourage water and resource conservation through efficient fixtures and irrigation, recycled and renewable materials;
3. Improve indoor air quality; increased natural lighting, and improved thermal comfort/control.
3. Reduce waste generated by construction projects;
4. Provide durable buildings that are efficient and economical to own and operate; and
5. Promote the health and productivity of residents, workers, and visitors to the City.

9.36.020 Definitions.

City: the City of Manhattan Beach, State of California

City building: a building primarily funded by the City or on City owned land.

Compliance official: the Building Official or his or her designee.

Good faith effort: a project that has not met the required compliance threshold, but for extenuating reasons, the Compliance official has found the project meets the good faith effort provisions of Section 9.36.060.

LEED™: the “Leadership in Energy and Environmental Design” green building rating system developed by the U.S. Green Building Council (USGBC).

LEED® AP: A person who has been designated a LEED Accredited Professional by the Green Building Certification Institute (GBCI).

LEED™ checklist: The credit and point checklists developed by the Leadership in Energy and Environmental Design Green Building Rating System for measuring the sustainability, efficiency, and environmentally soundness of a building.

Project: Any proposal for new or changed use, or for new construction, alteration, or enlargement of any structure, that is subject to the provisions of this title.

Renovation: any rehabilitation, repair, remodeling, change, or modification to an existing building, where changes to floor area and the footprint of the building are negligible. The valuation of renovation improvements shall be determined by the Director of Community Development per Section 10.68.030(E) of the Manhattan Beach Municipal Code. Additionally, the compliance official may exclude from such valuation the cost of (a) seismic upgrades, (b) accessibility upgrades, or (c) photovoltaic panels or other solar energy or similar devices exterior to the building.

Sustainable building rating system: the rating system associated with specific sustainable building criteria and used to determine compliance thresholds. An example of a rating system includes, but is not limited to, the LEED rating system.

9.36.030 Applicability.

- A. Projects meeting the following thresholds and for which no use permit, variance, vesting subdivision, or any other discretionary Planning approval has been granted, or for which no valid building permit has been lawfully issued by the City prior to the effective date of this ordinance shall comply with the provisions of this chapter:
1. City buildings of 5,000 square feet or more of new gross floor area, as defined by Section 10.04.030.
 2. Renovations of City buildings of 5,000 gross square feet or more, which includes the alteration or rehabilitation of an existing building that exceeds the building valuation of 50% as defined by Section 10.68.030(E) of the Manhattan Beach Municipal Code. For the purposes of this section, estimated construction and reconstruction costs shall be determined by the Community Development Director in the same manner as the Community Development Director determines final valuation for the purposes of building permit fees.
 3. Non-residential buildings of 10,000 square feet or more of new gross floor area as defined by Section 10.04.030.
 4. Renovations of non-residential buildings 10,000 gross square feet or greater, which includes the alteration or rehabilitation of an existing building that exceeds the building valuation of 50% as defined by Section 10.68.030(E) of the Manhattan Beach Municipal Code. For the purposes of this section, estimated construction and reconstruction costs shall be determined by the Community Development Director in the same manner as the Community Development Director determines final valuation for the purposes of building permit fees.

9.36.040 Standards for compliance:

- A. The City shall adopt by reference the USGBC LEED™ green building rating system as the standard for which a project shall be measured as a green building. Requiring projects to incorporate LEED™ green building measures is necessary and appropriate to achieve the benefits of green building. The specific actions required for project compliance with this chapter are as follows:
1. All applicable projects are required to retain the services of a LEED® Accredited Professional and complete LEED™ project registration prior to issuance of a building permit.
 2. All applicable projects shall submit a LEED checklist and supporting documentation indicating points meeting at a minimum LEED ‘Silver’ level incorporated into documentation for a building permit. Projects as described in Section 9.36.030 subsections 3. and 4. of 10,000 square feet or more of new gross square footage or more than 50% renovation shall meet LEED ‘Silver’ level. These projects would include, but not limited to, typical office, retail, medical, private club, religious, and academic buildings with occupied and conditioned spaces. A signed declaration from the LEED AP member of the Project team, stating that the plans and plan details have been reviewed, and that the Project meets the intent of the criteria for certification of the selected LEED™ Rating System. The LEED checklist shall be prepared, signed, and dated by the project LEED accredited professional. All building documents shall indicate in the general notes and/or individual detail drawing, where feasible, the green building measures employed to attain the applicable LEED rating.
 3. Applicable City buildings are required to attain LEED certification and meet, at a minimum LEED ‘Gold’ rating.
 4. Building commissioning, although specified as a prerequisite for LEED™ certification, is not required for applicable projects under this chapter except for City buildings. Applicants are encouraged to verify that fundamental building systems are designed, installed, and calibrated to operate as intended.

9.36.050 Compliance official’s responsibilities

- A. The compliance official shall review the required LEED™ checklist and supporting documentation prior to issuance of a grading or building permit.
- B. The compliance official shall verify that the building measures and provisions indicated on the project LEED™ checklist and on the supporting approved documentation, including approved plan sets, are being implemented at foundation inspection, framing inspection, and prior to issuance of a final certificate of occupancy.

- C. The compliance official shall conduct any inspections as needed to ensure compliance with this chapter.

9.36.060 Penalties and administrative remedies

- A. If, as a result of any inspection, the compliance official determines that the applicable project does not comply with the approved documentation, a stop work order may be issued. At the discretion of the compliance official or designee such a stop work order may apply to the portion of the project impacted by noncompliance or to the entire project. The stop work order shall remain in effect until the compliance official determines that the project is in compliance with the requirements of this chapter.
- B. If the compliance official determines that the applicable project has not met the requirements of the LEED™ checklist, as set forth in section 9.36.050 of this chapter, he or she shall determine on a case by case basis whether the applicant has made a good faith effort to comply with this chapter. In making this determination, the compliance official shall consider the availability of markets for materials to be recycled, the availability of sustainable building materials and technologies, and the documented efforts of the applicant to comply with this chapter. The compliance official or designee may require additional reasonable sustainable building measures be included in the operation of the covered project to mitigate the failure to comply fully with this chapter.

9.36.070 Sustainable building requirements for residential occupancies

All new R-2 and R-3 occupancies, as defined by the California Building Code, are required to incorporate all the following sustainable building practices in addition to the requirements of the California Energy Code, Title 24, Part 6 unless waived by the building official.

1. Insulate all hot water piping
2. Install low-emitting insulation in required areas of walls, floors, ceilings, and roof
3. Use low volatile organic compound (VOC) caulking
4. Pre-plumb piping and sensor wiring from water heater to attic for future solar water heating
5. Use duct mastic on all duct joints and seams
6. Install “Energy Star” or equivalent bathroom fan vented to the outside.”

SECTION 4. Any provisions of the Manhattan Beach Municipal Code, or appendices thereto, or any other ordinances of the City, to the extent that they are inconsistent with this ordinance, and no further, are hereby repealed.

SECTION 5. All other provisions of the City of Manhattan Beach Municipal Code shall remain unchanged and continue in full force and effect.

SECTION 6. If any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase or portion thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases or portions be declared invalid or unconstitutional.

SECTION 7. This notice shall be published by one insertion in *The Beach Reporter*, the official newspaper of the City, and this ordinance shall take effect and be in full force and operation thirty (30) days after its final passage and adoption.

SECTION 8. The City Clerk shall certify to the adoption of this ordinance; shall cause the same to be entered in the book of original ordinances of said City; shall make a minute of the passage and adoption thereof in the records of the meeting at which the same is passed and adopted; and shall within fifteen (15) days after the passage and adoption thereof cause the same to be published by one insertion in *The Beach Reporter*, the official newspaper of the City and a weekly newspaper of general circulation, published and circulated within the City of Manhattan Beach hereby designated for that purpose.

PASSED, APPROVED, and ADOPTED this 7th day of July, 2009.

Ayes:
Noes:
Absent:
Abstain:

Mayor, City of Manhattan Beach, California

ATTEST:

City Clerk

Exhibit B. City Council Meeting Minutes of March 17, 2009 for item 03/17/09-11

GENERAL BUSINESS

03/17/09-11. Consideration of the Environmental Task Force Green Building Recommendations for Municipal Buildings and Large Non-Residential Construction

City Manager Geoff Dolan advised that these green building recommendations were proposed by the Environmental Task Force; that they are conceptual; that the Council should provide feedback and direction; and that, should the Council support the recommendations, staff will prepare an ordinance for the Council's future consideration.

Environmental Task Force Green Building Subcommittee Member Chris Conaway presented information on the advantages of sustainable building practices; the methods to green building practices; what other communities are doing in this area; the Leadership in Energy and Environmental Design (LEED) Cost Impact Studies; and the 2007 Davis Langdon Study, which declared there is "...no significant difference in average costs for green buildings as compared to non-green buildings...the broad trend is that the green buildings are indistinguishable from the greater population on a cost basis." He explained the Task Force's recommendations that all new public facilities or publicly funded projects of 5,000 square feet or more of new construction or renovation shall attain a LEED certification of Gold or better and that all new private projects of 10,000 square feet or more of new construction or renovation shall show LEED equivalence of Silver or better, attested to by a LEED accredited professional.

The Council considered the idea of the Task Force examining the costs of constructing a green building, such as the new Wells Fargo building, in Manhattan Beach. Concerns over burdens that could be associated with requiring LEED silver/gold certification for buildings having 5,000/10,000 square feet or more that are undergoing renovations were expressed, particularly since the City plans to renovate some public facilities.

City Manager Dolan advised that the municipal buildings the City is considering for renovation are over 5,000 square feet.

Mr. Conaway explained the definition of "renovation" as a threshold of 50% according to the industry standard. He indicated that the Task Force is examining a number of regulations that could be complied with easily and would be unique to Manhattan Beach; called attention to the importance of leading by example; clarified that no discernable extra costs were found to be associated with requiring buildings under renovation to be made green as long as the building is retained by the owner.

Environmental Task Force Member Casey Beyer shared information about a study showing the positive aspects of making buildings green during renovation and the intangible positive aspects of LEED certification. He related the Task Force's willingness to re-examine the costs of making a building green during renovation and highlighted the importance of setting green building standards in Manhattan Beach.

The following individuals spoke on this item:

- **Patrick McBride, 5th Street and Peck Avenue**
- **Mickey Knickerbocker, No Address Provided**
- **Bill Victor , No Address Provided**
- **Ivan Kan, technogreen**
- **Willy Leventhal, No Address Provided**

Councilmember Powell commended the efforts of the Environmental Task Force, the Green Building Subcommittee and staff. He related his support of the recommendations, noting the substantial energy efficiency and cost savings and the increased sales values and rents, etc. associated with green buildings, which should be factored into the analysis. Councilmember Powell asked if there is a survey for utilizing random verifications of green buildings, such as the one used by the City of Los Angeles, and entertained the idea of encouraging volunteer compliance. He agreed with the need to further address the cost of making a building green during renovation, as well as the return on investment, prior to developing an ordinance.

Mayor Pro Tem Ward thanked staff and the Green Building Subcommittee for their work. He called attention to areas needing further examination prior to considering an ordinance, such as return on investment, the length of time for a return on investment and how making buildings green will affect the return on investment. Councilmember Ward voiced his agreement with silver certification for commercial buildings and gold for and municipal buildings.

Councilmember Montgomery supported the proposed green building recommendations. He favored the idea of examining a green building under construction in Manhattan Beach before developing an ordinance, but stated that the Wells Fargo building would be below the commercial building threshold of 10,000 square feet and emphasized the importance obtaining more information about return on investment.

Councilmember Tell also supported the proposed green building recommendations. He voiced his opinion that an ordinance should be prepared and that additional information about return on investment and the range of retention (years needed for return on investment, by type of project) should be provided prior to considering the ordinance. It was Councilmember Tell's opinion that the City taking the lead and flexibility for builders are both important.

Serving as the Co-Chair of the Environmental Task Force with Mayor Pro Tem Ward, Mayor Cohen related her agreement with the recommendations, noting that green buildings are inevitable due to forthcoming State requirements. She stated her desire for information about return on investment, as well as information about a green building in Manhattan Beach.

There was a consensus of the Council that additional information, as discussed during this meeting, should be provided at a future meeting, and that a proposed ordinance should be presented for the Council's consideration at that same meeting. **End Minutes for this Item**



LEED 2009 for New Construction and Major Renovation Project Scorecard

Project Name: Joslyn Center Scenario 1 (LEED Gold)
Project Address: Valley Drive

Yes ? No
22 **SUSTAINABLE SITES** **26 Points**

Y	Prereq 1	Construction Activity Pollution Prevention	Required
1	Credit 1	Site Selection	1
5	Credit 2	Development Density and Community Connectivity	5
	Credit 3	Brownfield Redevelopment	1
6	Credit 4.1	Alternative Transportation - Public Transportation Access	6
1	Credit 4.2	Alternative Transportation - Bicycle Storage and Changing Rooms	1
3	Credit 4.3	Alternative Transportation - Low-Emitting and Fuel-Efficient Vehicles	3
	Credit 4.4	Alternative Transportation - Parking Capacity	2
	Credit 5.1	Site Development - Protect or Restore Habitat	1
1	Credit 5.2	Site Development - Maximize Open Space	1
1	Credit 6.1	Stormwater Design - Quantity Control	1
1	Credit 6.2	Stormwater Design - Quality Control	1
1	Credit 7.1	Heat Island Effect - Nonroof	1
1	Credit 7.2	Heat Island Effect - Roof	1
1	Credit 8	Light Pollution Reduction	1

Yes ? No
10 **WATER EFFICIENCY** **10 Points**

Y	Prereq 1	Water Use Reduction	Required
4	Credit 1	Water Efficient Landscaping	2 to 4
		Reduce by 50%	2
		4 No Potable Water Use or Irrigation	4
2	Credit 2	Innovative Wastewater Technologies	2
4	Credit 3	Water Use Reduction	2 to 4
		Reduce by 30%	2
		Reduce by 35%	3
		4 Reduce by 40%	4

6 **ENERGY & ATMOSPHERE** **35 Points**

Y	Prereq 1	Fundamental Commissioning of Building Energy Systems	Required
Y	Prereq 2	Minimum Energy Performance	Required
Y	Prereq 3	Fundamental Refrigerant Management	Required
3	Credit 1	Optimize Energy Performance	1 to 19
		Improve by 12% for New Buildings or 8% for Existing Building Renovations	1
		Improve by 14% for New Buildings or 10% for Existing Building Renovations	2
		3 Improve by 16% for New Buildings or 12% for Existing Building Renovations	3
		Improve by 18% for New Buildings or 14% for Existing Building Renovations	4
		Improve by 20% for New Buildings or 16% for Existing Building Renovations	5
		Improve by 22% for New Buildings or 18% for Existing Building Renovations	6
		Improve by 24% for New Buildings or 20% for Existing Building Renovations	7
		Improve by 26% for New Buildings or 22% for Existing Building Renovations	8
		Improve by 28% for New Buildings or 24% for Existing Building Renovations	9
		Improve by 30% for New Buildings or 26% for Existing Building Renovations	10
		Improve by 32% for New Buildings or 28% for Existing Building Renovations	11
		Improve by 34% for New Buildings or 30% for Existing Building Renovations	12
		Improve by 36% for New Buildings or 32% for Existing Building Renovations	13
		Improve by 38% for New Buildings or 34% for Existing Building Renovations	14
		Improve by 40% for New Buildings or 36% for Existing Building Renovations	15
		Improve by 42% for New Buildings or 38% for Existing Building Renovations	16
		Improve by 44% for New Buildings or 40% for Existing Building Renovations	17
		Improve by 46% for New Buildings or 42% for Existing Building Renovations	18
		Improve by 48%+ for New Buildings or 44%+ for Existing Building Renovations	19
1	Credit 2	On-Site Renewable Energy	1 to 7
		1 1% Renewable Energy	1
		3 3% Renewable Energy	2
		5 5% Renewable Energy	3
		7 7% Renewable Energy	4
		9 9% Renewable Energy	5
		11 11% Renewable Energy	6
		13 13% Renewable Energy	7
2	Credit 3	Enhanced Commissioning	2
	Credit 4	Enhanced Refrigerant Management	2
	Credit 5	Measurement and Verification	3
	Credit 6	Green Power	2



LEED 2009 for New Construction and Major Renovation Project Scorecard

Project Name: Joslyn Center Scenario 1 (LEED Gold)
Project Address: Valley Drive

Yes ? No
Yes ? No

12 MATERIALS & RESOURCES 14 Points

Y	Prereq 1	Storage and Collection of Recyclables	Required
3	Credit 1.1	Building Reuse - Maintain Existing Walls, Floors and Roof	1 to 3
		1 Reuse 55%	1
		2 Reuse 75%	2
		3 Reuse 95%	3
1	Credit 1.2	Building Reuse - Maintain Interior Nonstructural Elements	1
2	Credit 2	Construction Waste Management	1 to 2
		1 50% Recycled or Salvaged	1
		2 75% Recycled or Salvaged	2
1	Credit 3	Materials Reuse	1 to 2
		1 Reuse 5%	1
		2 Reuse 10%	2
2	Credit 4	Recycled Content	1 to 2
		1 10% of Content	1
		2 20% of Content	2
1	Credit 5	Regional Materials	1 to 2
		1 10% of Materials	1
		2 20% of Materials	2
1	Credit 6	Rapidly Renewable Materials	1
1	Credit 7	Certified Wood	1

Yes ? No

13 INDOOR ENVIRONMENTAL QUALITY 15 Points

Y	Prereq 1	Minimum Indoor Air Quality Performance	Required
Y	Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required
1	Credit 1	Outdoor Air Delivery Monitoring	1
1	Credit 2	Increased Ventilation	1
1	Credit 3.1	Construction Indoor Air Quality Management Plan - During Construction	1
1	Credit 3.2	Construction Indoor Air Quality Management Plan - Before Occupancy	1
1	Credit 4.1	Low-Emitting Materials - Adhesives and Sealants	1
1	Credit 4.2	Low-Emitting Materials - Paints and Coatings	1
1	Credit 4.3	Low-Emitting Materials - Flooring Systems	1
1	Credit 4.4	Low-Emitting Materials - Composite Wood and Agrifiber Products	1
1	Credit 5	Indoor Chemical and Pollutant Source Control	1
1	Credit 6.1	Controllability of Systems - Lighting	1
1	Credit 6.2	Controllability of Systems - Thermal Comfort	1
1	Credit 7.1	Thermal Comfort - Design	1
1	Credit 7.2	Thermal Comfort - Verification	1
1	Credit 8.1	Daylight and Views - Daylight	1
1	Credit 8.2	Daylight and Views - Views	1

Yes ? No

1 INNOVATION IN DESIGN 6 Points

1	Credit 1	Innovation in Design	1 to 5
		1 Innovation or Exemplary Performance	1
		2 Innovation or Exemplary Performance	1
		3 Innovation or Exemplary Performance	1
		4 Innovation	1
		5 Innovation	1
1	Credit 2	LEED® Accredited Professional	1

Yes ? No

4 REGIONAL PRIORITY 4 Points

4	Credit 1	Regional Priority	1 to 4
		1 Regionally Defined Credit Achieved	1
		2 Regionally Defined Credit Achieved	1
		3 Regionally Defined Credit Achieved	1
		4 Regionally Defined Credit Achieved	1

Yes ? No

68 PROJECT TOTALS (Certification Estimates) 110 Points

Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points Platinum: 80+ points

Exhibit D. California Local Governments with Sustainable Building Ordinances

44 municipalities & counties have Sustainable Building Ordinances, 41 with LEED:

Alameda	Pasadena
Alameda Co.	Pleasanton
Albany	Rohnert Park
Anaheim	Sacramento
Berkeley	San Bernardino Co.
Brisbane	San Diego
Burbank	San Francisco
Calabasas	San Jose
Chula Vista	San Mateo Co
Costa Mesa	San Rafael
Cotati	Santa Clara
Dublin	Santa Clarita
Hayward	Santa Cruz
Irvine	Santa Monica
Livermore	Santa Rosa
Long Beach	Sebastopol
Los Altos	Stockton
Los Angeles	Sunnyvale
L.A. County	Temecula
Monterey	Union City
Oakland	West Hollywood
Palo Alto	Windsor



June 16, 2009

Green Building Subcommittee

RICHARD THOMPSON CAROL JACOBSON MICHAEL ROCQUE
BEN BURKHALTER CASEY BEYER CHRIS CONAWAY SONA KALAPURA

Green Building Subcommittee

Recap – March 17 Council Meeting

- 1) Comprehensive Recommendations
 - a. Public and Publicly Funded projects and renovations (Municipal)
 - b. Private Commercial Developments over 10,000 SF

Manhattan Beach Environmental Task Force
Green Building Subcommittee



1a. Public Facilities



All new public facilities or publicly funded projects, of 5,000 SF or more of new construction or renovation, shall attain **LEED GOLD** certification or better.

Because in MB, we play above the net.

Manhattan Beach Environmental Task Force
Green Building Subcommittee



1b. Large Private Development

All new private projects, of 10,000 SF or more of new construction or renovation, shall show **LEED SILVER** equivalence or better, attested by a LEED Accredited Professional.



Because everyone has a stake in the sustainability of our community

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Impact Studies

- 2003 BNIM Hewlett Packard Study
- 2003 Cost Benefit of LEED to State of CA
- 2003 Seattle Cost Benefit Analysis LEED Silver
- 2004 Davis Langdon: Cost of Green
- 2004 GSA LEED Cost Study by Steven Winter
- 2007 Davis Langdon: Cost of Green Revisited
- 2007 LEED Cost Benefit for Hawaii Schools
- 2007 Davis Langdon CBA for USGBC

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Conclusions

- Older studies showed approximately 2% premium for Silver and 2%-6% premiums for Gold
- Latest studies now show “added” cost factor for green buildings largely “**indistinguishable**”
- Perception of cost is changing with market transformation and **education**

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Conclusions

- Other cost factors significantly outweigh “green” factors in \$/SF of buildings
- Payback is significant for institutions that hold onto their buildings (**savings to taxpayers** over life of building)
- High Performance Buildings **cost less** over life of building

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Further Study

- What are current MB projects that are going for LEED finding in terms of **ROI**?
- What are plausible ROI scenarios for a small **municipal project** at the 5,000 SF threshold?
- What are plausible ROI scenarios for a small private **commercial project** at 10,000 SF?

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Further Study

Current Manhattan Beach projects targeting LEED:

- Wells Fargo
- LEED Gold Office Project on Sepulveda Blvd.
- On the whole, decisions are not driven by ROI, but by commitment to sustainability, social responsibility & PR, marketing advantages & competitive edge in the market place, lower operating costs and **corporate leadership**

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Further Study

- What are plausible ROI scenarios for projects at the lower thresholds?
- With over 100 credit options, there are **multiple** paths to attaining LEED
- Subcommittee ran 5 hypothetical and plausible **life-cycle scenarios**

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Further Study

5 scenarios:

- Joslyn Renovation – LEED Gold
- Joslyn Renovation – LEED Gold + Photovoltaics
- Joslyn Renovation – LEED Gold + Green Roof
- 10,000 SF Commercial Office – LEED Silver
- 10,000 SF Commercial Office – LEED Gold

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Impact Scenarios

“Code Minimum” vs. LEED Premium Assumptions

- LEED Checklist Trial
- Size of project and Cost/Square Foot
- LEED Premiums
 - Documentation
 - Advanced Energy Models
 - Enhanced Commissioning
 - Advanced HVAC & Lighting
 - Photovoltaics (Option 2)
 - Green Roof (Option 3)

Manhattan Beach Environmental Task Force
Green Building Subcommittee



FIRST DRAFT - HYPOTHETICAL JOSLYN CTR.

LEED 2009 FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS PROJECT CHECKLIST

Sustainable Sites

- Prerequisite 1 Construction Activity Pollution Prevention
- Credit 1 Site Selection
- Credit 2 Development Density and Community Connectivity
- Credit 3 Brownfield Redevelopment
- Credit 4.1 Alternative Transportation—Public Transportation Access
- Credit 4.2 Alternative Transportation—Bicycle Storage and Changing Rooms
- Credit 4.3 Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles
- Credit 4.4 Alternative Transportation—Parking Capacity
- Credit 5.1 Site Development—Protect or Restore Habitat
- Credit 5.2 Site Development—Maximize Open Space
- Credit 6.1 Stormwater Design—Quantity Control
- Credit 6.2 Stormwater Design—Quality Control
- Credit 7.1 Heat Island Effect—Nonroof
- Credit 7.2 Heat Island Effect—Roof
- Credit 8 Light Pollution Reduction

26 Possible Points

Required

15

Water Efficiency

- Prerequisite 1 Water Use Reduction
- Credit 1 Water Efficient Landscaping
- Credit 2 Innovative Wastewater Technologies
- Credit 3 Water Use Reduction

10 Possible Points

Required

8

Energy and Atmosphere

- Prerequisite 1 Fundamental Commissioning of Building Energy Systems
- Prerequisite 2 Minimum Energy Performance
- Prerequisite 3 Fundamental Refrigerant Management
- Credit 1 Optimize Energy Performance
- Credit 2 On-site Renewable Energy
- Credit 3 Enhanced Commissioning
- Credit 4 Enhanced Refrigerant Management
- Credit 5 Measurement and Verification
- Credit 6 Green Power

35 Possible Points

Required

12

10

Materials and Resources

- Prerequisite 1 Storage and Collection of Recyclables
- Credit 1.1 Building Reuse—Maintain Existing Walls, Floors and Roof
- Credit 1.2 Building Reuse—Maintain Existing Interior Nonstructural Elements
- Credit 2 Construction Waste Management
- Credit 3 Materials Reuse
- Credit 4 Recycled Content

14 Possible Points

Required

12

3

1

2

1-2

2

- Credit 5 Regional Materials
- Credit 6 Rapidly Renewable Materials
- Credit 7 Certified Wood

1-2
2
1

Indoor Environmental Quality

- Prerequisite 1 Minimum Indoor Air Quality Performance
- Prerequisite 2 Environmental Tobacco Smoke (ETS) Control
- Credit 1 Outdoor Air Delivery Monitoring
- Credit 2 Increased Ventilation
- Credit 3.1 Construction Indoor Air Quality Management Plan—During Construction
- Credit 3.2 Construction Indoor Air Quality Management Plan—Before Occupancy
- Credit 4.1 Low-Emitting Materials—Adhesives and Sealants
- Credit 4.2 Low-Emitting Materials—Paints and Coatings
- Credit 4.3 Low-Emitting Materials—Flooring Systems
- Credit 4.4 Low-Emitting Materials—Composite Wood and Agrifiber Products
- Credit 5 Indoor Chemical and Pollutant Source Control
- Credit 6.1 Controllability of Systems—Lighting
- Credit 6.2 Controllability of Systems—Thermal Comfort
- Credit 7.1 Thermal Comfort—Design
- Credit 7.2 Thermal Comfort—Verification
- Credit 8.1 Daylight and Views—Daylight
- Credit 8.2 Daylight and Views—Views

15 Possible Points

Required

Required

12

Innovation in Design

- Credit 1 Innovation in Design
- Credit 2 LEED Accredited Professional

6 Possible Points

1-5

1

Regional Priority

- Credit 1 Regional Priority

4 Possible Points

1-4

LEED 2009 for New Construction and Major Renovations

100 base points; 6 possible Innovation in Design and 4 Regional Priority points

- Certified 40-49 points
- Silver 50-59 points
- Gold 60-79 points
- Platinum 80 points and above

63 TOTAL

SAMPLE

LEED Cost Impact Scenarios

“Code Minimum” vs. LEED Premium Assumptions

- **Straight-Line Payback on Energy & Water only**
- Conservative model – assumes no increase
- Energy Efficiency over Code Minimum (barely legal)
 - **GOLD** – 30%
 - **SILVER** – 20%
 - PV’s - Projected Offset (50%)
 - Green Roof - +10%
- Water Efficiency over Code Minimum
 - 40%

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Impact Scenarios

1. Joslyn Renovation – LEED Gold (low hanging fruit)



First Cost Premium

3.6%

Energy & Water Efficiency Payback

12.5 years

Net Savings over life of building

\$356,258

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Impact Scenarios

2. Joslyn Renovation – LEED Gold + Photovoltaics



First Cost Premium

9.0%

Energy & Water Efficiency Payback

17.5 years

Net Savings over life of building

\$575,780

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Impact Scenarios

3. Joslyn Renovation – LEED Gold + Green Roof



First Cost Premium

9.7%

Energy & Water Efficiency Payback

24 years

Net Savings over life of building

\$309,551

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Impact Scenarios

4. 10,000 SF Commercial Office – LEED Silver



First Cost Premium

1.0%

Energy & Water Efficiency Payback

5.7 years

Net Savings over life of building

\$234,527

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Impact Scenarios

5. 10,000 SF Commercial Office – LEED Gold



First Cost Premium

1.8%

Energy & Water Efficiency Payback

7.3 years

Net Savings over life of building

\$291,043

Manhattan Beach Environmental Task Force
Green Building Subcommittee



LEED Cost Conclusions

- Higher upfront **investments** in green technologies **lead to overall greater cost savings**
- Sample scenarios exclude **other potential benefits** (higher rent, higher property value, higher sales, higher productivity, lower insurance, PR, etc)
- **Operations & Maintenance** costs are as important as first costs of construction
- **ROI** is only one factor of many in decision to guide a community via exemplary design

Manhattan Beach Environmental Task Force
Green Building Subcommittee



Subcommittee Next Steps

- Public Outreach
- Recommendations on Green Building Regulations pertaining to **all** construction
- Recommendations on **Zoning issues** related to Green Building practices, such as solar panels, green roof decks and wind turbines.
- Recommendation on new **residential energy efficiency** standards

Manhattan Beach Environmental Task Force
Green Building Subcommittee

