

**CITY OF OAKLAND**  
**Agenda Report**

FILED  
OFFICE OF THE CITY CLERK  
OAKLAND

2005 MAR 31 PM 1:23

TO: Office of the City Administrator  
ATTN: Deborah Edgerly  
FROM: Public Works Agency  
DATE: April 12, 2005

RE: **AN ORDINANCE ADDING CHAPTER 15.35 TO THE OAKLAND MUNICIPAL CODE ESTABLISHING GREEN BUILDING REQUIREMENTS FOR CERTAIN CITY PROJECTS**

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**SUMMARY**

A Green Building Ordinance (hereinafter referred to as the Ordinance) has been prepared that adds Chapter 15.35 to the Oakland Municipal Code. The purpose of the Ordinance is to prescribe Green Building requirements to Covered City Building Projects and Traditional Public Works Projects. In doing so, the City will provide leadership in the arena of green building, promote economic and environmental health in Oakland, and set a good example for the larger development community in the City.

The Ordinance requires that all Covered City Building Projects initiated on or after the final adoption of this Ordinance meet a minimum Leadership In Energy and Environmental Design-Silver rating under the U.S. Green Building Council's (USGBC) rating system and be so certified by the USGBC. In addition, the Ordinance requires that all Covered City Building Projects shall have a LEED-accredited professional as a principal member of the design team from the beginning of the project.

City Building Projects that do not meet the threshold that triggers compliance with the requirements of this Ordinance are required to meet as many LEED credits as practicable. The Ordinance also promotes the use of green building strategies in private development through the use of various incentives and the provision of resources.

The Ordinance supports one of the City Council's adopted goals to "Develop a Sustainable City," by "maximizing socially and environmentally sustainable growth, including conserving natural resources."

**FISCAL IMPACTS**

Approval of the proposed resolution will have no immediate fiscal impact. Existing Public Works Agency staff will oversee the implementation of the Ordinance, so there will be no additional staff costs. As described below, up-front design and construction costs are most often higher for "green buildings," but the long-term savings from this type of construction typically offsets the increased up-front costs.

**Initial Costs of Green Building**

There are two categories of costs associated with building to a USGBC LEED standard. The first category has to do with project registration and certification fees to USGBC, documentation costs,

and defense of the application if elements of the submittal are challenged. Based on information through the website of the firm Natural Logic, Inc. (a leading sustainability management company), these costs are estimated at \$8,000-\$20,000 per project.

The second category has to do with additional actual building costs that may include higher costs for building materials, additional design work, energy modeling, and daylighting analysis. To keep initial additional costs of green building low or non-existent when compared to conventional design, it is *essential* that there be *early* (before schematic design begins) incorporation of effective integrative design with willing participation of all members of the design team. If that level of early and willing integration is present, design teams are achieving LEED certification at 0-2% higher initial costs than conventional initial cost budgets.

### **Life Cycle Savings of Green Buildings**

The dramatic financial savings over the life of the building, when compared to conventional buildings, makes initial investments in green buildings pay for themselves 10 times over according to numerous studies, including, most recently, a study conducted by the Capital E Group, Lawrence Berkeley Laboratory and California state agencies.

The report concludes that financial benefits of green design can be between \$50 and \$70 per square foot in a LEED building, which is over 10 times the additional cost associated with building green. The financial benefits were found in lower energy, waste and water costs, lower environmental and emissions costs, lower operational and maintenance costs and increased productivity and health. Approximately \$15 dollars per square foot of these costs are attributed to reduced energy, waste, water, operations and maintenance costs – easily quantifiable savings. The other \$35 - \$55 dollars per square foot are attributed to gains in productivity and health, and reductions in emissions costs. While numerous studies support these savings, they are more difficult to quantify in buildings across the board.

### **BACKGROUND**

In recent years, municipalities have begun adopting Green Building Ordinances to reduce operating expenses through decreased energy and water bills in public buildings, and to set a good example for the larger development community as well. In the Bay Area, Pleasanton, San Jose, Dublin, San Francisco and the County of Alameda have all adopted such ordinances. Portland, Seattle, Santa Monica and the State of California are just a few of the many other communities that have also adopted green building requirements for their own facilities.

The City of Oakland has already declared its support for a Civic Green Building Ordinance in at least two formal ways. First, one of the fundamental goals of the Sustainable Development Community Initiative, adopted by City Council in 1998, is to “Make the City of Oakland’s operations and services a model of sustainable community development practices.” Likewise, the Council has consistently included within their goals a statement to “Develop a Sustainable City,” including the January 2005 adoption of the objective to “maximize socially and environmentally sustainable economic growth, including conserving natural resources.” This Ordinance strives to meet these stated goals of the City of Oakland.

The Council may consider rebates to permit fees for private developments that meet LEED certification. This Ordinance does not require it. Should the Council consider such rebates in the future, the fiscal impacts will be analyzed at that time.

**Ordinance Development:** Working in collaboration with Councilmember Nancy Nadel's office and the Alameda County Waste Management Authority (ACWMA), sustainability staff in the Mayor's office convened a meeting of Council members and Department heads to form a Civic Green Building Ordinance Steering Committee.

The committee's first meeting was held on July 8, 2004. Participants included Councilmember's Nancy Nadel and Danny Wan and staff from CEDA, Public Works Agency, ACWMA, and the Mayor's office. At the end of the meeting, the Steering Committee directed staff to form a working group for the purpose of developing draft language for an Ordinance that would mandate certain green building standards for City projects.

Sustainability staff then convened a working group comprised of invitees from Councilmembers Nadel's and Brunner's offices; Public Works Agency; Mayor's office; CEDA and ACWMA. The group met three times to draft ordinance language. The Steering Committee reconvened on December 7<sup>th</sup> to review the ordinance language developed by the working group. While members were generally supportive of the language developed by the working group, they did make the following suggestions to strengthen it: 1) Develop recommendations for incentives that would promote the adoption of green building strategies in private development projects; and 2) Develop minimum green building standards for City projects that do not meet the Ordinance's threshold for the purpose of reducing operation and maintenance costs of all City buildings. The current version of the Ordinance incorporates these suggestions.

## **KEY ISSUES AND IMPACTS**

The requirements of this Ordinance would apply to Covered City Building Projects, defined as all new building projects owned or occupied by a City department or Agency that equal or exceed \$3 million in construction costs (adjusted annually to the Building Cost Index) and all renovation projects of any building owned or occupied by a City department or Agency that equal or exceed \$3 million in construction costs, excluding all costs associated with seismic improvement. The threshold of \$3 million is recommended because there is a fixed cost associated with documentation and certification to LEED Silver rating. The cost of this certification for projects below this threshold begins to become less beneficial.

The Ordinance would require that all such projects meet a minimum Silver rating under the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, and be so certified by the USGBC. Certifying a building with the USGBC has no impact when the building can be occupied. Building occupancy is determined by the local jurisdictions who issue building permits and by the owner of the building.

The application for certification is submitted to the USGBC after construction is completed. However, a well-managed project will collect the documentation needed for the USGBC application as the design & construction phases are completed. If documentation is not collected during those phases, collecting the information at the end of the project can create unnecessary delays and difficulties in completing the application. Most projects submit the application to USGBC within a month of a project completion. USGBC review and certification usually takes one to two months.

The Ordinance would also require that all such projects have a LEED-accredited professional as a principal member of the design team from the beginning of the project. A LEED-accredited professional has passed a USGBC exam that tests understanding of LEED requirements and resources. The purpose of the exam is to ensure that a successful candidate has the knowledge and skills necessary to participate in the design process, can support and encourage integrated design, and can streamline the application and certification process. The Bay Area has one of the highest concentrations of LEED-accredited professionals in the nation, including several City of Oakland employees within the Public Works Agency and the Mayor's office.

City Building Projects that do not meet the threshold that triggers compliance with the requirements of this Ordinance are nevertheless required to meet as many LEED credits as practicable and are required to complete and submit the LEED Green Building checklist to the Compliance Official (See policy description below) as a way of documenting the green building practices that have been incorporated into the project.

Traditional Public Works projects such as pump stations, flood control improvements, roads and bridges are not subject to the requirements of this Ordinance. However, the Ordinance does specify that the Public Works Agency shall continuously revise the project specifications used in bidding such projects to include the best green building practices applicable.

The Ordinance also contains language intended to promote the use of green building strategies in private development projects by encouraging them to take advantage of free energy and green building design services. Private development projects are referred to a resources sheet, available in various City offices and at the Green Building Resource Center located at the second floor of 250 Frank Ogawa Plaza, for more information on accessing these services. As further incentive to promote the use of green building strategies in private development projects, the City Council may consider rebating 5-10% of the permit fee to any private commercial development that meets a LEED-Silver standard as certified by the U.S. Green Building Council. This rebate would signal to the development community that the City of Oakland is serious about promoting green building and would help to offset some of the initial first costs of building green. If this proposal is of interest to the Council, CEDA will compile the fiscal implications of this proposal and bring it back to Council at an upcoming meeting.

**Policy Description:** The Ordinance requires that the U.S. Green Building Council certify all Covered projects, so the processes, submittals, and requirements of the USGBC must be met by each covered project. In addition, the Ordinance calls for the City Administrator to promulgate rules and regulations necessary or appropriate to achieve compliance with the Ordinance after

securing and reviewing comments from affected City agencies and departments. These rules and regulations shall provide for at least the following:

- 1) The incorporation of the *Green Building Practices of this Chapter* into the appropriate design and construction contract documents prepared for the applicable Projects; and,
- 2) The designation of an appropriate Compliance Official who shall have the responsibility to administer and monitor compliance with the Green Building Practices set forth in this Chapter and to grant waivers or exemptions from the requirements of this Chapter and to report to the City Council regarding compliance with the requirements of this Chapter.

### **SUSTAINABLE DEVELOPMENT OPPORTUNITIES**

**Economic:** Compelling research now demonstrates that the integration of green building features into development projects can generate substantial energy, water and materials efficiencies, resulting in reduced operating costs of 20-80% over the life of the building. Reduced operating costs generate increased cash flow, which helps free capital for other investments. A report recently conducted by the Capital E Group and others concludes that financial benefits of green design can be over 10 times the additional cost associated with building green. More recently, research is showing that even the initial first costs of building green can be the same as or less than conventional building techniques if the goal to meet a specific green building standard is established early in the pre-design phase.

Another significant economic impact from green building is improved employee or occupant morale and general well being, resulting in quantifiable productivity increases and reductions in liability and health insurance claims.

**Environmental:** The generation and use of energy from fossil fuels is the major contributor to air pollution and global climate change. Approximately 30% of total energy use in the U.S. is for buildings, so improving energy efficiency and using renewable energy sources in buildings are effective ways to improve air quality and reduce the impacts of global climate disruption.

Expanding the use of recycled content in City building materials saves energy, water and materials, and decreases pollution.

**Social Equity:** The U.S. Environmental Protection Agency reports that the air in buildings can be ten times more polluted than outdoor air. Formaldehyde, commonly used in shelving and insulation, is one of the most common indoor pollutants. Many paints, floor finishes, and adhesives contain unhealthy volatile organic compounds (VOCs). The use of green building practices promotes the use of alternatives to these unhealthy materials and thereby promotes worker health.

### **DISABILITY AND SENIOR CITIZEN ACCESS**

The adoption of this Ordinance will have no direct effect on accessibility for senior citizens or disabled persons.

**ACTION REQUESTED OF THE CITY COUNCIL**

Staff recommends that the City Council adopt this Ordinance and direct the City Administrator to promulgate rules and regulations necessary to achieve compliance with the requirements of this Ordinance.

Respectfully submitted,



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**RAUL GODINEZ II, P.E.**  
Director, Public Works Agency

Reviewed by:  
Michael Neary, P.E.  
Assistant Director  
Design & Construction Services Department

**Prepared by:**  
Carol Misseldine, Senior Sustainability Staff  
Mayor's Office

David Lau, Principal Civil Engineer  
Project Delivery Division

**APPROVED AND FORWARDED TO  
THE PUBLIC WORKS COMMITTEE**



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**OFFICE OF THE CITY ADMINISTRATOR**

BY COUNCILMEMBER \_\_\_\_\_

FILED  
APPROVED AS TO FORM AND LEGALITY  
2005 MAR 31 PM 1:23  
C.M.S.

ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE ADDING CHAPTER 15.35 TO THE OAKLAND MUNICIPAL CODE ESTABLISHING GREEN BUILDING REQUIREMENTS FOR CERTAIN CITY PROJECTS**

**WHEREAS**, the Oakland City Council adopted the Sustainable Community Development Initiative (SCDI) through Resolution No. 74678 on December 1, 1998; and

**WHEREAS**, a fundamental goal of the SCDI is to “Make the City of Oakland’s operations and services a model of sustainable community development practices;” and

**WHEREAS**, one of the adopted goals of the Oakland City Council is to “Develop a Sustainable City” and to “maximize socially and environmentally sustainable economic growth, including conserving natural resources;” and

**WHEREAS**, in 1996, the Oakland City Council adopted Resolution No. 72809 authorizing the City to join the Cities for Climate Protection Campaign which has a stated goal of reducing greenhouse gas emissions; and

**WHEREAS**, the demolition, design, construction, and maintenance of buildings and structures within the City has a significant impact on the City’s environmental sustainability, resource usage and efficiency, greenhouse gas emissions, waste management, and the health and productivity of residents, workers, and visitors; and

**WHEREAS**, emissions from conventional construction materials such as paints, carpets, and particleboard can lead to health problems associated with poor indoor air quality and these health problems can result in lost productivity, lowered employee morale, and increased health care costs; and

**WHEREAS**, conventional building design, construction and operation methods not only can negatively affect the health of the people who live and work in them, but can also negatively impact the environment; and

**WHEREAS**, building construction, operations and demolition consume 40% of total energy and raw material use, and each year in the U.S., building-related activities are responsible for 30% of the nation’s carbon dioxide emissions, 40% of ozone pollution, and 35% of municipal solid waste; and

**WHEREAS**, based on studies by the Alameda County Waste Management Authority (ACWMA), construction and demolition debris comprises up to 21% of

materials disposed in Alameda County landfills; and

**WHEREAS**, Green Building refers to a whole systems approach to the design, construction, and operation of buildings, the benefits of which are spread throughout the systems and features of the building; and

**WHEREAS**, building “green” can include, among other things, the use of certified sustainable wood products; a substantial increase in the use of high recycled content products; recycling of waste that occurs during deconstruction, demolition, and construction; enhancement of indoor air quality by selection and use of construction materials that do not have chemical emissions that are toxic or irritating to building occupants; modification of heating, ventilation, and air-conditioning systems to provide energy efficiency and improved indoor air; use of water conserving methods and equipment; and installation of alternative energy methods for supplemental energy production; and

**WHEREAS**, Green Building design and construction decisions made by the City in the construction and remodeling of City buildings can result in significant cost savings and environmental benefits to the City over the life of the buildings; and

**WHEREAS**, it is critical to both the economic and environmental health of the City of Oakland that the City provide leadership to both the private and public sectors in the arena of energy efficiency and “green” construction; and

**WHEREAS**, the most immediate and meaningful way to do so is to include energy efficiency and green building elements in as many public City buildings and other projects as feasible; and

**WHEREAS**, green building design, construction and operational techniques are increasingly widespread in residential and commercial building construction; and

**WHEREAS**, at the national level, the U.S. Green Building Council has taken the lead in promoting and guiding green building by developing the Leadership in Energy and Environmental Design (LEED) Rating System and Reference Guide; and

**WHEREAS**, requiring City Building projects to incorporate LEED green building measures is necessary and appropriate to achieve the benefits of green building in the City of Oakland; and

**WHEREAS**, it is in the public interest to address the appropriateness of mandating green building requirements for private projects separately from, and subsequent to, applying such requirements to City Projects, and accordingly, unless and until the City Council determines otherwise, the provisions of this Chapter shall not apply to private sector development, including, but not limited to, joint ventures between the City and a private developer; City redevelopment projects; privately developed roads, bridges, and streetlights; and private sector commercial, industrial, and residential construction, and renovation activities; and



**WHEREAS**, it is also in the public interest to strongly promote and support the inclusion of green building strategies in private development projects through the provision of incentives from the City of Oakland.

**NOW THEREFORE THE CITY COUNCIL OF THE CITY OF OAKLAND DOES ORDAIN AS FOLLOWS:**

**SECTION 1**

Chapter 15.35 entitled “**GREEN BUILDING REQUIREMENTS FOR CITY BUILDING PROJECTS AND TRADITIONAL PUBLIC WORKS PROJECTS**” is hereby added to the Oakland Municipal Code to read as follows:

**CHAPTER 15.35**

**15.35.010 TITLE**

The provisions of Section 15.035.20 through Section 15.035.60 inclusive, shall be known as the City of Oakland “**GREEN BUILDING REQUIREMENTS FOR CITY BUILDING PROJECTS AND TRADITIONAL PUBLIC WORKS PROJECTS**”

**15.35.020 PURPOSE AND INTENT**

To promote economic and environmental health in Oakland, it is key that the City itself, through the design, construction, operations and deconstruction of its own facilities, provide leadership to both the private and public sectors in the arena of energy efficiency and “green” building practices. The most immediate and meaningful way to do this is to require the integration of green building strategies in as many public City buildings as feasible.

Therefore, the purpose of these provisions is to prescribe Green Building requirements to Covered City Building Projects and Traditional Public Works Projects.

The City Administrator or designee is authorized to develop rules and regulations to implement the requirements of this Chapter, which may be amended from time to time.

**15.35.030 DEFINITIONS**

- A. “Building” means any Structure used or intended for supporting or sheltering any use or occupancy as defined in the California Building Code.
- B. “City Building Project” means any new construction or renovation of a building owned or occupied by a City department or Agency;
- C. “Covered City Building Project” means:

1. All new building projects owned or occupied by a City department or Agency that equal or exceed \$ 3 million in construction costs (adjusted annually to the Building Cost Index published in the Engineering News-Record Magazine); or
  2. All renovation projects of any building owned or occupied by a City department or Agency that equal or exceed \$ 3 million in construction costs (adjusted annually to the Building Cost Index published in the Engineering News-Record Magazine), excluding all costs associated with seismic improvement.
- D. “Compliance Official” means the person who is authorized and responsible for implementing this Chapter for any given project. The Director of the Public Works Agency, or his/her designee, shall be the Compliance Official for all Covered City Building Projects and Traditional Public Works Projects.
- E. “Green Building Practices” means a whole systems approach to the design, construction, and operation of Buildings and Structures that helps mitigate the environmental, economic, and social impacts of Construction, Demolition, and Renovation. Green Building Practices such as those described in the LEED Rating System, recognize the relationship between natural and built environments and seek to minimize the use of energy, water, and other natural resources and provide a healthy, productive environment.
- F. “Initiated,” means officially identified and substantially funded to offset all the costs associated with the project.
- G. LEED™ Rating System™” means the most recent version of the Leadership in Energy and Environmental Design (LEED™) Commercial Green Building Rating System™, or other related LEED™ Rating System, approved by the U.S. Green Building Council.
- H. “LEED™ accredited professional” means an individual who has passed the LEED™ accreditation exam issued by the USGBC in applying LEED™ principles to building design.
- I. “Renovation” means any change, addition, or modification to an existing Building or Structure, including, but not limited to, tenant improvements.
- J. “Structure” means that which is built or constructed, an edifice or building of any kind or any piece of work artificially built or composed of parts joined together in some definite manner and permanently attached to the ground.
- K. “Traditional Public Works Project” means heavy construction projects such as pump stations, flood control improvements, roads, bridges, as well as traffic lights, sidewalks, bike paths, bus stops, and associated infrastructure on City owned and maintained property.

**15.35.040 GREEN BUILDING PRACTICES FOR CITY BUILDING PROJECTS**

- A. All Covered City Building Projects initiated on or after the final adoption of this Ordinance, shall meet a minimum LEED™ “Silver” rating under the LEED Rating System and be so certified by the U.S. Green Building Council.
- B. All Covered City Building Projects shall have a LEED-accredited professional as a principal member of the design team from the beginning of the project.
- C. For purposes of reducing operating and maintenance costs in all City facilities, City Building Projects that do not meet the threshold that triggers compliance with the requirements of this ordinance are required to meet as many LEED credits as practicable and are required to complete and submit the LEED Green Building checklist as a way of documenting the green building practices that have been incorporated into the project.

**15.35.045 GREEN BUILDING PRACTICES FOR TRADITIONAL PUBLIC WORKS PROJECTS**

The Public Works Agency shall continuously revise the project specifications used in bidding Traditional Public Works Projects to include the best green building practices applicable.

**15.35.046 PROMOTING GREEN BUILDING PRACTICES IN PRIVATE DEVELOPMENT PROJECTS**

Although the requirements of this ordinance do not extend to private development projects, the City of Oakland promotes the use of green building strategies in private development projects by offering a number of resources and incentives.

All private development projects in the City of Oakland are strongly encouraged, for example, to take advantage of free services provided by the Oakland Energy Partnership’s *Energy Efficiency Design Assistance Program* and PG & E’s *Savings by Design Program* for the purposes of integrating strong energy efficiency attributes into their projects. Other incentives include free green building technical assistance and grants, green building guidelines, and free public promotion for qualified projects. Other incentives to “green” private development projects are currently under development.

A resource sheet with more information about these incentives and resources is available at Oakland’s Green Building Resource Center on the second floor of 250 Frank Ogawa Plaza, through the Planning Department in the Community and Economic Development Agency on the third floor of 250 Frank Ogawa Plaza, and in the Mayor’s office of the City of Oakland at City Hall.

**15.35.050 COMPLIANCE**

- A. The City Administrator shall promulgate any rules and regulations necessary or appropriate to achieve compliance with the Green Building Practices stated in this Chapter. The initial rules and regulations shall be promulgated after securing and reviewing comments from affected City agencies and departments.
- B. The rules and regulations promulgated by the City Administrator’s Office under this section shall provide for at least the following:
  - 1. The incorporation of the Green Building Practices of this Chapter into the appropriate design and construction contract documents prepared for the applicable City Projects;
  - 2. The designation of an appropriate Compliance Official(s) who shall have the responsibility to administer and monitor compliance with the Green Building Practices set forth in this Chapter and with any rules or regulations promulgated thereunder, and to grant waivers or exemptions from the requirements of this Chapter, and to report to the City Council regarding Green Building Compliance on all Covered City Building Projects and Traditional Public Works Projects.

**SECTION 2**

**SEVERABILITY**

If any chapter, section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance, or any part thereof, is for any reason held to be unconstitutional, invalid, or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Ordinance or any part thereof. The City Council hereby declares that it would have passed each chapter, section, subsection, subdivision, paragraph, sentence, clause, and phrase of this Ordinance irrespective of the fact that one or more chapters, sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases be declared unconstitutional, invalid, or effective. To this end, the provisions of this Ordinance are declared to be severable.

IN COUNCIL, OAKLAND, CALIFORNIA, \_\_\_\_\_, 20\_\_\_\_\_

**PASSED BY THE FOLLOWING VOTE:**

AYES- BROOKS, BRUNNER, CHANG, NADEL, REID, QUAN and PRESIDENT DE LA FUENTE

NOES-

ABSENT-

ABSTENTION-

ATTEST: \_\_\_\_\_  
LaTonda Simmons  
Interim City Clerk and Clerk of the Council  
of the City of Oakland, California

## NOTICE AND DIGEST

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### **AN ORDINANCE ADDING CHAPTER 15.35 TO THE OAKLAND MUNICIPAL CODE ESTABLISHING GREEN BUILDING REQUIREMENTS FOR CERTAIN CITY PROJECTS**

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City Building Projects that do not meet the threshold that triggers compliance with the requirements of this Ordinance are required to meet as many LEED credits as practicable. The Ordinance also promotes the use of green building strategies in private development through the use of various incentives and the provision of resources.