King County

Metropolitan King County Council
Capital Budget Committee

Agenda Item No.:	***5 and 6***	***Date:***	***March 19, 2008***
Proposed No.:	***2008-0107 2008-0146***	***Prepared By:***	***Wendy Soo Hoo***

STAFF REPORT

SUBJECT: **Proposed Ordinance 2008-0146** would extend the expiration date of the county's existing green building policy to July 1, 2008.

Proposed Ordinance 2008-0107 would approve an expanded green building policy for all county-owned, financed, or alternatively financed capital projects.

SUMMARY:

Proposed Ordinance 2008-0107 clarifies and expands on policies established in Ordinance 15118 (February 2005), which was originally set to expire on January 1, 2008. In December 2007, Council extended the legislation's sunset date to April 1, 2008 (Ordinance 15996) based on the Executive's commitment to transmit the new green building policy in January 2008. Proposed Ordinance 2008-0146 would extend the sunset date to July 1, 2008 to allow Council more time to fully analyze the new green building policies described in Proposed Ordinance 2008-0107.

The new green building policies include the following key changes:

- All eligible new construction and major remodel and renovation projects would be required to achieve the LEED[1] Gold certification.
- Applicability is clarified to cover all King County-owned and county-financed projects, including projects using alternative financing.
- All capital projects that are not eligible or are limited in their ability to achieve LEED certification (e.g., infrastructure projects) will incorporate cost-effective green building and sustainable development practices using a county-developed "scorecard" or checklist.
- Lifecycle cost assessments are required and may be used to justify requests to the Executive for additional budget expenditures to cover higher up-front costs if long-

[1] United States Green Building Council's Leadership in Energy and Environmental Design (LEED)

term benefits are identified. Long-term benefits may include lower operations and maintenance costs.
- Divisions must conduct an energy audit of existing buildings and prioritize improvements that can be made to achieve a ten percent reduction in energy consumption by 2012.

The proposed legislation also calls for guidelines for using green practices in operating and remodeling existing buildings; more specific reporting requirements improve the information compiled on county divisions' green practices; continuing the county-wide Green Building Team and clarifying its roles and responsibilities; and requiring project managers to be trained in green building practices.

BACKGROUND ON LEED STANDARDS:

What is LEED? Leadership in Energy and Environmental Design (LEED) is a voluntary, consensus-based standard for developing high-performance, sustainable buildings. The U.S. Green Building Council, which represents all segments of the building industry, developed the LEED standards.[2]

LEED Standards – LEED standards are currently available or under development for: New Construction, Existing Buildings, Commercial Interiors, Core & Shell, Schools, Retail, Healthcare, Homes, and Neighborhood Development.

LEED Scope – LEED provides a complete framework for assessing building performance and meeting sustainability goals. LEED emphasizes strategies for sustainable site development, water efficiency, energy efficiency, materials selection, indoor environmental quality, and innovation in design. LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training and practical resources. Different levels of green building certification are awarded based on the total credits earned.

LEED Rating System – LEED certification is subdivided based on the number of points earned in a LEED assessment into the following range of ratings (from the lowest to highest): Certified, Silver, Gold, and Platinum.

KING COUNTY'S CURRENT GREEN BUILDING POLICY:

Ordinance 15118: The current green building policy, adopted in February 2005, requires all new projects and remodels and renovations with budgets over $250,000 to seek *the highest LEED certification level that is cost-effective* based on life-cycle cost

[2]The council works to promote buildings that are environmentally responsible, profitable and healthy places to live and work. Member organizations total 11,500 building owners, architects, governmental agencies, and product manufacturers. Local members include King County, the State of Washington, the City of Seattle, the City of Bellevue, the City of Issaquah, Snohomish County and the University of Washington.

analysis and the limits of available funding. The policy also requires that new projects where the scope or type of structure limits the ability to achieve LEED certification still incorporate cost-effective green building practices.

Ordinance 15118 also directed DNRP to provide technical support for the county's green building program as appropriate. Departments are required to submit regular reports to the Department of Natural Resources and Parks (DNRP) to provide an update on the status of green building accomplishments. Per the policy, DNRP maintains and monitors a list of county projects that incorporate LEED criteria and compiles an annual progress report on these projects.

This policy was set to expire as of January 1, 2008. In December 2007, Council extended the expiration date to April 1, 2008 (Ordinance 15996).

Other policy frameworks that have guided the county's green building practices are summarized in Attachment 5 to this staff report.

ANALYSIS:

The following table compares the existing green building policy (Ordinance 15118) and the proposed update:

Table 1
Comparison of Existing Green Building Policy and Proposed Update

Existing Green Building Policy (Ordinance 15118)	***Proposed Update (Proposed Ordinance 2008-0107)***
Application: • Applies to all buildings the county constructs, remodels, renovates	• Applies to all county-owned or financed projects
Minimum Certification Level: • *No minimum* - All projects shall use green building practices and seek the highest certification level possible based on cost-effectiveness and available funding	• Requires all projects to seek *Gold* certification level – if not able to achieve Gold, must obtain approval from department director
Life-Cycle Assessments: • Cost-effectiveness determined based on life-cycle cost analysis • Note: Executive policy FES 9-3 (AEP) states departments may use life-cycle cost analysis to justify requests for expenditures beyond project budgets	• Life-cycle assessments shall be used to determine which strategies will cost-effectively optimize building performance • Projects may use life-cycle assessments to justify requests for expenditures beyond project budgets
Unique Projects/Buildings: • Acknowledges that some building types may not be able to achieve LEED	• Projects that are not LEED-eligible shall incorporate green building

certification - requires application of green building practices even when certification is not feasible.	practices based on LEED and other criteria – a benchmarking scorecard will be developed to identify green practices for specific types of infrastructure projects
Existing Buildings: • Establishes $250,000 threshold for seeking highest possible LEED certification on remodels and renovations	• Existing buildings to be inventoried with goal of achieving 10 percent energy savings by 2012 • Divisions shall identify facilities appropriate to achieve LEED Existing Building certification
Reporting: • Requires departments to submit reports for capital projects; DNRP compiles an annual progress report.	• Requires departments to establish environmental goals and monitoring system • Departments required to report to DNRP annually on specific items such as number of LEED projects and their status, green strategies employed, applicable energy savings, etc. • DNRP will compile a report to Council by April each year
	***New Policy Area* – Green Building Operational Guidelines** • Green Building Team will develop mandatory and recommended operational guidelines to provide direction on minor remodels, water conservation, green cleaning standards, etc.
	***New Policy Area* – Green Building Grant Program** • Continues program established in 2006 to provide incentives to the private sector, nonprofit organizations, and suburban cities – green building grant funding may go to residential or commercial projects that meet eligibility requirements

Council staff identified a number of potential issues and questions that require further consideration.

1) Gold Rating Requirement for All LEED-Eligible Projects – As shown above, the proposed ordinance would require all LEED-eligible projects to achieve a minimum

LEED rating of Gold in contrast to the current policy which requires that projects seek the highest certification possible.

Projects that would not be able to achieve the Gold rating would need to obtain approval from the department director. The legislation does not propose specific criteria to guide the approval process. Department directors would evaluate the reasons for not achieving a Gold rating and make a determination to approve a lower rating based on the circumstances.

According to the Executive's transmittal letter, 55 cities, 11 counties, 8 towns, 22 states, and 11 federal agencies have adopted LEED initiatives. Of these jurisdictions, three require projects to achieve the LEED Gold standard: Portland, Oregon; Scottsdale, Arizona; and Vancouver, British Columbia. Note that the City of Seattle and State of Washington have established requirements for projects to minimally achieve the LEED Silver rating. (Attachment 6 to this staff report summarizes the green building policies for Portland, Scottsdale, Vancouver, Seattle, and Washington.)

The fiscal note attached to the legislation states that the fiscal impact will vary for each project. A study cited by Executive staff concluded that the average up-front cost premium associated with achieving LEED Certified, Silver, and Gold ratings for 33 green buildings ranged from 0 to 2 percent.[3] Note that the ranges of actual cost premiums associated with each rating were not provided in the study. The fiscal note suggests that at a cost premium of 1 percent (the mid-point of the 0 to 2 percent range), a $50 million facility could have additional up-front costs of $500,000 as a result of the green building policy.

As shown in Table 2 below, the county has nine buildings that are currently pursuing LEED certification and five that have already achieved certification. Of the five that have already achieved LEED certification, two buildings achieved a Gold or Platinum rating – the King Street Center achieved an Existing Building-Gold rating and the Chinook Building achieved a Core/Shell-Gold rating and a Commercial Interior-Platinum rating. Three facilities (Kent Pullen Regional Communication & Emergency Coordination Center, Power Distribution Headquarters, and Marymoor Maintenance Facility) achieved Certified ratings.

Of the nine buildings pursuing certification, the majority (six) are seeking a Silver rating. Two buildings are seeking Gold ratings, and one is seeking a Platinum rating. Note that projects that have completed 30 percent design at the time the ordinance is adopted would not be subject to the updated policies.

[3]These costs can include increased design time, modeling costs, and time necessary to integrate sustainable building practices into projects.

Table 2 *County Buildings Seeking or Achieving LEED Certification*		
Certified Projects	**Project Status**	**LEED Rating Achieved**
1. Kent Pullen Regional Communication & Emergency Coordination Center	Completed	Certified
2. Power Distribution Headquarters	Completed	Certified
3. Marymoor Maintenance Facility	Completed	Certified
4. King Street Center	Completed	Gold
Projects Seeking Certification	**Project Status**	**LEED Rating Planned**
5. Chinook Building	Completed	Core/Shell – Gold; Commercial Interior – Platinum
6. Atlantic- Central Base Tire and Millwright Shop	Completed	Silver (LEED rating in progress)
7. Shoreline Recycling & Transfer Station	Completed	Silver (LEED rating in progress)
8. Bow Lake Transfer Station	Design	Silver
9. Carnation Treatment Plant	Construction	Silver
10. South Plant New Administration Building	Construction	Silver
11. Ninth and Jefferson Building	Construction	Silver
12. Brightwater Environmental Education Center	Design	Gold
13. Central Base Police Building	Design	Gold
14. Atlantic Operations Complex	Design	Platinum
Source: Department of Natural Resources and Parks		

Status *– Council staff has received project cost data and is continuing to work with Executive staff to analyze the data.*

Attachment 7 to this staff report provides a preliminary summary of LEED-related costs for the above projects and how these costs compare to total construction costs. As shown in Attachment 7, LEED-related costs range from less than 1 percent of total construction costs to as high as 14 to 15 percent of projected construction costs. Note that LEED-related costs have not been provided for several projects, including Marymoor Maintenance Facility, Kent Pullen Regional Communication and Emergency Coordination Center, and the King Street Center. Council staff will continue to work with Executive staff to obtain information on LEED-related costs for these projects.

Further cost analysis will include consideration of Current Expense fund impacts of LEED-related costs.

Council staff will continue to research the county's anticipated "green" benefits and actual building performance (such as energy savings) as well as industry data on non-monetary benefits of green building practices (such as worker productivity gains, etc.).

2) Guidelines Not Included for Determining Cost-Effectiveness of Individual Projects' Green Design Features – The proposed legislation does not indicate that future operational cost savings identified through life-cycle cost analyses should fully or significantly offset the up-front incremental cost premiums associated with green building features.[4]

The City of Scottsdale's green building policy (Resolution 6644) provides an example of a policy that sets a clear guideline for determining cost-effectiveness. Scottsdale's policy directs projects to achieve the LEED Gold rating whenever resources and conditions permit and specifies a maximum pay-back period of five years. Where the payback period is anticipated to exceed five years, city staff is directed to recommend which LEED rating, if any, is appropriate for the particular project.
Council could consider refining the legislation and establishing guidelines for determining whether pursuing a LEED Gold rating is sufficiently cost-effective for individual projects. Council could also consider establishing a policy that directs the county to purchase offsetting carbon credits when pursuit of a LEED Gold rating is deemed more costly.

Status – *Council staff is continuing to analyze this issue in conjunction with the previous issue. Council staff has requested and obtained examples of life-cycle cost analyses and will work with Executive staff to understand the methodologies used in these analyses. Our review will also seek to understand how non-monetary green benefits are incorporated into these analyses.*

3) Other Building Priorities Not Currently Addressed in Legislation – The proposed legislation does not address historic buildings. Executive staff indicated that the intent of the proposed ordinance is not to supersede requirements in place for historic buildings. Instead, the objective for projects in historic buildings would be to maximize sustainable approaches without jeopardizing the building's historic status. This objective is not explicitly stated in the proposed legislation, so Council could consider adding a policy statement regarding prioritization of historic preservation and green building practices.

Status - *Council staff has conducted research to respond to Council questions regarding historic preservation and its relationship to green/sustainable design.*

[4] The fiscal note states that "life-cycle analysis will determine for each facility whether the projections indicate that the initial up-front investment in the project budget proposed to council will be recovered due to savings in future years."

Preliminary research shows that historic preservation and green/sustainable design movements are not wholly inconsistent. Preservationists argue that restoring and reusing historic buildings is inherently "green."

However, Council staff is working with historic preservation staff to better understand the potential conflicts between green building objectives and historic preservation objectives.

Council staff also notes that LEED standards do not yet specifically address historic buildings, making it potentially more challenging for these buildings to achieve LEED status. Still, some historic buildings have achieved LEED certification. Examples provided by Executive staff include:

- In 2006, the Gerding Theater (Portland, Oregon), which is listed on the National Register of Historic Buildings and was constructed in 1889, became the first historic building to achieve LEED Platinum status.
- The Balfour-Guthrie Building (Portland, Oregon), designed in 1913, achieved the LEED Silver rating in 2003.
- The Cobb Building (Seattle), originally built in 1910, was recently renovated and received a LEED Silver rating.
- The offices of Perkins + Will architecture firm achieved a LEED Commercial Interiors Platinum rating for a renovation of a six-story brick building originally constructed in 1912 art the corner of Second and University in Seattle.

As currently written, the proposed ordinance does not specifically include language regarding historic buildings. Executive staff indicated that renovation work on county-owned historic buildings could potentially fall under either the general LEED Gold requirement or under the requirements for non-LEED projects. As required in Section 3.D., major renovation projects would generally be required to meet the LEED Gold standard, even in historic buildings, unless an exception was approved by the project's department director. Projects in historic buildings a limited scope of work may not be able to qualify for LEED, but would still be required to incorporate green practices based on a scorecard/checklist to be developed under Section 3.E.

Council staff will continue to analyze this issue and develop options for additional policy guidance on incorporating green practices in historic buildings.

4) Specific Reporting Requirements Do Not Include Incremental Cost Information – The proposed ordinance includes a list of items to be included on a reporting form to be completed by each division responsible for managing capital improvement projects. This information would ultimately be compiled and summarized in an annual report to Council. The reporting form includes:

- Total number of capital projects a division is responsible for;
- Number of LEED projects and their status;

- Total number of non-LEED projects that have completed a sustainable development scorecard;
- Green strategies employed;
- Applicable energy savings;
- Reductions in greenhouse gas emissions;
- Construction waste recycled;
- Renewable resources used;
- Green materials used; and
- Fiscal, environmental and functional pro forma of projects in various stages of development.

The reporting form could potentially require divisions to provide information on the incremental cost associated with LEED projects as well. This would allow for monitoring of the cost-effectiveness of the county's green building program.

***Status** – As part of the analysis of green building policies, Council staff will continue to identify other potential information requirements, such as information on non-monetary/other green benefits, to include in the legislation. This will include working with Councilmembers to determine what information would be useful to inform their oversight of and decisions regarding green buildings and capital projects.*

5) Green Building Grant Programs – The proposed legislation includes direction for managing the county's LEED and Built Green Incentive Grant Programs, which were established pursuant to Ordinance 15118. The grant program began in 2006 and has two components.

The first is the King County/Seattle Built Green Incentive program which competitively awards grants to residential projects twice a year. These grants are open to any project in King County that meets specific eligibility criteria (e.g., single-family, new construction). Applicants are evaluated based on criteria such as:

- Affordability and replicability of green design demonstrated by the project;
- Project status in early design phase so the grant would provide incentive to increase use of green strategies;
- Educational value to the public on innovative green design; and
- Awards represent a diverse range of project types throughout King County.

This program is currently funded through a $50,000 King County DNRP WaterWorks Grant and a $40,000 grant from Seattle Public Utilities. Funding from Seattle Public Utilities may not continue beyond 2008. (Council staff was informed that the City may be initiating its own grant program.)

The second program is the King County LEED Incentive Grant program which competitively awards grants once a year to commercial projects. Applicants for the LEED Incentive Grant awards are evaluated on criteria such as:

- Innovativeness of green design, elements, or techniques;
- Project status preferably in the design phase so the grant award would provide incentive to increase use of green strategies;
- Educational value to the public about new green building practices; and
- Secure project funding and construction schedule that indicates good use of county funds in the near term.

In 2008, $120,000 is available with the county's Solid Waste, Wastewater Treatment, and Water and Land Resources Divisions providing $40,000 each.

***Status** – Council staff is researching other similar programs to identify best practices.*

6) Relationship of Proposed Ordinance to 2008 Comprehensive Plan Update – The Executive recently released a proposed 2008 Comprehensive Plan update. Proposed changes to Chapter 2, Section VI are shown below:

U-601 King County ((~~should~~)) shall incorporate sustainable development principles and practices into the design, construction and operation of county facilities and county-funded projects ((~~when economically feasible~~)).

((~~U-602 The use of green building practices should be accomplished within traditional project budgets. If additional funds are sought for up-front costs, a life-cycle cost analysis of the project should be completed to determine the long-term benefits of using green building practices.~~))

U-604 King County ((~~should~~)) shall leverage its purchasing power related to capital improvement projects to help expand the markets for green building products, including recycled-content materials and clean, renewable energy technologies.

As shown above, the proposed plan strengthens provisions related to green building by now requiring the county to incorporate sustainable development practices into the design and operation of buildings. At the same time, the proposed changes reduce the emphasis on cost-effectiveness.

***Status** – Council staff assigned to green building legislation will coordinate with staff assigned to the Comprehensive Plan to discuss overlap.*

REASONABLENESS:

Council staff is continuing to analyze the reasonableness of the proposed changes to the County's green building policies. As such, Proposed Ordinance 2008-0107 is not yet ready for action.

Correspondingly, it would be a prudent and reasonable business decision to pass Proposed Ordinance 2008-0146, which would extend the expiration date of the County's existing green building policies and allow Council additional time to assess and consider the proposed changes to the County's green building policies.

INVITED:
Kathy Brown, Director Facilities Management Division
Theresa Jennings, Director, DNRP
Bob Burns, Deputy Director, DNRP
Kevin Kiernan, DNRP
Bob Cowan, Director, OMB

ATTACHMENTS:
1. Proposed Ordinance 2008-0107
2. Proposed Ordinance 2008-0146
3. Transmittal Letter, dated February 14, 2008
4. Fiscal Note
5. King County Green Building Policy Frameworks
6. Summary of Other Jurisdictions' Green Building Policies
7. Summary of King County Green Buildings' LEED-Related Costs

King County

KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

March 18, 2008

Ordinance

Proposed No. 2008-0107.1 **Sponsors** Ferguson, Constantine and Phillips

AN ORDINANCE continuing the requirement to use green building and sustainable development practices in all capital projects that the county plans, designs, constructs, remodels, renovates, and operates or to which the county lends or grants funds enabling construction or executes long-term leases or other legal financial instruments causing the construction of capital projects.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. **Findings:**

A. Green building and sustainable development practices support the broad goals of King County, including but not limited to, growth management, economic development, fiscal responsibility, environmental protection, access to public transportation, social equity, stewardship of resource lands, climate change initiatives, efficient energy and other natural resource uses, preserving fish and wildlife habitat, reducing and creating resources from wastes and protecting and improving citizen health.

B. King County has shown leadership in establishing climate protection goals

and energy conservation goals through the completion of its Climate and Energy Plans. The built environment plays a significant role in greenhouse gas emissions and energy consumption.

C. The incorporation of green and sustainable practices into the design, construction and operation of capital improvement projects reduces greenhouse gas emissions, reduces pollution, reduces the use of natural resources, reduces energy and other operating costs, enhances asset value, optimizes performance and creates healthier and more appealing environments for the visiting public and for King County employees. More than one-fifth of the greenhouse emissions in the Puget Sound region are attributed to the building sector.

D. Buildings designed to optimize energy efficient systems using minimal fossil fuels are low-energy and high-performance buildings. With such buildings, the county's utility costs will be demonstrably lower, since the largest component of owning and operating buildings are utility costs associated with lighting, ventilating, heating and cooling. Within a building's total life span, the operations and maintenance costs are generally three times the initial building costs.

E. Ordinance 15118, adopted in February 2005, established a green building policy for all King County buildings, renovations, and remodel projects. It requires that projects seek the United States Green Building Council's Leadership in Energy and Environmental Design ("LEED") certification whenever possible. Ordinance 15118 expires April 1, 2008. By continuing and building on the green building policies set forth in the current ordinance, the county will further its sustainability goals.

F. The LEED rating system is a nationally recognized standard used to rate the

performance of buildings and to guide project design. The LEED rating system components include: sustainable site design; water efficiency; energy and atmosphere; indoor environmental quality; materials and resources; and innovation in design. The achievement of LEED performance targets reduces operating costs, enhances asset value, optimizes building performance and creates healthier and more productive workplaces for King County employees and visitors. Members of the United States Green Building Council representing all segments of the building industry created the LEED program and continue to contribute to its development.

1. The LEED rating system:

a. defines "green building" by establishing a common standard of measurement;

b. promotes integrated, whole-building design practices;

c. recognizes environmental leadership in the building industry;

d. stimulates green competition;

e. raises consumer awareness of green building benefits; and

f. helps transform the building marketplace.

2. LEED provides a complete framework for assessing building performance and meeting sustainability goals. Based on well-founded scientific standards, LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED recognizes achievements and promotes expertise in green building design and construction through a comprehensive system offering project certification, professional accreditation, training and practical resources. Different levels of LEED certification are

awarded based on the performance credits earned. Guidelines and standards for this LEED point system, as well as ongoing technical interpretation assistance, provide a flexible but powerful system for green building practices.

G. King County currently has fourteen buildings registered with LEED. Three of these buildings have been completed and have received their LEED certification. These buildings are the Kent Pullen Regional Communication & Emergency Coordination Center, which is LEED Certified, King Street Center, which is LEED-existing building operations (EB) Gold, and Power Distribution Headquarters, which is LEED Certified.

H. Statistics show that green buildings that use the LEED rating system cost on average zero to two percent more to build, but depending on the level of LEED certification, can save as much as fifty dollars to seventy-five dollars per square foot over a twenty-year period. For example, a one-hundred-thousand-square-foot building can return a savings of between five million dollars to seven million five hundred thousand dollars in operating costs over twenty years.

I. King County has shown its commitment to incorporating green building and sustainable development practices in capital improvement projects through a variety of projects. The types of projects where LEED certification may apply include, but are not limited to, office buildings, transfer stations, wastewater treatment plants, maintenance facilities, recreational facilities and medical facilities. The types of projects where LEED certification may not be feasible because of the scope of the project or the type of structure, but where sustainable development practices could apply include, but are not limited to, bus passenger shelters, restroom facilities, pump stations, parking garages, roads, sidewalks, bridges, flood control improvements and conveyance lines.

J. Using an integrated design process to plan and implement capital projects ensure that green building and sustainable design strategies are optimized. Tools that projects will use in planning include conducting a charrette or project-appropriate design meeting and using a life-cycle approach – assessing the fiscal, environmental and functional costs and benefits – to optimize a project's total contribution to the system.

K. The sustainability of individual projects should be evaluated, using a triple life-cycle approach, from a system-wide perspective. In planning for individual enhancement projects, which are pump station or road improvements, the system that they are a part of should be considered and the project evaluated in that context.

L. King County develops, owns and operates a wide variety of facilities that require ongoing operation and maintenance. Ensuring that these facilities are designed, operated and maintained using green and sustainable practices will reduce operating costs, conserve energy, reduce greenhouse gas emissions and improve indoor air quality.

SECTION 2. The definitions in this section apply throughout this ordinance unless the context clearly requires otherwise.

a. "Charrette" means a facilitated workshop for a project design team that explores sustainable and high performance themes and strategies that can be applied to a project. Participants in the workshop include appropriate design team members, technical experts and selected stakeholders. The goals of a charrette are to educate the team participants about environmental and green building practices, to create a common language to explore these issues, to begin the collaborative approach necessary for successful integrated design, and to establish environmental goals for the project. A report of the presentations and discussions summarizes the workshop.

B. "County green building team" or "green building team" means a group that includes representatives from agencies throughout the county including, but not limited to the department of transportation, the department of natural resources and parks, the department of executive services, the department of development and environmental services and the department of public health. The members represent a variety of staff with expertise in project management, architecture, landscape architecture, environmental planning, design, engineering, resource conservation, public health, building energy systems, budget analysis and other skills as needed. The green building team provides assistance and helps to disseminate information to project managers in all county agencies.

C. "Facility" means all or any portion of buildings, structures, infrastructure, sites, complexes, equipment, utilities and conveyance lines.

D. "GreenTools program" is the support team located within the solid waste division of the department of natural resources and parks that provides green building technical assistance to county divisions, cities, and the general public within King County.

E. "Integrated design process" means an approach to project design that seeks to achieve high performance on a wide variety of well-defined environmental and social goals while staying within budgetary and scheduling constraints. It relies on a multidisciplinary and collaborative team whose members make decisions together based on a shared vision and a holistic understanding of the project. It is an iterative process that follows the design through the entire project life, from pre-design through operation.

F. "Leadership in Energy and Environmental Design" or "LEED" means a

voluntary, consensus-based national standard for developing high-performance, sustainable buildings. A LEED certification is available for: new construction and major renovation projects, which is LEED-NC; existing building operations, which is LEED-EB; commercial interior projects, which is LEED-CI; and core and shell projects, which is LEED-CS. LEED certifications that are in the pilot phase now include LEED for Homes and LEED for Neighborhood Development.

G. "LEED-eligible building" means a new construction project larger than five thousand gross square feet of occupied or conditioned space as defined in the Washington state energy code, or a major building remodel or renovation project.

H. "Life-cycle assessment" or "LCA" represents the full direct and indirect environmental impacts and contributions of constructing, operating, maintaining, repairing and deconstructing or demolishing a building or facility based upon the useful life of the building or facility and its components.

I. "Life-cycle benefit assessment" or "LCBA" represents the full functional contribution of a facility to the system of which it is part. The LCBA is a systematic accounting of the service level provided, the degree of system enhancements or the community contribution over the life of the facility.

J. "Life-cycle cost analysis" or "LCCA" represents the total cost of development and operation including design, construction, operations, maintenance and deconstructing or demolishing a building or facility based upon the useful life of the building or facility and its components.

K. "Major remodel or renovation" means work that demolishes space down to the shell structure and rebuilds it with new interior walls, ceilings, floor coverings and

systems, when such work affects more than twenty-five percent of a LEED-eligible building's square footage and the affected space is at least five-thousand square feet or larger.

L. "Minor remodel or renovation" means any type of remodel or renovation that does not qualify as a major remodel or renovation.

M. "New construction" means a new building or structure.

N. "Pro forma" is a high-level projection of costs and benefits for a proposed project, facility or infrastructure investment. This analysis is based on common assumptions or projections about a development and may not be a detailed assessment of unusual conditions or circumstances.

O. "Retro commissioning" is a detailed, systematic process for investigating an existing building's operations and identifying ways to improve performance. The primary focus is to identify operational improvements to obtain comfort and energy savings.

P. "Sustainable development practices" means whole system approaches to the design, construction, and operation of buildings and infrastructure that help mitigate the negative environmental, economic, health and social impacts of construction, demolition, operation and renovation while maximizing the facilities' positive fiscal, environmental and functional contribution. Sustainable development practices recognize the relationship between natural and built environments and seek to minimize the use of energy, water, and other natural resources while providing maximum benefits and contribution to service levels to the system and the connecting infrastructures.

Q. "Sustainable infrastructures" means those infrastructures and facilities that are

designed, constructed and operated to optimize fiscal, environmental and functional performance for the lifecycle of the facility. Because there is currently no nationally recognized benchmarking tool for determining the sustainability of infrastructure, sustainable performance of infrastructure will be determined through an integrated triple life-cycle assessment – one that accounts for fiscal, which is LCCA, environmental, which is LCA, and functional costs and benefits, which is LCBA, over the life of the facility.

R. "Triple life-cycle assessment" means an approach to infrastructure planning, design and construction that integrates fiscal, environmental and functional costs and benefit assessments to arrive at development strategies and tactics that optimize performance and associated outcomes over the life cycle of the facility.

S. "United States Green Building Council" means an organization that serves as the nation's foremost coalition of leaders from across the building industry working to promote buildings that are environmentally responsible, profitable and healthy places to live and work.

SECTION 3.

A. The intent of this policy is to ensure that the design, construction, maintenance, and operation of any King County-owned or financed capital project is consistent with the latest green building and sustainable development practices.

B. This policy applies to all King County-owned and King County-financed projects.

C. All King County-owned, financed or alternatively financed capital projects shall utilize LEED criteria, to the extent possible, to implement sustainable development

practices in the planning, design, construction, and operation as set forth herein. Projects should use an integrated design process that includes a multidisciplinary team early on in the project. All projects shall conduct a charrette or similar project-appropriate assessment to establish applicable environmental and energy efficiency, health promotion, fiscal and functional goals. Projects should also use LCCA to determine which technologies and strategies are the most cost effective to use, LCA to optimize environmental performance and LCBA to determine which technologies and strategies optimize functional contribution. Projects should plan for and incorporate sustainable development practices within budgets, though may use theLCAs to justify requests for additional funding. If the LCA reveals that higher up-front costs yield long-term benefits, such as lower operations and maintenance costs, or there are other compelling reasons for the additional up-front costs, the department may request executive consideration of additional budget expenditures.

D. All LEED-eligible new construction and major remodels and renovations shall be registered through the United States Green Building Council and shall achieve, at a minimum, a LEED Gold certification. LEED-eligible projects that have been deemed not able to achieve a LEED Gold rating, but are being planned to achieve a lesser LEED rating, are required to submit a timely explanation to the appropriate department director, who will have final approval authority. In achieving a LEED rating, the project team will ensure that energy efficiency is given the highest priority. Projects that have completed thirty percent of the design phase at the time of ordinance adoption are not required to achieve a LEED Gold rating, but are encouraged to achieve the highest LEED rating possible.

E. All capital projects, where the scope of the project or type of structure limits the ability to achieve LEED certification, shall incorporate cost-effective green building and sustainable development practices based on relevant LEED criteria and other applicable sustainable development goals and objectives. These projects will use a suitable scorecard to establish a benchmark for achieving levels of LEED equivalency and the incorporation of other cost-effective functional enhancement measures in a manner that is appropriate for specific types of infrastructure projects. The sustainable development scorecard and related guidelines for non-LEED projects shall be developed by July 1, 2008, by the green building team in conjunction with divisions that have capital project staff and the GreenTools technical support team. The guidelines will include tools and procedures for completing a triple life-cycle assessment including LCCA, LCA and LCBA. Project teams will submit a completed project scorecard to the green building team initially at the schematic or thirty percent design phase of the project, then again at the completion of the design phase, and finally at the completion of the project. For small, related capital projects with construction costs of less than one hundred thousand dollars each that are implemented as part of a program, the scorecard and reporting requirements may be done for the program rather than for each individual small project.

F. For all existing county-owned or operated buildings, as described in the 2007 Energy Plan, each division will develop a prioritized action plan in coordination with the county resource conservation manager or managers and their organization's other designated county staff responsible for implementation of the Energy Plan to conduct an inventory and audit of each significant energy-using building and the equipment that it

contains. The goal of the inventories and audits is to achieve a minimum ten percent energy savings, as compared to 2006, for such assets county-wide. The action plan should be completed no later than January 1, 2010, and a ten percent reduction in energy use achieved by January 1, 2012.

During this process, divisions shall identify any facilities that would be appropriate to achieve a LEED EB certification. Facilities that will be receiving significant improvements to two of the three major systems, which are lighting, heating and cooling or plumbing, might be appropriate candidates for the certification.

G. To help achieve a standard level of green building operations in existing buildings, the green building team, in coordination with divisions that have capital project staff and the GreenTools technical support team, will develop a set of both mandatory and recommended green building operational guidelines for divisions to incorporate into their facility operations procedures. The guidelines will provide direction on the use of green practices in minor remodels and renovations, water conservation, waste reduction and recycling expectations, green cleaning standards and retro commissioning to improve a facility's operating performance. The guidelines will be developed by July 1, 2008.

H. Each division with capital project or building management staff shall identify environmental goals, performance targets and a monitoring system for the performance targets. The monitoring system may include LEED, the sustainable development scorecard, other appropriate evaluation criteria, or a combination of these systems. The selected goals, targets and target monitoring system shall be submitted to the county green building team no later than September 30, 2008.

I. No later than January 31 of each year, all divisions responsible for capital

improvement projects shall submit a report to the department of natural resources and parks, detailing the green building and sustainable development accomplishments for the previous year. The green building team will develop a reporting form for this purpose and circulate it no later than July 1, 2008, to be used for the 2008 reporting year. Information to be submitted will include, but not be limited to: total number of capital projects a division is responsible for; number of LEED projects and their status; total number of non-LEED projects that have completed a sustainable development scorecard; green strategies employed; applicable energy savings; reductions in greenhouse gas emissions; construction waste recycled; renewable resources used; green materials used; and the fiscal, environmental and functional pro forma of projects in various stages of development.

J. The department of natural resources and parks shall compile an annual progress report of county projects using the information submitted by departments. Eleven copies of the annual green building team report will be filed with the clerk of the council by April 1 of each year, for distribution to all councilmembers.

K. The green building team will coordinate and share information about the use of sustainable development practices countywide and, with assistance from the county GreenTools program, develop tools and training for project managers to implement this legislation. Its role includes:

1. Helping to assess regionally appropriate green building and sustainable development practices;

2. Developing regionally appropriate building and infrastructure design standards and guidelines;

3. Developing tools and procedures for assessing life-cycle fiscal, environmental and functional costs and benefits;

4. Convening and facilitating sustainable development planning and charrette workshops;

5. Evaluating performance of projects and facilities, including conducting postoccupancy surveys, energy and water use audits and evaluating benefits realized; and

6. Tracking and reporting progress on implementation of green building and sustainable development practices.

L. Each division with capital project staff shall designate a green building team member, who is expected to regularly attend meetings and actively participate in disseminating sustainable development practices knowledge back to the respective division. Green building team members should also receive specialized and/or additional training in green building design and should be encouraged to achieve the LEED Accredited Professional designation, as appropriate.

M. County capital improvement project managers that are currently managing or will in future manage projects which fit the criteria in section 3.C. and D. of this ordinance will be responsible for attending appropriate LEED and sustainable development training and annual refresher courses. Trainings will be coordinated through the green building team.

N. The department of natural resources and parks GreenTools program shall provide technical support for the county green building team and to cities and the general public in King County as appropriate, including, but not limited to, training on LEED and other green building and sustainable development technologies, research, project review,

assisting with budget analysis and convening groups to develop strategies and policies relating to green buildings and sustainable infrastructures.

SECTION 4.

A. The department of natural resources and parks shall continue the green building grant program established to provide incentives to the private sector, nonprofit organizations, and suburban cities to adopt green building practices.

B. Grant funding shall be supported by the solid waste division, the water and land resources division and the wastewater treatment division. Other county department and divisions may also participate in the grant program. Grant funding shall be identified annually, consistent with approved funding of each division's annual budget.

C. Grant funds shall be managed by the solid waste division's GreenTools program in cooperation with water and land resources division and the wastewater treatment.

D. Green building grant funding may go to residential or commercial projects that meet a discrete set of eligibility requirements, are in the service area of the division providing the grant funding, and are selected in a competitive award process. Grant

projects must provide educational opportunities to the public to increase the awareness and benefits of green building in King County.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

ATTEST:

APPROVED this _____ day of _____, _____.

Attachments None

ATTACHMENT 2

King County

KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

March 18, 2008

Ordinance

Proposed No. 2008-0146.1 **Sponsors** Phillips

AN ORDINANCE relating to green building practices in all buildings the county constructs, remodels and renovates; extending the expiration date of Ordinance 15118; and amending Ordinance 15118, Section 4, as amended.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. Ordinance 15118, Section 4, as amended, is hereby amended to

read as follows:

This ordinance expires ((~~April~~)) July 1, 2008.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

ATTEST:

APPROVED this _____ day of _____, _____.

Attachments None

ATTACHMENT 3

February 14, 2008

The Honorable Julia Patterson
Chair, King County Council
Room 1200
COURTHOUSE

Dear Councilmember Patterson:

This letter transmits the Green Building and Sustainable Development ordinance to the King County Council for review and approval. This proposed ordinance clarifies and expands on the policies set out in Ordinance 15118, adopted in February, 2005. The proposed ordinance is necessary because the current Green Building Ordinance expires on January 1, 2008. This ordinance supports multiple county initiatives including the Climate and Energy Plans, the King County Comprehensive Plan, solid waste and recycling policies, and storm water management.

In December 2007, I requested that the Council extend the current ordinance from its original sunset date of January 1, 2008 to April 1, 2008. At that time, I said that I would be transmitting this proposed ordinance in January. In transmitting this proposed ordinance with less than sixty days for your consideration, I am not expecting you to expedite your deliberation of the ordinance. The Council should take the time necessary to consider the ordinance. If, by chance, the ordinance has not been approved by April 1, I can assure you that in the interim, county agencies will continue to use the current ordinance in making any green building decisions.

The current Green Building Ordinance requires King County departments and offices to utilize Leadership in Energy and Environmental Design (LEED) criteria to implement green building practices in the planning, design and construction of all new King County capital improvement projects. In addition, it requires King County departments and offices to seek the highest LEED certification level achievable that is cost-effective based on life-cycle cost analysis and the limits of available funding. Projects qualifying for LEED certification shall be registered through the United States Green Building Council.

This proposed ordinance reasserts and expands the policy in the 2005 ordinance, which codified an Executive Order that had been in place since 2001. This ordinance is necessary in order to continue the county's commitment to incorporating green practices in county facilities. Highlights of the ordinance include:

- All LEED eligible capital projects must register with the United States Green Building Council and achieve a LEED Gold rating.
- All non-LEED eligible projects must incorporate green practices and fill out a scorecard that shows the strategies that are being used in the project.
- Divisions must conduct an energy audit of existing buildings and prioritize improvements that can be made to achieve a ten percent reduction in energy consumption by 2012.
- Guidelines will be developed for divisions to incorporate in their operations manuals for existing buildings. The guidelines will provide direction on the use of green practices in minor remodels and renovations, water conservation, waste reduction and recycling expectations, green cleaning standards, and retro commissioning to improve a facility's operating performance.
- More specific reporting requirements that will enable divisions to better summarize the green practices that they are using in order to compile an annual report.
- Continues the county-wide "Green Building Team" and clarifies its roles and responsibilities.
- Requires that project managers be trained in green building practices.

In total, King County has fourteen buildings that are either registered and are pursuing LEED certification or have already achieved certification. The three buildings that have achieved LEED certification are the King Street Center (LEED-Existing Building [EB] Gold), the Kent Pullen Regional Communication & Emergency Coordination Center (LEED Certified) and the Power Distribution Headquarters (LEED Certified). Several other buildings have been completed and are going through the certification process right now.

King County is just one of many jurisdictions that have implemented green practices initiatives. The United States Green Building Council has found that fifty-five cities, eleven counties, eight towns, twenty-two states and eleven federal agencies have adopted some type of LEED initiative. Of those jurisdictions, most require that projects meet a LEED Silver standard, but three jurisdictions currently require a LEED Gold rating. Those jurisdictions are Portland, Oregon; Scottsdale, Arizona; and Vancouver, British Columbia. King County's current ordinance does not specify which level of LEED a project must achieve. This proposed ordinance specifies that capital projects that are LEED eligible must achieve a LEED Gold rating.

With the experience in green building that has been gained in the past several years, a LEED Gold rating is achievable without significant difficulty or cost. Studies show that with initial integrated design, sustainable buildings have an average 0 – 2 percent increase in design and

construction costs over their conventional counterparts. Long-term financial benefits due to reduced operating, maintenance and other costs, however, exceed additional design and construction costs by a factor of 10 to 1.

Most of the capital projects that the county undertakes cannot earn enough LEED points to become certified. This is because of the industrial or specialized nature of the project (i.e. pump stations, bridges, or parking garages). For these projects, the proposed ordinance requires project managers to incorporate as many green practices as possible. This ordinance supports policies U-601 and U-603 in the 2004 Comprehensive Plan. Policy U-601 states that King County shall incorporate sustainable development principles and practices into the design, construction and operation of all county facilities and county-funded projects to the fullest extent possible and U-603 states that King County should leverage its purchasing power related to capital improvement projects to help expand the markets for green building products, including recycled-content materials and clean, renewable energy technologies.

King County is a leader in growth management, environmental protection, and climate change initiatives. It has been at the forefront of the green building movement, and with this proposed ordinance, will continue its leadership. If you have any questions, please contact Jim Neely, Unit Supervisor in the Solid Waste Division of the Department of Natural Resources and Parks, at 206-296-4472. This ordinance has no fiscal impact.

Thank you for your continued support of the county's green building policies, and for your careful consideration of this ordinance.

Sincerely,

Ron Sims
King County Executive

Enclosures

cc: King County Councilmembers
ATTN: Ross Baker, Chief of Staff
Nancy Glaser, Interim Policy Staff Director
Anne Noris, Clerk of the Council
Frank Abe, Communications Director
Bob Cowan, Director, Office of Management and Budget
Theresa Jennings, Interim Director, Department of Natural Resources and Parks (DNRP)
Bob Burns, Deputy Director, DNRP
Kevin Kiernan, Interim Division Director, Solid Waste Division, DNRP
Jim Neely, Unit Supervisor, Solid Waste Division, DNRP

FISCAL NOTE

Ordinance/Motion No. 2007-XXXX
Title: Green Building Ordinance
Affected Agency and/or Agencies: King County Capital Programs
Note Prepared By: Ann Berrysmith, Solid Waste Division
Note Reviewed By:

Impact of the above legislation on the fiscal affairs of King County is estimated to be:

Revenue to:

Fund/Agency	Fund Code	Revenue Source	Current Year	1st Year	2nd Year	3rd Year
Solid Waste Division	000004040		0			
						0
TOTAL			**0**	**0**	**0**	**0**

Expenditures from:

Fund/Agency	Fund Code	Department	Current Year	1st Year	2nd Year	3rd Year
Solid Waste Division	000004040		0	0	0	0
TOTAL			**0**	**0**	**0**	**0**

Expenditures by Categories

	Current Year	1st Year	2nd Year	3rd Year
Salaries and Benefits				
Supplies and Services	0			
Capital Outlay				
Other				
TOTAL	**0**	**0**	**0**	**0**

Assumptions:

Green Building Ordinance Fiscal Effect Discussion: The fiscal effect of the proposed legislation will vary for each facility capital budget proposed subsequent to adoption of this proposed ordinance. However, experience in King County and nationwide indicates that the up-front costs of LEED implementation ranges from 0 to 2 percent of additional up-front costs. These costs include LEED registration, LEED verification and the costs of a consultant to document the LEED points. A mid-point of this range suggests that a $50,000,000 facility may have an additional $500,000 of costs associated with the green practices policy. The proposed ordinance specifies that King County divisions will use life-cycle cost analysis to determine which green practices will achieve the highest, most cost-effective building performance over the life of the facility. Life-cycle analysis will determine for each facility whether the projections indicate that the initial up-front investment in the project budget proposed to council will be recovered due to savings in future years.

As project managers gain experience, green practices will be incorporated in the budget from the start, and therefore will not be perceived as an additional cost.

Revenues:

No Fiscal Impact

Expenditures:

No additional budget authority is needed.

ATTACHMENT 5
KING COUNTY GREEN BUILDING POLICY FRAMEWORKS

In addition to Ordinance 15118, several other policy frameworks have been adopted, directing county agencies to implement green building practices.

***October 2001 - Executive's Green Building Initiative*:** King County Administrative Policies and Procedures, FES 9-3 (AEP)[1] established the Executive's Green Building Initiative prior to the adoption of Ordinance 15118 in 2005. This Executive Policy encourages and promotes the use of green building practices in all buildings the County constructs, remodels, and renovates.

The Executive's Administrative and Procedures Green Building Initiative also establishes a Green Building Team which serves as a technical resource on implementation of the Green Building Initiative. The Green Building Team consists of staff with expertise in project management, architecture, landscape architecture, design, engineering, resource conservation, and budget analysis. Green Building Team staff are appointed from Natural Resources and Parks, Transportation, Development and Environmental Services, Finance, Construction and Facilities Management, and the Office of Management and Budget.

***June 2003 - Energy Policy*:** The Council adopted an energy policy (Motion 11712) for the Department of Natural Resources and Parks, which primarily focuses on capturing waste stream energy resources such as landfill methane gas. However, Motion 11712 also requires DNRP to adopt sustainable design and development guidelines and directs the use of the LEED program as the standard for all capital improvement projects. This policy also directs DNRP to minimally seek a rating of LEED Certified for all capital projects.

***September 2004 – King County Comprehensive Plan*:** The sustainable development section of the 2004 King County Comprehensive Plan (Ordinance 15028), which was updated in 2006 (Ordinances 15605, 15606 and 15607), reiterates the Executive's Green Building Initiative policies. The Comprehensive Plan includes the following policies:

- **U-601** – King County should incorporate sustainable development principles and practices into the design, construction and operation of county facilities and county-funded projects when economically feasible.
- **U-602** - The use of green building practices should be accomplished within traditional project budgets. If additional funds are sought for up-front costs, a life cycle cost analysis of the project should be completed to determine the long-term benefits of using green building practices.

[1] http://www.metrokc.gov/recelec/archives/policies/fes93aep.htm

- **U-604** – King County should leverage its purchasing power related to capital improvement projects to help expand the markets for green building products, including recycled content materials and clean, renewable energy technologies.

November 2005 – Adopted Space Plan: The space standards policy in the Adopted 2005 Space Plan (Ordinance 15328) includes an implementation plan requiring that all tenant improvement projects be programmed consistent with the policies set forth in Ordinance 15118.

Note that the Executive transmitted a Space Plan for 2006-2007 in November 2007. Council has not yet considered this plan due to the timing of the transmittal. The transmitted Space Plan still requires that projects comply with the green building policies established in Ordinance 15118. However, the proposal includes several changes to the implementation plan.[2] Again, due to the late transmittal, the proposed 2006-2007 space plan has not been considered by Council and a new plan for 2008-2009 is due to Council on March 1st.

[2]These include removing a requirement for the Executive to report on compliance with standards for maintenance, janitorial, HVAC, and other services, and adding requirements that projects certify compliance with space standards to the Executive and the Council for all tenant improvement projects and capital improvement projects, and that modular furnishings be considered on all new or refurbished space.

ATTACHMENT 6
SUMMARY OF OTHER JURISDICTIONS' GREEN BUILDING POLICIES

	MINIMUM LEED RATING	LIFE CYCLE COST ANALYSIS (LCCA)	COST CONTAINMENT STANDARD	OTHER COMMENTS
King County *Proposed Ordinance 2008-0107*	**Gold** - any exceptions must be approved by department director	Required - can be used to justify higher up-front costs beyond project budget	No	Establishes project reporting & performance monitoring requirements. Establishes process for developing building operational guidelines. Sets policies for green building grant programs.
King County (Current Policy) *Ordinance 15118*	**No minimum** – projects should achieve highest certification possible	Project cost-effectiveness determined based on LCCA	No	
Scottsdale, AZ *Resolution 6644*	**Gold**, whenever resources and conditions permit	Analysis to determine payback period implicitly required	Maximum 5-year payback period	
Portland, OR *Green Building Policy Resolution*	**Gold** for all new construction; **Commercial Interiors-Silver** for all tenant improvements	Not required	No	Sets several other minimum requirements – e.g., all roof replacements shall install an eco-roof and high reflectance Energy Star-rated roof when practical
Vancouver, B.C. *Resolution*	**Gold**	Unknown – policy to be provided by City of Vancouver staff	No	Also has separate policy requiring **Silver** for certain non-civic buildings
City of Seattle *Resolution 30121*	**Silver**, but achieving Gold or Platinum is encouraged	LCCA and budget planning to achieve a higher rating is encouraged	No	
State of Washington *Revised Code of Washington 39.35D*	**Silver** to the extent appropriate	No	No – but state agencies are required to monitor & document operational savings	

ATTACHMENT 7
SUMMARY OF KING COUNTY GREEN BUILDINGS' LEED-RELATED COSTS

Agency	Certified Projects	Project Status	LEED Rating Achieved	Total Construction Cost	LEED-Related Costs	Percent of Total Cost
FMD	Marymoor Maintenance Facility	Completed	Certified	$1.1 million	Not provided	Not provided
Transit	Power Distribution Headquarters	Completed	Certified	$6.2 million	$363,000	6%
FMD	Kent Pullen Regional Comm. & Emergency Coordination Center	Completed	Certified	$14.3 million	Not provided	Not provided
FMD	King Street Center	Completed	Gold	$65.0 million	Not provided	Not provided

Agency	Projects Seeking Certification	Project Status	Planned LEED Rating	Total Construction Cost	LEED-Related Costs	Percent of Total Cost
Transit	Atlantic-Central Base Tire and Millwright Shop	Completed	Silver (rating in progress)	$3.5 million	$143,570	4%
Transit	Central Base Police Building	Design	Gold	$6.2 million	$900,000	15%
DNRP	Brightwater Environmental Education Center	Design	Gold	$8.0 million	$1 million	12%
DNRP	South Plant New Administration Building	Construction	Silver	$10.1 million	$75,000	<1%
DNRP	Carnation Treatment Plant	Construction	Silver	$13.4 million	$122,250	<1%
Transit	Atlantic Operations Complex	Design	Platinum	$15.2 million	$2.2 million	14%
DNRP	Shoreline Recycling & Transfer Station	Completed	Silver (rating in progress)	$24.0 million	$661,000	3%
DNRP	Bow Lake Transfer Station	Design	Silver	$70.0 million	$2.1 million (based on 3% estimate)	3% (estimated)

FMD	Chinook Building	Completed	Core/Shell–Gold; Comm Interior–Platinum (rating in progress)	$92.4 million	$546,356	<1%
FMD	Ninth and Jefferson Building	Construction	Silver	$185 million	$383,000	<1%