

Oregon Housing and Community Services

Green Building Task Force

Recommendations Report

June 2000



Bob Repine
Director

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- City of Portland Green Building Report

Appendix

The following materials related to green building practices were developed since the Task Force completed its duties in Spring 1999. They are provided here for your interest and information.

- Oregon Governor Kitzhaber's Sustainability Proclamation (May 2000)
- OHCS *"MAKING BUILDINGS MORE ENVIRONMENTALLY FRIENDLY"* Checklist
- City of Portland Green Building Report

EXECUTIVE SUMMARY

Public awareness is increasing on how building design, construction and operation impact the natural and human environment. Consumers have begun to expect builders to be more sensitive to those impacts. This movement is often called 'green building,' referring to the philosophy and practice of building in an environmentally sensitive manner. Sometimes it also called 'sustainable construction'. In 1987, the Brundtland Commission on the Environment provided a good working definition for sustainable practices, describing the concept as '*meeting the needs of the present generation without compromising the ability of future generations to meet their needs.*' Homes constructed using green building concepts typically involve fewer materials, less energy consumption, less pollution, less natural habitat loss and better indoor environmental conditions for occupants.

To help incorporate the green building philosophy into its activities, Oregon Housing & Community Services (OHCS) initiated a special project on green building in the Fall of 1998 to identify appropriate implementation strategies. OHCS Director Bob Repine appointed a Green Building Task Force, representing the broad spectrum of department partners. Its mission was to study the range of activities practiced nationally and to recommend department actions to encourage green building in Oregon's housing arena. An additional group of persons with special technical knowledge volunteered to serve on a Technical Resource Group to assist the Task Force. More than two dozen people served on each of these committees.

Through an RFP process, the department hired Rick Barnett of the Corvallis based company, *Green Builder*, to facilitate the Task Force activities. Mr. Barnett brought many years of experience in environmental program development and construction contracting to the process. He began the process by collecting publications, reports, articles and other materials on the subject into a background document for the Task Force members. The department published this collection under the title, *Program Options Report*. He also compiled a list of informational contacts available via computer on the Internet. This list was published on the department's website. Members were encouraged to read these materials and seek answers to their questions from Technical Resource Group members and Mr. Barnett.

Extensive preliminary work allowed the Task Force to complete its process and achieve a consensus on recommendations in only four meetings between January and May 1999. The stated goal was to "develop the critical components of an environmentally-sensitive building initiative for the state of Oregon." During the first meeting, department staff and the consultant provided context and history on the green building movement. The rest of the first meeting focused on participants' questions and the first few suggestions for activities.

During the second meeting, Task Force members suggested strategies in two categories: incentives and education/outreach. Between meetings, staff and the consultant refined materials and returned to the Task Force for review and affirmation. Regulatory issues were discussed in the third meeting. A draft list of recommendations was prepared in early April and distributed for comment. Members were so supportive of the draft that few comments and revisions on this draft were necessary and a planned April meeting to discuss areas of disagreement was cancelled.

The Task Force formally adopted its final recommendations to OHCS Director Bob Repine at its final meeting on May 7th. The final report contained nineteen recommendations in four categories:

- Departmental Action
- Subsidies & Incentives
- Education, Information & Research, and
- Interface with Regulatory Processes.

In thanking Task Force members for their contributions, Mr. Repine indicated that the recommendations provided a good foundation for department action, as he committed to implement many of the recommendations.

During the past year, conditions have both hindered and accelerated action on the Task Force recommendations. Since May 1999, several staff changes at OHCS limited internal resources for implementation. However, several other related initiatives in Oregon steamed ahead. The City of Portland completed its Green Building Initiative. The City of Portland is working with the Portland Development Commission to develop guidelines to use when they are building in the city.

Governor John Kitzhaber's Executive Order on Sustainability was a major development in the arena. His broad initiative encompasses several of the strategies identified by the Task Force. The Order directs state agencies to reduce waste of materials and energy, creates a Sustainability Work Group, requires an assessment of sustainability indicators and target benchmarks, and encourages business and other Oregonians to model sustainable practices. The Governor's action greatly expanded the state's commitment to environmentally sensitive practices and broadened the initiative to all state agencies.

Given the current status of policy development, OHCS will focus on strategies most appropriate to fulfill at its level and work cooperatively through the Governor's initiative and others to respond to others. Key strategies to be implemented include the following:

In partnership with DAS, OHCS will:

- Procure sustainable products and services for internal use.
- Try to purchase electrical energy for its various offices from renewable sources.
- Model its commitment to sustainability by moving to a green-built office building.

In partnership with OECD, DEQ, DOE, the City Club of Portland, and others, OHCS is:

- Helping to develop a comprehensive Sustainability Web site for Oregon. (OHCS already has its own Green Building Web site address at www.hcs.state.or.us, click on “Data & Research”, then, under “Other Housing Resources”, click on “Green Building”).

In partnership with non-profit or for-profit experts in the field, OHCS will:

- Support ongoing efforts to build awareness about, and local capacity for, green building among the Department’s housing development partners statewide.

On its own, OHCS will, with regard to its:

- Multi-Family Programs – Continue and expand its current activities in these ways:
 - Acquisition/Rehabilitation – The Department already encourages developers whose projects it funds to take advantage of energy audits the Department offers for these projects. In addition, the Department encourages recycling in the deconstruction or demolition of the buildings involved.
 - New Construction – The Department will contract for the services of a consultant to help developers awarded funding through the Department’s Consolidated Funding Cycle process to build multi-family projects green.
- Single-Family Programs – Set aside first-time homebuyer loan funds at interest rates even below the Department’s normally below-market rates for units that meet specific targeted goals, including green-built homes.

The Department will also take advantage of additional opportunities to support a Sustainable Oregon as they arise in the future.

**DEPARTMENT RESPONSE TO
OHCS GREEN BUILDING TASK FORCE RECOMMENDATIONS**
Salem, Oregon June 1, 2000

In Spring 1999, the OHCS Green Building Task Force forwarded its recommendations to the director of Oregon Housing & Community Services Department for consideration, adoption and implementation. The Task Force met several times between January and June 1999 to study and research the feasibility and appropriateness of numerous strategies. The recommendations in this report represent the Task Force membership's consensus of currently feasible strategies, as supported by the Technical Resource Group. The Department's responses follow each recommendation below in *italics*.

Department Action

1. Establish a department policy statement on green building.

Governor Kitzhaber has superseded the Department's initiative in the year since the Task Force process by issuing a Sustainability Proclamation and initiating a strategy for state government. The Proclamation applies to all state agencies, making a department specific policy statement unnecessary. The Department will support the Governor's Executive Order on Sustainability and fit its own specific strategies, as described in this document, into the Governor's initiative.

2. Create an ongoing Task Force to help facilitate and monitor the Green Building Program. Maintain a separate Technical Resource Group as support for the Task Force.

The Governor has superseded the Department's efforts by establishing an Inter-Agency Sustainability Work Group that includes green building in its responsibilities. OHCS will be represented on the Work Group. Sustainability Work Group membership will not be limited to state agencies. The Governor also established a Sustainable Supplier Council through his Executive Order. He also gave new responsibilities for the Oregon Progress Board, the Economic and Community Development Department, and the Department of Administrative Services ("DAS") in the sustainability arena.

3. Dedicate staff resources sufficient to implement the Green Building Program. Staff activity should include:
 - develop and implement new incentive and education programs;
 - work with department staff and partners;
 - develop and implement changes in department practices, such as those identified in Lynn Partin's 12/97 memo;
 - engage other state agencies and officials to advocate for environmentally sensitive building practices.

The Department is administering its current level of green building activities with existing staff. Further efforts may require one or more contracts with private sector entities to provide green building consultation services to OHCS partners seeking funding through the Department's Consolidated Funding Cycle, or to expand awareness of and local capacity for green building among community-based and other organizations statewide. For more extensive effort, resources and staffing would require additional budgeting of resources and may be considered in the FY 2001-2003 budget process..

4. Establish a leadership role in sustainable construction through the programs and operations of the department, and by establishing a forum through which the expertise of other state agencies can be utilized to increase the effectiveness of state-level sustainable activities. Agencies to be included in this inter-agency effort should include:
 - Governor's Office
 - Building Codes Division
 - Department of Environmental Quality
 - Office of Energy
 - Department of Environmental Quality
 - Department of Economic Development
 - Construction Contractors Board
 - Oregon Health Division
 - Department of Administrative Services Facilities Division

As discussed in response to Recommendation #2 above, Governor Kitzhaber has addressed this recommendation through his Sustainability Proclamation.

Subsidies & Incentives

1. Award extra points in the Consolidated Funding Cycle based on specific criteria for using sustainable features (i.e., smaller units, less toxic construction materials, etc.). To foster acceptance in the affordable arena, the evaluation of sustainable features should utilize a life cycle perspective. The construction standard used in this process should also be promoted as a model for other building activity sponsored and supported by the agency.

The Department has decided not to award extra points in its Consolidated Funding Cycle per se. Instead, OHCS will encourage one or two willing developers to apply environmentally sensitive building practices by sponsoring consultations during the design phases of one or two developments each CFC cycle. The Department may also hire a consultant to build awareness and local capacity for green building among its housing development partners statewide.

2. Work with private lenders in all department-influenced housing to promote sustainable goals through such mechanisms as reduced interest rates (as in the Texas Veteran's Loan Program), reduced loan fees, relaxed loan requirements, innovated loan packaging, etc.

Through its Single-Family Lending programs, the Department will prioritize approximately \$10 million at very low interest rates for units that meet specific goals including green-building principles. The Department may also hire a consultant to build awareness and local capacity for green building among its housing development partners across the state.

3. Research the feasibility of State involvement as a purchasing agent to acquire green materials for resale or redistribution to state-funded housing developments.

The Department of Administrative Services (DAS) will be responsible for acting as such a purchasing agent for all of state government under the Governor's Executive Order on Sustainability. Indeed, the Order goes further than the OHCS Green Building Task Force Recommendation. It specifies in Section 1(c) that DAS "shall expand state government purchasing power by aggressively entering into joint bidding agreements with other state and local governments and with multi-government purchasing alliances, and by encouraging local governments to access resulting low-price, high-value purchase agreements." This mandate will make sustainable products and services more widely available throughout government."

4. Explore ways to utilize existing tax incentives, like the Residential Energy Tax Credit, to encourage green building.

The Department will coordinate with the Office of Energy and others through the inter-agency Sustainability Work Group to maximize these existing opportunities.

Education, Information & Research

1. Sponsor a conference to educate private lenders and the real estate industry on green building. Solicit their involvement in the proposed incentive programs.

Rather than duplicating current efforts of other organizations presenting green building conferences, the Department will identify conferences trainings in advance and offer input, participation, and support. The Department will work with our industry (home-builder, realtor, banker) and other (local government, community-based organizations) partners to coordinate these efforts. When the Department's initiative began, few other initiatives were underway in Oregon. Today, a several initiatives have become prominent.

2. Assist with educating the building industry, perhaps in conjunction with the Construction Contractors Board's education program or the Oregon Building Industry Association's programs.

See response #1 in this section.

3. Direct the educational effort at consumers of building services, as well as builders, designers, architects, developers, and others in the building industry.

See response #1 in this section.

4. Develop and utilize an "interactive kiosk" for use at building supply outlets, public buildings, local multiple listing services, and public events like home shows, county fairs.

Rather than developing a kiosk, the Department will maintain its computer website referencing green buildings activities around the state and other sources of information nationwide.

5. Educate local planning and building department staff and establish a system for ongoing education and networking for planners and building officials on green building practices.

See response #1 in this section.

6. Work with non-profit groups to expand the educational effort, using the examples in the *Program Option Report* as a guide.

See response #1 in this section.

7. Utilize newsletters and press releases to inform the public and partners about green building practices.

The Department will use articles and information on green building in its newsletter, The Clearinghouse, its green-building Website, and various news releases as appropriate.

8. Formalize and expand the department's role as a clearinghouse for information on green building programs, products, suppliers, and techniques.

With Governor Kitzhaber's Sustainability Proclamation as the guiding policy document, OHCS will continue to share information through its computer website and conferencing opportunities. Also see responses to recommendations #1, 4, and 7 above in this category.

Interface with Regulatory Processes

1. Research existing efforts to integrate sustainable building concepts into building and development codes.

The Department will pursue this recommendation through Governor Kitzhaber's sustainability initiative, and with its housing development partners statewide.

2. Research existing efforts to identify building and development code barriers to sustainable construction.

The Department will pursue this recommendation through the Governor's sustainability Initiative, and with its housing development partners statewide.

3. Establish a task force sub-committee to work with the Building Codes Division, local building and planning officials, and the building industry to cooperatively facilitate the expanded use of innovative, sustainable technologies.

The Department will pursue this recommendation through the Governor's sustainability initiative, and with its housing development partners statewide.

MAKING BUILDINGS MORE ENVIRONMENTALLY FRIENDLY

David B. Foster & Lynn Partin
Oregon Housing & Community Services

Incorporating environmentally sensitive building practices into a project is not difficult when considered from the very start as a principle or visible project feature. This checklist was adapted from materials provided by Rick Barnett, Green Builder, a consultant who facilitated and provided technical assistance to the Oregon Housing & Community Services Department "Green Building Task Force."

- ❑ Begin by retaining a professional development team (architects, engineers, landscape architects, contractors, and project managers) that is knowledgeable and eager to apply environmentally sensitive building principles and practices.
- ❑ When possible, choose to remodel and retrofit an existing building using appropriate environmentally sensitive building principles and practices.
- ❑ Design building orientation to maximize solar exposure in winter and shade building from summer sun. Design and dimension building overhangs to protect windows, doors, and people from sun and weather.
- ❑ Design building orientation to utilize natural ventilation. Use operable windows to provide natural ventilation. Provide mechanical air exchange systems as needed to assure ample fresh air for building occupants.
- ❑ Design building to fit the character of the topography and other natural characteristics of the site. Minimize disturbance of the site to avoid soil instability and erosion.
- ❑ Protect indigenous vegetation. Assure adequate protection and clearance between construction and the root system of any trees and plants to be preserved.
- ❑ Provide on-site drainage and water catchment capacity. Protect site from runoff erosion during construction.
- ❑ Designate area on the construction site to collect scrap materials for on-site reuse later in the project or to be marketed into the secondary materials market. Require recycling of non-reusable waste material. Provide adequate space for comprehensive recycling services for building occupants.
- ❑ Minimize the use of hazardous materials. When no alternate is available, provide properly designed separate storage.
- ❑ Accommodate alternate transportation modes (i.e., walking, bicycling), energy saving transportation (carpooling, carpooling parking areas), and mass transit.
- ❑ Minimize exposure of construction and building occupants to toxic materials. Use safe, biodegradable materials and alternatives to hazardous materials. Require and monitor safe handling and disposal of any hazardous materials.

(OVER)

- ❑ Minimize or prohibit non-recyclable/non-reusable packaging both during construction and later in building operation.
- ❑ Avoid using materials that cannot be easily repaired if damaged.
- ❑ Consider using insulated concrete forms for many concrete construction applications.
- ❑ Design foundation to accommodate additional floors in the future.
- ❑ Avoid interior load bearing walls to easily accommodate changing needs and uses.
- ❑ Design office areas to be thermally separate from less energy consuming zones like entry, storage, mechanical, and utility areas.
- ❑ Use engineered or certified sustainably grown wood products, finger-jointed lumber, or otherwise resource-efficient building materials. Avoid the use of old-growth lumber, other than "recovered" or "reused" materials.
- ❑ Provide readily accessible main valve and branch lines for water service. Use copper plumbing pipe. Insulate hot water pipes. Use water-conserving plumbing fixtures. Incorporate solar water heating for hot water needs. Provide adequate exterior water to maintain healthy landscaping.
- ❑ Exceed code requirements for insulation; use formaldehyde-free or recycled content materials. Flash and seal all penetrations between interior spaces and outside. Provide infiltration barrier, taped at penetrations. Use formaldehyde free underlayment and other materials.
- ❑ Use energy efficient appliances. Use natural day lighting where possible and energy efficient lighting elsewhere.
- ❑ Use No-VOC or Low-VOC paints, sealants, and adhesives.
- ❑ Use drywall with recycled content (paper, gypsum), low-toxic joint compound.
- ❑ Use natural linoleum or other vinyl alternative. Use a finished concrete floor for the first story of multi-story buildings.
- ❑ Use finish materials with recycled or salvaged content (tile, drywall, manufactured trim materials, etc.).
- ❑ For cabinets and other finish woodwork, use certified sustainably grown wood and formaldehyde free composites.
- ❑ Provide thermal curtains for windows and skylights.
- ❑ Plant native and low maintenance plant materials for landscaping.

(DBF/April 27, 2000)

TO: Greg Wolf
Office of the Governor
FROM: Bob Repine
Director
DATE: June 1, 2000
RE: OHCS's Green Building Efforts

This responds to your request for a few “bullet points” describing our Green Building commitments. In some cases these efforts involve acting consistently with the Governor’s Executive Order on Sustainability, and in others they exceed those requirements. Please let me know if I may answer any questions regarding these efforts.

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- Procure sustainable products and services for internal use.
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The Department will also take advantage of opportunities to support a Sustainable Oregon as they present themselves in the future.

APPENDIX

Executive Order No. EO 00-07: Sustainability

"Making Buildings More Environmentally Friendly" Checklist

City of Portland *Green Building Action Plan*

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