

**DEPARTMENT OF GENERAL SERVICES
PROGRAM FOR INCORPORATING GREEN BUILDING MEASURES
INTO CITY FACILITY DESIGN, CONSTRUCTION, RENOVATION, AND
OPERATIONS**

I. PURPOSE

To provide a comprehensive outline and strategy for developing an integrated program of design, construction, renovation and operations practices for City facilities that recognizes the interdependence of natural and built environments. This plan is intended to minimize the use of energy, water, other natural resources and impermeable, "hard" surfaces, while providing a healthy, productive indoor environment and preserving or recovering Green space. The program goal is to provide sustainable buildings and facilities that conform to human health, reflect environmental and fiscal responsibility, and generally conform to the policies of the U.S. Green Building Council and the LEED program.

II. DEFINITIONS

LEED	The Leadership in Energy & Environmental Design is a program under the auspices of the U.S. Green Building Council, a public-private partnership. The mission of USGBC and LEED is promotion of buildings that are environmentally responsible, economically profitable, healthy places to work.
Green Building	Building or facility design, construction and operations that optimizes interior and exterior functionality while minimizing any negative impacts on the environment and natural resources, and all energy and resource consumption.
Sustainable	That which uses a resource so that the resource is not depleted or permanently compromised .
Low Emission	Term used to describe paints, stains, carpets, and other wall or floor coverings and interior systems that transfer fewer noxious or harmful fumes when applied or installed, and as they age.
PLAR	Planned Life Cycle and Asset Replacement Program, which is based on the estimated useful life of building, system, or component, and provides for the planned replacement of an element at the end of that defined period.

Life Cycle Costs	The sum of the present values of investment costs, capital costs, installation costs, energy costs, operating costs, maintenance costs, and disposal costs, over the lifetime of the project, product, or measure.
FF&E	Furniture, Fixtures & Equipment as related to facilities interiors consisting of fixed (built-in) and movable furniture and fixtures including seating, desks, tables, office floor and panel systems, decorative lighting, plants, signage, art, equipments to facilitate program efforts, and artifacts.
Energy Star	A voluntary labeling program managed by the U.S. Department of Energy and the U.S. Environmental Protection Agency that creates an energy efficiency specification, with assistance from manufacturers of various products.
Rebuild America	A government-sponsored program designed to foster public-private partnerships to improve building performance by connecting people, resources, ideas, and practices for energy solutions.
Interiors	Specification and selection of furniture, fixtures and equipment (FF&E), background floor covering (soft and hard) and wall covering (paint, vinyl, wood, etc.).
FEMP	The US Department of Energy's Federal Energy Management Program
EPP	"Environmentally Preferred Products" is a federal program that encourages and assists executive agencies in the purchasing of environmentally preferable products and services
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers

III. **OBJECTIVES**

A. GENERAL

The Department of General Services is the designated oversight agency for all maintenance, construction and operation of City facilities and as such is responsible for adopting and applying with respect to the major facility components of concept, design, procurement construction and operation. The Department will develop green practices specifications for inclusion in design packages and move to recruit consulting firms with experience in applying Green standards to architectural and engineering designs. It will

also begin developing and applying Green practices in the operation of new and existing City facilities. General Services will coordinate with neighboring jurisdictions, consult federal standards, the United States Green Building Council, conduct research and adopt best practices as they become evident. The adoption of these best practices shall be evaluated by weighing the offset of immediate and long-term financial and environmental gains against the monetary costs of applying such standards and practices to the project. General Services' Green Building Program will be divided into three components: New Construction, Existing Facilities, and Commercial Interiors.

B. NEW CONSTRUCTION

General Services will begin the design and construction of all City facilities, utilizing the sustainable guidelines and practices outlined in the USGBC-LEED rating system and utilizing the LEED New Construction (NC) Certified (26-32 point) rating. General Services will strive initially to obtain a baseline self-certification of a silver level in relation to new facility development. Any proposed improvements shall be recommended after weighing the financial and environmental gains against the increased costs of adopting Green practices.

C. EXISTING FACILITIES

General Services will begin exploring participation in the USGBC pilot LEED program for Existing Building (EB) as well as the possibility of participating in the development of the program during the pilot stage. The General Services Planned Life Cycle Asset Replacement (PLAR) program will incorporate, to the maximum extent practicable, the design criteria outlined in LEED EB, federal and ASHRAE energy standards for the replacement of building systems and components. Future targeted facility upgrades and performance improvements will be reviewed for possible participation in the LEED EB pilot program. Any proposed improvements shall be recommended after weighing the financial and environmental gains against the increased costs of adopting Green practices.

D. INTERIORS

All new construction projects will include some aspect of Interiors specifications. Many General Services projects are exclusively Interiors in scope and will usually focus on the space planning and FF&E specifications for a small to medium sized agency move or reconfiguration, with no new construction. General Services will begin exploring the implementation of Green principles in all Interiors projects in 2004, and Green principles will be introduced into City projects initially through Interiors projects. The specification of Green FF&E for Interiors products presents an opportunity to experiment with smaller projects. Based on budget constraints, lead times and installations, General Services will later move to larger, more complex projects. Any proposed improvements shall be recommended after weighing the financial and environmental gains against the increased costs of adopting Green practices.

IV. ACTION ITEMS

The following action items are intended to support the above goals and are estimated to be substantially completed or in place within one year. The action items will be revisited annually and new objectives and actions determined for the subsequent year with the intent of expanding this program.

A. GENERAL

1. Recruit the vacant Mechanical Engineer position with a candidate who possesses thorough knowledge, skills, and experience in the areas of energy and resource conservation, and sustainable facilities.
2. Establish a staff Sustainable Work Group to identify Green resources (other than Furniture, Fixtures & Equipment) & sustainable building measures.
3. To the maximum extent practicable, design work to conform to defined elements of the sustainable guidelines and practices outlined in the LEED rating system and by the Sustainable Work Group.
4. Identify new mechanical equipment and components to be installed, or replaced which are consistent with the Energy Star program, FEMP, ASHRAE and USGBC specifications.
5. Network with area jurisdictions to share construction information, share resources, and identify potential barriers to change.
6. Maintain membership and participate in professional organizations, such as the U.S. Green Building Council, Energy Star and Rebuild America
7. Attain certification for key staff from these professional organizations, and train in-house staff, utilizing resource guides and other materials and media.
8. General Services shall develop, in consultation with the Office of Management & Budget, cost-benefit analyses, to include classes of Green elements and actions, and methods to determine if the elements or actions can be justified against the increased project cost.

B. NEW CONSTRUCTION

1. Identify Green building opportunities in all capital projects to be performed in the next year;

2. Utilize the LEED New Construction certified (26-32 point) rating in the design of a baseline for new facilities over 5,000 square feet;
3. Incorporate Green design and A/E work in major rehabilitation and renovation projects for areas over 5,000 square feet;
4. In construction and retrofit projects, utilize materials made from renewable, regionally obtainable, and/or recycled products where determined to be practical;
5. Perform initial design, architecture and engineering work to optimize building performance, while minimizing negative environmental impacts, to include site location, and mechanical, plumbing and electrical systems design.

C. EXISTING FACILITIES

1. Identify upcoming capital projects and PLAR projects for possible participation in the USGBC pilot LEED for Existing Building program
2. Begin incorporating Green concepts into specified facilities services, bids and contracts, specifically; custodial, paint, carpeting and flooring
3. Work with procurement office to identify and maintain a listing of vendors who utilize Green sources in the provision of various utilities (i.e., electricity distributors)
4. Work with existing contractors to assure that in removing or demolishing existing products and materials, consideration is given to converting or to their recycling or re-use of the products or materials in the project
5. Identify and select, where life cycle cost-effective, Energy Star and other energy efficient products when acquiring energy-using products.

D. INTERIORS

1. Establish a Green FF&E Task Force with Finance/Purchasing to identify Green FF&E resources
2. Seek educational, training opportunities for key staff and coordinators
3. Research U.S. Green Buildings Council resources to determine Green FF&E attributes, and evaluate and catalog background finishes
4. Review and evaluate Green offerings of current FF&E contract vendors
5. Network with area jurisdictions to share FF&E information and possible resources

6. Identify new vendors with desirable Green specifications for FF&E
7. Perform and evaluate a cost comparison for a typical commercial interiors project under Green specifications versus standard specifications
8. Identify commercial interiors consultants with Green expertise
9. Identify three exclusively Interiors projects to the case pilots for developing a Green FF&E or other Interiors standards
10. Identify a single Interiors project over 5,000 square feet that can be a pilot for developing standards
11. Pick and incorporate a Green element, interiors statement and requirement consistent with City policies into all newly proposed or current City facilities leased.

V. REPORTING

General Services will report this Green program progress, highlights, and challenges on a quarterly basis, as part of its Review & Analysis (“R&A”) report.