MCPB
ITEM # 13, 14, 15
6/22/06

MEMORANDUM

DATE: June 15, 2006
TO: Montgomery County Planning Board
VIA: Rose Krasnow, Chief, Development Review Division
Gwen Wright, Acting Chief, Countywide Planning Division
Mary Dolan, Environmental Planning Supervisor
Countywide Planning Division, Environmental Section
Carlton Gilbert, Zoning Supervisor
Development Review Division, Zoning
FROM: Marion Clark, Planner Coordinator
Countywide Planning Division, Environmental Section
Greg Russ, Planner Coordinator
Development Review Division, Zoning
PURPOSE: Green Building Law (Bill, ZTA & SRA) - pertaining to establishing requirements for certain non-residential buildings and multi-family buildings to achieve certain standards relating to energy efficiency and environmental design.

BILL: No. 17-06
TEXT AMENDMENT: No. 06-16
SUBDIVISION REGULATION AMENDMENT: No. 06-01
REVIEW BASIS: Advisory to the County Council sitting as the District Council, Chapter 59, the Zoning Ordinance and Chapter 50, Subdivision Regulations.
INTRODUCED BY: Councilmembers Leventhal, Praisner & Silverman (ZTA & SRA); Councilmembers Leventhal & Praisner (Bill)
INTRODUCED DATE: Bill: April 25, 2006; ZTA & SRA: May 16, 2006

PLANNING BOARD REVIEW: June 22, 2006
PUBLIC HEARING: June 20, 2006; 1:30 p.m.

STAFF RECOMMENDATION: Bill No. 17-06 Approval with modifications

STAFF RECOMMENDATION: SRA No. 06-01 Approval with modifications

STAFF RECOMMENDATION: ZTA No. 06-16 Approval with modifications

Staff is in conceptual agreement with this legislation with the modifications outlined below, and recommends that a task force be formed prior to its approval.

PURPOSE

According to the USGBC, in the United States, buildings use one-third of our total energy, two-thirds of our electricity, one-eighth of our water, and transform valuable ecological resources. Green buildings reduce the impacts on our use of energy, water and natural features, with positive results for public health and the environment. They reduce operating costs in the long term, increase occupant productivity, and help create a sustainable community.

Bill No. 17-06: The Green Building Law
Amends the Montgomery County Code to require any non-residential building or multi-family building ("covered building"[1]) that exceeds 10,000 square feet in size to obtain at least 20 points under the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system for New Construction and Major Renovations.

Under the Clean Energy Rewards Program consumers who choose electricity produced by renewable and environmentally preferable power sources are eligible to receive a tax rebate. This bill expands the Clean Energy Rewards Program to make the owner of a building eligible to receive a tax rebate, if that building obtains at least 24 LEED points.

Subdivision Regulation Amendment No. 06-01: Amends the Subdivision Regulations to require that an application for a preliminary subdivision plan for a project that includes a non-residential building or multi-family building that will be at least 10,000 square feet in size contain a Green Building Concept Plan. The SRA prohibits the Planning Board from approving a preliminary subdivision plan unless the applicant has submitted a Green Building Concept Plan approved by the Department of Permitting Services.

Zoning Text Amendment No. 06-16: Amends the Zoning Ordinance to require that a proposed site plan for a project that includes a non-residential building or multi-family building that is at least 10,000 square feet in size contain, for each covered building, a Green Building Plan and architectural plans for the building that are certified as likely to yield LEED points identified in the Green Building Plan. It also requires that a site plan comply with the Green Building Plan.

[1] "covered building" as defined in Section 8-48 means a non-residential building or multi-family residential building that is at least 10,000 square feet in size.

BACKGROUND

Council President Leventhal introduced Bill No. 17-06: The Green Building Law, along with supporting amendments for subdivision regulation and zoning text on April 25, 2006. Interest in green buildings began on November 13, 2003, when the Montgomery County Council Transportation and Environment Committee received a briefing on and discussed green buildings. Councilmember Nancy Floreen expressed a desire to learn what could be done to encourage more green buildings in Montgomery County, because at the time there were no green building programs or policies.

On January 15, 2004 M-NCPPC Environmental staff brought to Planning Board a recommendation for County Council to pursue density/FAR increases for developers that construct LEED certified green buildings. Staff also recommended at the time that County Council create a program to recognize LEED certified buildings and establish a pilot program to "green tape" subdivisions that seek LEED certification. County Council decided against these recommendations.

On April 20, 2005 Montgomery County Planning Commission Chairman Derick Berlage, along with Councilmember Floreen, announced the creation of a public outreach green building program, Going Green at Home, for single-family homeowners in the county. This was a companion piece to green building standards developed the prior year by the Department of Public Works and Transportation (DPWT) for buildings constructed by that Department.

Also in 2005 the Environmental Policy Implementation Committee (EPIC), which was created after approval of the 2003 Environmental Policy, formed a Green Building subcommittee to review agency and department goals and needs. This subcommittee meets regularly and is continuing work toward common goals. (See appendix to Parks Memo)

Green buildings are conceived of as systems to conserve natural materials and provide healthy spaces for people. One of the main tenets is that all materials put into the system should remain in the system and waste should be minimized. Therefore, the materials used are often natural materials, preferably from local renewable or rapidly renewable sources. A myriad of benefits result from this approach including durable buildings with highly efficient energy performance, low toxicity leading to fewer instances of lung and respiratory disease, and fiscally sound long term operation, to name just a few.

The proposed green building legislation is based on a rating system entitled Leadership in Energy and Environmental Design (LEED), crafted by the United States Green Building Council (USGBC). USGBC is a non-profit consortium with representatives from every sector of the building industry. The LEED Green Building rating system was developed to provide a national, consensus-based standard for high-performance, sustainable buildings. LEED was created to

define "green buildings" by establishing an accepted metric by which green buildings are measured, to promote an integrated, whole building design process, to recognize environmental leadership in the building industry, to stimulate green competition, and to raise consumer awareness of green building benefits.

USGBC has a LEED rating system for six kinds of construction including: existing building operations, commercial interiors, core and shell, homes, and neighborhood development. The LEED Rating System this bill references is LEED-NC: New commercial construction and major renovation projects. LEED – NC is intended to guide high-performance commercial and institutional projects with a focus on office buildings. Practitioners have applied the system to multi-unit residential buildings as well. The most current version is Version 2.2 (October 2005), the fourth version since 1998. LEED-NC measures projects against a field of 69 possible points within six categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality and Innovation in Design. Buildings that accrue 26 points qualify for LEED "certified" status, the lowest level. As more points are credited, buildings can achieve silver, gold or platinum levels.

Although USGBC targets the top 25% quality builders, another rating system, Green Globes, in currency for the past two years, aims to capture average builders. Developed by a Canadian non-profit group, the rating system is an easy to use self-monitoring web based program. A third party verifier is hired separately. This system emphasizes energy efficiency and is better used on smaller projects that need inexpensive quick assessments.

ANALYSIS/RECOMMENDATIONS

Parks issues

Staff supports the proposed legislation, because the goals of the LEED program match the environmental mission of the Maryland National Capital Park and Planning Commission (M-NCPPC). Since LEED is a consensus-based program model, staff also supports an interagency task force to study the legislation more carefully and comment in more detail, in order to confirm that it has a reasonable level of success for implementation. Effective July 1, 2006, the M-NCPPC will be a paying member of the U.S. Green Building Council, thereby agreeing to "adhere to principles of improving the energy and environmental efficiency of the whole building environment" in M-NCPPC buildings.

Several proposed M-NCPPC building projects would be affected by the legislation. The additional costs associated with consultant fees, construction and operations have not yet been fully identified, and it may be difficult to achieve high point credits for recreational building types. There are issues internal to the M-NCPPC that would need to be addressed, in order to create an

integrated design process, the basic tenet of the LEED program. An organizational framework would need to be created for building facility planning and management, project documentation and commissioning, and analysis of life-cycle performance of equipment and materials. New design and maintenance standards that incorporate best practices and green technology would also need to be developed for key building elements, and staff would require training to incorporate these best practices in the planning, design, construction, maintenance and operation of facilities. The full implications associated with this will become more apparent as we seek to achieve LEED certification for new facilities, including Silver Place.

The LEED program is revolutionizing the building process by bringing stakeholders together to consider life-cycle building costs and environmental benefits. Adopting these principles in the park system will help focus staff on a common goal, make better choices, and improve how we build in the natural environment.

Form a centralized guiding entity for management of green choices at M-NCPPC. Current responsibilities for design, purchasing of building products (including furniture), management of buildings, and maintenance are spread throughout the organization. Staff believes a central organizational framework would need to be created for green building facility planning and management, project documentation and commissioning, and analysis of life-cycle performance of equipment and materials.

Housing issues

Sharon Suarez from the Research and Technology team offers the following comments: "Green construction could significantly reduce the cost of homeownership. According to the Enterprise Foundation, green housing is designed to be affordable, conserve natural resources, promote sustainable buildings, and reduce both energy and transportation costs. These benefits are accomplished by: using sustainable building materials, using water- and energy-conserving fixtures and appliances, and siting near services and public transportation. Green housing studies indicate that the impact of green construction is typically nearly on a par with conventional construction, and real savings for individual homeowners may be gained through the reduction of monthly homeowner or condo fees and assessments,

For example, two of the main culprits for higher condo fees are utilities and insurance costs, which together generally make up 60 percent of a condo association's budget (Washington is considered one of the nation's higher-risk markets). Additionally, the typical condominium association has between 15 and 30 items that typically must be repaired or replaced, and when the repair costs of these items are added up, it usually amounts to hundreds of thousands, even millions of dollars. Condo owners must ante up, often by paying large special

assessments and ever-increasing monthly fees.

By using materials and techniques that reduce energy costs and material degradation and increase the likelihood that buildings remain solid. Insurance costs will be reduced, special assessments will be less frequent and probably less costly because sustainable materials are used, and utility bills are reduced for both the association and the unit owners."

Planning issues

The General Plan Refinement of the Goals and Objectives for Montgomery County approved and adopted in 1993 carries key concepts that support this legislation. Environmental concepts to manage the impacts of human activity on the environment and protect the public health and safety are clearly addressed by the bill, as are objectives to promote an awareness of environmental issues, to protect and improve water quality and protect and improve air quality.

By creating buildings with greater energy savings and sustainable materials, the legislation also supports the mission of the Montgomery County Department of Park and Planning to improve the quality of life by conserving and enhancing the natural and developed environment for current and future generations.

This legislation will complete a package of green building initiatives for all buildings in Montgomery County. The legislation combines regulation for large scale private sector development with Going Green at Home, an outreach program for privately owned single family homes, and with work resulting from EPIC for Montgomery County public buildings in all agencies and departments. It also complements directions we are taking in future sector plans to build green communities. Staff makes the following recommendations:

Create a task force. A task force should be formed to study the proposed legislation and make recommendations for detailed regulations. The task force should be composed of representatives from interests throughout the building industry, community and affected governmental agencies. The task force purpose is to build consensus around the proposed legislation and recommendations. Staff believes the task force should be developed prior to adoption of the legislation.

Identify a distinct lead agency and clarify and limit roles of contributing agencies. To avoid conflicts and confusion that may arise during the approval and implementation process, staff recommends that a lead agency be identified and the approval process be clarified. Park and Planning staff believes the lead agency should be the Department of Permitting Services (DPS). The Planning Department can contribute to the process through assuring that LEED principles

are considered throughout the development review process by analyzing the LEED points relating to site selection and layout, a total of 7 points in the current version. These points are:

SS Credit 1 - Site Selection
SS Credit 2 - Development Density and Community Connectivity
SS Credit 4.1 – Alternative Transportation: Public Transportation Access
SS Credit 4.4 – Alternative Transportation: Parking Capacity
SS Credit 5.1 –Site Development: Protect or Restore Habitat
SS Credit 5.2 – Site Development: Maximize Open Space
SS Credit 7.1 – Heat Island Effect: Non-roof

The Planning Board will approve preliminary plans, site plans, park plans, special exceptions or mandatory referrals with a standard condition that DPS approve a fully detailed Green Building Plan prior to issuance of building permits. DPS will review and approve The Green Building Plan, certified by a LEED accredited professional and consisting of a LEED checklist, a written explanation of LEED points and the architectural plans, thus establishing DPS as lead agency.

The Planning Department can ensure that a LEED accredited professional is involved with the project from the very beginning, and through analysis of LEED points for siting. In common practice, the architectural program drives the design process and is frequently determined before site plans or preliminary plans are drawn or submitted to M-NCPPC. Since green building design uses a process that integrates green features into systems of the whole building and respects the natural features of the underlying site, it is vital to involve a LEED certified professional from the beginning of the design process. M-NCPPC staff should contribute an informational analysis about the seven LEED points relating to site selection and layout. This analysis should be included in the Planning Board staff report for each Planning Board approval.

Staff recommends that a Green Building Concept Plan, consisting of a LEED checklist and written explanation, certified by a LEED accredited professional, be submitted with preliminary plans, site plans, special exceptions, parks plans and mandatory referrals in applications to the Planning Board. The purpose of this plan is to ensure a LEED accredited professional is on the design team from the beginning and that green building concepts are part of the architectural and landscape architectural program and design processes. This concept plan would not be subject to approval by the Planning Board and the Planning Board would not make a finding about it.

Recommended Modifications to the Legislation

As currently written, the legislation creates dispersed and overlapping authority. It should be revised to create a single lead agency. It also requires an unworkable level of detail at both preliminary and site plan phases. It should be

revised so that the level of detail required is appropriate for the type of plan being reviewed. The following modifications are proposed to strengthen the legislation:

1. **Redefine Green Building *Concept* Plan.** For the reasons mentioned above, the Green Building Concept Plan should consist of a LEED checklist and written explanation of how the applicant intends to obtain the LEED points. This plan should be certified by a LEED accredited professional.

2. **Redefine Green Building Plan.** The Green Building Plan should be certified by a LEED accredited professional and consist of a LEED checklist, written explanation of how the applicant intends to obtain the LEED points, and architectural plans approved at the time of building permit issuance.

3. **Preliminary Plan (SRA 06-21).** Eliminate Section 50-35(s) as written. Add language, where appropriate, to require that the Planning Board shall impose a condition on all approved preliminary plans requiring approval of a Green Building Plan or other green building requirement by DPS prior to approval of any building permit.

4. **Site Plan (ZTA 06-16).** Eliminate the language in Section 59-D-3(p), and replace it with language that requires submittal of a Green Building Concept Plan prior to acceptance of any site plan for which a Green Building Plan is required. Add language, where appropriate, stating that the staff report shall include an analysis of LEED points for site location and layout for the purpose of assisting DPS with review of the Green Building Plan. Add language, where appropriate, to require that the Planning Board impose a condition on all approved site plans requiring approval of a Green Building Plan or other green building requirement by DPS prior to approval of any building permit.

5. **Redefine "covered building".** Staff believes it important to make certain there is no ambiguity with regard to building types included in the proposed legislation. For that reason, we suggest that the definition of multi-family residential and commercial "covered building" refer to the International Building Code. All buildings defined in Chapter 3 are included, with the exception of R-3 and R-4 in Section 310, Group R and Group U Utility and Miscellaneous in Section 312. This will exclude buildings that contain less than two dwelling units, adult or child care facilities for five or fewer persons or within a private home, residential care/assisted living with more than five but not more than 16 occupants (excluding staff), and buildings/structures of an accessory character and miscellaneous structures, such as agricultural buildings, barns, greenhouses, stables, etc.

6. **Require submission of a construction waste management plan.** Arlington County requires applicants to submit a construction waste management plan when demolishing or deconstructing previously developed sites. Although implementation of the construction waste management plan is not required, the act

implementation of the construction waste management plan is not required, the act of making a plan encourages builders and contractors to start thinking about recycling/reusing materials that they would otherwise have disposed of wastefully. Since much of the construction in the County is projected to be redevelopment of existing sites, staff believes a construction waste management plan should be a required part of the green building concept plan.

7. **Specify minimum number of points from LEED Energy and Atmosphere category or increase minimum number of LEED points to qualify for an incentive.** Reports from practitioners using the LEED rating system and from Arlington County indicate that it is possible to achieve 24 LEED points without including any energy efficiency measures. Staff suggests that the additional 4 LEED points required to qualify for an incentive should come from the Energy and Atmosphere category. This would insure that the applicant is either optimizing energy performance with HVAC systems, or using another form of renewable energy source. Alternatively, the minimum of 26 points required for certification would in all likelihood include at least two points for energy efficiency.

RECOMMENDATION

Staff recommends that Bill No. 17-06, Zoning Text Amendment No. 06-16, and SRA 06-01 be approved with the modifications specified above. Modifications 1 through 5 are critical in order to make the bill workable. Modifications 6 and 7 are desirable.

Attachments
1. Proposed language
2. Memo from Parks
3. Paper from Research and Technology Division - Housing
4. Summary of Green building legislation in other jurisdictions
5. Summary of green building activity in local governments
6. LEED Checklist

Bill No. 17-06
Concerning: Buildings – Energy Efficiency and Environmental Design
Revised: April 19, 2006 Draft No. 1
Introduced: April 25, 2006
Expires: October 25, 2007
Enacted:
Executive:
Effective:
Sunset Date: None
Ch. ____, Laws of Mont. Co. ____

COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND

By: Council President Leventhal and Councilmember Praisner

AN ACT to:

(1) require certain non-residential buildings and multi-family residential buildings to achieve certain standards relating to energy efficiency and environmental design;
(2) require certain applicants for preliminary subdivision plan approval, site plan approval, or a building permit to submit certain plans relating to energy efficiency and environmental design to the Department of Permitting Services for approval;
(3) require the Department of Permitting Services to approve an energy efficiency and environmental design plan as a condition of certain building permits;
(4) make certain building owners who comply with certain standards relating to energy efficiency and environmental design eligible to receive certain incentive payments;
(5) define certain terms; and
(6) generally amend the law relating to the construction of buildings, development review, building permits, energy, and environmental design.

By amending
Montgomery County Code
Chapter 8, Buildings
Section 8-26

By adding
Montgomery County Code
Chapter 8, Buildings
Article VII, Energy Efficiency and Environmental Design

By amending
Montgomery County Code
Chapter 18A, Energy Policy
Section 18A-11

Boldface	*Heading or defined term.*
Underlining	*Added to existing law by original bill.*
[Single boldface brackets]	*Deleted from existing law by original bill.*
Double underlining	*Added by amendment.*
[[Double boldface brackets]]	*Deleted from existing law or the bill by amendment.*
* * *	*Existing law unaffected by bill.*

The County Council for Montgomery County, Maryland approves the following Act:

Sec. 1. Section 8-26 is amended as follows:

8-26. Conditions of permit.

* * *

(c) *Compliance with permit.* All work [shall] must conform to the approved application and plans for which the permit has been issued, including any **Green Building Plan** approved under Article VII, and any approved amendments [thereto] to the permit.

* * *

Sec. 2. Chapter 8 is amended by adding Article VII. Energy Efficiency and Environmental Design:

Article VII. Energy Efficiency and Environmental Design

8-46. Short Title.

This Article may be cited as the Montgomery County Green Buildings Law.

8-47. Policy.

This Article is intended to protect the public health and welfare by requiring an integrated approach to planning, design, construction, and operation of a **covered building** and its surrounding landscape that helps mitigate the environmental, economic, and social impacts of the building so that it is energy efficient, sustainable, secure, safe, cost-effective, accessible, functional, productive, and esthetically attractive.

8-48. Definitions.

In this Article the following words have the meanings indicated:

"**Covered building**" means a **non-residential building** or **multi-family residential building** that is at least 10,000 square feet in size.

"**Green Buildings Council**" means the United States Green Buildings Council, an organization that has developed and published the **LEED rating system** to measure the energy and environmental performance of a building.

"**Green building plan**" means a:

(1) **LEED scorecard** showing the LEED points that a building will obtain; and

(2) written explanation of how the building will obtain the LEED points identified in the **LEED scorecard.**

"**Green building concept plan**" means a:

(1) **LEED scorecard** showing the LEED points that a building will obtain as a result of site location and stormwater management; and

(2) written explanation of how the building will obtain the LEED points identified in the **LEED scorecard.**

"**LEED accredited professional**" means an individual who has passed the LEED Professional Accreditation Exam administered by the Green Buildings Council.

"**LEED-NC Version 2.2**" means the Leadership in Energy and Environmental Design (LEED) Rating System for New Construction and Major Renovation, Version 2.2, developed by the **Green Buildings Council**, including the LEED-NC Version 2.2 Checklist and LEED-NC Version 2.2 Reference Guide.

"**LEED rating system**" means:

(1) **LEED-NC Version 2.2**; or

(2) if approved by the County Executive, a successor to **LEED-NC Version 2.2** developed by the Green Buildings Council.

"**LEED scorecard**" means the checklist developed by the **Green Buildings Council** for the purpose of calculating a score on the **LEED rating system.**

"**Multi-family residential building**" means a building that includes 4 or more dwelling units.

"**Non-residential building**" means a building not used as a dwelling, including:

(1) office buildings, including general offices, medical offices, office parks, research parks, townhouse offices, government offices, and other buildings with similar uses;

(2) industrial buildings, including truck terminals, warehouses, light or heavy manufacturing facilities, industrial parks, and other buildings with similar uses;

(3) retail buildings, including stores, shopping centers, restaurants, vehicles sales or service facilities, banks, theaters, post offices, and other buildings with similar uses;

(4) places of worship;

(5) private elementary, secondary, or post-secondary schools; and

(6) hotels, motels, day care centers, nursing homes, recreational facilities, and other buildings with similar uses.

"**Planning Board**" means the Montgomery County Planning Board of the Maryland-National Capital Park and Planning Commission.

"**Preliminary subdivision plan**" means a preliminary subdivision plan approved by the **Planning Board** under Chapter 50.

"**Site plan**" means a site plan approved by the **Planning Board** under Division 59-D-3.

8-49. LEED standard.

(a) Any **covered building** constructed in the County, including any **covered building** constructed by the County, must achieve 20 points on the **LEED rating system**.

(b) The owner of any **covered building** that achieves at least 24 points on the **LEED rating system** is eligible for an incentive payment under the

Clean Energy and Environmental Design Rewards Program established in Section 18A-11.

8-50. Site plans.

(a) Before the **Planning Board** approves a **site plan** for a project that includes a **covered building**, an applicant must submit the following documents to the **Department** for approval:

(1) a **Green Building Plan** that shows how the building will comply with Section 8-49(a); and

(2) architectural plans for the building that are certified by a **LEED accredited professional** as likely to yield the LEED points specified in the **Green Building Plan.**

(b) Before the **Department** issues a building permit for a **covered building** for which a **site plan** is not required, the owner of the building must submit the documents listed in paragraphs (a)(1) and (a)(2) to the **Department** for approval.

8-51. Preliminary subdivision plans.

Before the **Planning Board** approves a **preliminary subdivision plan**, an applicant must submit a **Green Building Concept Plan** to the **Department** for approval.

8-52. Building permits.

The **Department** must approve a **Green Building Plan** that complies with Section 8-49(a) as a condition of any **building permit** issued for a **covered building.**

Sec. 3. Section 18A-11 is amended as follows:

18A-11. Clean Energy and Environmental Design Rewards Program.

(a) The Director of the Department of Environmental Protection must establish a Clean Energy and Environmental Design Rewards Program.

The purpose of the program is to provide financial and other incentives to:

(1) consumers who choose electricity produced by renewable and environmentally preferable power sources; and

(2) building owners who qualify under Section 8-49(b) for participation in the program.

(b) The Director must require each eligible [person] consumer, building owner, or supplier to submit an application for any payment under this program, and may take any other action necessary to administer this program. The Department of Finance must take actions necessary to make any payments that the Director of Environmental Protection has certified are due. The County Executive must issue regulations under Method (1) to implement this Section.

(c) The Executive must adopt program regulations that:

(1) identify the types of electricity that qualify for incentives under the program;

(2) restrict or preclude the payment of incentives for purchase of otherwise qualified electricity that a consumer or supplier is required to buy or produce to meet certain federal or state requirements;

(3) specify the process to apply for, certify, and receive an award; and

(4) include any additional program criteria, standards, and procedures that are consistent with the County's energy and environmental policy, which among other things may restrict the location or air shed where any qualified electricity is produced.

(d) The County Council must establish by resolution the maximum amount of any incentive offered and the time period during which the incentive will be offered. The maximum incentive may be calculated by total payments, payment per quantity of electricity bought, or any other reasonable measurement.

(e) Any incentive payment to individual applicants may be paid on a fiscal year or calendar year basis, or at any other convenient time.

(f) A person who submits a false or fraudulent application, or withholds material information to obtain a payment under this Section, has committed a Class A violation. In addition, the person must repay the County for all amounts improperly paid, and all accrued interest and penalties that would apply to those amounts, as if they were overdue taxes. A person who violates this Section is liable for all court costs and expenses of the County in any civil action brought by the County to recover any payments, interest, or penalty. The County may collect any amount due, and otherwise enforce this Section, by any appropriate legal action.

Sec. 4. Applicability.

This Act applies to any **covered building** for which a **preliminary subdivision plan** application, **site plan** application, or **building permit** application is filed on or after the date the Act takes effect.

Approved:

George L. Leventhal, President, County Council Date

Approved:

Douglas M. Duncan, County Executive — Date

This is a correct copy of Council action.

Linda M. Lauer, Clerk of the Council — Date

Ordinance No:
Zoning Text Amendment No: 06-16
Concerning: Site Plans – Energy Efficiency and Environmental Design
Draft No. & Date: 1 – 5/15/06
Introduced: May 16, 2006
Public Hearing: June 20, 2006
Adopted:
Effective:

COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND
SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION OF THE MARYLAND-WASHINGTON REGIONAL DISTRICT WITHIN MONTGOMERY COUNTY, MARYLAND

By: Council President Leventhal and Councilmembers Praisner and Silverman

---

AN AMENDMENT to the Montgomery County Zoning Ordinance for the purpose of:

(1) requiring that a proposed site plan for a project that includes a non-residential building or multi-family building that is larger than a certain size contain, for each covered building, certain plans relating to energy efficiency and environmental design;
(2) requiring that a site plan comply with certain requirements relating to energy efficiency and environmental design; and
(3) generally amending the law relating to site plans.

By amending the following sections of the Montgomery County Zoning Ordinance, Chapter 59 of the Montgomery County Code:

DIVISION 59-A-2	Definitions and Interpretation
Section 59-A-2.1	Definitions
DIVISION 59-D-3	Site Plan
Section 59-D-3.23	Proposed Development
Section 59-D-3.4	Action by the Planning Board

EXPLANATION: ***Boldface*** *indicates a heading or a defined term.*
Underlining indicates text that is added to existing laws by the original text amendment.
[Single boldface brackets] indicate text that is deleted from existing law by the original text amendment.

Double underlining indicates text that is added to the text amendment by amendment. *[[Double boldface brackets]] indicate text that is deleted from the text amendment by amendment.* ** * * indicates existing law unaffected by the text amendment.*

ORDINANCE

The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland, approves the following ordinance:

Sec. 1. DIVISION 59-A-2 is amended as follows:

DIVISION 59-A-2. Definitions and Interpretation.

59-A-2.1. Definitions

In this Chapter, the following words and phrases have the meanings indicated:

* * *

Covered building: "Covered Building" as defined in Section 8-48.

* * *

Green Building Plan: "Green Building Plan" as defined in Section 8-48.

* * *

Sec. 2. DIVISION 59-D-3 is amended as follows:

DIVISION 59-D-3. Site Plan.

59-D-3.23. Proposed development.

A plan of the proposed development including the following information unless the Planning Director waives any item at the time of application as unnecessary because of the limited scope of the proposal:

* * *

(p) If the proposed development includes a **covered building**, a **Green Building Plan** and architectural plans for the building that have been approved by the Department as required by Section 8-50.

59-D-3.4. Action by the Planning Board.

(c) In reaching its decision the Planning Board must require that:

* * *

(5) the site plan meets all applicable requirements of Chapter 22A regarding forest conservation, Chapter 19 regarding water resource protection, Chapter 8 regarding energy efficiency and environmental design, and any other applicable law.

* * *

This is a correct copy of Council action.

_____

Linda M. Lauer, Clerk of the Council Date

Ordinance No. _____
Subdivision Regulation No: 06-01
Concerning: Preliminary Subdivision Plans-Energy Efficiency and Environmental Design
Revised: 5-15-06 Draft No. 1
Introduced: May 16, 2006
Public Hearing: June 20, 2006
Adopted: _____
Effective: _____

COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND
SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION OF THE MARYLAND-WASHINGTON REGIONAL DISTRICT WITHIN MONTGOMERY COUNTY, MARYLAND

By: Council President Leventhal and Councilmembers Praisner and Silverman

---

AN AMENDMENT to the Subdivision Regulations to:

(1) require that an application for a preliminary subdivision plan for a project that includes a non-residential building or multi-family building that will be at least a certain size contain a certain plan relating to energy efficiency and environmental design;

(2) prohibiting the Planning Board from approving a preliminary subdivision plan for a project that includes a non-residential building or multi-family building that will be at least a certain size unless the applicant has submitted a certain plan relating to energy efficiency and environmental design; and

(2) generally amend the law relating to subdivision plans.

By amending the following section of the Montgomery County Code, Chapter 50:

Section 50-1, Definitions
Section 50-34, Preliminary subdivision plans – Filing and specifications
Section 50-35, Preliminary subdivision plans – Approval procedure

Boldface	*Heading or defined term.*
Underlining	*Added to existing law by original bill.*
[Single boldface brackets]	*Deleted from existing law by original bill.*
Double underlining	*Added by amendment.*
[[Double boldface brackets]]	*Deleted from existing law or the bill by amendment.*
* * *	*Existing law unaffected by bill.*

ORDINANCE

The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland, approves the following ordinance:

Sec. 1. Sections 50-1, 50-34, and 50-35 are amended as follows:

50-1. Definitions.

* * *

Covered building: "Covered building" as defined in Section 8-48.

* * *

Green Building Concept Plan: "Green Building Concept Plan" as defined in Section 8-48.

* * *

50-34. Preliminary subdivision plans – Filing and specifications.

* * *

(k) A preliminary plan application for a project that includes a **covered building** must contain a **Green Building Concept Plan.**

50-35. Preliminary subdivision plans – Approval procedure.

* * *

(s) The Planning Board must not approve a preliminary plan for a project that includes a **covered building** unless the applicant has submitted a **Green Building Concept Plan** that has been approved by the Department of Permitting Services as required by Section 8-51. The Planning Board must make compliance with the **Green Building Concept Plan** a condition of approving the preliminary plan.

Sec. 2. Effective date. This ordinance takes effect 20 days after the date of Council adoption.

This is a correct copy of Council action.

_____

Linda M. Lauer, Clerk of the Council

Approved:

_____

Douglas M. Duncan, County Executive

M-NCPPC

MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING

THE MARYLAND-NATIONAL CAPITAL
PARK AND PLANNING COMMISSION

9500 Brunett Avenue
Silver Spring, Maryland 20901

June 14, 2006

MEMORANDUM

TO: Marion Clark, Environmental Planning Section, Countywide Planning Division

VIA: Michael F. Riley, Chief, Park Development Division

FROM: Patricia McManus, Design Section Supervisor, Park Development Division
Eileen Emmet, Architect, Design Section, Park Development Division EE

SUBJECT: Impact of Proposed Green Building Legislation on Parks

---

The proposed Bill No. 17-06 by the Montgomery County Council would require all new non-residential covered buildings that are at least 10,000 square feet in size to obtain 20 points in the U.S. Green Building Council's LEED rating system. At the building permit stage, a "Green Building Plan" would be submitted by a LEED certified architect. These regulations would apply to government offices, recreational facilities, and industrial buildings that are included in our park system. The definition of a covered building in the zoning ordinance would also include non-enclosed structures, such as open-air roofed arenas or recreational structures. This memorandum outlines the implications of this legislation on buildings within the Montgomery County park system.

BACKGROUND

In 2005, the Montgomery County Department of Park and Planning participated on an interagency Green Building Technical Committee, which is a subcommittee of the Montgomery County Council's Environmental Policy Implementation Committee. The Green Building Technical Committee was tasked with determining each public agency's current building practices, comparing these practices with the U.S. Green Building Council's LEED rating system, and evaluating the level of effort required for each agency to reach LEED certification. Eileen Emmet was assigned to represent the M-NCPPC on this committee.

An internal staff team was formed to review and prepare the M-NCPPC's report. Roundtable discussions were held to compare the LEED criteria to our current practices. The following units were represented: Director's office, Environmental Planning Section, Park Planning and Resource Analysis Section, Enterprise Division, Strategic Planning Division, Superintendent of Parks, Central Maintenance Division, Park Development Division, and SmartParks Section. The LEED criteria were applied to three of the largest groups of building types we administer: office buildings, maintenance yards with staff offices, and public buildings (including clubhouses, nature centers, recreation centers and visitors centers). The following are estimated scores for each building type:

- Staff Offices: 18 points achieved
- Maintenance Yards: 15 points achieved
- Public Buildings: 13 points achieved

In a comparison with other agencies' current building practices, the Montgomery County Government, Montgomery County Public Schools, and Montgomery College currently score 23 LEED points or higher for new building construction. These agencies have well-established building facility planning and management entities within their organizations. The new legislation requiring a score of 20 is likely to have minimal impact on their current practices. The LEED scoring system was designed for relatively large commercial office building types, which are different from most of the facilities constructed by the M-NCPPC and the WSSC. This contributed to the difficulty for these two agencies to achieve higher point scores. The Washington Suburban Sanitary Commission's estimated score was seven.

ANALYSIS

There are approximately 852 covered buildings within the park system. The majority of existing buildings on park property are one-story and average between 2,000–3,000 square feet in size. Of the currently available information on the 852 buildings, square footage information is available for only 285 buildings. Of those, 13 are larger than 10,000 square feet in size. These include staff office buildings, as well as large facilities owned and operated by other entities, such as the Department of Recreation. Examples are included in the table below.

Building Name	Park	Building Use	Area
Wheaton Maintenance Building	Wheaton Regional Park	Maintenance	10,826 sf
Brookside Conservatory	Brookside Gardens	Greenhouse	11,767 sf
Shady Grove Auto Shop, Building C	Shady Grove Maintenance Facility	Maintenance	12,382 sf
Brookside Visitors Center	Brookside Gardens	Education	13,236 sf
Wheaton Community Center		Recreation	14,168 sf
Cabin John Administration Bldg	Cabin John Regional Park	Maintenance	16,316 sf
Agricultural History Activity Center	Agricultural History Farm Park	Education	17,494 sf
Wheaton Riding Stables	Wheaton Regional Park	Recreation - Equestrian	23,660 sf
Parkside Headquarters		Office	24,016 sf
Rickman Farm Indoor Riding Arena	Rickman Farm Horse Park	Recreation - Equestrian	24,735 sf
Wheaton Indoor Tennis	Wheaton Regional Park	Recreation - Tennis	37,128 sf
Cabin John Indoor Tennis	Cabin John Regional Park	Recreation - Tennis	42,000 sf
Montgomery Regional Office		Office	48,975 sf

The proposed legislation is likely to affect the following future park facility projects:

- Silver Place Headquarters Building
- Facility Planning for the Rock Creek Maintenance Yard
- Renovations to the Wheaton Tennis Bubble
- Woodstock Equestrian Park Indoor Riding Arena

Staff intends to incorporate green building design principles into the planning and design for these projects. However, it may be difficult to achieve high point/credit scores for several of these non-traditional building types.

A summary of opportunities and challenges for the M-NCPPC's compliance with LEED are identified below. Attachment A is the M-NCPPC's report to the Green Building Technical Committee, which was submitted in November of 2005. It includes additional information, as well as future goals and action steps for the M-NCPPC.

Opportunities/Benefits

- Compliance with LEED will reduce the use of energy, water and materials. It has positive environmental impacts, and it is in keeping with the mission of the M-NCPPC.
- Building environments will be improved, leading to fewer occupant comfort complaints, higher productivity and attendance, and an overall healthier space.
- The proposed Silver Place office building for our Montgomery Regional Office headquarters is a key future project that appropriately fits the LEED classification system.
- Operational and maintenance cost savings would be achieved by selecting equipment and products that have the best benefit for energy savings and that are durable and long-lasting.
- In addition to large-scale new construction, there are opportunities to incorporate sustainable design guidelines for existing (and smaller scale) buildings and infrastructure.

Challenges

- Many of the M-NCPPC's building types would not fall into existing LEED program categories. Pilot programs may need to be developed with the U.S. Green Building Council for different building categories, including equestrian facilities, maintenance yards or other recreation buildings.
- The M-NCPPC follows all current laws, regulations and County energy design guidelines for building projects, but does not have an organizational facility management framework to execute the LEED criteria in its current work program. Current responsibilities for design, purchasing of building products (including furniture), management of buildings, and maintenance are spread throughout organizational divisions. In order to integrate "green" choices and processes, a centralized guiding entity for building facility management is needed.
- A critical element to meet LEED program levels is the documentation and implementation of point/credit details. While our SmartParks database is making headway towards a centralized record-keeping system, processes need to be

developed to determine what information should be collected, collect the information, track the accuracy of data, and maintain and update the data over time.

- Additional initial costs for facilities would be incurred for design consultants, as well as for specialized building systems and components.
- Design staff and building operations staff would require training in sustainable design and the LEED program.

CONCLUSION

Staff supports the proposed legislation, because the goals of the LEED program match the environmental mission of the M-NCPPC. Since LEED is a consensus-based program model, staff also supports an interagency task force to study the legislation more carefully and comment in more detail, in order to confirm it has a reasonable level of success for implementation. Effective July 1, 2006, the M-NCPPC will be a paying member of the U.S. Green Building Council, thereby agreeing to comply with a code of conduct to "adhere to principles of improving the energy and environmental efficiency of the whole building environment".

Several proposed building projects would be affected by the legislation. The additional costs associated with consultant fees, construction and operations have not yet been fully identified, and it may be difficult to achieve high point credits for recreational building types. There are issues internal to the M-NCPPC that would need to be addressed, in order to create an integrated design process, the basic tenet of the LEED program. An organizational framework would need to be created for building facility planning and management, project documentation and commissioning, and analysis of life-cycle performance of equipment and materials. New design and maintenance standards that incorporate best practices and green technology would also need to be developed for key building elements, and staff would require training to incorporate these best practices in the planning, design, construction, maintenance and operation of facilities. The full implications associated with this will become more apparent as we seek to achieve LEED certification for new facilities, including Silver Place.

The LEED program is revolutionizing the building process by bringing stakeholders together to consider life-cycle building costs and environmental benefits. Adopting these principles in the park system will help focus staff on a common goal, make better choices, and improve how we build in the natural environment.

M-NCPPC

The Montgomery County Department of the
Maryland-National Capital Park and Planning Commission

AGENCY REPORT
November 8, 2005

I. WHO WE ARE

One Commission and Two Departments

Montgomery County and Prince George's County

variously known as: the M-NCPPC, Park and Planning, the Commission

The Maryland General Assembly established the Maryland-National Capital Park and Planning Commission in 1927 to serve the bi-county area of Montgomery and Prince George's Counties. Pursuant to Article 28 of the Annotated Code of Maryland, the Commission is empowered to:

- *acquire, develop, maintain and administer a regional system of parks defined as the Metropolitan District;*
- *prepare and administer a general plan for the physical development in the areas of the two Counties defined as the Regional District; and*
- *in Prince George's County, conduct a comprehensive recreation program*

***Montgomery County** contains **316,000 acres** of land area*

Of this area, the M-NCPPC administers
***395 parks on 32,639 acres** of land,*
(over 10% of total acreage).

*In 2004, a photo inventory recorded **975 structures on park property.***
*Information is available on **263 buildings that***
M-NCPPC owns, manages and/or operates.

The Commission is a nationally recognized planning, parks and recreation agency: The only five-time gold medal winner of the National Park and Recreation Award for Excellence and is one of 55 park or recreation entities nationwide to be accredited by the Commission for Accreditation of Park and Recreation Agencies (CAPRA).

II. MISSION STATEMENT

The mission of the Montgomery County Department of Park and Planning is to improve the quality of life by conserving and enhancing the natural and developed environment for current and future generations.

III. GROUPS RESPONSIBLE FOR PROJECT PLANNING, DESIGN, CONSTRUCTION, AND OPERATIONS

Commission-wide Administrative Services

- Central Purchasing Division, Nancy Keogh, Chief
  Bi-County contract preparation and purchasing procedures and guidelines

- Central Finance Division, Patricia Barney, Chief
  Bi-County infrastructure audits and inventories

Montgomery County Department

- Countywide Planning Division, Jeff Zyontz, Chief

  - Park Planning Unit, John Hench, Supervisor
    Initiates park master plans, functional plans, developer park proposals, open space planning

  - Historic Preservation Unit, Gwen Wright, Supervisor
    Historic building property stewards for the initiation of stabilization, restoration, renovation, and rehabilitation projects

- Strategic Planning Division, Melissa Banach, Chief
  Project planning for new LEED-certified silver headquarters building

- Superintendent of Parks, Gordon Rosenthal, Acting Chief

  - Central Maintenance Division, Al Astorga, Chief
    Construction entity that implements small and medium-sized repair and renovation projects built on park property -- primarily construction trade and equipment shops; also responsible for exhibits, signage, some custodial services and fleet vehicle maintenance

  - Enterprise Division, Jerry Bush, Acting Chief
    Property management of revenue-generating and leased property; facilitation of public-private partnerships to build on park property

  - Park Development Division, Mike Riley, Chief
    Project management entity to implement CIP projects built on park property whether by division staff and/or consultants; design guidelines and standards; concept, schematic, design development, construction documents; surveying, permitting, and inspection of constructed facilities -- primarily civil engineers, landscape architects, architects and project managers; property acquisition

- Northern and Southern Region Divisions,
  Mike Horrigan, Acting Northern Chief, Ronnie Gathers, Southern Chief
  Entities responsible for performing routine maintenance in parks; Interpretative and Educational Services, Nature Center Management; Parks and Athletic Fields, Landscape installation and maintenance

- Natural Resources Division, Carl Falcone, Chief
  Horticultural and Arboriculture Services, Landscape installation and maintenance, Stormwater Facility Management, Public Gardens, Natural Resources Management

- SmartParks, Brian Woodward, Regional Operations Manager
  Computerized data collection program charged with centralizing construction and operations data

IV. BUILDING PROJECTS

The M-NCPPC constructs new parks and buildings on Montgomery County parkland. This includes rehabilitation (repair, renovation, modification, reconstruction) and additions to numerous existing buildings and properties of many types and sizes. Refer to Attachments A and B.

V. ENVIRONMENTAL INITIATIVES

The Department promotes a variety of environmental protection initiatives. A series of internal policies have been developed to reduce the consumption of resources and solid waste, and to promote efforts to "build green" in the future. These efforts can be summarized as:

1) Building "Green" (goal of LEED certification for new large-scale building projects, such as the Silver Place, a new headquarters building)
2) Going Green at Home (An educational initiative for the general public)
3) Reducing Consumption of Resources (using less and conserving)
4) Reducing Solid Waste (recycling)
5) Stormwater Management, Stream Protection and Pollution Prevention (NPDES)

VI. LEED RATINGS FOR BUILDINGS

In order to estimate where the agency stands in the LEED point system, staff roundtable discussions were held on August 3 and September 15, 2005 to compare the LEED-NC and LEED-EB criteria to our current practices. The criteria were applied to three of the largest groups of building types we administer: Office Buildings, Maintenance Yards, and Public Buildings (Clubhouses; Nature, Recreation and Visitors Centers). Conclusions should be viewed as estimates only because the M-NCPPC does not consistently document practices listed in the point system. Refer to Attachments C, C1, C2, C3 for LEED-NC Scorecards and Attachments D, D1, D2, D3 for LEED-EB Scorecards.

VII. PROCESS OF DESIGNING GREEN

The M-NCPPC does not currently have an integrated "green" design process for buildings, the basic tenet of LEED. Refer to Note 1.

The following paragraphs of this section outline opportunities and challenges proposed by LEED, both for new construction and existing buildings. Some initial goals are also proposed to establish an integrated "green" building design framework to put the agency on track for LEED.

A. Introduction

The Montgomery County Department ("Department") of the Maryland-National Capital Park and Planning Commission ("M-NCPPC") is pleased to participate on the Green Building Technical Committee. Participation in the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design-New Construction program (LEED-NC) presents a particular challenge for M-NCPPC because we mainly plan, build, manage, and maintain hundreds of small and medium-sized buildings, representing a large variety of building types that are not necessarily applicable to the LEED programs. Nonetheless, the Department foresees a number of opportunities to improve our sustainable building practices.

The Committee's mission is to identify incremental enhancements that could improve our existing practices for compliance with the LEED-New Construction program (LEED-NC). The M-NCPPC suggests that equal if not greater attention could be focused on the Leadership in Energy and Environmental Design-Existing Buildings program (LEED-EB). Given the large stock of existing park facilities, and ongoing in-house maintenance and repair programs, emphasis on this program may provide better opportunities for the M-NCPPC to make contributions to improve environmental building practices, reduce energy costs, and contribute to the County's overall "green" building goals.

B. General Opportunities/Challenges of LEED

LEED has a number of programs: NC for new construction and major renovations, EB for existing building operations, CI for commercial interiors, H for homes, and ND for neighborhood design, among others. Any of these programs would provide the following:

1. Opportunities

   a) The goals of the LEED program match the environmental mission of the Department.
   b) Whether we choose to fully certify new buildings, or use LEED as a guideline, the program is a national standard for developing high-performance, sustainable buildings that is becoming widely accepted as an effective planning, design, construction and operational tool. Refer to Note 2 for State of Maryland initiatives.
   c) The program is divided into sensible point-system categories that could streamline design and project development decisions that have previously not been quantified in the building process.
   d) Operational cost savings could be achieved by selecting equipment and products that have the best benefit for energy savings.
   e) Maintenance cost savings could be achieved by selecting the most durable and long-lasting materials.
   f) The design of flexible building spaces would increase the longevity of buildings, which are subject to reprogramming but are generally owned and maintained for a lifetime.

2. Challenges

a) A broad agency policy would need to be developed with guidelines for sustainable building and site design, as well as operations, maintenance and monitoring of facilities. Implementation strategies would also need to be identified.
b) Design decision making for each LEED point would be a lengthy and complex process.
c) Staff would need to be trained about the goals of the LEED program, credit details, and technology interactions to better guide in-house design decisions and/or consultants.
d) In-house expertise in the areas of architecture, mechanical, electrical and plumbing engineering would need to be developed to implement best practices.
e) Until a learning curve is mastered, additional in-house staff and consultant costs would be incurred for credit feasibility and cost/benefit analyses, submittal documentation and verification, and building commissioning.
f) Additional project costs would be incurred for LEED registration and certification fees.

C. Opportunities/Challenges of LEED for New Construction

LEED for New Construction (LEED-NC) is desirable for large-scale building projects, including major renovations, where high performance building design is aimed to reduce energy costs, improve indoor environmental quality for occupants, and lessen the impact of the building on the environment. This would be particularly applicable for buildings with a floor area over 10,000 s.f. in conjunction with County energy performance standards and regulations.

1. Opportunities

a) The goal of accreditation would give all project team participants a common focus throughout the project.
b) Third-party verification by the USGBC would take the burden off agency staff to confirm the building was constructed and commissioned to the original intent.
c) The proposed headquarters office building for our Main Regional Office is a key future project that appropriately fits this program classification.

2. Challenges

a) LEED-NC was primarily prepared for a building type that is not regularly or normally built by the M-NCPPC. Typical park buildings are one-story and average between 2,000-3,000 s.f.
b) The majority of new construction projects would need to be pilot-programs with the USGBC for different building type categories, such as equestrian facilities, recreation buildings or maintenance yards.

D. Opportunities/Challenges of LEED for Existing Buildings

LEED for Existing Buildings (LEED-EB) maximizes operational efficiency while minimizing environmental impacts. It provides a recognized, performance-based benchmark for building owners and operators to measure operations, improvements and maintenance on a consistent

scale. LEED-EB is a road map for reducing overall operating costs and delivering environmentally responsible, healthy, productive places to live and work.

1. Opportunities

   a) Since the M-NCPPC has many more existing buildings than new ones, and also implements numerous rehabilitation projects, adherence to this program for maintenance, repair, renovation, modification, reconstruction and addition projects could be appropriate whether or not registration and accreditation was achieved.
   b) According to State of Maryland's Rehabilitation Code, buildings are considered "existing" after one-year of occupancy. By LEED-EB criteria, buildings are considered existing after two-years.
   c) Designing new construction to LEED-EB standards would assure some consistency that buildings are designed to management, maintenance and operational standards.

2. Challenges

   a) The criteria are more complex and lengthy than LEED-NC, (85 maximum points as opposed to 69 for LEED-NC).
   b) Management, maintenance and operational standards would need to be in place to guide decisions on these projects.
   c) Initial submittals require three months of operational data and re-certification is required at least once every five years, or as often as annually. This would place a heavy burden on agency staff to continually monitor the performance of building systems and re-apply for certification.

E. Summary

The M-NCPPC follows all current laws, regulations and County energy design guidelines and regulations to execute building projects but does not have an organizational facility management framework to execute the LEED criteria. Responsibilities for facility planning, design, construction, maintenance, and purchasing are currently spread throughout the organization. In order to integrate "green" choices and processes, the Department envisions a need for a centralized guiding entity. Refer to Note 3 for a current list of participants in the process.

The Department also notes that a critical element to meet the LEED program levels (Platinum, Gold, Silver, Certified) resides in documentation and implementation of the credit details. While our countywide SmartParks database is making headway towards a centralized record-keeping system, processes need to be developed to 1) determine what information should be collected, 2) collect the information, 3) track data accuracy, and 4) maintain and update the information over time. As part of this documentation process, opportunities to achieve specific LEED points should be identified with Department-wide staff input to inform future projects.

To this end, LEED is an excellent model to adopt or emulate. It would be a natural course for the M-NCPPC to adopt sustainable green building design guidelines for its parks and facilities: to finance, plan, design, construct, manage, renovate, commission, maintain and deconstruct its facilities and buildings in this manner. At a minimum, accreditation with the

USGBC should be pursued for new projects over 10,000 sf. This will help focus decisions on the sustainable end product and better guarantee delivery of that product. Beyond large-scale new construction, this is also a timely opportunity to begin incorporating sustainable design guidelines for existing buildings processes so we can improve our existing infrastructure.

The following goals have been identified to initiate LEED for building projects:

Goals

1) Review best practices used by other County agencies and outline a process to initiate a system for facility management and staff development.

2) Establish necessary policies for practices to achieve desired LEED-NC and LEED-EB point criteria.

3) Improve documentation and monitoring of current and future building projects to comply with LEED point criteria.

4) Complete a strategic plan for building design practices.

    a) Develop design standards for new construction and renovation projects, including key items such as lighting, HVAC, telephone, water, sewer and stormwater systems, roofing, and foundation landscaping.
    b) Develop material and equipment selection specifications, including key items such as furniture, fixtures and finishes.
    c) Establish architectural and engineering guidelines for the use of standards and specifications.
    d) Develop a method to better produce "green" facilities according to LEED point system, for both new and existing construction.
    e) Assign decision-making responsibility for different areas of expertise for different LEED credits within department divisions.
    f) Improve business practices in regard to collaborative efforts.

5) Establish procedures to train staff in sustainable design and to disseminate and share information.

    a) Train building operations staff and design professionals on the LEED program and the application of energy efficient green building technologies and applications.
    b) Create a Green Focus Staff Team similar to MCPS responsible for upkeep and dissemination of sustainable design information.
    c) Develop and manage a centralized informational web-site for project and product information, including
        i. health and safety information on indoor air quality and hazardous materials
        ii. material and finish selection information for use by staff and consultants, and
        iii. furniture, fixtures, equipment selection information for use by staff and consultants

6) Initiate pilot projects to test implementation of selected new technologies, such as green roofs and conduct a cost/benefit analysis of various technologies. Revise policies and design standards after pilot projects have been evaluated.

7) Achieve LEED-NC accreditation (third-party review and certification) on major new building projects over 10,000 s.f. that are built on park property, regardless of funding source.

   a) Develop a practice for a Sustainable Design Review within the M-NCPPC Planning, Design, Construction and Operations (PDCO) process.
   b) Develop pilot programs where necessary for certain park building project types, such as recreation buildings or maintenance yards, possibly in conjunction with the USGBC.
   c) Create LEED application guides and templates for certain building project types to be used by staff and consultants in the documentation process.

8) Develop optimum building commissioning standards, including implementation costs.

9) Establish a timeline for these goals.

Notes

1. LEED proposes to open lines of communication between all participants and blend decisions across project phases to create a more holistic, inclusive, and effective building process, the common end goal being an energy efficient building that has a reduced impact on its occupants and the environment.

2. In March 2001, the State of Maryland initiated a policy called the Maryland High Efficiency Green Building Program, Executive Order 01.01.2001.02 -- Sustaining Maryland's Future with Clean Power, Green Buildings and Efficient Energy. The policy directed that all Maryland owned or leased facilities with more than 7,500 gross sq/ft be certified LEED Silver, and if feasible LEED Gold. The policy was in the forefront of other state environmental initiatives. However, with the advent of a new governing administration, the policy has ended. In its place, Senate Bill 92, passed in the 2005 Legislative Session, under the Environmental Procurement Policy, authorizes a State agency to provide justification for the use of high performance or "green building" design in the planning for a capital project.

   Maryland General Assembly, 2005 Legislative Session, Environmental Procurement Policy: Senate Bill 92 (passed) authorizes a State agency to provide a justification for the use of high performance or "green building" design in the planning for a capital project. Green building design is a rating system that measures the level of environmental benefit provided by the design of a facility. Green building elements, such as natural lighting, can contribute to improvements in employee health and productivity. Green building design carries a cost premium of 1 to 2 percent of the project cost, but may save considerably more over the life cycle of the facility.

3. Staff involved in building-related decision-making include Chairman/Director-level personnel that engage in public-private partnership discussions, Countywide Park Planners and Historic Preservation, the Enterprise Division including Property Management, the Park Development Division, the Central Maintenance Division, SmartParks, Park Region Managers and custodians, Management Services, Health and Safety, Procurement, and various administrative personnel who purchase furniture, fixtures and equipment.