



Maryland Green Building Council

2011 Annual Report



Presented to
Governor Martin O'Malley
and the Maryland General Assembly



ON THE COVER: A rendering of the Interpretive Center at the Department of Natural Resources' Harriet Tubman Underground Railroad State Park in Dorchester County. The project is currently under design by the architectural firm of GWWO Inc. of Baltimore. The 18,122 sf building will provide visitors with a place for orientation, meditation and reflection. Exhibits, including interactive displays and an orientation film, will explore the Choptank River region as Tubman's first home, the Underground Railroad as a resistance movement and Tubman as a nineteenth century hero who is still relevant today. The buildings four volumes have pitched roofs and simple forms which recall the local vernacular architecture and are finished in grey metal and cedar siding which recalls Tubman's family connection with the timber industry in the County. The building will house exhibit functions as well as a lobby, library, multipurpose room, gift shop, offices, exhibit storage and restrooms. The building will achieve at a minimum, a LEED Silver rating.

Partially located in a critical area within the Blackwater National Wildlife Refuge, the 17 acre site will also include a memorial garden, permeable gravel parking areas, a 2 acre Bermed Infiltration Pond for on-site waste water treatment and extensive native plantings in meadow and wooded settings.

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Martin O'Malley
Governor
Anthony G. Brown
Lt. Governor



Alvin C. Collins
Secretary

MARYLAND DEPARTMENT OF GENERAL SERVICES
OFFICE OF THE SECRETARY

November 1, 2011

The Honorable Martin O'Malley
Governor of Maryland

The Honorable Thomas V. "Mike" Miller, Jr.
President of the Senate

The Honorable Michael E. Busch
Speaker of the House of Delegates

The Honorable Members of the General
Assembly of Maryland

RE: Maryland Green Building Council Annual Report

Ladies and Gentlemen:

The Maryland Green Building Council, created by Chapters 115 and 116 of the 2007 Laws of Maryland, is pleased to submit to you its fifth annual report.

This has been a year of transition for the Council. As one of my first acts as the new Chair of the Council it is my privilege to extend thanks to our former Chair, Buz Winchester and former Council Members Mark Bundy and Peter Doo for their distinguished service to this Council and to the State of Maryland.

With the remaining current Council Members and the addition of new members, Amelia Wright and Richard Truit, the Council is now engaged in mapping out our course of action for the coming year. We have already identified several items to place on our agenda. First is data acquisition – what are we already doing in the state? What are the ongoing and/or new initiatives that are to be undertaken by state agencies? What can we learn from these efforts? Second, what data are we missing at this point in time? What else do we need to be studying in order to make the correct, informed decisions necessary to promote sustainable buildings in the State of Maryland? Finally, are there other topics within the purview of the Council that are not currently under consideration that should be investigated?

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MARYLAND DEPARTMENT OF GENERAL SERVICES
OFFICE OF THE SECRETARY

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As we prepare to move into the 2012 annual session of the General Assembly we know that there will be additional topics that the Council will be asked to address and respond to. We look forward to this opportunity to contribute to the growing knowledge base, awareness and conversation developing around the critical topic of sustainable design, and are honored to serve both our government and the citizens of Maryland.

Respectfully submitted,

Tom Liebel, FAIA, LEED Fellow
Chair, Maryland Green Building Council

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INTRODUCTION

The 2011 Annual Report of the Maryland Green Building Council (the Council) is written to comply with the requirement contained in Chapter 116 of the 2007 Laws of Maryland, which directs the Council to report annually to the Governor and the General Assembly on the implementation and progress of the State High Performance Green Building Program. The plan for implementation of this program was submitted to executive and legislative leaders of the State of Maryland in January 2008 and was enacted into law as Chapter 124 of the 2008 Laws of Maryland. The primary purpose of this current report is to provide a progress report, including brief updates on 2011 legislative efforts and public schools programs.

The year 2011 was one of transition for the Council. In May, Chairman Albert ‘Buz’ Winchester, III unexpectedly resigned from the Council to pursue other interests. Serving as Chairman since 2007, Buz oversaw the implementation and progress of green building initiatives in State government, including development of the High Performance Green Building Program, expansion of the program to include public schools and community colleges, several rounds of green building legislation, green building cost studies, and the development of criteria for evaluating green building rating systems. Buz also successfully championed efforts to expand the role of the Council to allow for the promotion of green building concepts outside of State-owned projects. The Council would like to thank Buz and wish him well in future endeavors.

On September 6, 2011 Governor O’Malley appointed Tom Liebel to serve as the new Chairman of the Council. Tom is a principal with the Baltimore firm of Marks, Thomas Architects and is a recent Fellow of the American Institute of Architects (AIA) and a LEED® (Leadership in Energy and Environmental Design) Fellow. Tom has been integrating sustainable design principles into a variety of projects over the past fifteen years, receiving multiple local, state, and national awards for design, smart growth, sustainable design, and historic preservation. He has been honored for distinguished service by both the Baltimore and Maryland AIA Chapters. He has an extensive resume, which includes green building-related presentations on sustainable design, smart growth, historic preservation, and similar subjects since 2002; he has also testified to the General Assembly on green building bills and issues, written numerous related articles, and served as a guest lecturer on these topics at area colleges and universities including Morgan State University, Johns Hopkins University, and Loyola University Maryland. Tom lives in Baltimore.

The terms of two other Council members expired this year. Mark Bundy, PhD, and Peter Doo served on the Council with dedication for several years. In his previous position with the Department of Natural Resources, Mark was instrumental in the creation of the original iteration of the Maryland Green Building Council, which was formed by executive order during the administration of Governor Parris Glendening. Mark chaired several committees in his time on the Council including studying funding and financing strategies for green building and evaluating green building rating systems and building codes. Peter Doo, who was instrumental in starting the Maryland Chapter of the U.S. Green Building Council, served on several committees during his tenure, including green building in healthcare and innovation, communication and leadership. The Council would like to thank both Mark and Peter for their service and commitment.



New public members were appointed by the Governor to fill these vacancies. In late June, Amelia 'Mimi' Wright and Richard C. Truitt, Sr. were appointed to fill the vacancies left by Mark and Peter. Mimi is from the town of Church Creek, Maryland -- not far from the Blackwater Wildlife Refuge in Dorchester County. She is retired from an executive position at AT&T Lucent technologies and currently owns and manages crops and tree farms in Dorchester County. She has served on the Dorchester Soil Conservation Board of Supervisors, the Maryland Agricultural Commission, and the American Forest Foundation's Standards Review Panel. She is a member of numerous organizations including the Adkins Arboretum, the National Museum of Women in the Arts, and the Landowners Advisory Committee for Nutria Control, to name a few.

Richard is from Perry Hall, Maryland and serves as the Deputy Director of the Harford County Department of Inspections, Licenses and Permits in Bel Air, Maryland. He holds a State of Maryland Mechanical Inspectors License with the Department of Labor Licensing and Regulation (DLLR) and is certified as a State of Maryland Building Inspector with the Department of Housing and Community Development (DHCD). He currently holds an appointment to the Maryland Building Rehabilitation Code Advisory Council and has been teaching classes throughout the country on the International Code Council (ICC) International Green Construction Code (IgCC), the ICC 700 National Green Building Standard™, and LEED® Rating Systems. Since neither new member is directly involved in the green building movement, they can be expected to bring new perspectives to the Council.

The Council warmly welcomes Tom, Mimi, and Richard and looks forward to new challenges under the leadership of Chairman Tom Liebel.

The Council met several times in 2011. In January, the Council hosted a presentation by the Maryland Chapter of the U.S. Green Building Council on its legislative agenda, which included bills requiring energy labels on State buildings, requiring projects that receive State aid in excess of \$100,000 to comply the High Performance Green Building Program, improving the net metering program, and authorizing the use of the International Green Building Code. Also at the January meeting, the Council viewed a thought-provoking presentation on public understanding, opinions, and attitudes regarding storm water runoff and water quality in Baltimore's Inner Harbor.

In February, the Council hosted a presentation on the greening of supply chain operations for the Bon Secours Baltimore Health System. The program focus is on assessment and reduction of the system's "carbon footprint" through efficient recycling and waste stream management, reductions in the use of toxic chemicals, reductions in energy use, increasing use of sustainable products and resources, and development within the Bon Secours Baltimore Health System of a culture of sustainability and awareness of the far-reaching impacts of decisions and actions. The connection between the health of individuals, the community, and the environment will underlie decisions and program planning. The presentation provided an interesting and educational view of the challenges and benefits involved in bringing green principles to healthcare and hospital environments.

The Council did not meet again until September, due mainly to the legislative session and the retirement of former Chairman Winchester. This most recent meeting included an introduction of the new chair and members to the Council as well as a refresher course on the statutory perspective of the Council. In brief, the Council is, and is intended to be, the foundation for

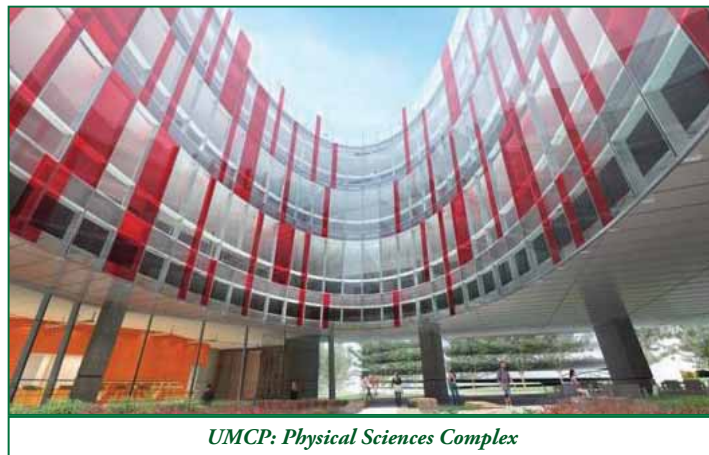


administrative action and the passage of laws related to green building in the State. The Council can control and dictate how the State operates on behalf of the citizens of Maryland. In addition to this presentation, Delegate Alfred Carr discussed his 2011 bill on efficient and non-polluting exterior lighting for State buildings as well as his wishes to expand the requirements with future legislation. He thanked the Council for its support of the bill.

LEGISLATIVE REPORT: 2011 General Assembly Session

I. LEGISLATIVE REPORT: Maryland General Assembly 2011 Session

The Maryland Green Building Council (the Council) acts in an advisory capacity to the Governor and members of the General Assembly by reviewing legislation that pertains to high performance green building issues and provides assistance to policy makers when the General Assembly convenes and considers bills and legislation.



UMCP: Physical Sciences Complex

The Council as presently constituted views its function as one of providing current and well-researched information and advice on green building issues to those who are responsible for enacting laws and regulations in this area. The following items describe legislation proposed during the 2011 Session of the General Assembly.

- Senate Bill 387 (similar to last year's SB 215) sought to add eligible capital projects funded partially with State money to the present law, which only covers buildings funded fully by the State. The bill would phase in the requirement over four years starting with projects funded 50% with State aid to eventually requiring all projects receiving any State aid. The Council supported the concept of this legislation because it would expand high performance building in the State. The Department of General Services (DGS), the Council's support agency and managing agency for State grants affected by this bill, presented amendments that would have eased hardships on the agency. The bill, however, received an unfavorable vote in the Senate Budget and Taxation Committee and so did not move forward.
- Senate Bill 261 / House Bill 78 required owners of all private buildings over 10,000 square feet to provide a statement on the building's energy performance and allowed buyers and lessees to rescind a contract within five days of receipt of the statement. The Council followed this bill, but did not take a stand. No action was taken on the bill in the Senate or House.



- The Council actively supported another piece of legislation, House Bill 972. This bill authorized the Department of Housing and Community Development (DHCD) to adopt by regulation the International Green Building Code (IgCC). This would allow local jurisdictions to adopt and amend the code for local use. The Council supported the bill in that it would provide progressive local governments with a framework in which to expand the concept of higher performance building to private construction of all types. The bill passed both houses and was signed by the Governor on May 10, 2011. The law takes effect March 1, 2012.

Other notable green building related bills (which were not considered by the Council) are noted below.

- House Bill 643 prohibits the use of State funds to install or replace certain permanent outdoor lighting fixtures located on State property with lighting that is not designed to maximize energy conservation and minimize light pollution, glare, and light trespass. This bill, which was actively supported by DGS, passed unanimously and was signed by Governor O'Malley on May 10, 2011. The law took effect October 1, 2011.
- House Bill 933 provides renewable energy tax credits for certain solar hot water systems. This bill was approved by Governor O'Malley on May 19, 2011.
- House Bill 819 promotes education of the public on the practice of residential composting. The average household discards 650 pounds of compostable material each year. This bill was approved by Governor O'Malley on May 10, 2011.

As it has done in the past, the Council is prepared to review future legislative proposals and provide policy makers with information and opinions.

II. STATE HIGH PERFORMANCE BUILDING PROGRAM UPDATE

The number of State owned High Performance Green Buildings continues to grow in spite of the economic climate. Due to the increasing number of projects, a spreadsheet format has been established to keep track of them all. The first section lists projects that were developed as high performance green buildings as a direct result of the original 2001 Executive Order and subsequent green building legislation. The second lists projects that were developed as green buildings by the using agency or development entity outside of the High Performance Buildings Act.

For Fiscal Year 2012, several new State capital budget projects qualified to be designed under the High Performance Green Building Program and were funded for preliminary planning or design.

- The Westminster Readiness Center for the Maryland National Guard will include a 20,826 gross square feet (gsf) addition and renovation of the existing 17,299 gsf Westminster Armory to support the newly acquired Combat Military Police Company. As a design/build project, funding has been provided for design and construction.
- The National Guard has also been funded for design and construction of the La Plata Readiness Center. This 36,263 gsf building will house the 253rd Engineer Company.



- Morgan State University has received planning funds for the new Jenkins Behavioral Science Center to replace an existing facility of the same name. The project is approximately 90,000 gsf and will cost \$46.7 million.
- The Southern Maryland Higher Education Center in St. Mary's County has been funded for planning of a new classroom and engineering laboratory building. The 38,121 gsf building will cost \$14.4 million and help address space deficiencies on campus due to increased enrollment and expansion of programs.
- The University of Maryland, Eastern Shore, has been funded for planning for a new engineering and aviation science building. The project is 163,350 gsf and is expected to cost approximately to cost \$86.75 million.
- The University of Maryland, College Park has received planning funds for Phase I of a new physical sciences complex. The 160,000 gsf building will house modern laboratory space and offices for the Department of Physics, the Department of Astronomy, and the Departments of Computer Science Mathematics and Technology.



UMCP: Physical Sciences Building

The green building program continues to inspire green efforts in projects outside of the requirements of the high performance building act. St. Mary's College reports that they have moved Margaret Brent Hall rather than demolishing and replacing it. The 4,510 gsf building will provide academic office space and classroom space and is being upgraded with energy-efficient windows and HVAC systems. The College is also constructing a 230-car pervious parking lot and has converted 22 acres of lawn into meadows and forest.



**STATE PROJECTS DEVELOPED IN COMPLIANCE WITH
THE HIGH PERFORMANCE BUILDING ACT**

Status	Facility Location	Project Name	Developer	Leed Rating	Total GSF	Project Cost	Opened	Information/Remarks
Completed	St. Mary's College	Goodpaster Hall	DGS for SMC	Silver	52,000		2007	Classroom and laboratory building. Original green building pilot project.
Completed	Gunpowder Falls State Park	Hammerman Beach Services Building	DGS for DNR	Silver	7,400		2007	Shower and bathing facilities, park offices and concessions. Original green building pilot project.
Construction	Annapolis Campus	Lowe House Office Building	DGS	Silver (est)	83,900	\$6,497,000.00	2012 (est)	States' first green renovation project includes upgrading HVAC and electrical systems and integration with recent new addition.
Planning	Morgan State University	School of Business at Northwood Shopping Center	MSU	Silver (est)	145,800	\$8,290,000.00	no schedule provided	Construct a new School of Business Complex at the Northwood Shopping Center. The proposed building will house the School of Business and Management which includes the Hospitality Management program.
Construction 80%	Western Correctional Institute	Vocational Education Building	DPSCS	Silver (est)	25,932	\$14,749,000.00		Classrooms, laboratories, computer labs, office space, to retrain inmates.
Design	Baltimore Detention Center	Women's Detention Center	DPSCS	Silver (est)	458,069	\$176,250,000.00		800 bed women's detention center with sleeping, dining, education, training, recreation, counseling, somatic and mental health services and visitation.
Planning	Baltimore Detention Center	Youth Detention Center	DPSCS	Silver (est)	under revision	under revision	no schedule provided	The program for this project is currently under revision.
Construction	University of Baltimore	John and Frances Angelos Law Center	USM	Platinum (est)	190,000	\$107,000,000	2012 (est)	http://www.ubalt.edu/template.cfm?page=2571
Completed	University of Maryland, Baltimore	Pharmacy Hall Addition	USM	Gold	128,591	\$81,000,000.00	2010	http://phaddition.blogspot.com/
Construction	University of Maryland, College Park	Physical Sciences Complex Phase 1	USM	Silver (est)	160,246	\$129,000,000.00	2013	http://www.hdrinc.com/portfolio/physical-sciences-complex



*Performing
Arts Center
UMBC*

Status	Facility Location	Project Name	Developer	Leed Rating	Total GSF	Project Cost	Opened	Information/Remarks
95% Design	Harriet Tubman Underground Railroad State Park	Harriet Tubman Underground Railroad Interpretive Center	DGS for DNR	Silver (est)	15,000	\$14,200,000.00	2014 (est)	Exhibit space, orientation film theater, library, gift shop and multipurpose meeting space. Memorial garden, trails, picnic pavilion and information kiosk.
Planning	Baltimore City Community College Liberty Campus	Main Building Renovation	DGS for BCCC	Silver (est)	37,909	\$47,514,000.00	no schedule provided	Provide modern academic and administrative space and enhance instructional space for new and existing programs and activities; correct functional building deficiencies, to upgrade utility systems, including fire suppression, HVAC, electrical, telecommunications, and instructional delivery technology; and to replace external curtain walls.
Planning	State Library Resource Center	Central Branch Enoch Pratt Free Library System	DGS for EPFLS	Silver (est)	290,000			Improve building systems and life safety components.
Construction	Maryland State Department of Education	Western Maryland Regional Library		Silver (est)	91,000	\$24,500,000.00	no schedule provided	Renovate and expand the W MD Regional Library that serves Garrett, Allegany and Washington Counties.
Construction	Deer's Head Hospital Center, Salisbury MD.	Kidney Dialysis Addition and Renovation	DGS for DHMH	Silver (est)	7,800 gsf new 7,130 gsf renovation	\$4,760,000.00	July 1, 2013	Add new dialysis wing to increase the number and size of the existing dialysis stations. Convert the former dialysis space into administrative and support functions for the new wing.



Status	Facility Location	Project Name	Developer	Leed Rating	Total GSF	Project Cost	Opened	Information/Remarks
Construction	Department of Health and Mental Hygiene	State Public Health Laboratory	Maryland Economic Development Corporation (MEDCO) for DHMH	Silver (min)	196,000	\$165,000,000.00	no schedule provided	Replaces outdated labs located at State Center. Planned for six lab divisions, support services and administration.
Design	Cheltenham Children's Center	Cheltenham Youth Facility, Prince George's County	DGS for DJS	Silver (est)	99,000	\$42,000,000.00		Construct a new 72 bed juvenile detention center to replace the existing outdated facility. New facility will provide sleeping, dining, education, training, recreation, counseling, somatic and mental health services and visitation.
Construction	Maryland National Guard Facility, Salisbury MD	Salisbury Readiness Center	DGS for MDNG	Silver	38,055	\$13,400,000.00	no schedule provided	Construct a 20,826 GSF addition and renovate the existing 17,229 GSF Westminster Readiness center to support the newly acquired Combat military Police Company.
Construction	Jessup Community Correctional Facility	Dorsey Run Correctional Facility	DPSCS	Silver (est)	159,000	\$46,357,000.00	May 2013 (est)	Construct a new minimum security complex consisting of two adjacent minimum security compounds for 560 inmates each. The new facility will contain housing, inmate transition services, educational, and recreational functions.
Site Acquisition	Southern Regional Childrens Center	Southern Regional Childrens Center	DGS for DJS	Silver (min)	78,806	\$36,420,000.00		Construct a new 48 bed secure detention center in Southern Maryland. The ne facility will include space for housing, dietary services, education, somatic and behavioral health, recreation, administration and general support.



Status	Facility Location	Project Name	Developer	Leed Rating	Total GSF	Project Cost	Opened	Information/Remarks
Construction 95%	North Branch Correctional Facility	MCE Upholstery and Reupholstery Plant	DPSCS	Silver	20,000	\$4,400,000.00		Construct a new Maryland Correctional Enterprises (MCE) building at the North Branch Correctional Institution (NBCI). The project will house an Upholstery and Re-Upholstery Plant with 100 inmate facility. NBCI currently does not have an MCE facility.
Design 95%	St. Mary's College	Anne Arundel Hall	St. Mary's College	Gold (est)	33,700	\$29,163,000.00	December 2014	Demolish the existing 27,400 GSF Anne Arundel Hall and replace it with a new 33,700 GSF building on the same site. The new facility will house the history, anthropology, archaeology, and international languages and cultures programs of the College.



*Anne Arundel Hall
St. Mary's College*

Design	Historic St. Mary's City	Maryland Heritage Interpretive Center	St. Mary's College	Gold (est)	11,711	\$14,182,000.00	December 2016	Construct a 7,850 NASF/12,403 museum and visitor center complex in St. Mary's City commemorating the founding of Maryland. The Maryland Heritage Interpretive Center will be adjacent to the replacement building for Anne Arundel Hall at St. Mary's College of Maryland.
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Status	Facility Location	Project Name	Developer	Leed Rating	Total GSF	Project Cost	Opened	Information/Remarks
Design	Morgan State University	Center for the Built Environment and Infrastructure Studies	Morgan State University	Silver (min)	126,129		December 2016	Construct a new 68,009 NASF/126,129 GSF Center for the Built Environment and Infrastructure Studies. The Center will house the Institute for Architecture and Planning, the Department of Civil Engineering, and the Institute for Transportation Studies.
Design	Coppin State University	New Science and Technology Center	USM	Gold (est)	134,900	\$116,195,000.00	2014(est)	Construct a new academic facility to house all science-related disciplines, including the Departments of Natural Sciences, Mathematics and Computer Science, and Management Science and Economics. http://www.coppin.edu/OUR/News.aspx?author=tjones&story=20101221152444
Development	Salisbury University	Perdue School of Business	USM	Gold (est)	113,000	\$55,000,000.00		Construct a new 112,762 GSF state-of-the-art facility on the campus of Salisbury University to replace and expand the facility currently supporting the Perdue School of Business.
Completed	Towson University	Liberal Arts Complex	USM	Gold	253,000	\$147,500,000.00	July 2011	Construct a new building in two phases (the first, 100,000 GSF; the second 153,000 GSF) to consolidate and expand the units of the College of Liberal Arts that are now dispersed among three other buildings. http://mlis.state.md.us/2009RS/budget_docs/All/Capital/RB24A_-_Towson_Univ_New_College_of_Liberal_Arts_Complex.pdf



Status	Facility Location	Project Name	Developer	Leed Rating	Total GSF	Project Cost	Opened	Information/ Remarks
	Edgewood Arsenal	Maryland Fire and Rescue Institute - North East Regional Training Center	USM	Silver	13,915	\$9,381,000.00		Construct a new facility for the Maryland Fire and Rescue Institute (MFRI) - North East Regional Training Center. This project involves relocating MFRI operations to the Edgewood Arsenal. The new facility will provide office space, classroom space, and new training props.
Planning	Adjacent to Clifton T Perkins Hospital Center	Secure Evaluation and Therapeutic Treatment Center	DGS for DHMH	Silver (min)	95,100	\$36,000,000.00	November 2015	Construct a 60 bed facility to house individuals with development disabilities and forensic involvement
Development	Frostburg State University	Center for Communications and Information Technology	USM	Gold (est)	127,000	\$65,000,000.00	2014 (est)	http://www.frostburg.edu/budget/budget-resources/capital-budget-projects/
Development	University of Maryland, Baltimore County	Performing Arts and Humanities Building, Phase I	USM	Silver (est)	91,100	\$84,200,000.00	2012	http://www.umbc.edu/pahb/
Planning	New Classroom and Engineering Laboratory Building	Southern Maryland Higher Education Center	DGS for SMHEC	Silver (min)	38,121	\$14,400,000.00		Construct a third academic building on the Southern Maryland Higher Education Center campus to address space deficiencies due to increased enrollment and the expansion of programs offered at the facility.
Planning	LaPlata Readiness Center	Maryland National Guard	DGS for MDNG	Silver (min)	36,263	\$14,420,000.00		Construct a new readiness center in La Plata. The proposed readiness center will house the 253rd Engineer Company that was transferred to the La Plata Readiness Center as part of the national "Grow the Army Initiative.



Status	Facility Location	Project Name	Developer	Leed Rating	Total GSF	Project Cost	Opened	Information/Remarks
Planning	New Jenkins Behavioral Science Center	Morgan State	MSU	Silver (min)	90,000	\$46,700,000.00	no schedule provided	Construct a new building to house the Behavioral and Social Sciences. The proposed facility will replace the existing Jenkins Behavioral and Social Sciences Building.
Development	University of Maryland, Baltimore	Health Sciences Facility III	USM	Silver (est)	332,000	\$283,000,000.00	2018(est)	Construct a new research building for the Schools of Medicine, Pharmacy and Dentistry. The facility will be located on the site presently occupied by Hayden-Harris Hall at 666 West Baltimore Street http://www.budget.umaryland.edu/capitalbudget/health_sciences_facility.html
Planning and Construction	University of Maryland College Park	Physical Sciences Complex Phase I	USM	Silver (est)	160,246	\$129,000,000.00	2013	Construct Phase I of the new physical sciences complex to provide modern laboratory and office space for the Department of Physics, the Department of Astronomy, and the Institute for Physical Sciences and Technology (IPST). http://www.hdrinc.com/portfolio/physical-sciences-complex
Development	University of Maryland Eastern Shore	Aviation and Engineering Sciences Building	USM	Gold (est)	163,000	\$92,000,000.00	2015(est)	Construct a replacement facility for the existing Aviation Science and Engineering Building at the University of Maryland, Eastern Shore. The new facility will house the Aviation Science and Engineering program, the Departments of Computer Science, Mathematics, and Technology. http://mlis.state.md.us/2011rs/budget_docs/all/Capital/RB25A_-_New_Engineering_and_Aviation_Sciences_Building.pdf



**STATE BUILDING PROJECTS DEVELOPED INDEPENDENT OF
THE HIGH PERFORMANCE BUILDING ACT**

Status	Facility Location	Project Name	Developer	Leed Rating	Total GSF	Project Construction Cost	Opened	Information/ Remarks
Completed	MDOT Headquarters, Anne Arundel County	Harry R. Hughes Building	MDOT	Gold	22,000	unavailable	2002	Houses the Office of the Secretary and several divisions of MDOT. Promotes Transit-Oriented-Development. Uses 48% less energy than the ASHRAE baseline. Incorporates rapidly renewable, recycled content, post-industrial, post-consumer materials. Water conservation is achieved through the use of waterless urinals and sensors and aerators on showers and faucets. A state-of-the-art storm-water management system was utilized to create zero net increase in storm-water runoff recharges wetlands which are permanently preserved by a conservation easement.
Completed	Coppin State University	Physical Education complex	USM	Silver	246,359	\$127,663,000.00	2010	http://www.coppin.edu/capitalplanning/PEC.aspx
Completed	Frostburg State University	Lane Student Center Renovation & Expansion	USM	Gold (est)	76,000	\$20,000,000.00	2011	http://www.frostburg.edu/budget/lane-center-renovation/
Completed	Salisbury University	Pocomoke Hall Renovation	USM	Gold	22,000	\$6,500,000.00	2010	http://www.salisbury.edu/fpcp/housing/overview.html
Completed	Salisbury University	Manokin Hall Renovation	USM	Silver/Gold (est)	22,000	\$6,000,000.00	2010	http://www.salisbury.edu/fpcp/housing/overview.html
Completed	Salisbury University	Wicomico Hall Renovation	USM	Silver/Gold (est)	22,000	\$7,000,000.00	2011	http://www.salisbury.edu/fpcp/housing/overview.html
Completed	Salisbury University	Nanticoke Hall Renovation	USM	Silver/Gold (est)	36,000	\$11,000,000.00	2011	http://www.salisbury.edu/fpcp/housing/overview.html
Completed	Towson University	West Village Housing	USM	Silver	159,000	\$35,000,000.00	2011	http://www.towson.edu/adminfinance/facilities/archengconst/campusconstruction/AECCurrentProjects2_000.asp



Status	Facility Location	Project Name	Developer	Leed Rating	Total GSF	Project Construction Cost	Opened	Information/ Remarks
Completed	Towson University	West Village Commons	USM	Silver	85,000	\$41,000,000.00	2011	http://www.towson.edu/adminfinance/facilities/archengconst/campusconstruction/AECCurrentProjects2_000.asp
Completed	Universities at Shady Grove	Camille Kendall Academic Center	USM	Gold	195,000	\$58,000,000.00	2007	http://www.shadygrove.umd.edu/about/campus-sustainability/sgiii/green-features
Completed	University of Maryland Eastern Shore	Somerset Hall Renovation for School of Pharmacy	USM	Gold	22,000	\$6,500,000.00	2010	http://www.delmarvanow.com/article/20110731/BUSINESS/107310318/UMES-hall-goes-green
Completed	University of Maryland University College	Marriott Inn and Conference Center	USM	Certified	110,000	\$21,000,000.00	2004	http://www.marriott.com/hotels/travel/wasum-the-marriott-inn-and-conference-center-university-of-maryland-university-college/
Completed	University of Maryland University College	Center of Academic Operations (Largo)	USM	Gold	236,000	\$60,000,000.00	2009	http://www.umuc.edu/visitors/news/pressreleases/news321.cfm
Development	Bowie State University	New Student Union	USM	Gold (est)	94,000	\$40,000,000.00	2013 (est)	http://www.bowiestate.edu/about/cabinet/admin_finance/fac_mgmt/capital/
Development	Coppin State University	New Science and Technology Center	USM	Gold (est)	134,882	\$103,195,000.00	2014 (est)	http://www.coppin.edu/OUR/News.aspx?author=tjones&story=20101221152444
Development	Salisbury University	Teacher Education Technology Center	USM	Silver	165,000	\$63,000,000.00	2008	http://www.salisbury.edu/newsevents/fullstoryview.asp?id=3691
Development	Salisbury University	Seagull Square Development	USM	Silver (est)	230,000	\$41,000,000.00	2011	http://www.salisbury.edu/fpcp/sgs/factsheet.html
Development	Towson University	Tiger Arena	USM	Silver (est)	110,000	\$50,000,000.00	2012	http://www.tigerarena.com/TigerArena.dbml?DB_OEM_ID=21300
Development	Towson University	Newell/Richmond Halls Renovation	USM	Silver (est)	90,000	\$29,000,000.00	2012 (est)	http://www.towson.edu/housing/prospective/halls/richmond.asp
Development	University of Maryland, Baltimore County	Patapsco Hall Renovation & Addition	USM	Gold (est)	53,500	\$15,500,000.00	2011	http://www.umbc.edu/reslife/news/pat_addition.html
Existing	University of Maryland, Baltimore County	Research Park Building	USM	Silver	110,400	\$25,000,000.00	2008	http://www.bwtechumbc.com/pdf/5520_factsheet_rev09.pdf
Existing	University of Maryland, College Park	M Square	USM	Silver	120,000	\$23,000,000.00	2007	http://www.newsdesk.umd.edu/uniini/release.cfm?articleID=1661



Status	Facility Location	Project Name	Developer	Leed Rating	Total GSF	Project Construction Cost	Opened	Information/ Remarks
Existing	University of Maryland, College Park	M Square	USM	Silver	120,000	\$29,000,000.00	2009	http://www.newsdesk.umd.edu/uniini/release.cfm?articleID=1661
Completed	University of Maryland, College Park	John S. & James L. Knight Hall	USM	Gold	53,400	\$30,000,000.00	2010	http://www.jbuilding.umd.edu/index.html
Completed	University of Maryland, College Park	Denton Dining Hall	USM	Silver (est)	43,859	\$11,900,000.00	2010	http://www.sustainability.umd.edu/content/campus/dining.php#Denton
Design	University of Maryland, College Park	Fraternity/ Sorority Renovations Ph. 9	USM	Silver (est)	22,278	\$13,000,000.00	2012	http://www.facilities.umd.edu/capitalprojects/index.cfm
Design	University of Maryland, College Park	Pocomoke Building Renovation	USM	Silver (est)	27,000	\$8,300,000.00	2013	http://www.facilities.umd.edu/capitalprojects/index.cfm
Construction	University of Maryland, College Park	Shuttle Bus Building	USM	Silver (est)	10,906	\$6,600,000.00	2012	http://www.facilities.umd.edu/capitalprojects/index.cfm
Design	University of Maryland, College Park	Events Center & President's Residence	USM	Silver (est)	14,025	\$7,300,000.00	2012	http://www.newsdesk.umd.edu/universitynews/release.cfm?ArticleID=2310
Construction	University of Maryland, College Park	Chincoteague Hall Renovation	USM	Silver (est)	22,648	\$7,900,000.00	2011	http://www.facilities.umd.edu/capitalprojects/index.cfm
Completed	University of Maryland, College Park	Oakland Hall (Residence)	USM	Gold (est)	231,704	\$81,000,000.00	2011	http://www.sustainability.umd.edu/content/campus/green_buildings.php#Oakland
Design Pending	University of Maryland, College Park	Prince Frederick Hall (Residence)	USM	Silver (est)	154,085	\$66,800,000.00	2014	http://www.facilities.umd.edu/capitalprojects/index.cfm
Completed	University of Maryland, College Park	Fraternity/ Sorority Renovations Ph. 8	USM	Silver	20,645	\$8,800,000.00	2010	http://www.facilities.umd.edu/capitalprojects/index.cfm



*Towson University
Square*



III. MARYLAND GREEN PUBLIC SCHOOLS UPDATE

Maryland's Interagency Committee on School Construction (the IAC), which administers the Maryland Public School Construction Program (the PSCP), promotes a number of policies and practices that support green building practices in Maryland's schools:



Northfield Elementary School, Howard county - note rain barrels and Photo Voltaic panels

- The High Performance Buildings Act of 2008 (Chapter 124, Maryland Laws of 2008; Senate Bill 208 / House Bill 376) requires that all new schools achieve a rating of LEED Silver or equivalent from a nationally-recognized accreditation entity. The State will contribute 50% of the extra local costs through FY 2014. As of September 2011, a total of 52 schools, including 12 renovation or renovation-addition projects, had attained or were seeking LEED certification. Among these, Northfield Elementary School -- a renovation of 57,289 square feet and an addition of 19,403 square feet -- will be the Howard County Public School System's first effort toward achieving a LEED Silver certified school. Currently in commissioning, the school features a green roof, geothermal HVAC system, photovoltaic film solar laminate panels on the roofs in the courtyard, and an electricity-producing wind turbine. The school also includes parking for low emission vehicles and designated carpool areas. Other green features to be used as teaching tools include a human sundial, rain barrels, and a kiosk system where students can track water usage in the school.
- Department of General Service (DGS) Energy Performance Standards must be followed in all State-funded school construction projects, as well as DGS standards for the life cycle cost analysis and roofing.



- Conserving and Enhancing the Natural Environment on School Sites -- Since 1999, every major new school construction project must include site features that will conserve or enhance the natural environment and contribute to the environmental education program, including bio-retention areas, storm water management ponds, gardens, wetlands, forest trails, and meadows.
- Communication -- The PSCP encourages high performance design initiatives through the promulgation of best practices at tri-annual planners meetings, publication of periodic reports on high performance initiatives in Maryland schools, and its work on legislation to address the financing of sustainable improvements. The PSCP is linked to the Maryland Association for Environmental and Outdoor Education (MAEOE) and the Maryland Green School Program.

***HIGH PERFORMANCE SCHOOLS IN MARYLAND
SURVEY OF LEED CERTIFIED SCHOOLS
Public School Construction Program - 22-Sep-11***

LEA	Name of School	Current Status			Leed Certification Level That Will Be/ Has Been:		Other Certification- Sought	Additional Estimated Cost to Achieve High Performance Certification?
		"O" - Occupied	"C" - Construction	"P" - Planning/ Design	Sought	Achieved		
Baltimore City	Waverly PreK-8			1	Silver		Estimated 1,500,000 Construction + 400K A/E	
Baltimore County	West Towson ES (New School)	1			Silver		\$450,000 (Construction est.) + \$328,299 (A/E, CM and Commissioning agent)	
	George Washington Carver School for Arts and Technology (Replacement High School)		1		Silver		\$2,700,000 (Construction est) + \$611,192 (A/E,CM, Commissioning agent)	
	Dundalk/Sollers Point HS (Replacement High Schools)		1	1	Silver		\$2,600,000 (CM's estimate based on CD est. of constr.) \$350,000 (A/E & CM; Commissioning to be added)	
Carroll	Mt. Airy MS (replacement)			1	Silver		\$75,000 (Additional A/E Fee) \$237,500 (Additional Const. cost based on Schematic Design)	
Cecil	New Cecil Technical HS (new)			1	Silver			
Charles	High School 2013 (new)			1	Silver or Gold		\$2,000,000	



LEA	Name of School	Current Status			Leed Certification Level That Will Be/ Has Been:	Other Certification-Sought	Additional Estimated Cost to Achieve High Performance Certification?
		"O" - Occupied	"C" - Construction	"P" - Planning/ Design			
Frederick	Lincoln ES (renov/add)			1	Silver		5% premium on construction costs; + \$80,000 for A/E; + \$86,000 in CM fees + and \$4,500 in commissioning
Harford	Joppatowne ES (replacement)	1			Certified		\$66,000 (Commissioning Agent)
Howard	Northfield ES (renov/add)	1*			Silver		\$1,650,000
	Thunder Hill ES (renov/add)		1		Certified		\$650,000
	Bollman Bridge ES (renov/add)		1		Certified		5% of total project
	Atholton HS (renov)			1	Silver		5% of total project
	Stevens Forest ES (renov)			1	Certified		\$500,000
	Phelps Luck ES (renov/add)			1	Certified		\$1,405,000
	New ES #41 (new)			1	Gold		\$876,000
		* Occupied August 2011					
Montgomery	Great Seneca Creek ES (new)	1			Gold		6% of total project
	Francis Scott Key MS (replacement)	1			Gold		5% of total project
	Wm. B. Gibbs ES	1			Gold		5% of total project
	Cashell ES (replacement)	1			Gold		5% of total project
	Carderock Springs ES (replacement)	1			Gold		5% of total project
	Cresthaven ES (replacement)	1			Gold		5% of total project
	Cabin John MS (replacement)		1		Gold		5% of total project
	Farmland ES (replacement/renov)		1		Gold		5% of total project
	Paint Branch HS (replacement)		1		Gold		5% of total project
	Garrett Park ES (replacement)			1	Gold		5% of total project



LEA	Name of School	Current Status "O" - Occupied "C" - Construction "P" - Planning/ Design			Leed Certification Level That Will Be/ Has Been:		Other Certification- Sought	Additional Estimated Cost to Achieve High Performance Cer- tification?
	Cannon Road ES (replacement)			1	Gold			5% of total project
	Seven Locks ES (replacement)			1	Gold			5% of total project
	Gaithersburg HS (replacement/renov)			1	Gold			5% of total project
	Hoover MS (replacement)			1	Gold			5% of total project
	Beverly Farms ES (replacement/renov)			1	Gold			5% of total project
	Weller Road ES (renov/add)			1	Gold			5% of total project
	Glenallen ES (replacement)			1	Gold			5% of total project
	McKenney Hills ES (replacement)			1	Gold			5% of total project
Prince George's	Vansville ES (new)	1				Gold		\$185,462
	Barack Obama ES (Formerly Planning SR VI) (new)	1				Gold		\$193,447
	Avalon ES (Replacement)		1		Gold			Averaging 3% of building construction and contingency cost for A/E fees, LEED registration, certification, review fees, LEED Commissioning (includes 2% for construction additional costs).
	Henry G. Ferguson ES (Replacement)			1	Gold			
	Glenarden Woods (Renovation)			1	Gold			
	New Hyattsville Area ES (new)			1	Gold			
	Greenbelt MS (replacement)		1		Gold			
	Oxon Hill HS (replacement)		1		Gold			



LEA	Name of School	Current Status "O" - Occupied "C" - Construction "P" - Planning/ Design			Leed Certification Level That Will Be/ Has Been:	Other Certification- Sought	Additional Estimated Cost to Achieve High Performance Cer- tification?
	Fairmont Heights HS (replacement)			1	Gold		
	Crossland HS Auditorium Addition			1	Gold		
	Samuel Chase ES Reno/ Addition			1	Gold		
	Tulip Grove ES Reno/Addition			1	Gold		
	Eugene Burroughs MS Renovation			1	Gold		
Queen Anne's	Sudlersville MS (replacement)			1	Silver or Gold		Estimated at 3% of the total project cost. This includes the cost of A/E services.
St. Mary's	Evergreen ES (new)	1				Gold	\$1,200,000
	New Elementary School			1	Gold		
Washington	Bester Elementary School (replacement)			1	Silver		5% of total project
Wicomico	Bennett MS (replacement)			1	Silver		\$138,000 for design phase only
SUBTOTALS		11	10	31			
TOTAL				52			



High tunnel at great kids farm

This photograph shows students studying cucumbers and worms in the high tunnel at Great Kids Farm, a project of the Baltimore County Public School System.

High tunnels are unheated greenhouses that allow students to grow and study plants year-round. The air inside the tunnel is warmed each day by the sun and the soil stays warm enough over night for growth to continue during the cold winter months. Students were integral to the effort to build this structure. Students also helped build and steward the vermicomposting system (left) that is used to generate tons of highly valuable worms and worm compost. Students also built and stewarded the clever trellising system (right) that was being used to grow cucumbers when this photograph was taken. Just outside of the tunnel is a terraced garden and deer exclusion fence that students built this spring.



MARYLAND GREEN BUILDING COUNCIL
2011 ANNUAL REPORT