THE AMERICAN UNIVERSITY
Gray Hall
LEED EB:OM v2009 Silver
4400 Massachusetts Ave NW, Washington D.C. 20016

BUILDING HISTORY

Gray Hall was originally constructed in 1955 and was renovated in 2003. At, the time of certification, Gray Hall was home to the School of Education, Teaching, and Health and the Department of Mathematics and Statistics. Gray Hall is located between McCabe and Roper Halls. After recent cosmetic upgrades, Gray now features thermally efficient windows, new carpet, and a fresh coat of paint.

PROJECT HIGHLIGHTS

LEED (™) Facts

Gray Hall
The American University
2016

Location	4400 Massachusetts Ave NW, Washington D.C. 20016
Rating System	LEED-EB:OM v2009
Certification Achieved	Silver
Total Points Achieved	41

Sustainable Sites	13/26
Water Efficiency	7/14
Energy and Atmosphere	19/35
Materials and Resources	1/10
Indoor Environmental Quality	7/15
Innovation in Design	5/6

100% *Amount of green electricity used in the building*

44% *Of AU community use environmentally friendly commuting methods*

88% *Reduction in potable landscape water use across campus*

15% *Reduction in indoor potable water use*

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PROJECT TEAM

Owner: American University
Original Architect: Faulkner, Kingsbury & Stenhouse
Contractor: Beauchamps & Assoc
LEED Professional: American University

ADDITIONAL RESOURCES

Office of Sustainability:
www.american.edu/sustainability/

University Facilities:
www.american.edu/facilities/

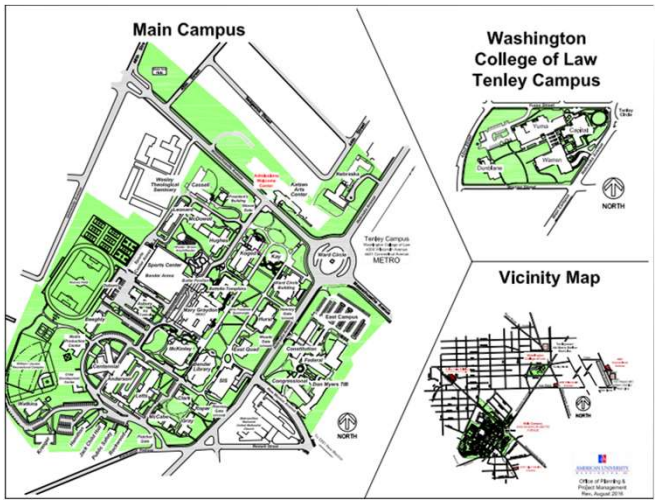
U.S. Green Building Council:
www.usgbc.org

GBCI:
www.gbci.org

View details for all of AU's LEED buildings:
www.gbig.org/collections/18029

SUSTAINABLE SITES

Traditional commuting methods, such as driving alone, contributes to air pollution. By using public transportation or other alternatives, an individual can directly improve air quality and lower CO2 emissions. Having access to alternative commuting amenities, such as bus stops and bicycle racks, removes barriers to these transportation methods. To better understand American University's transportation impact, a campus-wide survey was distributed to students, faculty, and staff. The results showed that nearly 44% of people took an alternative transportation method.



In order to reduce the heat island effect, American University's campus features a number of green roofs and turfed areas. Similarly, 50% of all commuter parking is covered. Gray Hall used to be adjacent to a parking lot resulting in both rainwater runoff and contributing to the heat island effect. Today, that space is filled with vegetation.

Storm water runoff from impervious surfaces such as roads and parking lots which leads to pollution of local bodies of water such as Rock Creek, the Anacostia River, and the Potomac. Today, Gray's quad features rain gardens, a bioswale, and rain barrel reducing runoff. American University uses integrated pest management, decreasing the chance of contaminating bodies of water with pesticides.

WATER EFFICIENCY

Decreasing potable water usage protects the natural water cycle by decreasing the amount of groundwater pumped and preserving surface water. In order to decrease water usage in existing buildings on its campus, American University inventoried plumbing fixtures and established a preventative maintenance program. This program was aimed at keeping fixtures working properly and efficiently. American University has policy that new and replaced fixtures be in compliance with plumbing code and be high-efficiency when possible. In Gray Hall all the faucets had aerators installed to reduce water usage. With these protocols in place, Gray Hall uses 15% less water indoors than a standard building.

American University also uses water efficient landscaping to reduce the amount of water needed for irrigation. Across campus there, is a 92% reduction in the amount of water needed for irrigation compared to traditional landscaping in this region. Gray Hall specifically, employs the use of native and adaptive plants species that reduce the need for irrigation.

ENERGY AND ATMOSPHERE

Green buildings aim to provide occupants with a comfortable indoor environment that uses energy efficiently. Sustainable building design, high efficiency equipment, and energy conserving practices minimize the energy used for heating, cooling, ventilating, and illuminating building spaces. American University is committed to reducing energy usage on campus as part of its effort to reduce greenhouse gas emissions. To better understand how Gray Hall was using energy an energy audit was conducted and a minimum level of energy efficiency was established. According to Energy Star ratings, Gray Hall performs 82% better in energy efficiency than similar buildings nationwide. Additionally, because American University purchases renewable energy for all campus electricity use, 100% of the building's electricity consumption is offset with renewable energy credits.

To further the university's sustainability efforts, American University is a signatory to the American College and University Presidents Climate Commitment. American University calculates, tracks, and reports greenhouse gas emissions. These reports are publicly available and aids in tracking American University's Climate Action Plan goals.

MATERIALS AND RESOURCES

Every purchase has the potential to have a variety of environmental impacts. As such, responsible purchasing helps reduce emissions, keep waste out of landfills, and can support local communities. American University makes an effort to select products made from renewable resources or materials that are reusable, recyclable, or compostable to help reduce environmental impacts. In order to reduce the impact of materials acquired for the use and operations of Gray Hall and all buildings on campus, American University adopted a sustainable purchasing policy for all university owned and operated buildings.

In 2010, American Unviersity adopted a zero waste policy and continually works towards that goal. Gray Hall, like all other buildings on campus, utilizes compost, recycle, and landfill waste bins. A waste audit indicated that 40% of waste was diverted from landfill and instead was composted or recycled.

INDOOR ENVIRONMENTAL QUALITY

Indoor environment quality significantly impacts occupant well-being, productivity, and quality of life. Gray Hall is well ventilated and conditioned in order to provide occupant comfort. 76% of occupants with individual workstations have control over Gray Hall's lighting fixtures, making the building a more comfortable place to work.

Windows provide natural ventilation and a connection between indoor spaces and outdoors spaces. Over 92% of regularly occupied spaces in Gray Hall have a direct line of sight to the outdoor environment via windows. These windows also provide natural ventilation for occupant comfort, well-being, and productivity.

A prerequisite of LEED for Existing Buildings is to reduce the exposure of building occupants and maintenance personnel to potentially hazardous chemicals. In order to certify Gray Hall, American University adopted a Green Cleaning Policy. Now, every building on campus, including Gray Hall, uses sustainable and non-harmful cleaning products. Additionally, because of American University's emphasis on integrated pest management, non-pesticide pest management strategies are prioritized. These actions improve the environmental indoor air quality, reduce negative health effects of staff and students, and decrease environmental hazards.

INNOVATION IN OPERATIONS

American University is continuously reassessing support and encouragement of operations and maintenance to go beyond sustainable design standards. These initiatives work to cut down on American University's overall carbon footprint.

American University provides educational programs about green buildings along with many other sustainability topics. Educational programs are designed to reach across campus but are tailored and targeted to reach specific project buildings or audiences at times. In addition to its compost, recycle, and landfill bins, American University routinely offers opportunities for the campus community to dispose of electronics in the environmentally preferred manner to further the Zero Waste Policy goals. American University purchases 100% renewable energy credits to compliment campus electricity consumption.

LEED SCORECARD

LEED Certification Review Report

This report contains the results of the technical review of an application for LEED® certification submitted for the specified project. LEED certification is an official recognition that a project complies with the requirements prescribed within the LEED rating systems as created and maintained by the U.S. Green Building Council® (USGBC®). The LEED certification program is administered by the Green Business Certification Inc. (GBCI®).

Gray

Project ID	1000058842
Rating system & version	LEED-EB:OM v2009
Project registration date	06/15/2015

CERTIFIED SILVER GOLD PLATINUM

Certified (Silver)

CERTIFIED: 40-49, SILVER: 50-59, GOLD: 60-79, PLATINUM: 80+

LEED FOR EXISTING BUILDINGS: OPERATIONS & MAINTENANCE (V2009)

ATTEMPTED: 55, DENIED: 0, PENDING: 0, AWARDED: 52 OF 108 POINTS

SUSTAINABLE SITES	12 OF 26
SSc1 LEED Certified Design and Construction	0 / 4
SSc2 Building Exterior and Hardscape Mgmt Plan	0 / 1
SSc3 Integrated Pest Mgmt, Erosion Control, and Landscape M	0 / 1
SSc4 Alternative Commuting Transportation	10 / 15
SSc5 Site Development-Protect or Restore Open Habitat	0 / 1
SSc6 Stormwater Quantity Control	1 / 1
SSc7.1Heat Island Reduction-Non-Roof	1 / 1
SSc7.2Heat Island Reduction-Roof	0 / 1
SSc8 Light Pollution Reduction	0 / 1

WATER EFFICIENCY	7 OF 14
WEp1 Minimum Indoor Plumbing Fixture and Fitting Efficiency	Y
WEc1 Water Performance Measurement	0 / 2
WEc2 Additional Indoor Plumbing Fixture and Fitting Efficiency	2 / 5
WEc3 Water Efficient Landscaping	4 / 5
WEc4.1Cooling Tower Water Mgmt-Chemical Mgmt	1 / 1
WEc4.2Cooling Tower Water Mgmt-Non-Potable Water Source Use	0 / 1

ENERGY AND ATMOSPHERE	18 OF 35
EAp1 Energy Efficiency Best Mgmt Practices-Planning, Docume	Y
EAp2 Minimum Energy Efficiency Performance	Y
EAp3 Fundamental Refrigerant Mgmt	Y
EAc1 Optimize Energy Efficiency Performance	11 / 18
EAc2.1Existing Building Commissioning-Investigation and Analysis	0 / 2
EAc2.2Existing Building Commissioning-Implementation	0 / 2
EAc2.3Existing Building Commissioning-Ongoing Commissioning	0 / 2
EAc3.1Performance Measurement-Building Automation System	0 / 1
EAc3.2Performance Measurement-System-Level Metering	0 / 2
EAc4 On-site and Off-site Renewable Energy	6 / 6
EAc5 Enhanced Refrigerant Mgmt	0 / 1
EAc6 Emissions Reduction Reporting	1 / 1

MATERIALS AND RESOURCES	1 OF 10
MRp1 Sustainable Purchasing Policy	Y
MRp2 Solid Waste Mgmt Policy	Y
MRc1 Sustainable Purchasing-Ongoing Consumables	0 / 1
MRc2.1Sustainable Purchasing Electric-Powered Equipment	0 / 1
MRc2.2Sustainable Purchasing-Furniture	0 / 1
MRc3 Sustainable Purchasing-Facility Alterations and Additions	0 / 1
MRc4 Sustainable Purchasing-Reduced Mercury in Lamps	0 / 1
MRc5 Sustainable Purchasing-Food	0 / 1
MRc6 Solid Waste Mgmt-Waste Stream Audit	1 / 1

MATERIALS AND RESOURCES	CONTINUED
MRc7 Solid Waste Mgmt-Ongoing Consumables	0 / 1
MRc8 Solid Waste Mgmt-Durable Goods	0 / 1
MRc9 Solid Waste Mgmt-Facility Alterations and Additions	0 / 1

INDOOR ENVIRONMENTAL QUALITY	7 OF 15
IEQp1 Minimum IAQ Performance	Y
IEQp2 Environmental Tobacco Smoke (ETS) Control	Y
IEQp3 Green Cleaning Policy	Y
IEQc1.1IAQ Best Mgmt Practices-Indoor Air Qual	0 / 1
IEQc1.2IAQ Best Mgmt Practices-Outdoor Air Del	0 / 1
IEQc1.3IAQ Best Mgmt Practices-Increased Venti	0 / 1
IEQc1.4IAQ Best Mgmt Practices-Reduce Particul	0 / 1
IEQc1.5IAQ Best Mgmt Practices-IAQ Mgmt for Facility Al	0 / 1
IEQc2.1Occupant Comfort-Occupant Survey	1 / 1
IEQc2.2Controllability of Systems-Lighting	1 / 1
IEQc2.3Occupant Comfort-Thermal Comfort Monitoring	0 / 1
IEQc2.4Daylight and Views	1 / 1
IEQc3.1Green Cleaning-High Performance Cleaning Program	1 / 1
IEQc3.2Green Cleaning-Custodial Effectiveness Assessment	0 / 1
IEQc3.3Green Cleaning-Sustainable Cleaning Products and Materials P	1 / 1
IEQc3.4Green Cleaning-Sustainable Cleaning Equipment	1 / 1
IEQc3.5Green Cleaning-Indoor Chemical and Pollutant Source Control	0 / 1
IEQc3.6Green Cleaning-Indoor Integrated Pest Mgmt	1 / 1

INNOVATION IN OPERATIONS	5 OF 6
IOc1.1 Innovation in Operations: Sustainability Edcuation Program	1 / 1
IOc1.2 Innovation in Operations: Scope 3 Greenhouse Gas Inventory	1 / 1
IOc1.3 Innovation in Operations: Exemplary Performance IEQc3.3	1 / 1
IOc1.4 Innovation in Operations: Personal Electronics Waste Collect	1 / 1
IOc2 LEED® Accredited Professional	1 / 1
IOc3 Documenting Sustainable Building Cost Impacts	0 / 1

REGIONAL PRIORITY CREDITS	2 OF 2
SSc6 Stormwater Quantity Control	1 / 1
EAc4 On-site and Off-site Renewable Energy	1 / 1

TOTAL	52 OF 108