THE AMERICAN UNIVERSITY
School of International Service
LEED NC v2.2 Gold
4400 Massachusetts Ave NW, Washington D.C. 20016

BUILDING HISTORY

The School of International Service (SIS) was established in 1957 in response to President Dwight D. Eisenhower's request for universities to create schools to prepare the next generation of foreign policy officials. President Eisenhower embraced American University's idea of a school focused on human-centered international affairs and agreed to speak at the school's groundbreaking ceremony in 1957.

The original SIS building was located in what is now the East Quad Building. After fifty-three years in the East Quad Building, the university began planning a new building to house the School of International Service in 2004. The groundbreaking ceremony for the new building took place in 2007 and was completed in 2010. The new building's design, created by architect Bill McDonough, reinforces the school's commitments to advancing ecological stewardship, preserving transparency and human dignity, and working for social justice.

PROJECT HIGHLIGHTS

LEED (™) Facts

SIS
The American University
2010

Location	4400 Massachusetts Ave NW, Washington D.C. 20016
Rating System	LEED-NC v2.2
Certification Achieved	Gold
Total Points Achieved	44

Sustainable Sites	9/14
Water Efficiency	5/5
Energy and Atmosphere	6/17
Materials and Resources	7/13
Indoor Environmental Quality	12/15
Innovation in Design	5/5

27 kW — *Capacity of the rooftop solar panels*

30% — *Less water used than an average building*

31% — *Building materials are regionally sourced within 500 miles of the project site*

100% — *LED lighting used in parking garage*

Please only print this project if necessary. If printing is required, please print double sided and recycle when finished.

PROJECT TEAM

Owner: The American University	Mechanical Engineer: W.L. Gary Contractors
Architect: William McDonough + Partners	Civil Engineer: Delon Hampton & Associates
Contractor: Whiting Turner	Structural Engineer: McMullan & Associates
LEED Professional: Sustainable Design Consulting	Commissioning Agent: Brinjac Engineering

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

For a new construction project, site selection plays a key role in determining the net environmental impact of a building. Design choices that support the native ecosystem and tap into existing community infrastructure reduce a building's environmental impact. Green buildings reduce the impacts of air pollution and greenhouse gas emissions by choosing sites that promote sustainable transportation. Situated on the edge of campus, the School of International Service is closely integrated with the surrounding residential area. Restaurants, shops, and grocery stores can all be found within walking distance from the building. Traveling to and from SIS on public transportation is easy with the university shuttle that connects campus to the Tenleytown metro station. Several metro bus stations are also located within walking distance. Occupants are provided with bicycle parking for additional alternative commuting options.

A green roof and a nearby bioswale reduce storm water runoff. Plants featured throughout the SIS landscape are local and adaptive species, and reduce the environmental impact of landscaping by thriving on less irrigation and requiring minimal use of pesticides and herbicides. A ground level green roof over underground parking and reflective white roofing help reduce the heat island effect, a phenomenon where urban areas experience warmer temperatures due to trapped heat.

WATER EFFICIENCY

Green buildings reduce water use through smart design choices and reduce the demand on energy intensive wastewater treatment facilities by managing runoff on site. SIS conserves water by utilizing low flow, ENERGY STAR faucets and fixtures, dual-flush toilets, and waterless urinals. Water is also conserved in the landscaping by utilizing native and adaptive plants, eliminating the need for a permanent irrigation system on site. With these design features, SIS uses 30% less water than the average building.

ENERGY AND ATMOSPHERE

Green buildings are designed to reduce energy usage, thereby reducing greenhouse gas emissions and utility costs. Sustainable design principals used in the building design also ensures that occupants have a comfortable indoor space for better concentration and collaboration. The SIS floorplan is designed to take advantage of natural light in large spaces such as classrooms and meeting rooms. Fixed solar shades on the building's exterior allow daylight to enter the building while minimizing the heat gain from the sun and reducing the energy needed for lighting and cooling.

Additionally, there are rooftop solar hot water heating systems, which heat water used in the restrooms and coffee shop. The underground parking garage uses 100 percent high efficiency LED lighting. Photovoltaic solar panels cover 3,230 square feet of the roof, providing 20 percent of the electricity used in SIS. All additional electricity consumption is offset with renewable energy credits purchased by American University for the entire campus.

MATERIALS AND RESOURCES

Constructing a new building comes with inherent impacts to the environment, but careful choice in the origin, extraction, processing, and transport of materials can minimize harm and even benefit the natural and social environment. Green building design includes all of these factors by considering the lifecycle impact of building construction.

During the construction of SIS, more than 20% of the materials used were made of recycled products, and 75% of the waste produced was diverted from landfill. The wood used throughout the building is locally sourced from Pennsylvania, less than 500 miles away, and over 75% of it is FSC certified. The terrazzo floors are made from reused materials, including discarded chips of marble and granite. To improve indoor air quality, the paints, sealants, and carpets are low in volatile organic compounds (VOC).

INDOOR ENVIRONMENTAL QUALITY

Improved indoor environmental quality reduces occupants' stress and increases productivity by providing comfortable spaces. SIS was carefully designed and constructed to provide all students, faculty, and staff with productive workspaces.

The day lit multilevel atrium encourages gathering and discussion. Classrooms have abundant windows and are equipped with adjustable shades for easy control over brightness and glare. The building temperature is controlled with a computerized system that ensures stable, uniform temperatures throughout the building. Walk-off mats at the entryways are specifically designed to capture dust and other contaminants as occupants enter the building, improving indoor air quality. All paints, carpets, sealants, and wood composites used in the building are no or low volatile organic compound (VOC).

INNOVATION IN DESIGN

Innovation in design recognizes features that lead the way to further improve sustainable standards. Green building educational tours are held at SIS to increase the visibility of sustainable efforts at American University and encourage green practices throughout campus. The separated bins for waste, recyclables, and organic materials promote sustainable habits and the university's zero waste goal. AU is committed to low environmental impact cleaning, which includes Green Seal certification and low VOC standards for cleaning products, and using the lowest concentration necessary for all chemical cleaners.

LEED SCORE CARD

LEED-NC Version 2.2

Project Checklist

McKinley

Y	?	N	Sustainable Sites	Possible Points: 14
Y			Prereq 1 Construction Activity Pollution Prevention	Required
1			Credit 1 Site Selection	1
1			Credit 2 Development Density and Community Connectivity	1
		1	Credit 3 Brownfield Redevelopment	1
1			Credit 4.1 Alternative Transportation—Public Transportation Access	1
1			Credit 4.2 Alternative Transportation—Bicycle Storage & Changing Rooms	1
1			Credit 4.3 Alternative Transportation—Low-Emitting and Fuel-Efficient Vel	1
1			Credit 4.4 Alternative Transportation—Parking Capacity	1
		1	Credit 5.1 Site Development, Protect or Restore Habitat	1
		1	Credit 5.2 Site Development, Maximize Open Space	1
		1	Credit 6.1 Stormwater Design, Quantity Control	1
1			Credit 6.2 Stormwater Design, Quality Control	1
1			Credit 7.1 Heat Island Effect, Non-roof	1
1			Credit 7.2 Heat Island Effect, Roof	1
		1	Credit 8 Light Pollution Reduction	1

Y	?	N	Water Efficiency	Possible Points: 5
1			Credit 1.1 Water Efficient Landscaping. Reduce by 50%	1
1			Credit 1.2 Water Efficient Landscapin, No Potable Use or No Irrigation	1
1			Credit 2 Innovative Wastewater Technologies	1
1			Credit 3.1 Water Use Reduction, 20% Reduction	1
1			Credit 3.2 Water Use Reduction, 30% Reduction	1

Y	?	N	Energy and Atmosphere	Possible Points: 17
Y			Prereq 1 Fundamental Commissioning of Building Energy Systems	Required
Y			Prereq 2 Minimum Energy Performance	Required
Y			Prereq 3 Fundamental Refrigerant Management	Required
1			Credit 1.1 Optimize Energy Performance: 10.5%	1
1			Credit 1.2 Optimize Energy Performance: 14%	1
1			Credit 1.3 Optimize Energy Performance: 17.5%	1
		1	Credit 1.4 Optimize Energy Performance: 21%	1
		1	Credit 1.5 Optimize Energy Performance: 24.5%	1
		1	Credit 1.6 Optimize Energy Performance: 28%	1
		1	Credit 1.7 Optimize Energy Performance: 31.5%	1
		1	Credit 1.8 Optimize Energy Performance: 35%	1
		1	Credit 1.9 Optimize Energy Performance: 38.5%	1
		1	Credit 1.10 Optimize Energy Performance: 42%	1
		1	Credit 2.1 On-Site Renewable Energy: 2.5%	1
		1	Credit 2.2 On-Site Renewable Energy: 7.5%	1
		1	Credit 2.3 On-Site Renewable Energy: 12.5%	1
1			Credit 3 Enhanced Commissioning	1
1			Credit 4 Enhanced Refrigerant Management	1
		1	Credit 5 Measurement & Verification	1
1			Credit 6 Green Power	1

Y	?	N	Materials and Resources	Possible Points: 13
Y			Prereq 1 Storage and Collection of Recyclables	Required
		1	Credit 1.1 Building Reuse, Maintain 75% of Existing Walls, Floors & Roof	1
		1	Credit 1.2 Building Reuse—Maintain 100% of Existing Walls, Floors & Roof	1
		1	Credit 1.3 Building Reuse, Maintain 50% of Interior Non-Structural Elements	1
1			Credit 2.1 Construction Waste Management, Divert 50% from Disposal	1
1			Credit 2.2 Construction Waste Management	1
		1	Credit 3.1 Materials Reuse, 5%	1
		1	Credit 3.2 Materials Reuse, 10%	1
1			Credit 4.1 Recycled Content, 10% (post-consumer + 1/2 pre-consumer)	1
1			Credit 4.2 Recycled Content, 20% (post-consumer + 1/2 pre-consumer)	1
1			Credit 5.1 Regional Materials, 10% Extracted, Processed & Manufactured Regionally	1
1			Credit 5.2 Regional Materials, 20% Extracted, Processed & Manufactured Regionally	1
		1	Credit 6 Rapidly Renewable Materials	1
1			Credit 7 Certified Wood	1

Y	?	N	Indoor Environmental Quality	Possible Points: 15
Y			Prereq 1 Minimum Indoor Air Quality Performance	Required
Y			Prereq 2 Environmental Tobacco Smoke (ETS) Control	Required
1			Credit 1 Outdoor Air Delivery Monitoring	1
1			Credit 2 Increased Ventilation	1
1			Credit 3.1 Construction IAQ Management Plan—During Construction	1
1			Credit 3.2 Construction IAQ Management Plan—Before Occupancy	1
1			Credit 4.1 Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2 Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3 Low-Emitting Materials—Carpet Systems	1
1			Credit 4.4 Low-Emitting Materials—Composite Wood and Agrifiber Products	1
1			Credit 5 Indoor Chemical and Pollutant Source Control	1
1			Credit 6.1 Controllability of Systems—Lighting	1
1			Credit 6.2 Controllability of Systems—Thermal Comfort	1
1			Credit 7.1 Thermal Comfort—Design	1
		1	Credit 7.2 Thermal Comfort—Verification	1
		1	Credit 8.1 Daylight & Views, Daylight 75% of Spaces	1
		1	Credit 8.2 Daylight & Views, Views for 90% of Spaces	1

Y	?	N	Innovation and Design Process	Possible Points: 5
1			Credit 1.1 Innovation in Design: Green Cleaning Program	1
1			Credit 1.2 Innovation in Design: Green Education & Outreach Program	1
1			Credit 1.3 Innovation in Design: 100% Green Power	1
1			Credit 1.4 Innovation in Design: Recycling Program	1
1			Creidt 2 LEED® Accredited Professional	1

Y	?	N	Total	Possible Points: 69
44		25		

Certified 26 to 32 points **Silver** 33 to 38 points **Gold** 39 to 51 points **Platinum** 52 to 69