Building E-109



E-109 is a LEED Silver sustainable building. Sustainable buildings can obtain LEED certification by earning credits in up to 9 categories: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, Locations & Linkages, Awareness & Education, Innovation & Design, and Regional Priorities. Certification levels are based on credits earned: Basic: 40-49, Silver: 50-59, Gold: 60-79, Platinum: 80+. NASA strives for Silver.

"LEED stands for "Leadership in Energy and Environmental Design," and focuses on encouraging a more sustainable approach to the way buildings are designed, constructed and operated."

-Sean Grimsby

Sustainable Sites

This category aims to curtail pollution and soil erosion that can result from construction. It also addresses the building's direct environmental impact on the immediate area including air pollution and how building design moves rainwater or minimizes light or heat pollution.

E-109 earned **9/26** points for building exterior, hardscape, landscape, erosion control and pest management plans, restoring open habitat, stormwater control, and alternative transportation (commuter surveys).

LEED Building for Wallops Flight Facility, VA



Water Efficiency

LEED promotes water conservation through the use of water metering, efficient bathroom and plumbing designs, drainage gardens and self-sufficient irrigation systems.

<u>E-109</u> earned **9/14** points for water efficient plumbing and landscaping and metering.

Energy and Atmosphere

This category addresses building commissioning and energy performance of systems such as HVAC and lighting. Commissioning a building is the test and balancing of the main systems to assure optimum performance. The building must use 10 percent less energy than the USGBC baseline, and refrigeration systems cannot use chlorofluorocarbon (CFC) refrigerants. Extra points can be earned for renewable energy use.

<u>E-109</u> earned **19/35** points for optimizing energy performance, building commissioning, enhanced refrigerant management, building automation systems, and emissions reduction reporting.

Materials and Resources

Buildings designed to minimize material use, or use biodegradable or locally harvested renewable resources in their construction, and minimize landfill waste and promote recycling in their operation.

<u>E-109</u> earned 2/10 points for implementing a solid waste management and sustainable acquisition policy,

purchasing electric-powered equipment and reduced mercury lamps.

Indoor Environmental Quality

Indoor air quality includes ventilation, off-gassing of materials and thermal comfort. It also requires efficient lighting systems that are adequate for all necessary tasks.

<u>E-109</u> earned **6/15** points for IAQ management plan, green cleaning policy, occupant surveys, controllability of lighting, and indoor integrated pest management plan.

Design Innovation & Regional Priority

Considers innovative sustainable solutions and regionspecific environmental concerns.

E-109 earned **8/10** points and for sustainable purchasing, controllability of systems, innovation in operations, using a LEED accredited professional, alternative transportation, storm water quality control, and water efficient landscaping.



Total Points earned by <u>E-109</u> were 53 of 110.