ENERGY STAR Building Design Profile

Goshen Post Elementary School
Aldie, VA 20105

Loudoun County Public Schools (LCPS) collaborated with Moseley Architects to design the new Goshen Post Elementary School located in Aldie, VA. The design of this school builds upon a long-standing partnership between Moseley Architects and LCPS, which has yielded a total of 5 different schools achieving "Designed to Earn the ENERGY STAR" certification to date. Projects that achieve this designation are designed to reduce energy and CO_2 emissions. Designed to Earn the ENERGY STAR projects also benefit financially from reduced energy costs over the life of the building.

The design of Goshen Post Elementary School reduces the school's projected annual energy consumption and CO_2 emissions by **33%** as compared to the median building. The estimated total annual energy savings for this project is **2,050 MBtu/yr** with an estimated cost savings of **$36,000/yr.** These energy savings also reduce annual CO_2 emissions by **200** metric tons/yr, which is equivalent to permanently removing **42** US automobiles from the road.

Moseley Architects utilizes a wide range of energy and daylight modeling tools as part of the design process, including Sefaira Architecture in early design and more advanced modeling programs such as Carrier HAP and Trane TRACE in later phases. ENERGY STAR Target Finder was utilized to identify an energy use target in Schematic Design. Target Finder was also used to track the design's progress throughout the Design Development and Construction Documents phase. By utilizing the same benchmarking tools throughout the entire project cycle, Moseley Architects and LCPS are able to create a seamless transition between design and operations that will assist in tracking the school's performance as well as informing future design decisions.

DESIGNED TO EARN THE ENERGY STAR

Architect of Record:
Moseley Architects

Building Owner:
Loudoun County Public Schools

Design Energy Rating:
86

Percent Energy and CO_2 Reduction*:
33

Design Year/ Estimated Occupancy Date:
2017

Space Type:
K-12 School

Floor Space:
103,062 sq. ft.

Estimated Energy Use Intensity:
40 kBTU/sf/yr

Estimated Total Annual Energy Use:
4,158,984 kBtu/yr

Estimated Annual Energy Cost:
$74,461

For More Information
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*Percent Energy and CO_2 Reductions are based on comparison to a median building of similar type.

EPA wants to feature your projects on the Architects and Projects Web page and in ENERGY STAR program materials. We encourage the AOR to submit a completed Profile with the certification application or by e-mail to spp@energystar.gov.