

Energy Positive Buildings: It Can Be Done!

Presented By:

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Department of Commerce, Energy Office



Sandy Grove Middle School

Sandy Grove Middle School



Location: Lumber Bridge, NC
Hoke County
74,000 square feet
600+ students
Climate zone 3

Sandy Grove Middle School

first
floor[®] sfl+a
ARCHITECTS

Integrated Design & Delivery



Sandy Grove Middle School



- Leased, Public Building, Privately Funded
- Designed to LEED Platinum Standards
- \$16M Estimated Savings in Electrical Costs over 40 years
- Reduce the total cost of ownership by approximately 75%
 - Construction, interest and energy

Sandy Grove Middle School



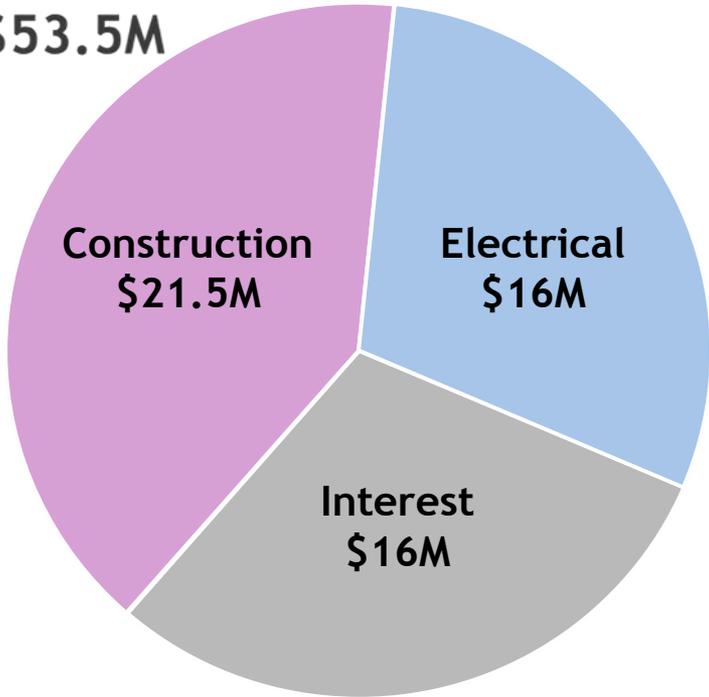
High Performance Systems

- Ground Source Geothermal
- High Output LED Lighting
- Load Bearing Masonry
- Enhanced Building Automation System
- Indoor Air Quality Monitoring
- Solar Photovoltaic (589 kW)

Sandy Grove Middle School

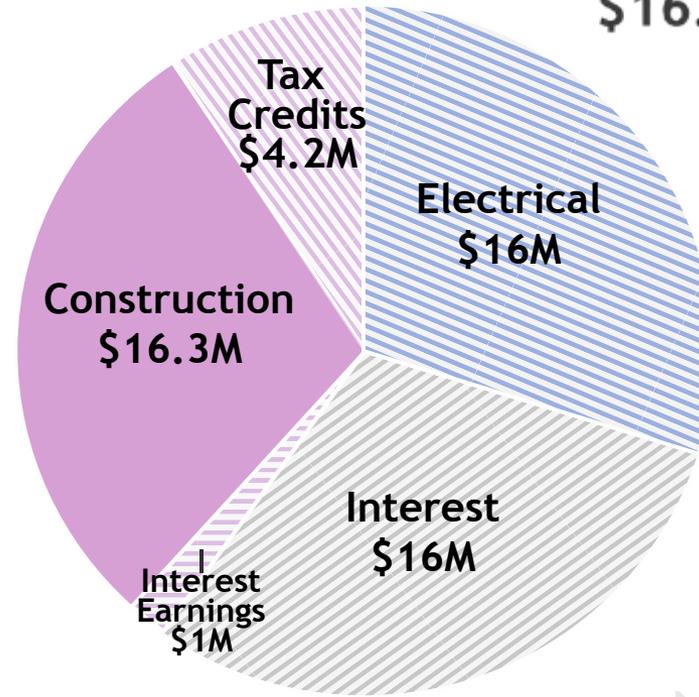
Traditional Delivery

\$53.5M



Leased Delivery

\$16.3M

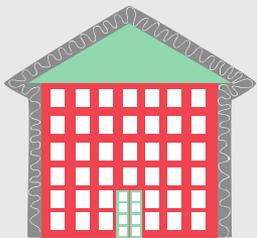


Tax Credits:

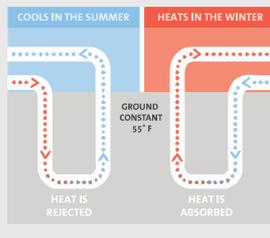
Solar, New Market & Geothermal

Interest:

Qualified School Construction Bond



Enhanced Building Envelope



Energy Efficient HVAC Design



LED Lighting



Photovoltaic Installation



Energy Star Equipment



Sandy Grove Middle School



Sandy Grove Middle School

Building Dashboard

buildingdashboard 
by lucid

<http://buildingdashboard.com/clients/hcs/sandygrove/>

Solar Photovoltaic Electricity Production (undergoing verification)

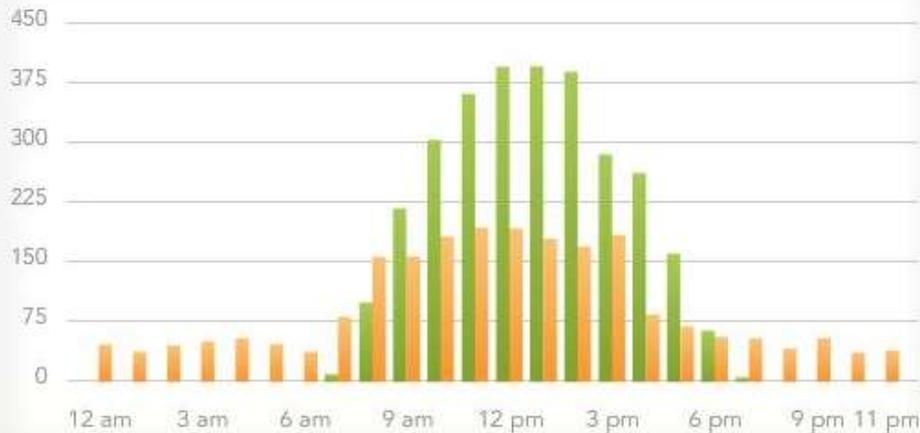
Kilowatt-hours of electricity produced yesterday



Total Production

2,958

Kilowatt-hours



Total Use

2,267

Kilowatt-hours



Select a Timescale

Select a Unit Equivalent

Learn More



Introduction



Electricity



Wings



Solar Electric



Water



Geothermal



Comparisons



Green Tips



Green Features



Competition



Weather

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