

Wake County Public School System - Alston Ridge Elementary School

28% Energy Reduction Compared to Baseline
\$79,954 Energy Savings in 2013 Compared to Baseline

PROJECT DETAILS

LOCATION..... Cary, NC
CONSTRUCTION TYPE..... New Construction
BUILDING TYPE..... K-12 School
OWNER..... Wake County Public School System
BUILDING AREA..... 96,518 Enclosed SF
BUILDING CODE OR STANDARD..... ASHRAE 90.1-2004

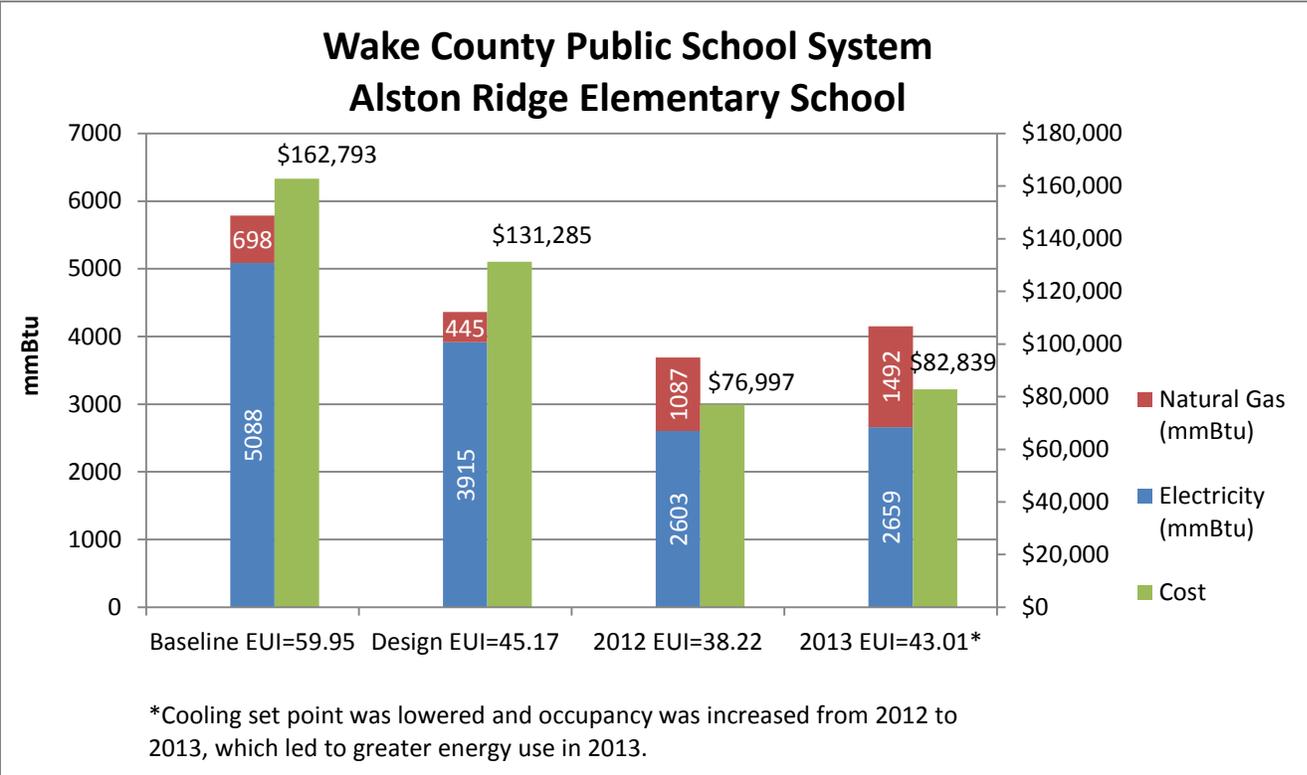
DESIGN TEAM

ARCHITECT..... Clark Nexsen (formerly Pearce Brinkley Cease + Lee)
ENGINEER..... The Wooten Company
COMMISSIONING AGENT..... WCPSS acted as their own commissioning agent

CONTACT

Project Architect: Donna Francis, AIA, DFrancis@clarknexsen.com





Project Description

- Site: Mostly one story structure with classroom wings oriented N/S alignment. One classroom wing is two stories.
- Construction: Steel frame with concrete slab on grade.
- Building Envelope: Wall: Brick veneer with CMU back-up at cafeteria, building operations & toilets only. Use of brick veneer with metal stud back-up at all other areas.
- Interior Construction: Interior CMU corridor walls at cafeteria/PE/ food prep and toilets. All other walls are metal stud framing.
- Mechanical Areas: Mechanical platforms constructed over classroom corridor wings, platforms supported by steel framing.
- Mechanical System: Air-cooled chiller for chilled water, gas-fired condensing boilers for heating hot water, large variable air volume air handling units for multiple classrooms, DDC controls and occupancy sensors.
- High Performance Elements: LEED certification guidelines used. Certification of building received in 2013. Use of two story classroom wing reduces the building footprint
Building orientation such that all classroom wings oriented north/south to minimize heat gains
Solar shading used on south and west elevation windows
Use of highly reflective roof to reduce heat gain
- Energy Use: 35.3 kBTU/sf**
- Modifications: Use of mostly all brick veneer due to Town of Cary requirements - Use of metal panels were not permitted

**One track year round calendar