The Las Cruces School District (LCSD) retained Van H. Gilbert Architect PC (VHGA) to design the new 118,800 sf, 900-student middle school for the rapidly expanding student population in the northeast section of Las Cruces. LCSD and VHGA committed to providing a school facility that serves the educational needs of the students in a building that demonstrates the District's commitment to an optimum learning environment for the students. In addition to standing as a new model for student centered sustainable design, LCSD will also set a new standard for the energy efficient, sustainable design of all public buildings in the City of Las Cruces.

To achieve the goal of sustainable and energy efficient design, VHGA, LCSD, New Mexico Governor Bill Richardson's Task Force for High Performance Schools, and the New Mexico Public Schools Facility Authority analyzed a wide variety of thoughtful sustainable design principals such as: orienting the building to capture optimum natural light, using walls to buffer the north wind, using cost effective quality materials, and balancing the number and placement of building openings to achieve energy and circulation efficiency, while addressing student safety. Additionally, the team researched and evaluated a variety of energy efficient systems and selected the ground-coupled heat pump and photovoltaic system. The combination of sustainable energy efficient design and renewable energy systems will result in a long-range cost savings to the District and will be an important step in educating the energy consumer of the future.

Van H. Gilbert Architect PC

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FANNING HOWEY

ADOPTER architecture 2030 CHALLENGE

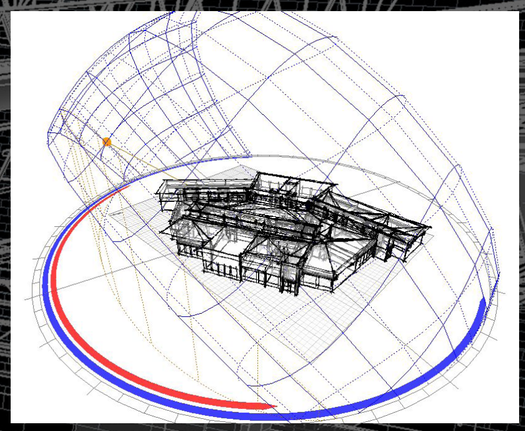
SUSTAINABLE DESIGN ELEMENTS

- Environmentally Sensitive Site Design
- Thermal Mass Envelope
- Ground Source Heat Pump
- Heat Recovery Ventilation
- 40% Reduction in Water-Use
- Water Harvesting
- Daylighting
- Use of LED Fixtures
- Photovoltaic System

ENERGY PERFORMANCE

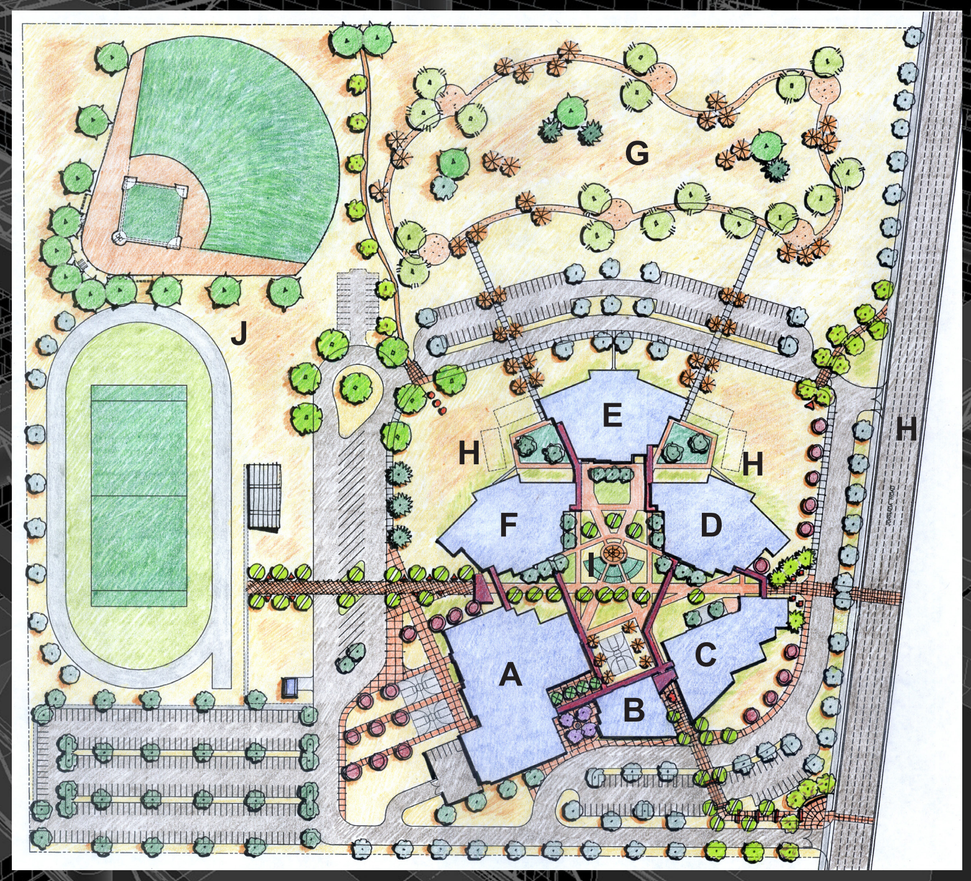
- Energy Star Rating: 99
- Energy Use Intensity: 68 kBtu/sf/yr
- CO_2 Reduction: 57% vs Average Building
- CO_2 Savings: 564 Metric Tons of CO_2
- Energy Savings: 10,770,000 kBtu/yr

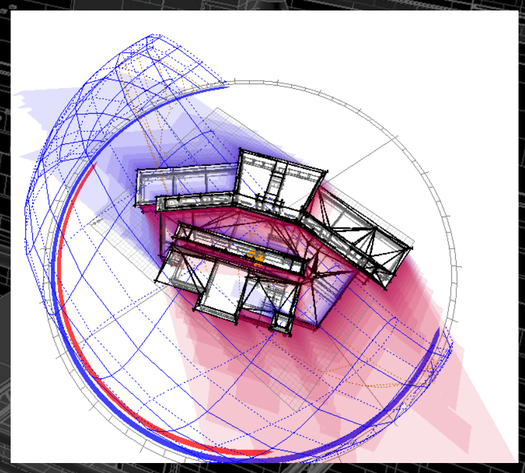
DAYLIGHTING ANALYSIS

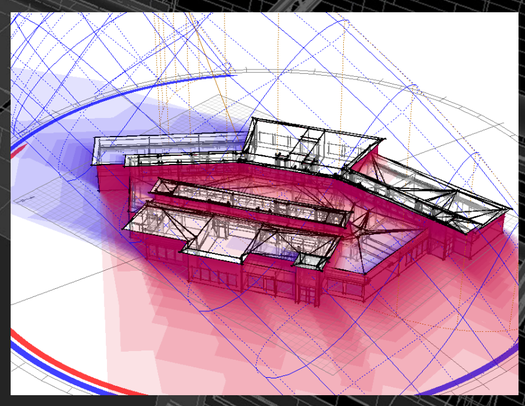


OVERALL SITE PLAN

A. Gymnasium
B. Administration Building
C. Media Center
D. 6th Grade Academy
E. 7th Grade Academy
F. 8th Grade Academy
G. Environmental Studies
H. Outdoor Learning Environments
I. Amphitheater
J. Outdoor Physical Education







DESIGNED TO EARN THE ENERGY STAR

MESA MIDDLE SCHOOL *Las Cruces School District, New Mexico*