

# MARTIN ENGINEERING DESIGN, Inc.

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## PURPOSE STATEMENT

MARTIN ENGINEERING DESIGN is dedicated to providing Electrical, Lighting, Mechanical and Plumbing Engineering for the Architectural and Building Industries in the State of Oklahoma; established in 1979 with a focus on health care, educational and geothermal projects.

## PROJECT EXPERIENCE with GEOTHERMAL SYSTEMS:

The following projects are representative of our geothermal design experience:



*Gralla-Rees Architects*

300 bed long term care facility for Oklahoma Veterans. Mechanical and Plumbing design only, 540 ton closed loop water source heat pump using an eight acre pond as a geothermal sink.

**OKLAHOMA VETERANS CENTER, Norman**



*Gralla-Rees Architects*

135 bed long term care additions and kitchen/dining for existing facilities for Oklahoma Veterans. Electrical and Mechanical design, Geothermal closed loop water source heat pumps (90 tons) using vertical bore earth heat exchangers.

**VETERANS CENTER, Ardmore**



*Bates LZW Architects*

First three buildings of a 13 building campus. The 220,000 square foot facility houses biology and sciences laboratories, classrooms, computer labs and administrative buildings. Geothermal source heat pumps using vertical bore earth heat exchangers (724 ton system).

**NORTHEASTERN STATE UNIVERSITY, Phase 1, Broken Arrow**



*Dr. Jewell Daniels & Freese Johnson*

Stand alone 15,000 square foot medical office building complete with cat scan and lab facilities. System utilizes geothermal multiple energy fields. Geothermal source heat pumps using vertical bore earth heat exchangers (44 ton system).

**MUSKOGEE HEALTH AND WELLNESS CENTER, Muskogee**

## **PROJECT EXPERIENCE with GEOTHERMAL SYSTEMS:**

The following projects are representative of our geothermal design experience:



*Chase Fetter Hewitt Architects*

Care facility for elderly, dementia impaired and early stage Alzheimer during day. 37,000 square foot facility includes full kitchen, four care centers, hobby areas, aerobic areas, multipurpose spaces, hair care, video and book areas, administration. Geothermal source heat pumps using vertical bore earth heat exchangers (120 ton system).

### **D.W. REYNOLDS ELDER CARE CENTER, Bartlesville**



*Bates LZW Architects*

Four story, 95,000 square foot full service hospital. Facilities includes four operating suites, 45 bed patient tower, full radiology, food court, administration. Geothermal source heat pumps using vertical bore earth heat exchangers (420 ton system). LEED Gold project.

### **MUSKOGEE COMMUNITY HOSPITAL, Muskogee**



*Bates LZW Architects*

Second phase three buildings of a 13 building campus. The 158,000 square foot facility provides a Library Building, Science Building and Classroom Building. Geothermal source heat pumps using vertical bore earth heat exchangers (522 ton system).

### **NORTHEASTERN STATE UNIVERSITY, Phase 2, Broken Arrow**



*Johnson Controls, Geothermal Builders*

District delivery system that serves the main campus with expansion capabilities. System serves two classroom buildings, one administration building, one auditorium with reserve capacity to serve the new Student Union building. System utilizes geothermal energy (well) fields at each side of the campus. Geothermal source heat pumps using vertical bore earth heat exchangers (360 ton system).

### **ROGERS STATE UNIVERSITY, Claremore**

## **PROJECT EXPERIENCE with GEOTHERMAL SYSTEMS:**

The following projects are representative of our geothermal design experience:



*Eastern Oklahoma Tribal Schools Architects*

Stand alone 37,000 square foot elementary school on the Jones Academy property, adjacent to the boy's dormitory, no food service. System utilizes geothermal a single energy field. Geothermal source heat pumps using vertical bore earth heat exchangers (120 ton system). Project completed in 2008.

### **JONES ACADEMY, Hartshorne**



*JHBR Architects*

First phase for the city 54,000 square foot elementary school, replacing existing multiple schools; includes administrative, food service, library and classrooms. System utilizes geothermal energy (well) fields on two sides of the building and under the parking lot. Geothermal source heat pumps using vertical bore earth heat exchangers (144 ton system). Project completed in 2007

### **ARDMORE ELEMENTARY SCHOOL, Ardmore**



*Stacy Group Architects*

Stand alone 29,000 square foot early childhood elementary school, no food service. System utilizes geothermal multiple energy fields. Geothermal source heat pumps using vertical bore earth heat exchangers (106 ton system). Project completed in 2007. School building has won numerous design awards.

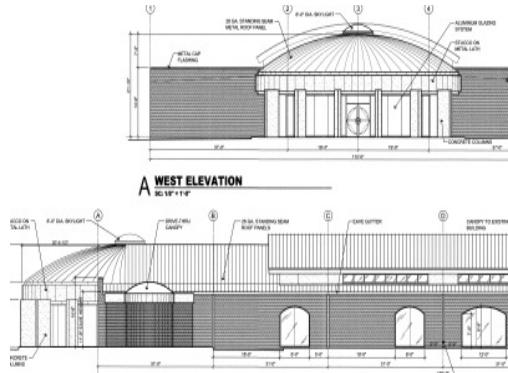
### **COLLINSVILLE EARLY CHILDHOOD DEVELOPMENT, Collinsville**



*Oklahoma State University – Institute of Technology*

Stand alone 24,30 square foot training center. System utilizes multiple geothermal energy fields. Geothermal source heat pumps using vertical bore earth heat exchangers (60 ton system). Project to be complete in 2013.

### **OSU CHESAPEAKE ENERGY TRAINING CENTER, Okmulgee**



**EAST CENTRAL ELECTRIC, Okmulgee**

*Design Build with Air Comfort, Jenks*

Stand alone 22,000 square foot new rural electric coop headquarters office building. System utilizes geothermal multiple energy fields. Geothermal source heat pumps using vertical bore earth heat exchangers (68 ton system). Project completed in 2010.



**ROGERS STATE UNIVERSITY STUDENT HOUSING, Claremore**

*Design Build with Key Construction, Tulsa*

255 bed, 87,118 square foot student housing with stand alone club house, 6,758 square feet. System utilizes multiple geothermal energy fields. Geothermal source heat pumps using vertical bore earth heat exchangers (196 ton system). Project completed in 2011. System design included future fields(179 tons) for 2<sup>nd</sup> phase student housing wing.