

6. Design Engineer Selection - HVAC System Improvements – Meredith Riggs
Spangler BuildingKevin MacNaughton

Situation: The need to select a mechanical engineer designer for the Meredith Riggs Spangler Building.

Background: The Meredith Riggs Spangler Building was constructed in 1980. Since the initial construction, little HVAC renovation work other than routine maintenance has been performed. Heating, cooling, and humidity control problems in the building continue to increase and are difficult to resolve.

Assessment: The existing HVAC system is well beyond its useful service life. A new, more efficient variable air volume system should be installed along with an upgraded direct digital control system.

Action: This item requires a vote.

Design Engineer Selection - HVAC System Improvements – Meredith Riggs Spangler Building

The Meredith Riggs Spangler Building was constructed in 1980 with a constant air volume HVAC system and five air handling units to serve two occupied floors of the building (approximately 20,000 square feet). Since the initial construction, little HVAC renovation work (other than routine maintenance) has been performed. Heating, cooling and humidity control problems in the building continue to increase and are difficult to resolve. The existing HVAC system is well beyond its useful service life. A new, more efficient variable Air Volume system will be installed under this project along with an upgraded direct digital control (DDC) system.

This new system will reduce energy costs and significantly improve overall building operation and comfort. The DDC system will also report control points and alarms to the UNC Chapel Hill maintenance staff through the Enterprise Building Management System (EBMS). The project will also include replacement of the existing boiler with a new condensing boiler that can operate more efficiently. The preliminary cost estimate for this project is \$1,277,000. The project will be funded from State appropriated Repair & Renovation funds.

The need for a mechanical engineer designer was duly advertised. Fifteen proposals were received on October 23, 2013. After careful consideration and discussion of each of the fifteen proposals, four firms were shortlisted and interviewed on December 10, 2013. The interview committee recommends further consideration of the following three firms, listed in priority order:

1. Sigma Engineered Solutions, Morrisville, NC
2. McKim & Creed, Raleigh, NC
3. Engineered Designs, Inc., Cary, NC

All policies and procedures set forth by the State Building Commission were followed in making this recommendation.

It is further recommended that Sigma Engineered Solutions be selected to design the HVAC system improvements in the Meredith Riggs Spangler Building.