SECTION 15975

ENERGY MANAGEMENT SYSTEM (EMS)

PART 1 - GENERAL

1.01 GENERAL CONDITIONS

A. Refer to Section 15040 Standard UT Specifications.

1.02 WORK DESCRIPTION

A. Scope: This section contains general requirements for the supply and installation of a microprocessor based Energy Management System (EMS) as an extension of the existing Campus Siemens Building Technologies System 600 APOGEE™. The use of third party communication is not prohibited.
B. Siemens shall be responsible for furnishing and installing all equipment and wiring for Building Automation Systems (Temperature and HVAC Equipment Control) for a complete and operable system as specified herein. All wiring shall be done in accordance with all local and national codes.
C. Work Included: It is the intent of this specification for the EMS to be installed as a complete package by Siemens Building Technologies. The system shall include all computer software and hardware, controllers, sensors, transmission equipment, local panels, installation, engineering, supervision, commissioning, acceptance test, training, and warranty service.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Products furnished, but not installed under this section include air flow stations, automatic dampers, valves, flow switches, flow sensors, thermowells and pressure taps to be installed by the Mechanical Contractor.
B. Coordination with electrical:
   1. Installation of all line voltage power wiring including 120V power to each terminal unit and DDC panel by Division 16.

   2. Each motor starter provided under Division 15 or 16, shall be furnished with individual control power transformer to supply 120 volt control power and auxiliary contacts (one N.O. and one N.C.) for use by this section.
C. Work provided by this Section but listed elsewhere:
   1. Section 15930 Air Terminal Units
   2. Section 15985 Control Sequence - HVAC

1.04 QUALIFICATIONS

A. System components shall be provided by Siemens Building Technologies.

B. The control system shall be furnished, engineered and installed by a Siemens owned branch office having factory trained technicians to provide instruction, routine maintenance, and emergency service within 24 hours upon receipt of request.

1.05 SUBMITTALS

A. The controls contractor shall submit Auto CAD generated schematic drawings for the entire system for review and approval before work shall begin. Included in the submittal drawings shall be a one page diagram depicting the system architecture complete with a communications riser. Drawings shall include point-to-point wiring diagrams and any special connection information required for properly controlling the equipment. The submittal shall include a bill of material reference list as well as equipment sequences of operation.
B. The submittals shall include the manufacturer's catalog data describing, highlighting and specifically indicating each item of equipment or component provided and installed for the project.

1.06 PROTECTION OF SOFTWARE RIGHTS

A. Prior to delivery of software, the Owner and the party providing the software will enter into a software license agreement with provisions for the following:
   1. Limiting use of software to equipment provided under these Specifications.
   2. Limiting copying.
   3. Preserving confidentiality.
   4. Prohibiting transfer to a third party.

PART 2 - PRODUCTS

2.01 ACCEPTIBLE BIDDERS

A. The specifications are intended to describe the microprocessor based Energy Management System – System 600 APOGEE™ and Siemens Building Technologies is the acceptable manufacturer/installer. Contact Kelly Baxley at (972) 465-1560 for more detailed Information.