

## Montgomery County Public Schools Facilities Guide

### DIVISION 16 – ELECTRICAL

#### **SECTION 16010 ELECTRICAL SYSTEMS GENERAL PROVISIONS**

##### **PART 1 – GENERAL**

- A. The state of Maryland submittal is required for all projects: IAC/PSCP Energy Power Requirements and Calculations at design development submittal:
  - 1. Preliminary Electrical Load and Demand Analysis
  - 2. Preliminary Electrical Analysis for Stand-by Power
  - 3. Preliminary Lighting Power Budget per the latest revision of ASHRAE 90.1
  - 4. Lightning Risk Assessment per NFPA 780, Appendix I.
- B. The State of Maryland submittal is required for all projects: IAC/PSCP Energy Power Requirements and Calculations at Construction Documents submittal: Calculations previously submitted at the Design Development phase shall be updated for this submittal.
  - 1. Final Electrical Load and Demand Analysis
  - 2. Final Electrical Analysis for Stand-by Power and equipment sizing calculations.
  - 3. Final Lighting Power Budget per the latest revision of ASHRAE 90.1
  - 4. Final Lightning Risk Assessment per NFPA 780, Appendix I.
  - 5. Short Circuit Analysis
  - 6. Voltage Drop Analysis
  - 7. Lighting Calculations (Interior and Exterior)
  - 8. Depict on the first electrical sheet:
    - a. Total Electrical Load in KVA.
    - b. Total Lighting and Receptacle loads in KVA.
    - c. Total Power Load in KVA.
    - d. Largest Motor Horsepower
    - e. Estimated Emergency power Demand in KVA.
    - f. Type and size of stand-by power units.
- C. U.S. Green Building Council LEED for Schools