# Modify section 26 22 00 per the following instructions:

- 1. Changes are shown in red, using "Track Changes" function
- 2. Deletions are shown struck through
- 3. Additions are underlined
- 4. The remainder of section is unchanged.

### Section affected:

# 26 22 00 LOW-VOLTAGE TRANSFORMERS

.01 General

- A. As the Base Bid, pProvide high efficiency copper-wound transformer(s) meeting US Department of Energy proposed Candidate Standard Level (CSL) 3 efficiency, with extremely low no load losses, similar to PowerSmiths "E-Saver-C3", Cutler-Hammer "E3", GE "QL Ultra Efficient", Mirus International Inc. Ulltra, E-Factor E, or others as approved by Engineering Services. Specify a deduct alternate for copper-wound, 115C rise, K-4 rated standard TP-1 transformers.
  - 1. Once bids have been received, the consultant shall perform a life-cycle cost analysis based upon loading profiles as agreed to with Engineering Services, according to the building occupancy type.
  - 2-1. Low-loss transformers shall be designed to an efficiency standard higher than NEMA TP-1, the lowest legal efficiency, for the following purposes:
    - a. Delivering lowest life cycle cost according to the US Dept. of Energy
    - b. Contributing to LEED Energy & Atmosphere Credit 1 (Optimize Energy Performance)

### **END of revision**

### **Update Commentary:**

Section was updated primarily for the following reasons:

- 1) It has been determined through life cycle cost calculations on multiple projects that high efficiency transformers are a good investment with relatively short payback especially compared to the average life of the equipment.
- 2) All major manufacturers offer competing products to make the bidding competitive.