SECTION 16400D - MEDIUM VOLTAGE SERVICE AND DISTRIBUTION

A. DISTRIBUTION: 12,470 volts, three phase is distributed on both the East and West campuses. The East campus is served by two 1200 amp and one 550 amp CG&E Co. feeds distributed from a location in the Eden Avenue garage.

Distribution wiring from this location shall be a minimum of 350 KCMIL 15KV Class, copper cable. See Section 16122 for cable specifications.

The West campus is served by two 1200 amp CG&E Co. feeds distribution from a location near the U.C. Bookstore.

Distribution wiring from this location shall be a minimum of #4/0, 15KV Class, copper cable.

B. SCHEME

1. Buildings requiring two services shall utilize a primary selective switching system, connected to two segments of a loop, so that maintenance can be performed on the de-energized circuit, while the building remains in operation. Switches shall be constructed with compartments, barriers, and insulation as necessary to provide safe access to de-energized feeder terminals without de-energizing the complete switch.

2. A primary selective switch shall be used to provide primary power to no more than one transformer. The primary switch under this condition shall be fused to protect the related transformers.

3. When two transformers are not in the same room or building, each must be served from a primary selective switch. Feeding two or more transformers not in the same building or room with one primary selective switch is prohibited.

4. All medium voltage switches shall be manufactured be S&C Electric Company outside pad mounted switches shall be PMH type.

C. METERING

1. Instrumentation and Metering: Square D PowerLogic circuit monitor with system display or equal is required for each building and be fully compatible with present Square D PowerLogic system.

2. System shall be capable of measuring and display on demand phase/line current, phase/line voltage, KW, KVA, KVAR, and power factor. Shall be capable of holding KHM, KWH, KVAR in non-volatile memory until reset.

3. The PT, CT ratio and type system shall be programmable with capability to lock in memory.

4. Shall be capable of measuring power within plus or minus one percent regardless of system type.

5. Shall be capable of remote monitoring, remote program change and be fully compatible with University Central Monitoring System.

END