LIGHTING CONTROLS

DESIGN GUIDELINES

1. Summary:
   a. This section provides guidelines and standards for the control of lighting in typical interior and exterior spaces.

2. Design
   a. Corridors: Shall have unswitched (Night Light) fixtures to meet code required illumination levels and connected to the emergency power panel where generator power is present. Utilize battery back-up where no generator. The remaining lights will be controlled by ceiling mounted ultrasonic sensors powered via power packs.
   b. Restrooms: Shall be controlled via ultrasonic technology sensors powered via power packs.
   c. Offices: Shall be controlled via dual-technology sensors with override switch installed at the room entrance. Small rooms may utilize wall-box type with integral on/off switch. Large rooms may require ceiling mounted sensors with override toggle switch and room entrance where wall-box coverage is insufficient.
   d. Labs: Lighting control sensor technology shall be determined by the design team based on lab equipment. If occupancy sensors are utilized in labs, provide override switch at entrance.
   e. Mechanical and Electrical Rooms: Shall be controlled via standard toggle switch. Refer to Wiring Device Design Standard.
   f. Specialty Lab Spaces:
      - Microscope Rooms, Confocal, etc. may require dimming.
      - Animal Rooms may require time-of-day control of lighting. Project Manager shall provide specific requirements.
      - Exact control methods shall be determined by the design team with input from the end user/Project Manager.
   g. Conference Rooms and Meeting Rooms: Typically, standard dimmers shall be utilized. Control zones shall be coordinated with the end user/Project Manager.
   h. Under Cabinet Lights:
      - Preferably, a dedicated on/off switch shall be provided at the entrance of large labs to control all under cabinet lights within the room.
      - Provide under cabinet lights with integral control switch.
   i. Exterior Lighting: Shall be connected to lighting contactor controlled via photocell. Lighting contactor shall be provided with toggle bypass switch for maintenance.
   j. WUSM Project Manager shall be point of contact for coordinating specific lighting control requirements.
3. Related Sections
   a. Wiring Devices
   b. Interior Lighting
   c. Identification of Electrical Systems

EQUIPMENT and PRODUCT REQUIREMENTS

1. Occupancy Sensors:
   a. Approved Manufacturers:
      • Watt Stopper
   b. Features:
      • All shall be provided with adjustable delay.
      • Dual-technology type shall be combination passive infrared (PIR) and ultrasonic.

2. Dimmer Switches
   a. Approved Manufacturers:
      • Lutron Nova T or approved equal.
   b. Features
      • Dimmer shall be compatible with the light fixture ballast or LED driver.

3. Programmable Time Switches
   a. Approved Manufacturers:
      • Intermatic ST01
   b. Features
      • Electronic Wall-box Timer.
      • Astronomic, 7-Day Programmable

4. Lighting Contactors
   a. Approved Manufacturers:
      • ASCO 918 Series with two-wire control module (Preferred)


END OF SECTION