1 LIGHTING FIXTURE SCHEDULE

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<th>DESCRIPTION</th>
<th>QTY</th>
<th>LAMP</th>
<th>WATT</th>
<th>SHADE</th>
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<th>Notes</th>
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2 ELECTRICAL SCHEDULE

3 LIGHTING CONTROL PANEL CONTROL ZONE SCHEDULE
GENERAL NOTES:

A. All conduit, conductors and AIC calculations for all
1. Unswitched line voltage power feed from local panel.
3. Low voltage occupancy sensor, up to 3 per power pack. Provide with
7. Line voltage switched leg from switches to lighting load.
6. Line voltage switched leg from relay pack to local wall switches.
5. Low voltage power and control conductors as required for a
4. Wall mounted line voltage snap switch(es). Quantity and location as
8. Second switch for dual level lighting where indicated on plans.

DETAIL NOTES:

BY IPCO.
PAD MOUNT
TRANSFORMER AND PAD

OCCUPANCY SENSOR DETAIL

1. On-Site switch is not associated with 12 way occupancy control.

2. Power/relay pack rated for up to 3 sensors and 15A line voltage

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4. Magnehelic gage

5. Low voltage power and control conductors as required for a

6. Line voltage switched leg from relay pack to local wall switches.

7. Line voltage switched leg from switches to lighting load.

8. Second switch for dual level lighting where indicated on plans.

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6. Line voltage switched leg from relay pack to local wall switches.

7. Line voltage switched leg from switches to lighting load.

8. Second switch for dual level lighting where indicated on plans.
1.1 SCOPE

1.2 SCOPE OF WORK

The contractor shall maintain a certified qualified technician to perform all workman labor, all materials employed, all required equipment and that each piece of equipment is in satisfactory working condition to satisfactorily perform its intended original purpose. Changes or additions subject to additional compensation, which are made without the permission of the owner.

1.3 REFERENCES

10. Occupational Safety and Health Act Standards (OSHA)
5. IEEE 1015 - Recommended Practice for Applying Low-Voltage Circuit Breakers Used in
16. NFPA 70 - National Electrical Code

1.4 INSTALLATION OF SYSTEM

1.5 DRAWINGS AND SPECIFICATIONS

A. All drawings and all specifications shall be considered as a whole and work of this Division shown in the drawings and specifications must be installed in accordance with the instructions set forth thereon. If they are in conflict with the drawings and specifications obtain clarification before proceeding with installation until unsatisfactory conditions have been corrected.

1.6 MATERIALS AND EQUIPMENT

It is the responsibility of the contractor to see that all materials and equipment used in the construction of the project are of the quality specified, and that they are in accordance with the drawings and specifications. Any changes or additions subject to additional compensation, which are made without the permission of the owner shall be at the contractor's expense.

2.1 STUDIES

D. Below grade compression fittings: Thomas & Betts, Series 52000, 53000, and 54000 or equivalent.

2.2 NONMETALLIC CONDUIT AND TUBING

5. Damp or Wet Locations: Rigid steel conduit.

2.3 INSTALLATION OF SYSTEM

A. General: Make connections so galvanic action or electrolysis possibility is minimized. Select the connectors that have been designed and calibrated for the service conditions. Connections shall be made in accordance with the National Electrical Code and the applicable NFPA standards. All electrical equipment shall be installed in accordance with the National Electrical Code and the applicable NFPA standards. All electrical equipment shall be installed in accordance with the National Electrical Code and the applicable NFPA standards.

2.4 INSTALLATION OF SYSTEM

C. Equipment Grounding Conductor Terminations: For No. 8 AWG and larger, use pressure-type clamps. For smaller sizes, use grounding terminals that meet all applicable local and national codes. All electrical equipment shall be properly grounded and protected against exposure to the public.

2.5 FLOOR BOXES

H. Install moisture-sealed raceway and electrical equipment boxes, enclosures, and cable management systems in accordance with all applicable local and national codes.

3.3 CONNECTIONS

C. Replace damaged or defective components.

4.1 MATERIALS AND EQUIPMENT

A. General: Any material not in accordance with the specifications and drawings shall be rejected.

4.2 INSTALLATION OF SYSTEM

C. Identify the device associated with each curve by manufacturer type, function, and, if applicable, tap, voltage, current, etc.

5.2 INSTALLATION OF SYSTEM

D. LFMC: Liquidtight flexible metal conduit.

6.1 INSTALLATION OF SYSTEM

A. General: Any material not in accordance with the specifications and drawings shall be rejected.

6.2 INSTALLATION OF SYSTEM

E. Pulling Strength: minimum of 600 pounds.

7.1 INSTALLATION OF SYSTEM

A. General: Select the connectors that have been designed and calibrated for the service conditions. Connections shall be made in accordance with the National Electrical Code and the applicable NFPA standards. All electrical equipment shall be installed in accordance with the National Electrical Code and the applicable NFPA standards.

7.2 INSTALLATION OF SYSTEM

E. J-hook Supports: Manufacturer's recommended fastening devices.

8.1 MATERIALS AND EQUIPMENT

A. General: Any material not in accordance with the specifications and drawings shall be rejected.

8.2 INSTALLATION OF SYSTEM

D. Below grade compression fittings: Thomas & Betts, Series 52000, 53000, and 54000 or equivalent.

9.1 INSTALLATION OF SYSTEM

A. General: Any material not in accordance with the specifications and drawings shall be rejected.

9.2 INSTALLATION OF SYSTEM

E. Pulling Strength: minimum of 600 pounds.

10. INSTALLATION OF SYSTEM

A. General: Any material not in accordance with the specifications and drawings shall be rejected.

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19. INSTALLATION OF SYSTEM

A. General: Any material not in accordance with the specifications and drawings shall be rejected.

20. INSTALLATION OF SYSTEM

A. General: Any material not in accordance with the specifications and drawings shall be rejected.
Operating Frequency: 20 kHz or higher.

Tighten electrical connectors and terminals according to manufacturer’s published torque-tightening values.

H. Directory Card: With transparent protective cover, mounted inside metal frame, inside panelboard door.

Testing: After installing panelboards and after electrical circuitry has been energized, demonstrate short-circuit rating. If not series rated: Fully rated to interrupt symmetrical short-circuit current.

3. Provide multi-pole units with common trip elements.

4. Tolerance: Difference exceeding 20 percent between phase loads, within a panelboard, is not uniformly flush with wall finish.

1.4 QUALITY ASSURANCE

A. Provide engraved lamacoid nameplate for each transformer.

B. Wiring Diagrams: Detail wiring and identify terminals for tap changing and connecting field-installed wiring.

C. Description: Self-cooled, 2 windings.

D. Lenses, Diffusers, Covers, and Globes: 100 percent virgin acrylic plastic or annealed crystal glass, or equal.

2.2 CARTRIDGE FUSES

C. FM Compliance: Fixtures for hazardous locations shall be listed and labeled for indicated class and voltage (20VDC-31VDC) range.

5. LED Indicator Light: Indicates normal power on. Normal glow indicates trickle charge; bright glow indicates charging at end of discharge cycle.

1.7 QUALIFICATIONS

A. The scope of work is to include any required modifications to the existing Siemens MLX-IQ fire alarm system.

B. This Section includes fire alarm system modifications.

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, and all work included under this Section.

1. Galvanized Finish: Hot-dip galvanize after fabrication to comply with ASTM A 123.

2. Surface Preparation: Clean surfaces to remove dirt, oil, grease, and other contaminants that may affect adhesion of the coating system material.

3. Section 16120 - Conductors and Cables.

4. Section 16130 - Raceways and Boxes.

5. Test Push Button: Push-to-test type, in unit housing, simulates loss of normal power and sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds.

6. Night-Light Connection: Where night-light option is called out in the drawings, operate one fixture ballast.

7. Operating Temperature Range: -20° C to +55° C (-4° F to +131° F)

8. BF: 0.95 or higher, unless otherwise indicated.

1. Emergency Connection: Operate 1 or 2 fluorescent lamps continuously at an output of 1100 lumens for 90 minutes. Connect unswitched circuit to battery-inverter unit and connect lamps to power supply.

2. Open-circuit operation shall not reduce average lamp life.
KEYED NOTES:
1. MOUNT BOTTOM OF LOUVER AT 23'-0".
2. MOUNT BOTTOM OF EXHAUST FAN AT 24'-6".
3. PROVIDE DRY PIPE FIRE SPRINKLER SYSTEM IN THIS AREA. SEE SPECIFICATIONS FOR DETAILS.