## E1 – Symbols and Legend

### SYMBOLS LEGEND

- DUPLEX RECEPTACLE – +18" AFF UON
- GFCI, WP DUPLEX RECEPTACLE - +18" AFF UON
- S — LIGHT SWITCH - +48" AFF OR IN ELEV. PIT – 120V, 20A
- TELEPHONE OR OUTLET - 4" SQUARE BOX WITH PLASTER RING AND 3/4"C. TO ABOVE CEILING
- MOTOR CONNECTION
- EXIT LIGHT – WIRE AHEAD OF SWITCH
- DISCONNECT SWITCH, FUSE PER NAMEPLATE
- CIRCUIT TO PANEL
- CEILING RECESSED MOUNTED FIXTURE – INPUT WATTS-32W (90 LM/W)
- RECESSED FLOURESCENT TROFFER (2'X4') INPUT WATTS-96W (92 LM/W)
- RECESSED STRIP FLOURESCENT (1'X4') INPUT WATTS-64W (95 LM/W)
- J — JUNCTION BOX WITH CONNECTION TO EQUIPMENT
- 1 HOUR FIRE RATED ASSEMBLY
- 2 HOUR FIRE RATED ASSEMBLY
- 3 HOUR FIRE RATED ASSEMBLY

### ABBREVIATIONS

| | |
|---|---|
| A | AMPERE |
| AFF | ABOVE FINISHED FLOOR |
| BRKR | CIRCUIT BREAKER |
| C | CONDUIT (RMC UON) |
| CKT | CIRCUIT |
| CU | COPPER |
| EC | EMPTY CONDUIT W/PULL STRING |
| EGC | EQUIPMENT GROUNDING CONDUCTOR |
| ELEV. | ELEVATOR |
| EXIST | EXISTING |
| GEC | GROUNDING ELECTRODE CONDUCTOR |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTOR |
| GND | GROUND |
| KAIC | KILO-AMPERE INTERRUPT CURRENT |
| KV | KILO-VOLT |
| KVA | KILO-VOLT-AMPERES |
| LM/W | EFFICACY (LUMENS PER WATT) |
| MCB | MAIN CIRCUIT BREAKER |
| MH | MOUNTING HEIGHT |
| MIN | MINIMUM |
| MLO | MAIN LUGS ONLY |
| MT'D | MOUNTED |
| P | POLE |
| PH | PHASE (AFTER NUMBER 1 OR 3) |
| PRI | PRIMARY |
| RMC | RIGID METAL CONDUIT |
| SEC | SECONDARY |
| SWBD | SWITCHBOARD |
| UON | UNLESS OTHERWISE NOTED |
| V | VOLT |
| W | WATTS |
| W/ | WITH |
| WP | WEATHERPROOF |
| XFMR | TRANSFORMER |
| Z | IMPEDANCE |

### DRAWING LEGEND:

| | |
|---|---|
| E1 | LEGENDS AND ABBREVIATIONS |
| E2 | PART LIGHTING PLAN |
| E3 | PART POWER PLAN |
| E3A | LARGE SCALE DETAIL |
| E4 | ONE-LINE DIAGRAM |
| E4A | RISER DIAGRAM |
| E5 | PANEL SCHEDULE |
| E6 | FIRE STOP DETAIL |

### PROJECT INFORMATION:

USE GROUP: B
CONSTRUCTION TYPE: IIA
CHANGE OF USE: NO
FLOOD PLAIN: NO
OCCUPANCY: 45
FULLY SPRINKLERED BUILDING
BUILDING SQUARE FOOT: 4,500

1

### CODE INFORMATION:

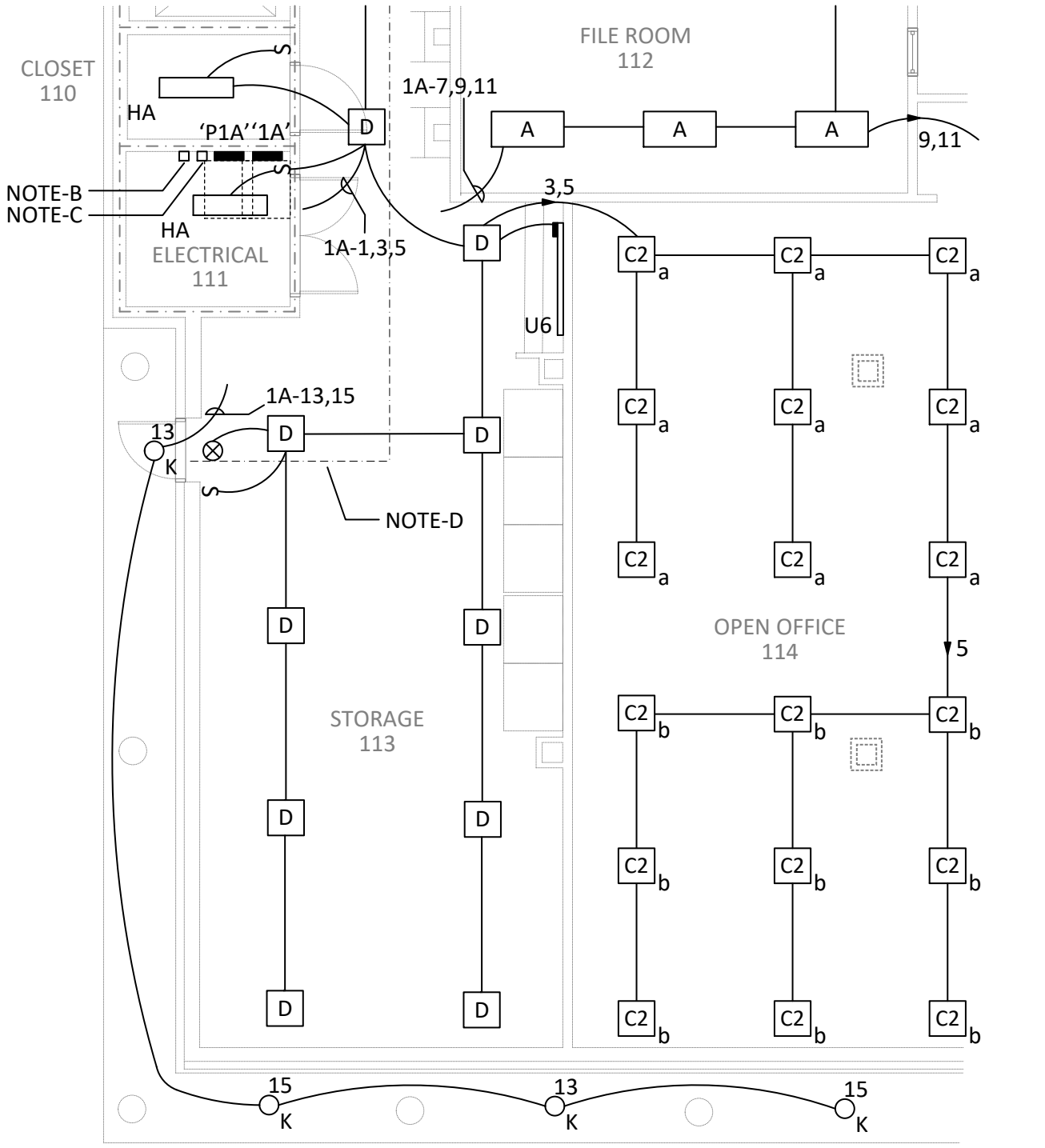
2015 VIRGINIA STATEWIDE
BUILDING CODE (VUSBC)
2014 NATIONAL ELECTRICAL CODE (NEC)

1

<SIGNATURE AREA>

| | | |
|---|---|---|
| Project Name | Diamond Plating | |
| Project Address | 2312 Westwood Avenue | |
| Master's Name | Robert Duce | |
| Master's Card Number | 2733-012345 | |
| Phone (804) 555-1234<br>Fax (804) 555-4321 | Duce Electric Co.<br>900 East Broad Street<br>Richmond, VA 23222 | E1 |

**E2 – Partial Lighting Plan**




0' 4' 8' 16'

1/8 = 1'-0"

# PART LIGHTING PLAN

1/8" = 1'-0"

**NOTES:**

ALL WIRING #12 W/GROUND, 3/4"C MIN UON THWN FOR CONDUCTOR INSULATION

A. ALL WIRING #12 W/GND, 3/4"C MIN UON

B. TIME CLOCK MH @ 48" AFF

C. LIGHTING CONTACTOR MH @ 48" AFF

D. PATH OF EGRESS

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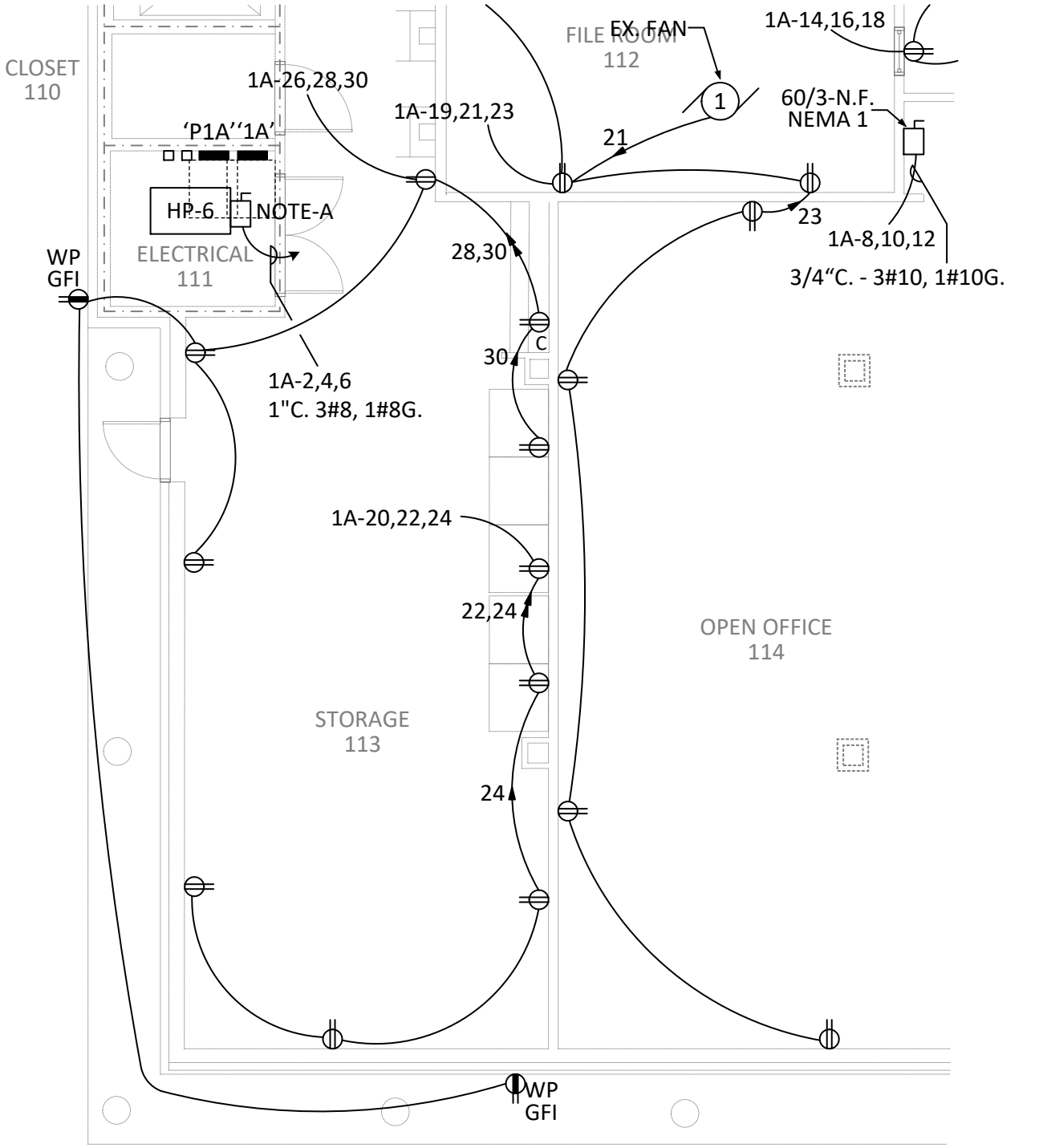
**E3 – Partial Power Plan**




0' 4' 8' 16'

1/8 = 1'-0"

# PART POWER PLAN

1/8" = 1'-0"

**NOTES:**

ALL WIRING #12 W/GROUND, 3/4"C MIN UON
THHN/THWN FOR CONDUCTOR INSULATION
A. 60A, 3PH NON-FUSED DISCONNECT SWITCH

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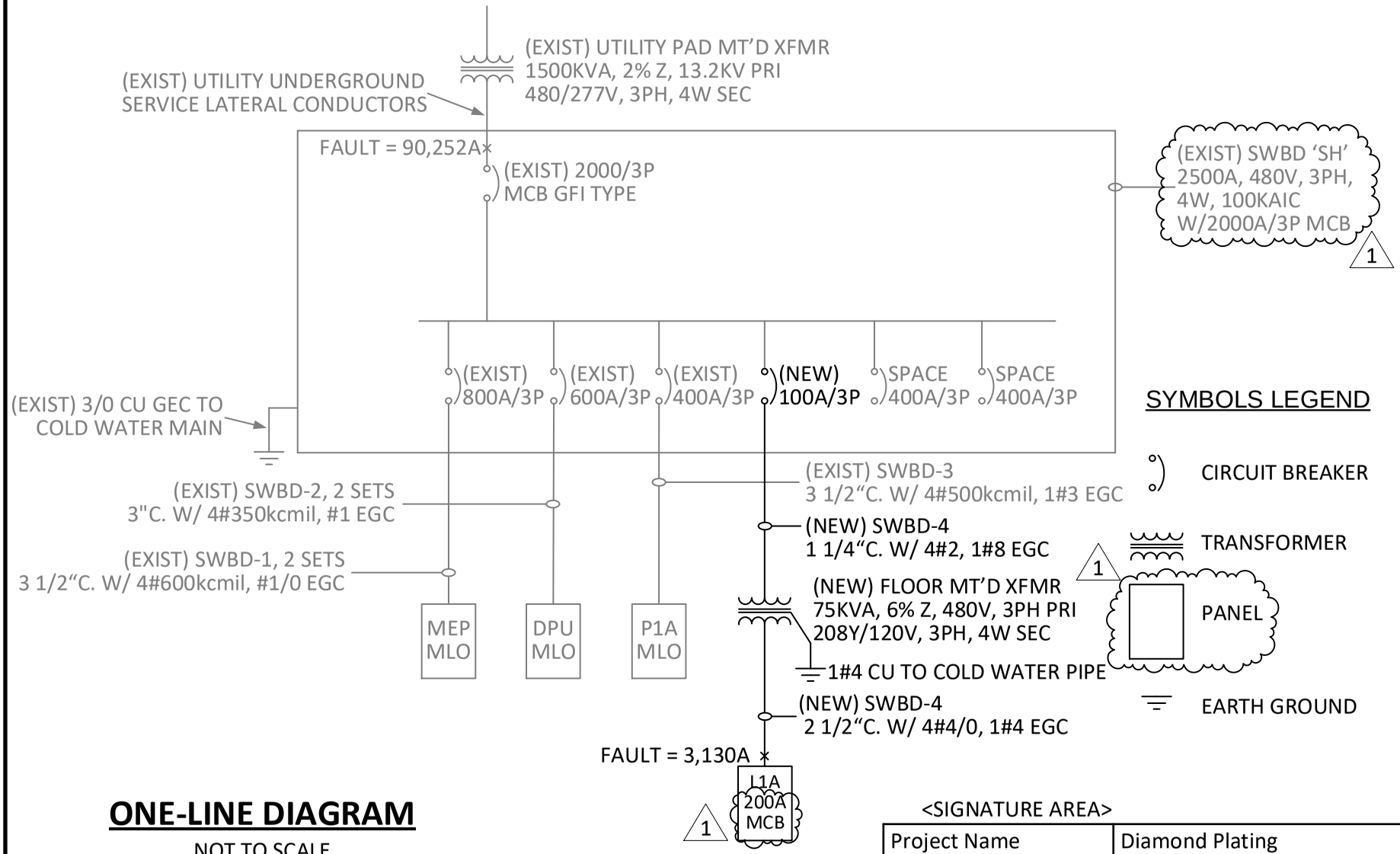


## ONE-LINE DIAGRAM

NOT TO SCALE

ALL NEW WIRING SHALL BE WITH THHN/THWN INSULATION.

<SIGNATURE AREA>

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# PANELBOARD "1A" SCHEDULE

MLO SURFACE MOUNT PANEL WITH SOLID NEUTRAL AND GROUND BUS.
SIEMENS, TYPE NQOD, 120/208V, 3PH, 4W, 225A 22 KAIC

| LOADS SERVED | WIRE SIZE | LOAD KVA | | | BRKR TRIP | P | CKT # | PHASE | CKT # | P | BRKR TRIP | LOAD KVA | | | WIRE SIZE | LOADS SERVED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | | | | A B C | | | | A | B | C | | |
| LIGHTS | 12 | 1.4 | | | 20 | 1 | 1 | | 2 | | | 6.0 | | | | -- |
| LIGHTS | 12 | | 1.4 | | 20 | 1 | 3 | | 4 | 3 | 70* | | 6.0 | | 8 | HP #6 |
| LIGHTS | 12 | | | 1.4 | 20 | 1 | 5 | | 6 | | | | | 6.0 | | -- |
| LIGHTS | 12 | 1.2 | | | 20 | 1 | 7 | | 8 | | | 2.8 | | | | -- |
| LIGHTS | 12 | | 1.2 | | 20 | 1 | 9 | | 10 | 3 | 45* | | 2.8 | | 10 | HP #8 |
| LIGHTS | 12 | | | 1.2 | 20 | 1 | 11 | | 12 | | | | | 2.8 | | -- |
| LIGHTS | 12 | 0.4 | | | 20 | 1 | 13 | | 14 | 1 | 20 | 6.0 | | | 12 | RECEPTACLES |
| LIGHTS | 12 | | 0.4 | | 20 | 1 | 15 | | 16 | 1 | 20 | | 6.0 | | 12 | RECEPTACLES |
| SPARE | 12 | | | -- | 20 | 1 | 17 | | 18 | 1 | 20 | | | 6.0 | 12 | RECEPTACLES |
| RECEPTACLES | 12 | 1.4 | | | 20 | 1 | 19 | | 20 | 1 | 20 | 1.2 | | | 12 | VENDING MACHINE |
| EXHAUST FAN | 12 | | 1.4 | | 20 | 1 | 21 | | 22 | 1 | 20 | | 1.2 | | 12 | VENDING MACHINE |
| RECEPTACLES | 12 | | | 1.4 | 20 | 1 | 23 | | 24 | 1 | 20 | | | 0.8 | 12 | RECEPTACLES |
| SPACE | | -- | | | 20 | 1 | 25 | | 26 | 1 | 20 | 1.0 | | | 12 | RECEPTACLES |
| SPACE | | | -- | | 20 | 1 | 27 | | 28 | 1 | 20 | | 1.2 | | 12 | MICROWAVE OVEN |
| SPACE | | | | -- | 20 | 1 | 29 | | 30 | 1 | 20 | | | 1.6 | 12 | REFRIG./FREEZER |
| TOTAL | | 4.0 | 5.4 | 3.2 | | | | | | | | 12.0 | 12.2 | 12.2 | TOTAL | |

CONNECTED KVA: 49

* PROVIDE HACR TYPE CIRCUIT BREAKER

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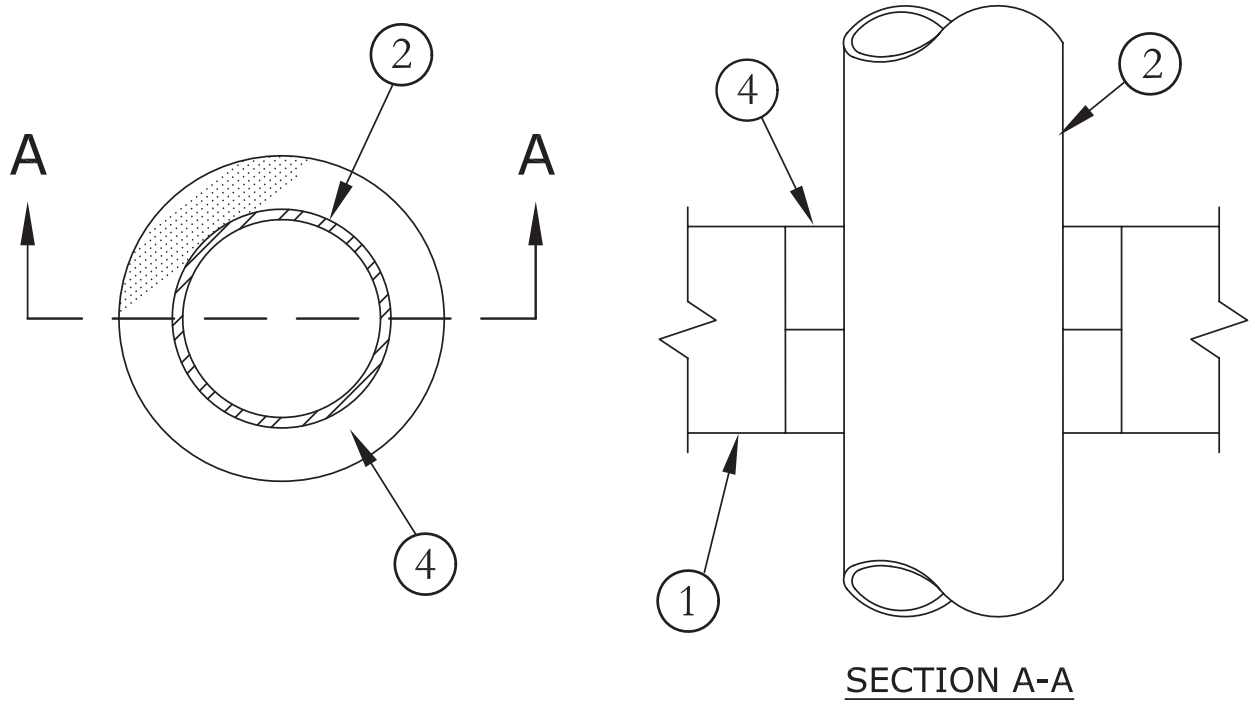
# E6 – UL Rated Fire Stop Detail

**System No. C-AJ-1013**

May 09, 2013
F Rating – 1 Hr
T Rating – 0 Hr
L Rating At Ambient – Less Than 1 CFM/sq ft
L Rating At 400 F – Less Than 1 CFM/sq ft




1. **Floor or Wall Assembly** – Min 5 in. (127 mm) thick reinforced normal weight (140-155) pcf) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 6 in. (152 mm).

   See **Concrete Block** (CAZT) category in the Fire Resistance Directory.

2. **Through Penetrants** – One metallic pipe, or conduit to be centered within the firestop system. Pipe or conduit to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes or conduits may be used:

   A. **Steel Pipe** – Nom 4 in. (102 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe. A nom annular space of 3/4 in. (19 mm) is required within the firestop system.

   B. **Conduit** – Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or steel conduit. A nom annular space of 3/4 in. (19 mm) is required within the firestop system.

3. **Packing Material** – (Not Shown) – Nom 1 in. (25 mm) diam open cell polyurethane foam backer rod friction-fitted into the opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.

4. **Fill, Void or Cavity Material*** – **Sealant** – Min 3/4 in. (19 mm) thickness of fill material applied within annulus, flush with top surface of floor or with both surfaces of wall.

   **3M COMPANY** – Types FB-1000 NS, FB-1003SL (floors only), FB-2000 or FB-2000+.

Bearing the UL Classification Mark

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