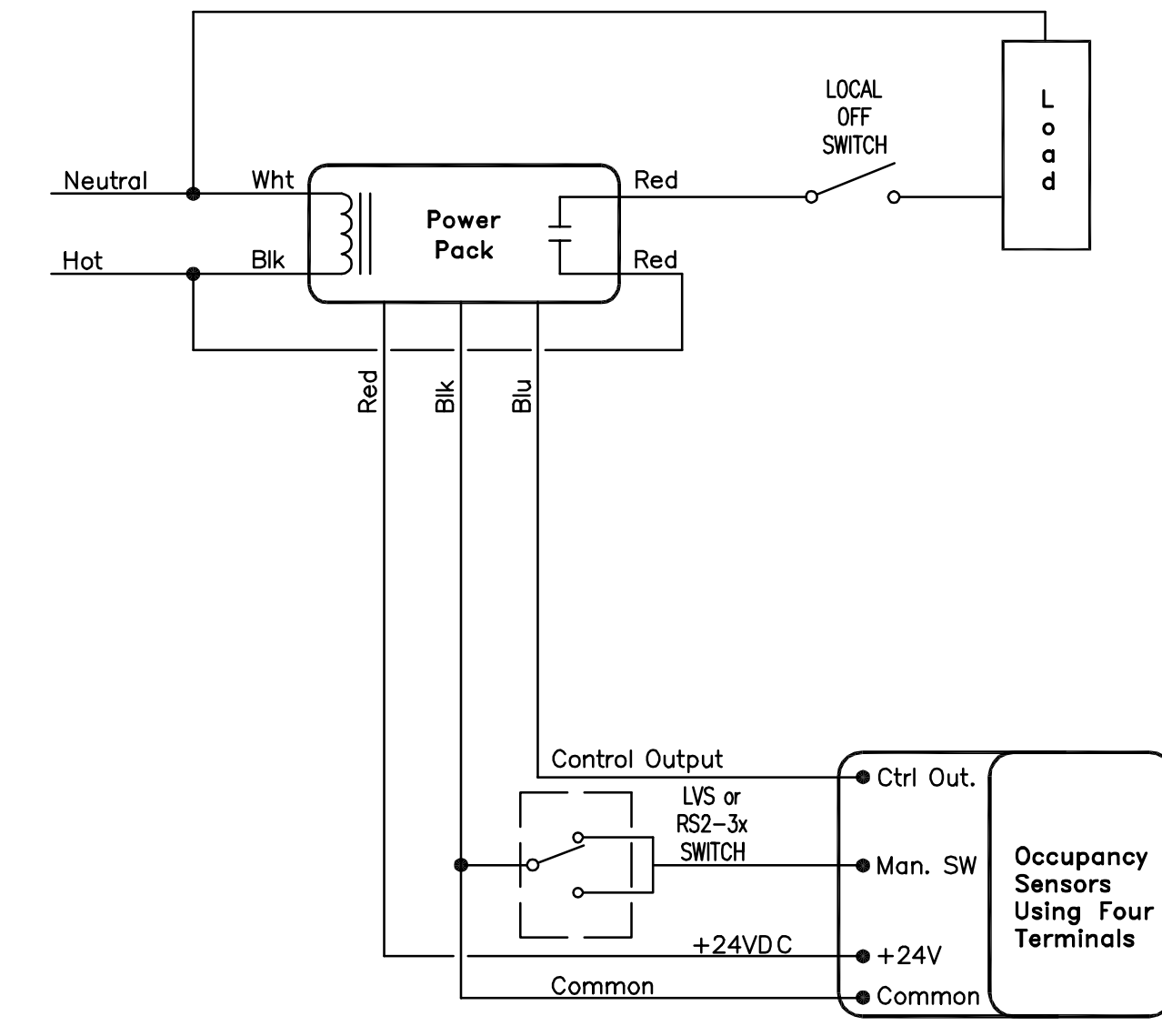


| MOTOR AND EQUIPMENT SCHEDULE | | | | | | | | | | | | | | | | | | | |
|------------------------------|-----------------|--------|---------|-----------|------------------|---------|------|----|------------|------|---------|----|--------------|-----------|-----------------|---------|----|------|--|
| DESCRIPTION | | HP/KW | VOLT/PH | LOCATION | CONDUIT & WIRE | STARTER | | | DISCONNECT | | | | POWER SOURCE | | | CONTROL | | NOTE | |
| NO. | NAME | | | | | TYPE | SIZE | BY | AMP | POLE | TYPE | BY | PANEL | CIRCUIT # | CIRCUIT BREAKER | TYPE | BY | | |
| FR-1 | FURNACE | 1 | 120/1 | STORAGE | 1/2"C-2#12+1#12G | - | - | 15 | 30 | 1 | MSS | 16 | L3 | 11 | 20A1P | - | 15 | - | |
| FR-2 | FURNACE | 3/4 | 120/1 | MECH | 1/2"C-2#12+1#12G | - | - | 15 | 30 | 1 | MSS | 16 | L4 | 14 | 20A1P | - | 15 | - | |
| FR-3 | FURNACE | 3/4 | 120/1 | MECH | 1/2"C-2#12+1#12G | - | - | 15 | 30 | 1 | MSS | 16 | L4 | 16 | 20A1P | - | 15 | - | |
| FR-4 | FURNACE | 3/4 | 120/1 | MECH | 1/2"C-2#12+1#12G | - | - | 15 | 30 | 1 | MSS | 16 | L4 | 18 | 20A1P | - | 15 | - | |
| FR-5 | FURNACE | 3/4 | 120/1 | CLASSROOM | 1/2"C-2#12+1#12G | - | - | 15 | 30 | 1 | MSS | 16 | L4 | 12 | 20A1P | - | 15 | - | |
| CU-1 | CONDENSING UNIT | 8KW | 240/1 | OUTDOOR | 3/4"C-2#8+1#8G | - | - | 15 | 30 | 2 | NFSS,WP | 16 | L3 | 13,15 | 40A2P | - | 15 | - | |
| CU-2 | CONDENSING UNIT | 6.67KW | 240/1 | OUTDOOR | 3/4"C-2#8+1#8G | - | - | 15 | 30 | 2 | NFSS,WP | 16 | L4 | 13,15 | 40A2P | - | 15 | - | |
| CU-3 | CONDENSING UNIT | 6.67KW | 240/1 | OUTDOOR | 3/4"C-2#8+1#8G | - | - | 15 | 30 | 2 | NFSS,WP | 16 | L4 | 17,19 | 40A2P | - | 15 | - | |
| CU-4 | CONDENSING UNIT | 5.52KW | 240/1 | OUTDOOR | 3/4"C-2#10+1#10G | - | - | 15 | 30 | 2 | NFSS,WP | 16 | L4 | 21,23 | 30A2P | - | 15 | - | |
| CU-5 | CONDENSING UNIT | 6.67KW | 240/1 | OUTDOOR | 3/4"C-2#8+1#8G | - | - | 15 | 30 | 2 | NFSS,WP | 16 | L4 | 25,27 | 40A2P | - | 15 | - | |
| EF-1 | EXHAUST FAN | 60W | 120/1 | TOILET | 1/2"C-2#12+1#12G | - | - | 15 | 30 | 1 | MSS | 16 | L4 | 20 | 20A1P | - | 15 | 1 | |
| EF-2 | EXHAUST FAN | 80W | 120/1 | TOILET | 1/2"C-2#12+1#12G | - | - | 15 | 30 | 1 | MSS | 16 | L4 | 20 | 20A1P | - | 15 | 1 | |
| EF-3 | EXHAUST FAN | 54W | 120/1 | CLASSROOM | 1/2"C-2#12+1#12G | - | - | 15 | 30 | 1 | MSS | 16 | L4 | 20 | 20A1P | - | 15 | 1 | |
| EF-4 | EXHAUST FAN | 80W | 120/1 | KITCHEN | 1/2"C-2#12+1#12G | - | - | 15 | 30 | 1 | MSS | 16 | L4 | 22 | 20A1P | - | 15 | 1 | |
| WH-1 | WATER HEATER | 6KW | 240/1 | TOILET | 3/4"C-2#10+1#10G | - | - | 15 | 30 | 1 | MSS | 16 | L4 | 40,42 | 30A2P | - | 15 | 1 | |

NOTES: 1. INTERLOCK WITH BATHROOM LIGHT SWITCH.

LEGEND:
MSS - MANUAL STARTER SWITCH
FNVR - FULL VOLTAGE NON REVERSING
NFSS - NON-FUSED SAFETY SWITCH
VFD - VARIABLE FREQUENCY DRIVE
RPB - REMOTE PUSHBUTTON
CB - CIRCUIT BREAKER
TS - TOGGLE SWITCH
WP - WEATHER PROOF
T'STAT - THERMOSTAT
NF - NON FUSED
NA - NOT APPLICABLE
PLSW - PILOT LIGHT SWITCH



CI, DT And UT-305
Standard Schematic

2
E5.1 OCCUPANCY SENSOR WIRING DIAGRAM

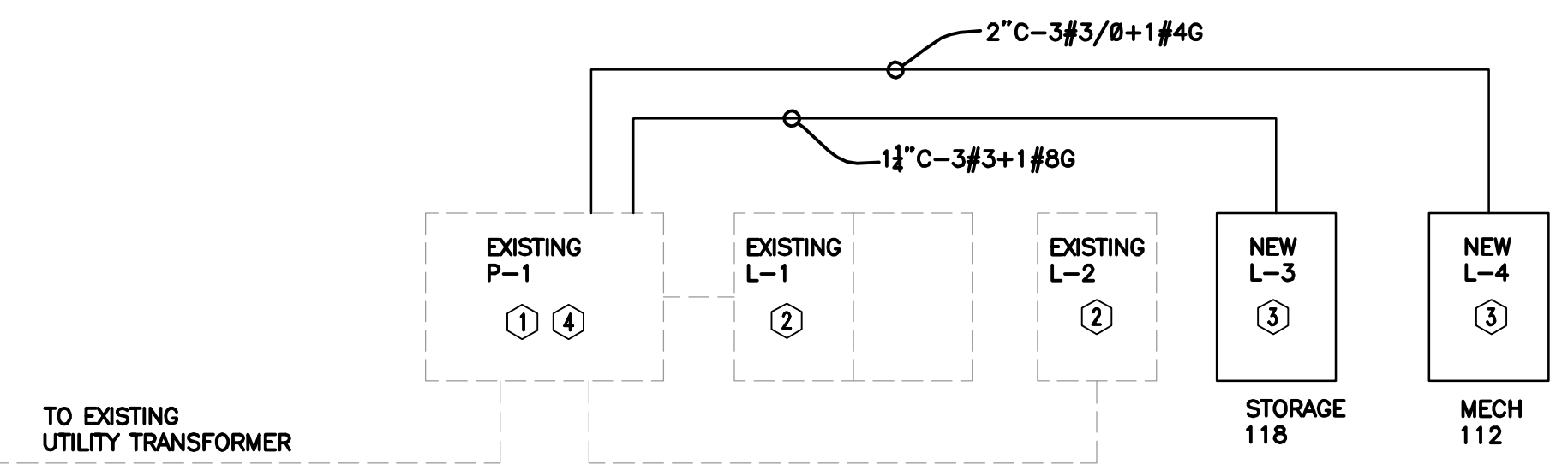
NO SCALE

| LIGHT FIXTURE SCHEDULE | | | | | | | | | | |
|------------------------|--|-------|------|-------|------------------------------|------------|---|--|---|-------|
| TYPE | DESCRIPTION | LAMPS | | | MOUNTING | VOLT | MANUFACTURER & CATALOG# | | | NOTES |
| | | QTY | WATT | TYPE | | | | | | |
| A | 2'x4' RECESSED LENSED TROFFER, 3 LAMP | 3 | 32W | T8 | RECESSED | MULTI VOLT | LITHONIA #2SPB-G-3-32-A12125-MVOLT-1/3GEB OR EQUAL FINELITE OR LUMAX | | | |
| A1 | 2'x4' RECESSED LENSED TROFFER, 3 LAMP | 3 | 32W | T8 | RECESSED | MULTI VOLT | LITHONIA #2SRH-G-3-32-FSF-A12125-MVOLT-1/3GEB OR EQUAL COLUMBIA OR LUMAX | | 1 | |
| A2 | 2'x4' RECESSED TROFFER, POST PAINTED | 3 | 32W | T8 | RECESSED | MULTI VOLT | LIGHTOLIER #QVF2SPFOS-120-SB OR EQUAL COLUMBIA OR LUMAX | | | |
| B | 1'x4' INDIRECT, 3 LAMP | 3 | 32W | T8 | RECESSED | MULTI VOLT | LIGHTOLIER #EG1-13-32-L8-120V-W OR EQUAL COLUMBIA OR FINELITE | | | |
| D | 6" DIA., 26W DOUBLE TWIN TUBE DOWNLIGHT W/CLEAR REFLECTOR AND TRIM | 2 | 13W | DTT | RECESSED | 120 | LITHONIA #AF-2/13DTT-6AR-120 OR EQUAL PRESCOLITE OR OMEGA | | | |
| D1 | PENDANT MOUNTED 12" STEM (2 CIRCUIT) | 1/4 | 39W | PAR38 | PENDANT | 120 | VISA #CP4340-VAR49914-1 OR EQUAL PRESCOLITE OR OMEGA | | 4 | |
| D2 | PENDANT GLASS WHITE | 1 | 25W | IND | PENDANT | 120 | FORECAST #F5150-12 OR EQUAL PRESCOLITE OR OMEGA | | 3 | |
| D3 | HID, DOWNLIGHT, CLEAR REFLECTOR AND TRIM | 1 | 100W | MH | RECESS/SOFFIT | 120 | LITHONIA #LP6HN-100M-609AZ-120 OR EQUAL PRESCOLITE, HALO, CAPRI | | | |
| E | LED EXIT LIGHT, SINGLE STENCILED FACE W/RED LETTERS | - | - | LED | UNIVERSAL | 120/277 | LITHONIA #LE-S-W-1-R-120/277-EL N OR EQUAL DUAL-LITE OR McPHILBEN | | 2 | |
| F | 4" INDUSTRIAL FLUORESCENT W/ 5% UPLIGHT | 2 | 32W | T8 | SURFACE | MULTI VOLT | LITHONIA #EJSA-2-32-MVOLT-GEB OR EQUAL COLUMBIA OR DAYBRITE | | | |
| G | EXTERIOR DOWN LIGHT WALL MOUNTED | 1 | 70W | HID | SURFACE/WALL | 120 | GUTH #SND12-70MH-1 OR EQUAL HUBBELL OR NITEBRITES | | | |
| H | TOILET SINK LIGHT 48" | 2 | 32W | T8 | SURFACE | 120 | LITHONIA #WC-232-MVOLT-GEB1015 OR EQUAL PRESCOLITE, COLUMBIA OR LUMAX | | | |
| J | UNDER CABINET LIGHT 36" | 2 | 25W | T8 | SURFACE | 120 | LITHONIA #WP-225-MVOLT-GEB1015-SWR OR EQUAL PRESCOLITE, COLUMBIA OR LUMAX | | | |
| K | CEILING FAN 52" LOW PROFILE 3 (WHITE) | - | - | - | CEILING | 120 | HUNTER #20803 OR EQUAL PROGRESS OR LEADING EDGE | | 6 | |
| L | TRACK-SINGLE CIRCUIT (WHITE) | - | - | - | SURFACE | 120 | CONTECH #LT-6-P OR EQUAL LITHONIA | | | |
| L1 | TRACK HEADS (WHITE) | 1 | 100W | PAR38 | TRACK | 120 | CONTECH #CLT8038-P-FA-40 OR EQUAL LITHONIA | | | |
| X | EMERGENCY EGRESS LIGHT FIXTURE W/BATTERY BACKUP | 2 | 5.4W | KRYP. | SURFACE/WALL | 120 | LITHONIA #ELM2 OR EQUAL DUAL-LITE OR McPHILBEN | | 2 | |
| AA1 | POLE MOUNTED, SQ. HEAD, AREA LIGHT FIXTURE W/TYPE 4 DISTRIBUTION | 1 | 400W | MH | 30'-0", 5" SQ. STRAIGHT POLE | 240 | STERNER #ARS-RT-19-400MH-F-MT-WH/SSS-305710WH OR EQUAL TO MATCH EXISTING | | 5 | |

NOTES: 1. WET LABEL FIXTURE.
2. INTEGRAL BATTERY PACK.
3. ALTERNATE LIGHT FIXTURE.
4. (4)-31W T8 LAMPS AND (1) 150W PAR38 LAMP.
5. NEW EXTERIOR LIGHT STANDARD TO MATCH EXISTING.
6. FAN WIT H(2) SPEED CONTROLLER WITH REV.

| PANELBOARD SUMMARY | | | | | | | | | | |
|--------------------|---------|-------|------|-----|-------|------|--|----------|------------------|-------|
| PANEL # | VOLTAGE | PHASE | WIRE | AMP | MAINS | TYPE | BRANCH CIRCUIT | MOUNTING | LOCATION | NOTES |
| EXISTING P-1 | 120/240 | 1 | 3 | 800 | MLO | CB | 1-200A 2P (EXISTING) 1-400A 2P (EXISTING) 1-100A 2P (NEW) 2-200A 2P (NEW) | SURFACE | EXISTING MECH | 1 |
| EXISTING L-1 | 120/240 | 1 | 3 | 200 | MLO | CB | TO REMAIN AS IS | SURFACE | EXISTING MECH | 1 |
| EXISTING L-2 | 120/240 | 1 | 3 | 400 | MLO | CB | TO REMAIN AS IS | SURFACE | EXISTING STORAGE | 1 |
| NEW L-3 | 120/240 | 1 | 3 | 100 | 100A | CB | 20-20A 1P 1-40A 2P | SURFACE | NEW STORAGE 113 | 2 |
| NEW L-4 | 120/240 | 1 | 3 | 200 | 200A | CB | 27-20A 1P 3-30A 1P 1-20A 2P 3-30A 2P 3-40A 2P | SURFACE | NEW MECH | 2 |

NOTES: 1. EXISTING PANELBOARD TO REMAIN AND REUSE AS SHOWN.
2. NEW PANELBOARD TO BE CONNECTED TO EXISTING ELECT. SERVICE PANEL P-1 AS SHOWN.



ELECTRICAL REFERENCE NOTES

- ① EXISTING P-1 PANELBOARD TO REMAIN AND REUSE AS SHOWN.
- ② EXISTING L-1/L-2 PANELBOARD TO REMAIN AND REUSE AS SHOWN.
- ③ NEW PANELBOARD TO BE USED FOR NEW ADDITION.
- ④ PROVIDE AND INSTALL (1) 200A-2P AND (1) 100A 2P CB IN EXISTING PANELBOARD FOR NEW PANELBOARD CONNECTED TO EXISTING ELECTRICAL SERVICE. COORDINATE AND INTERCONNECT AS REQUIRED.

1
E5.1 POWER RISER DIAGRAM (EXISTING/NEW)

NO SCALE

PEACE LUTHERAN CHURCH
1000 Red River Avenue North
Cold Spring, MN 56320

REVISION _____ DATE _____

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Engineer under the laws of the state of Minnesota.

Arnold J. Hieserich
ARNOLD J. HIESERICH, P.E.

03-31-10 _____ 24439 _____
Date License No.

ELECTRICAL SCHEDULES AND DETAILS

COMM. NO.: 10708
SCALE: AS SHOWN
DATE: MARCH 29, 2010
DRAWN BY: DJD

E5.1