GENERAL NOTES

1. NOT ALL SYMBOLS INDICATED IN THE LEGEND APPEAR ON THE DRAWINGS. COORDINATE WORK ACCORDINGLY. COMPLY WITH SPECIFICATIONS AND NOTES BELOW AS APPLICABLE.

2. ALL RECEPTACLES SHALL BE INSTALLED 18" AFF TO CENTERLINE OF BOX UNLESS NOTED OTHERWISE.

3. MOUNT PANELS IN RESIDENTIAL SPACES SO NO CIRCUIT BREAKER HANDLE IS HIGHER THAN 44" AFF.

4. ALL WIRING SHALL BE COPPER UNLESS DESIGNATED AS "AL". UNLESS OTHERWISE NOTED ALL WIRING SHALL BE 2•12 AWG AND 1•12 EQUIPMENT GROUNDING CONDUCTOR. HOMERUNS FED FROM A 20A-1P, 120V CIRCUIT IN EXCESS OF 70' SHALL BE •10 AWG.

5. CONNECT BATTERY BACKED EMERGENCY AND EXIT LIGHTING TO NEAREST LIGHTING CIRCUIT AHEAD OF ANY SWITCHING. CONNECT REMOTE HEADS WITH •10 AWG COPPER CONDUCTORS. AC EXIT FIXTURES SHALL BE CONNECTED TO NEAREST EMERGENCY CIRCUIT OR AS INDICATED.

6. TEST ALL EMERGENCY LIGHTING UNITS FOR PROPER OPERATION OF LAMPS AND BATTERIES.

7. SEE MECHANICAL PLAN FOR HVAC UNITS, PUMPS AND FANS CONTROLLED BY THERMOSTATS (PROVIDED BY ATC CONTRACTOR).

8. FUSES AND OVERLOAD UNITS FOR MOTORS SHALL BE SIZED BASED ON ACTUAL MOTOR NAMEPLATE DATA AND IN ACCORDANCE WITH NEC. CIRCUIT BREAKERS FOR MOTORS ARE SUPPLIED AT MAX VALUE PER NEC (2.5 x FLA). SIZE IN THE FIELD IN ACCORDANCE WITH MFGR RECOMMENDATION.

9. ALL WORK SHALL COMPLY WITH NFPA70, NFPA72, NFPA101 & ALL FEDERAL, STATE & LOCAL REGULATIONS.

10. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN FIRE RATING FOR THE SEPARATION.

11. ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.

12. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH ALL FEEDERS AND BRANCH CIRCUITS. SIZE IN ACCORDANCE WITH NFPA 70 ARTICLE 250.

13. PROVIDE TWO BALLASTS FOR EACH FIXTURE INDICATED AS REQUIRING DUAL LEVEL SWITCHING. ONE BALLAST TO CONTROL OUTER LAMPS AND THE SECOND BALLAST TO CONTROL INNER LAMP(S).

14. COORDINATE INSTALLATION OF VOICE/DATA OUTLETS WITH OWNER, MIS OR COMMUNICATIONS CONTRACTOR.

15. LOCATE DISCONNECTS AT EQUIPMENT AS REQUIRED BY MANUFACTURER. LOCATIONS ON DRAWINGS ARE APPROXIMATE.

16. OPERATE ALL FLUORESCENT AND METAL HALIDE LAMPS FROM INITIAL INSTALLATION FOR 100 HOURS AT FULL OUTPUT (NO DIMMING) TO SEASON LAMPS AND STABILIZE LAMP COLOR.

17. PROVIDE RISER OR PLENUM RATED CABLES ABOVE SUSPENDED CEILINGS.

18. THE CONTRACTOR SHALL SET ALL ELECTRONIC BREAKERS TO SPECIFIED TRIP SETTINGS BEFORE ENERGIZING EQUIPMENT.

19. PROVIDE EXPANSION FITTINGS FOR ALL UNDERGROUND RACEWAYS ENTERING ENCLOSURES ATTACHED TO FIXED STRUCTURES.

20. OUTDOOR RECEPTACLE COVERS SHALL COMPLY WITH NFPA 70 - ARTICLE 406.9.

21. ALL CONDUCTOR INSULATION FOR BUILDING WIRE SHALL BE THWN/THHN UNLESS NOTED OTHERWISE.

22. PROVIDE LABEL ON SERVICE EQUIPMENT INDICATING AVAILABLE SHORT CIRCUIT CURRENT OBTAIN VALUES FROM ENGINEER.

23. PROVIDE ARC FAULT LABELS PER NFPA 70-ARTICLE 110.24

24. IF BUILDING REQUIRES TWO SERVICE ENTRANCES, PROVIDE SIGNS PER NFPA 70-230.

25. OUTLETS INSTALLED IN FIRE RATED WALLS BACK TO BACK SHALL BE SEPARATED BY 24" MINIMUM OR BE PROTECTED WITH "PUTTY PADS" PER 2009 INTERNATIONAL BUILDING CODE SECTION 713.3.2

26. PROVIDE AIR VAPOR BARRIER BOXES FOR WIRING DEVICES IN EXTERIOR WALLS AND INTERIOR SOUND CONTROL WALLS BETWEEN RESIDENT ROOMS. INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE LESSCO MODEL NUMBER: VAPORBOX

27. MINIMUM WIRE SIZE ON ALL BRANCH CIRCUITS SHALL BE •12.

28. PROVIDE SIGN AT SERVICE ENTRANCE EQUIPMENT INDICATING TYPE AND LOCATION OF EMERGENCY GENERATOR PER NEC 700.7.

SYMBOL LEGEND

- SURFACE MOUNTED POWER PANEL, SEE PANEL SCHEDULES FOR RATING
- RECESSED MOUNTED POWER PANEL, SEE PANEL SCHEDULES FOR RATING
- M 7.5 — ELECTRIC MOTOR DRIVEN EQUIPMENT, HP SHOWN
- H, DS, DW — JUNCTION BOX, "H" DENOTES RANGE HOOD, "DS" DENOTES DISPOSAL, "DW" DENOTES DISHWASHER
- SM — MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD DEVICE MOUNTED AT UNIT
- DISCONNECT SWITCH, SIZE AND NUMBER OF POLES AS INDICATED ON DRAWING. PROVIDED BY EC UNLESS NOTED OTHERWISE. PROVIDE FUSES WHERE RECOMMENDED BY MANUFACTURER.
- COMBINATION MOTOR STARTER/ DISCONNECT SWITCH WITH AUXILARY CONTACTS AND HAND-OFF-AUTO SWITCH AND RED RUN LIGHT. PROVIDED AND INSTALLED BY EC UNLESS NOTED OTHERWISE.
- VFD — VARIABLE FREQUENCY DRIVE, PROVIDED BY MC, INSTALLED AND WIRED BY EC
- DUPLEX RECEPTACLE, 20A, 125V SPEC GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE. MOUNT 18" AFF UNLESS NOTED OTHERWISE.
- QUAD RECEPTACLE, 20A, 125V SPEC GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE. MOUNT 18" AFF UNLESS NOTED OTHERWISE.
- GFCI — GROUND FAULT DUPLEX RECEPTACLE 20A, 125V, TAMPER PROOF WITH MATCHING PLATE FURNISHED W/ OUTLET. FLUSH MOUNTED 45" AFF EXCEPT AS NOTED.
- RR — REFRIGERATOR DUPLEX RECEPTACLE, 20A, 125V SPEC GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE. MOUNT RECEPTACLE AT 48 INCHES ABOVE FINISHED FLOOR.
- CL — FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE- 20A, 125V SPEC GRADE GROUNDING TYPE. "CL" DENOTES CEILING MONTED
- RANGE OUTLET 50 AMP, 250 VOLT, GROUNDING TYPE FLUSH MOUNTED 18" AFF
- DRYER OUTLET 30 AMP, 250 VOLT, GROUNDING TYPE FLUSH MOUNTED 18" AFF
- RACEWAY & WIRING OR MC CABLE RUN CONCEALED IN WALLS/CEILINGS
- RACEWAY & WIRING RUN EXPOSED
- RACEWAY & WIRING RUN CONCEALED UNDER FLOOR OR BURIED 30" BELOW FINISH GRADE
- x/xx HP-XX — HOME RUN TO PANEL, WITH PANEL AND CIRCUIT NUMBER

  BRANCH CIRCUIT WIRING SHALL CONSIST OF (1)1/2"C-2•12AWG•1•12GND UNLESS OTHER WISE NOTED. (•)ASTERISK DENOTED •10AWG FOR ALL CIRCUITS CONTAINED IN HOME RUN. (••)DOUBLE ASTRISK DENOTES (1)3/4"C-2•8AWG•1•10GND.

  PROVIDE EQUIPMENT GROUNDS IN ACCORDANCE WITH NFPA 70, ATRICLE 250.
- TV — TV OUTLET LOCATION, CABLE AND JACKS BY EC
- TCP — TEMPERATURE CONTROL PANEL, PROVIDED BY MC WIRED BY EC
- PUSHBUTTON FOR ELECTRICALLY OPERATED DOOR, FURN W/ DOOR OPERATOR, WIRED BY EC
- A, D, F — LIGHTING FIXTURES, CAPITAL LETTERS DENOTE TYPE PER LIGHTING FIXTURE SCHEDULE, LOWER CASE LETTERS INDICATE SWITCH CONTROL. "ab" INDICATES INBOARD LAMPS CONTROLLED BY OUTBOARD SWITCHED "a" AND "b". DIAGONAL INDICATED NIGHT LIGHT (UNSWITCHED)
- SELF CONTAINED EMERGENCY LIGHT W/2 HEADS DUAL-LITE (LED) MODEL LZ65I-03L, 65 WATTS FOR 90 MINUTES, COLOR BY ARCHITECT
- INTERIOR REMOTE HEAD DUAL-LITE (LED) MODEL No CPRD 1203L, COLOR BY ARCHITECT
- EXTERIOR REMOTE HEAD DUAL-LITE (LED) MODEL No OCRD 1203L COLOR BY ARCHITECT
- EXIT LIGHT FIXTURE, UNSWITCHED, DUAL-LITE LX-U-R-W-E OR APPROVED EQUAL
- DT PIR — CEILING MOUNTED MOTION SENSOR (WATTSTOPPER OR EQUAL) CORRIDORS: WT-2255 SENSOR & B120E-P POWER PACK. OTHER COMMON SPACES: WT-605 SENSOR & B120E-P POWER PACK. SENSORS AND RELAYS TO CONTROL CIRCUITS IN SPACES INDICATED. DEVICES SHALL PROVIDE FULL COVERAGE IN AREAS INSTALLED. DT INDICATES DUAL TECHNOLOGY PIR INDICATED PASSIVE INFRARED TECHNOLOGY
- S_{MS} — WALL MOUNTED SWITCH MOTION SENSOR. MOUNT AT 48" AFF UNLESS OTHER WISE NOTED
- S_a S_4 S_3 — SINGLE POLE SWITCH, 120V, 20A, SPEC GRADE, GROUNDING TYPE, MOUNT 48" AFF, 3•3-WAY, 4•4-WAY, LOWER CASE LETTER INDICATES FIXTURE OR CONTROLLED LOAD.
- S_{PL} — SWITCH WITH PILOT LIGHT, SWITCHE SHALL BE PROVIDED W/ ENGRAVED NAMEPLATE IDENTIFYING USE
- S_{RF} — REMOTE RANGE HOOD FAN SWITCH, CONNECT TO HOOD FAN THRU HOOD JUNCTION BOX.
- S_{RL} — REMOTE RANGE HOOD LIGHT SWITCH, CONNECT TO HOOD LIGHT THRU JUNCTION BOX.
- S_B — BURNER SAFETY SWITCH, PROVIDE WITH RED PLATE, MOUNTED 72" AFF
- D_a D_4 D_3 — SINGLE POLE DIMMER SWITCH, 120V, 20A, SPEC GRADE, GROUNDING TYPE, MOUNT 48" AFF, 3-3-WAY, 4-4-WAY, LOWER CASE LETTER INDICATES FIXTURE OR CONTROLLED LOAD.
- PC — PHOTOCELL
- LC — LIGHTING CONTACTOR
- TC — TIMECLOCK
- TELEPHONE/DATA DUAL JACK, MOUNT 18"AFF, RUN TWO CAT 5E CABLES BACK TO TBB
- DATA JACK, RUN TWO CAT 5E CABLES BACK TO TBB.
- CL — FLUSH FLOOR MOUNTED TELEPHONE/DATA DUAL JACK, RUN TWO CAT 5E CABLES BACK TO TBB. "CL" DENOTES CEILING MOUNTED
- TELEPHONE JACK, MOUNT 18"AFF UNLESS NOTED OTHERWISE, RUN ONE CAT 5E CABLE BACK TO TBB.
- TELEPHONE BACK BOARD
- W — WIFI ROUTER, OCE CAT 5E CABLE BACK TO TBB OR IT ROOM. MOUNT ABOVE CEILING, "W" DENOTES WALL MOUNTED AT 72" AFF
- FACP — FIRE ALARM CONTROL PANEL
- ANN — FIRE ALARM ANNUNCIATOR PANEL
- FEM — FIRE EXTINGUISHER ELECTRONIC MONITOR-SHALL BE ACCOMPLISHED THROUGH USE OF AN ADDRESSABLE INTERFACE DEVICE AND SHALL PROVIDE INPUT TO THE FACP
- 30 CL — FIRE ALARM AUDIO/VISUAL, MOUNT 6'-8"AFF, NUMBER DENOTES CANDELA RATING. "MH" DENOTES MINIHORN, "CL" DENOTED CEILING MOUNTED. NO DESIGNATION EQUALS 15cd
- F — FIRE ALARM PULL STATION, MOUNT 48"AFF
- 15 CL — FIRE ALARM VISUAL STROBE ONLY, FLUSH MOUNT 6'-8" AFF, NUMBER DENOTES CANDELA RATINGS. "CL" DENOTES CEILING MOUNTED
- SYSTEM CONNECTED SMOKE / CARBON MONOXIDE DETECTOR, PHOTOELECTRIC TYPE
- 135° — SYSTEM CONNECTED FIXED TEMPERATURE HEAT DETECTOR
- SYSTEM CONNECTED SMOKE DETECTOR, PHOTOELECTRIC TYPE, SYSTEM CONNECTED.
- ER — SMOKE DETECTOR, PHOTOELECTRIC TYPE, SYSTEM CONNECTED. "ER" DENOTES ELEV RECALL
- SB — SYSTEM CONNECTED SMOKE DETECTOR, PHOTOELECTRIC TYPE, WITH SOUNDER BASE
- CO — CARBON MONOXIDE DETECTOR
- SD — DUCT SMOKE DETECTOR & TEST STATION
- FD/SD — FIRE/SMOKE DAMPER, SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO PROVIDE ALL WIRING CONNECTIONS AND FIRE ALARM DUCT SMOKE DETECTORS, ADDRESSABLE MODULES AND PROGRAMMING.
- SPRINKLER SYSTEM FLOW SWITCH
- SPRINKLER SYSTEM TAMPER SWITCH

  SUPPLIED BY SPRINKLER CONTRACTOR WIRED BY EC, VERIFY LOCATIONS WITH SPRINKLER CONTRACTOR.

PANEL HPW (WAREHOUSE BUILDING) 120/208 3PH 4W 225 AMP BUS - MLO 22K AIC NEMA TYPE 1 (SURFACE)

CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA	CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA
1	TEMP LIGHTS	20	1		0.50	0	2	HVAC-W	60	3	49	0.70	34
3	ROOF RECEPT	20	1	2	0.50	1	4				49	0.70	34
5	SPARE	20	1			0	6				49	0.70	34
7	SPARE	20	1			0	8	SPARE	20	1			0
9	SPARE	20	1			0	10	SPARE	20	1			0
11	SPARE	20	1			0	12	SPARE	20	1			0
13	SPARE	20	1			0	14	SPARE	20	1			0
15	SPARE	20	1			0	16	SPARE	20	1			0
17	SPARE	20	1			0	18	SPARE	20	1			0
19	SPARE	20	1			0	20	SPARE	20	1			0
21	SPARE	20	1			0	22	SPARE	20	1			0
23	SPARE	20	1			0	24	SPARE	20	1			0
25	SPARE	20	1			0	26	SPARE	20	1			0
27	SPARE	20	1			0	28	SPARE	20	1			0
29	SPARE	20	1			0	30	SPARE	20	1			0
31	SPARE	20	1			0	32	SPARE	20	1			0
33	SPARE	20	1			0	34	SPARE	20	1			0
35	SPARE	20	1			0	36	SPARE	20	1			0
37	SPARE	20	1			0	38	SPARE	20	1			0
39	SPARE	20	1			0	40	SPARE	20	1			0
41	SPARE	20	1			0	42	SPARE	20	1			0

AT - Amp Trip
P - Poles
A - Amps
CA - Connected Amperes
DF - Demand Factor (1 - .1)
DA - Demand Amperes
MLO - Main Lug Only
MCB - Main Circuit Breaker

Section 1	
Tot Amps/PH - Connected Load	**49.67**
Demand Factor	**69.73%**
Total Amps/PH - Demand	**34.63**
Connected KVA	**17.87**
Demand KVA	**12.46**

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 07/30/15

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PORTLAND, MAINE

Revisions:
1.

Scale: As Noted

Date: 03/16/2015

NOTES, LEGEND & SCHEDULES

E1.03