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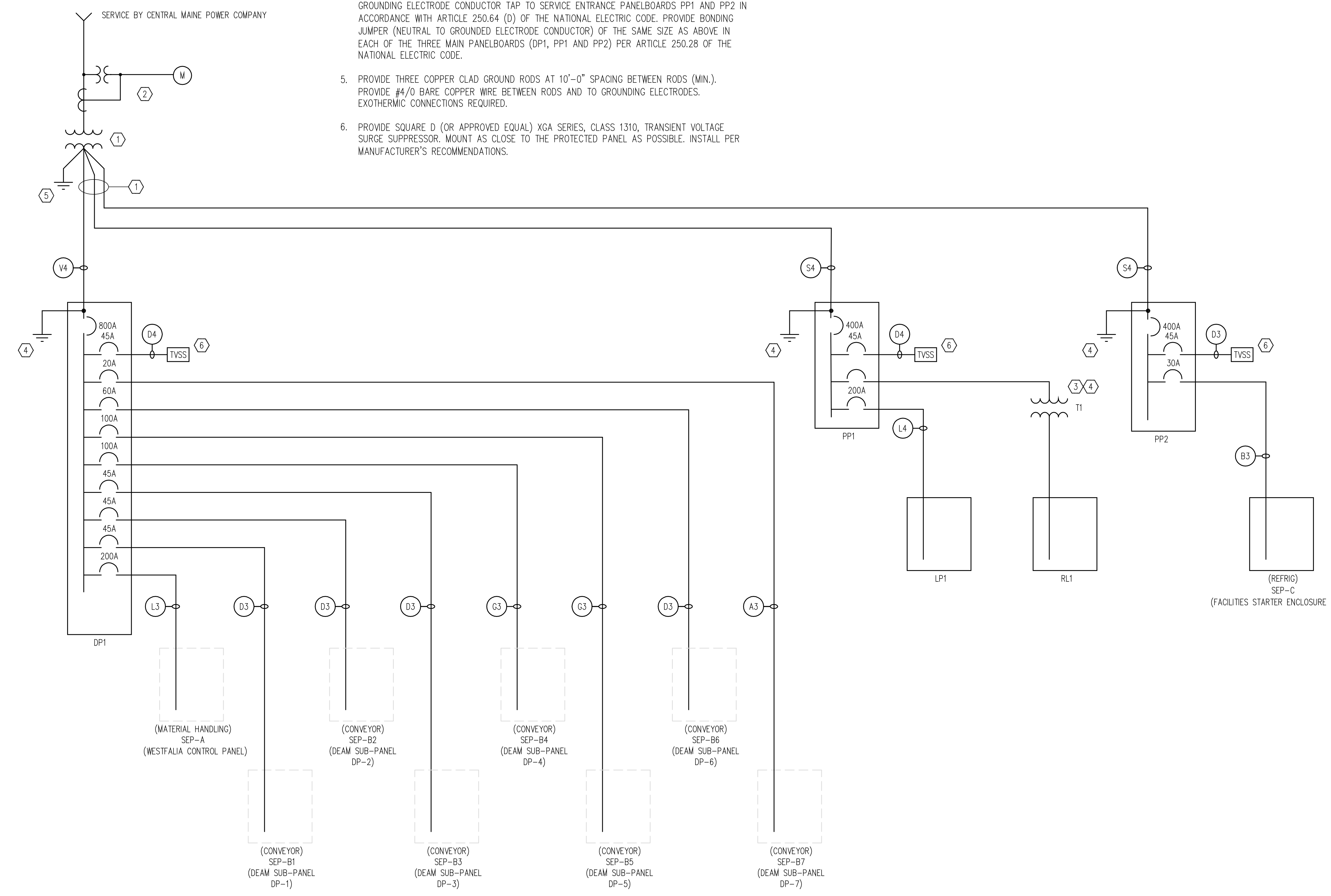
⬡ PLAN KEY NOTE:

1. PROVIDE CONDUIT AND CONDUCTORS PER WIRE KEY AND DUCT BANK DETAIL FROM PAD-MOUNTED TRANSFORMER TO DP1, PP1 AND PP2. INSTALLATION OF TRANSFORMER PAD AND PAD-MOUNTED TRANSFORMER AND ALL UTILITY INTERFACE IS BY OWNER. TRANSFORMER SECONDARY IS 480Y/277 VOLTS, THREE PHASE, FOUR WIRE. DESIGN IS BASED ON A 1500 KVA OIL-FILLED TRANSFORMER WITH AN IMPEDANCE OF 5.75%. ANY DEVIATIONS FROM THIS SHOULD HAVE ENGINEERING EVALUATION TO DETERMINE THE EFFECT ON THE AVAILABLE FAULT CURRENT.
2. PRIMARY SERVICE INSTALLATION AND ASSOCIATED METERING EQUIPMENT SHALL BE PROVIDED BY OTHERS AND SHALL NOT BE WITHIN THE SCOPE OF THIS CONTRACT.
3. SEE TRANSFORMER SCHEDULE FOR WIREKEY, BREAKER, AND TRANSFORMER CHARACTERISTICS.
4. PROVIDE GROUNDING SYSTEMS CONNECTION PER DETAIL "A" ON DRAWING E500. ALL GROUNDING ELECTRODE CONNECTIONS ARE REQUIRED (STRUCTURAL STEEL, WATER PIPE, GROUND ROD NETWORK AND TELEPHONE SYSTEMS). USE #3/0 COPPER GROUNDING CONDUCTOR WITH A #2/0 GROUNDING ELECTRODE CONDUCTOR TAP TO SERVICE ENTRANCE PANELBOARD DP1 AND A #1/0 GROUNDING ELECTRODE CONDUCTOR TAP TO SERVICE ENTRANCE PANELBOARDS PP1 AND PP2 IN ACCORDANCE WITH ARTICLE 250.64 (D) OF THE NATIONAL ELECTRIC CODE. PROVIDE BONDING JUMPER (NEUTRAL TO GROUNDED ELECTRODE CONDUCTOR) OF THE SAME SIZE AS ABOVE IN EACH OF THE THREE MAIN PANELBOARDS (DP1, PP1 AND PP2) PER ARTICLE 250.28 OF THE NATIONAL ELECTRIC CODE.
5. PROVIDE THREE COPPER CLAD GROUND RODS AT 10'-0" SPACING BETWEEN RODS (MIN.). PROVIDE #4/0 BARE COPPER WIRE BETWEEN RODS AND TO GROUNDING ELECTRODES. EXOTHERMIC CONNECTIONS REQUIRED.
6. PROVIDE SQUARE D (OR APPROVED EQUAL) XGA SERIES, CLASS 1310, TRANSIENT VOLTAGE SURGE SUPPRESSOR. MOUNT AS CLOSE TO THE PROTECTED PANEL AS POSSIBLE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

LINETYPE LEGEND

———	EQUIPMENT AND WIRING
— — · · —	SWITCHBOARD ENCLOSURE
- - - - -	EQUIPMENT AND WIRING NIC



SINGLE-LINE DIAGRAM

NO SCALE

Transformer Schedule

ID No.	New / Existing	Size kVA	Enclosure Type	Enclosure NEMA	Primary Voltage	Primary Connection	Primary Circ Bkr	Primary Wire Key	Secondary Voltage	Secondary Connection	Secondary Circ Bkr	Secondary Wire Key	Phases	Temp. Rise °C	Taps	Notes
T1	New	30	DT	1	480	Delta	70-3P	E3	208Y/120	Wye	100-3P	G4	3	150	6-2.5%2+4-	1

Notes:
1 Provide wall mount bracket.

MCC AND PANELBOARD SCHEDULE

WIRE TABLE

Wire Key	Conductors	Conduit
A2	2 #12, #12 GND	3/4"
A3	3 #12, #12 GND	3/4"
A4	4 #12. #12 GND	3/4"
B2	2 #10, #10 GND	3/4"
B3	3 #10, #10 GND	3/4"
B4	4 #10, #10 GND	3/4"
C2	2 #8, #10 GND	3/4"
C3	3 #8, #10 GND	3/4"
C4	4 #8, #10 GND	1"
D2	2 #6, #10 GND	1"
D3	3 #6, #10 GND	1"
D4	4 #6, #10 GND	1"
E2	2 #4, #8 GND	1 1/4"
E3	3 #4, #8 GND	1 1/4"
E4	4 #4, #8 GND	1 1/4"
F2	2 #3, #8 GND	1 1/4"
F3	3 #3, #8 GND	1 1/4"
F4	4 #3, #8 GND	1 1/2"
G2	2 #2, #8 GND	1 1/4"
G3	3 #2, #8 GND	1 1/2"
G4	4 #2, #8 GND	1 1/2"
H2	2 #1, #6 GND	1 1/2"
H3	3 #1, #6 GND	2"
H4	4 #1, #6 GND	2"
J2	2 #1/0, #6 GND	2"
J3	3 #1/0, #6 GND	2"
J4	4 #1/0, #6 GND	2"
K2	2 #2/0, #6 GND	2"
K3	3 #2/0, #6 GND	2"
K4	4 #2/0, #6 GND	2 1/2"

Wire Key	Conductors	Conduit
L2	2 #3/0, #6 GND	2"
L3	3 #3/0, #6 GND	2 1/2"
L4	4 #3/0, #6 GND	2 1/2"
M2	2 #4/0, #4 GND	2 1/2"
M3	3 #4/0, #4 GND	2 1/2"
M4	4 #4/0, #4 GND	2 1/2"
N2	2 #250MCM, #4 GND	2 1/2"
N3	3 #250MCM, #4 GND	2 1/2"
N4	4 #250MCM, #4 GND	3"
P2	2 #300MCM, #4 GND	2 1/2"
P3	3 #300MCM, #4 GND	3"
P4	4 #300MCM, #4 GND	3"
Q2	2 #350MCM, #3 GND	3"
Q3	3 #350MCM, #3 GND	3"
Q4	4 #350MCM, #3 GND	3 1/2"
R2	2 #400MCM, #3 GND	3"
R3	3 #400MCM, #3 GND	3"
R4	4 #400MCM, #3 GND	3 1/2"
S2	2 #500MCM, #3 GND	3"
S3	3 #500MCM, #3 GND	3 1/2"
S4	4 #500MCM, #3 GND	4"
T3	2 Sets- 3 #250MCM, #2 GND	(2) 3"
T4	2 Sets- 4 #250MCM, #2 GND	(2) 3"
U3	2 Sets- 3 #350MCM, #1/0 GND	(2) 3"
U4	2 Sets- 4 #350MCM, #1/0 GND	(2) 3 1/2"
V3	2 Sets- 3 #500MCM, #2/0 GND	(2) 4"
V4	2 Sets- 4 #500MCM, #2/0 GND	(2) 4"
W3	3 Sets- 3 #400MCM, #2/0 GND	(3) 4"
W4	3 Sets- 4 #400MCM, #2/0 GND	(3) 4"

Wire Key	Conductors	Conduit
X3	4 Sets- 3 #350MCM, #3/0 GND	(4) 3- 1/2"
X4	4 Sets- 4 #350MCM, #3/0 GND	(4) 3- 1/2"
Y3	4 Sets- 3 #500MCM, #4/0 GND	(4) 4"
Y4	4 Sets- 4 #500MCM, #4/0 GND	(4) 4"
Z3	5 Sets- 3 #400MCM, #4/0 GND	(5) 4"
Z4	5 Sets- 4 #400MCM, #4/0 GND	(5) 4"
AA3	6 Sets- 3 #400MCM, #250MCM GND	(6) 4"
AA4	6 Sets- 4 #400MCM, #250MCM GND	(6) 4"
AB3	8 Sets- 3 #500MCM, #400MCM GND	(8) 4"
AB4	8 Sets- 4 #500MCM, #400MCM GND	(8) 4"
AC3	11 Sets- 3 #500MCM, #500MCM GND	(11) 4"
AC4	11 Sets- 4 #500MCM, #500MCM GND	(11) 4"
	2-SPEED MOTOR FEEDERS	
A6	6 #12. #12 GND	3/4"
B6	6 #10, #10 GND	3/4"
C6	6 #8, #10 GND	1"
	WYE-DELTA STARTER FEEDERS	
	6 #300MCM, #3 GND	4"
	2 Sets- 6 #300MCM, #2/0 GND	(2) 4"
	MEDIUM VOLTAGE CABLE	
MV90	3 #2 SHIELDED	4"
	CONTROL & SIGNAL CONDUCTORS	
CX#	14 AWG Control - # = Qty of Conductors	3/4"C Min
SX#	Shielded Twisted Pair - # = Number of Pairs	3/4"C Min

MCC & PANELBOARD SCHEDULE

EQUIPMENT IDENTIFICATION - GENERAL

ID	1ST LETTER EQUIPMENT TYPE	2ND LETTER UTILIZATION VOLTAGE	3RD CHARACTER Number or Letter	4TH NUMBER Sequence or Floor	5TH LETTER Optional Sequence
A	---	2400V, 3-Ph, 3-W	-	0 = Basement	A = 1st Sequence
B	---	4160V, 3-Ph, 3-W	-	1 = 1st Floor or Seq	B = 2nd Sequence
C	---	12,470/7200V Y, 3-Ph, 4-W	-	2 = 2nd Floor or Seq	C = 3rd Sequence
D	Distribution Panel	13,800/7970V Y, 3-Ph, 4-W	-	3 = 3rd Floor or Seq	D = 4th Sequence
E	Emergency Panel	34,500/19,920V Y, 3-Ph, 4-W	-	"	"
F	---	---	-	"	"
G	---	---	-	"	"
H	---	---	-	"	"
I	---	---	-	"	"
J	---	---	-	"	"
K	---	---	-	"	"
L	Lighting Panel	208/120V Y, 3-Ph, 4-W	-	"	"
M	Main Service Panel	240V, 3-Ph, 3-W	-	"	"
N	Normal / Emergency Panel	240/120V, 3-Ph, 4-W	-	"	"
O	---	---	-	"	"
P	Power Panel	480/277V Y, 3-Ph, 4-W	-	"	"
Q	Equipment (Process) Panel	480V, 3-Ph, 3-W	-	"	"
R	Receptacle Panel	---	-	"	"
S	Switchboard or Switchgear	120/240V, 1-Ph, 3-W	-	"	"
T	---	---	-	"	"
U	Utility Equipment	---	-	"	"
V-Z	---	---	-	---	---

EQUIPMENT IDENTIFICATION - SPECIAL

Format ID			
	○	By Area:	Identification = ID, 3rd, 4th, 5th designators above (No Utilization Voltage Code)
	☐	By System:	Identification = ID, a Hyphen, System Code (See System Abbrev Table), Seq. No. (No Utilization Voltage Code)

ATS	Automatic Transfer Switch	○
MCC	Motor Control Center	○ ☐
AFD	Adjustable Frequency Drive	○ ☐

T	Transformer	○
UPS	Uninterruptible Pwr Supply	○
SEP	Starter Enclosure Panel	○ ☐

Starter Enclosure Panel : SEP-A
(Westfalia C. P.)

Bus: ##
AIC: ##
Loc: Elec. Rm 103
Main: ## MCB
VOLTAGE : 480 VOLT 3 PHASE 3 WIRE

Sect ##	DESCRIPTION	HP	Field Wire Key	Field Wire Cntrl	OCP Type	OCP Value	Starter Type	Starter NEMA	Cntrl Xfmr	Ref Elem	NOTES
1	MH-A1	5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
2	MH-A2	5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
3	MH-A3	5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
4	MH-A4	5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
5	MH-A5	5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
6	MH-A6	5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
7	Pallet Return Conveyor PRC-1	1	A3		MCP	Nt.1	FVNR	Nt.1	Std		
8	Pallet Return Conveyor PRC-2	2	A3		MCP	Nt.1	FVNR	Nt.1	Std		
9	Pallet Return Conveyor PRC-3	1	A3		MCP	Nt.1	FVNR	Nt.1	Std		
10	Pallet Return Conveyor PRC-4	2	A3		MCP	Nt.1	FVNR	Nt.1	Std		
11	Pallet Return Conveyor PRC-5	1	A3		MCP	Nt.1	FVNR	Nt.1	Std		
12	Pallet Return Conveyor PRC-6	2	A3		MCP	Nt.1	FVNR	Nt.1	Std		
13	Pallet Return Conveyor PRC-7	1	A3		MCP	Nt.1	FVNR	Nt.1	Std		
14	Pallet Return Conveyor PRC-8	2	A3		MCP	Nt.1	FVNR	Nt.1	Std		
			-			-		-			

Starter Enclosure Panel : SEP-B
(Deam Sub-panels)

Bus: ##
AIC: ##
Loc: Elec. Rm 103
Main: ## MCB
VOLTAGE : 480 VOLT 3 PHASE 3 WIRE

Sub-Panel	DESCRIPTION	HP	Field Wire Key	Field Wire Cntrl	OCP Type	OCP Value	Starter Type	Starter NEMA	Cntrl Xfmr	Ref Elem	NOTES
SEP-B1	Conveyor Power Unit; PU-1	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-2	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-3	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-4	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-5	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-6	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-7	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-8	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-9	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-10	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-11	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-12	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-13	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B1	Conveyor Power Unit; PU-14	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B2	Stack Pusher; SP01	10	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B3	Stack Pusher; SP02	10	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Conveyor Power Unit; PU-15	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Conveyor Power Unit; PU-16	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Conveyor Power Unit; PU-17	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Conveyor Power Unit; PU-18	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Conveyor Power Unit; PU-19	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Conveyor Power Unit; PU-20	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Conveyor Power Unit; PU-21	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Conveyor Power Unit; PU-22	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Conveyor Power Unit; PU-23	7.5	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Conveyor Power Unit; PU-24	10	A3		MCP	Nt.1	FVNR	Nt.1	Std		
SEP-B4	Lowerator; LOW-1	10	A3		MCP	Nt.1	FVNR	Nt.1	Std		

Starter Enclosure Panel : SEP-C
(Facility)

Bus: ##
AIC: ##
Loc: Elec. Rm 103
Main: ## MCB
VOLTAGE : 480 VOLT 3 PHASE 3 WIRE

Sect ##	DESCRIPTION	HP	Field Wire Key	Field Wire Cntrl	Disc @Equip Rating	Disc @Equip Fuse	OCP Type	OCP Value	Starter Type	Starter NEMA	Cntrl Xfmr	Ref Elem	NOTES
1	Air Unit AU-5	1	A3				MCP	Nt.1	FVNR	Nt.1	Std		
2	Air Unit AU-6	1	A3				MCP	Nt.1	FVNR	Nt.1	Std		
			A3					-		-			

DISTRIBUTION PANEL: DP1 (I-LINE Style)

Bus: 800A
AIC: 35kA
Loc: Elec. Rm 103
SERVICE VOLTAGE 480 VOLT 3 PHASE 4 WIRE

Sect #	DESCRIPTION	HP	KVA	Field Wire Key	Field Wire Cntrl	OCP Type	OCP Value	OCP Poles	NOTES
1	Incoming Line Section	-	0	##	-	MCB	##	3	
2	TVSS	-	0	##	-	CB	##	3	
3	Starter Encl. Panel (SEP-A)	-	47	##	-	CB	##	3	
4	Starter Encl. Panel (SEP-B1) (DP-1)	-	36	##	-	CB	##	3	
4	Starter Encl. Panel (SEP-B2) (DP-2)	-	36	##	-	CB	##	3	
4	Starter Encl. Panel (SEP-B3) (DP-3)	-	36	##	-	CB	##	3	
4	Starter Encl. Panel (SEP-B4) (DP-4)	-	80	##	-	CB	##	3	
4	Starter Encl. Panel (SEP-B5) (DP-5)	-	80	##	-	CB	##	3	
4	Starter Encl. Panel (SEP-B6) (DP-6)	-	48	##	-	CB	##	3	
4	Starter Encl. Panel (SEP-B7) (DP-7)	-	8	##	-	CB	##	3	
8	SR Machine #1 (SR-1)	-	159	##	-	CB	##	3	
9	Air Compressor (Future)	25	27	D3	-	CB	70	3	
10	Battery Charger (BC-1)	-	20	B3	-	CB	30	3	
11	Battery Charger (BC-2)	-	20	B3	-	CB	30	3	
12	Hydraulic Power Unit	25	27	D3	-	-	70	3	Verify actual size with equip.supplier
-	SPACE & PROVISION	-	0	##	-	-	-	-	Note 1, 2

Disconnect Schedule

Type	Voltage Rating	Amperage Rating	Enclosure	No. of Poles	Duty	Fused/ Non-fused	Fuse Type	Fuse Size	Notes
A	480	30	NEMA 1	3	Heavy	NF	N/A	N/A	
B	480	60	NEMA 1	3	Heavy	NF	N/A	N/A	
C	480	100	NEMA 1	3	Heavy	NF	N/A	N/A	
D	480	30	NEMA 3R	3	Heavy	NF	N/A	N/A	
E	480	60	NEMA 3R	3	Heavy	NF	N/A	N/A	
F	480	30	NEMA 4X	3	Heavy	NF	N/A	N/A	
G	480	60	NEMA 4X	3	Heavy	NF	N/A	N/A	
H	240	60	NEMA 3R	3	Heavy	Fused	Note 4	1	1
J	??	??	??	??	??	??	??	??	??
5-20R	??	??	??	??	??	??	??	??	??
Welding Rec.	??	??	??	??	??	??	??	??	??
L16	480	20	NEMA 1	3	-	-	-	-	NEMA L16-20
X	Disconnect provided by Equipment Supplier								

Notes:
1 Fuse per manufacturer's recommendations
2 Manual Motor Starting Switch (Overloads sized to suit motor)
3 Provide solid neutral
4 Provide Class RK5, Time Delay Fuses

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PANEL NO. LP1

BUSS: 225 A FEEDER: ## MAIN CB: ## A AIC: 25 KA
VOLTS: 480 /277 PH: 3 WIRE: 4 MOUNTING: SURFACE LOCATION: Elec. Rm 103

DESIGNATION	WIRE NO. KEY	LOAD KVA	CKT. BKR. TRIP	CKT. BKR. P	CKT. BKR. No.	PH.	CKT. BKR. No.	CKT. BKR. P	CKT. BKR. TRIP	LOAD KVA	WIRE NO. KEY	DESIGNATION
Lights, Rec.Bay	A2	2.9	20	1	1	A	2	1	20LH	3.7	B2	Nightlight Cicuit
Lights, Tank Alcove	A2	1.3	20	1	3	B	4	1	20LH	1.0	A2	Emergency Lighting Circuit
Lights, Elec.Rm & Offices	A2	0.6	20	1	5	C	6	1	20	0.9	A2	Bldg-mounted Wall-Paks, East
Lights, Below Mezz.	A2	2.2	20	1	7	A	8	1	20	0.9	A2	Bldg-mt'd Wall-Paks, N ,S & W
Lights, Above Mezz.	A2	1.9	20	1	9	B	10	1	20	0.9	A2	Floodlights
Lights, Cooler, Dock	B2	3.4	20	1	11	C	12	1	20	1.1	A2	Canopy Lights, Dock
Lights, Pick Tunnel	A2	2.4	20	1	13	A	14	1	20	0.9	A2	Lights, Walkway and Stair "A"
Lights, Pick Tunnel	A2	2.4	20	1	15	B	16	1	20	0.2	A2	Lights, Test Office & Vestibule
Lights, Crane Aisle	B2	3.4	20	1	17	C	18	1	20	--	--	SPARE
Lights, Penthouse	B2	0.8	20	1	19	A	20	1	20	--	--	SPARE
SPACE	--	--	--	--	21	B	22	1	20	--	--	SPARE
SPACE	--	--	--	--	23	C	24	1	20	--	--	SPARE
SPACE	--	--	--	--	25	A	26	1	20	--	--	SPARE
SPACE	--	--	--	--	27	B	28	--	--	--	--	SPACE
SPACE	--	--	--	--	29	C	30	--	--	--	--	SPACE
SPACE	--	--	--	--	31	A	32	--	--	--	--	SPACE
SPACE	--	--	--	--	33	B	34	--	--	--	--	SPACE
SPACE	--	--	--	--	35	C	36	--	--	--	--	SPACE
SPACE	--	--	--	--	37	A	38	--	--	--	--	SPACE
SPACE	--	--	--	--	39	B	40	--	--	--	--	SPACE
SPACE	--	--	--	--	41	C	42	--	--	--	--	SPACE

- See Single-Line Diagram for Details. && - See Transformer Schedule for Details.
20LH - Provide circuit breaker with handle lock.

PANEL NO. PP1

BUSS: 400 A FEEDER: ## MAIN CB: ## A AIC: 35 KA
VOLTS: 480 /277 PH: 3 WIRE: 4 MOUNTING: SURFACE LOCATION: Elec. Rm 103

DESIGNATION	WIRE NO. KEY	LOAD KVA	CKT. BKR. TRIP	CKT. BKR. P	CKT. BKR. No.	PH.	CKT. BKR. No.	CKT. BKR. P	CKT. BKR. TRIP	LOAD KVA	WIRE NO. KEY	DESIGNATION
TVSS	##	0.0	##	3	1	A	2	3	##	31.1	##	Lighting Panel LP1
| |	|	|	|	|	3	B	4	|	|	|	|	| | |
| |	|	|	|	|	5	C	6	|	|	|	|	| | |
Under-Pit Heat; UPH-1	A3	3.0	20	3	7	A	8	3	##	17.4	##	PanelBoard RL1 (via Xfmr T1)
| |	|	|	|	|	9	B	10	|	|	|	|	| | |
| |	|	|	|	|	11	C	12	|	|	|	|	| | |
Electric Unit Heater; EUH-1	A3	5.0	20	3	13	A	14	3	20	1.0	A3	Vertical Store Leveler; VSL-4
| |	|	|	|	|	15	B	16	|	|	|	|	| | |
| |	|	|	|	|	17	C	18	|	|	|	|	| | |
Electric Unit Heater; EUH-2	A3	5.0	20	3	19	A	20	3	20	1.0	A3	Vertical Store Leveler; VSL-5
| |	|	|	|	|	21	B	22	|	|	|	|	| | |
| |	|	|	|	|	23	C	24	|	|	|	|	| | |
Electric Unit Heater; EUH-3	A3	5.0	20	3	25	A	26	3	20	1.0	A3	Vertical Store Leveler; VSL-6
| |	|	|	|	|	27	B	28	|	|	|	|	| | |
| |	|	|	|	|	29	C	30	|	|	|	|	| | |
Electric Unit Heater; EUH-4	A3	5.0	20	3	31	A	32	3	20	1.0	A3	Vertical Store Leveler; VSL-7
| |	|	|	|	|	33	B	34	|	|	|	|	| | |
| |	|	|	|	|	35	C	36	|	|	|	|	| | |
SPACE	--	--	--	--	37	A	38	3	20	1.0	A3	Vertical Store Leveler; VSL-8
SPACE	--	--	--	--	39	B	40	|	|	|	|	| | |
SPACE	--	--	--	--	41	C	42	|	|	|	|	| | |

- See Single-Line Diagram for Details. && - See Transformer Schedule for Details.
Square D ; Type NF Panelboard

PANEL NO. PP2

BUSS: 400 A FEEDER: ## MAIN CB: ## A AIC: 35 KA
VOLTS: 480 /277 PH: 3 WIRE: 4 MOUNTING: SURFACE LOCATION: Elec. Rm 103

DESIGNATION	WIRE NO. KEY	LOAD KVA	CKT. BKR. TRIP	CKT. BKR. P	CKT. BKR. No.	PH.	CKT. BKR. No.	CKT. BKR. P	CKT. BKR. TRIP	LOAD KVA	WIRE NO. KEY	DESIGNATION
TVSS	##	0.0	##	3	1	A	2	3	80	50.0	A	Cond Unit #1 (w/AU-1) Note 1
| |	|	|	|	|	3	B	4	|	|	|	|	| | |
| |	|	|	|	|	5	C	6	|	|	|	|	| | |
Door Operator; DO-101	A3	1.0	15	3	7	A	8	3	80	50.0	A	Cond Unit #2 (w/AU-2) Note 1
| |	|	|	|	|	9	B	10	|	|	|	|	| | |
| |	|	|	|	|	11	C	12	|	|	|	|	| | |
Door Operator; DO-102	A3	1.0	15	3	13	A	14	3	80	50.0	A	Cond Unit #3 (w/AU-3) Note 1
| |	|	|	|	|	15	B	16	|	|	|	|	| | |
| |	|	|	|	|	17	C	18	|	|	|	|	| | |
Welding Recept. WR-1, WR-2	D4	5.0	60	3	19	A	20	3	80	50.0	A	Cond Unit #4 (w/AU-4) Note 1
| |	|	|	|	|	21	B	22	|	|	|	|	| | |
| |	|	|	|	|	23	C	24	|	|	|	|	| | |
Welding Recept. WR-3, WR-4	D4	5.0	60	3	25	A	26	3	##	2.8	##	Starter Encl. Panel #3 (SEP-C)
| |	|	|	|	|	27	B	28	|	|	|	|	| | |
| |	|	|	|	|	29	C	30	|	|	|	|	| | |
Air Compressor; AC-1	A3	5.0	15	3	31	A	32	--	--	--	--	SPACE
| |	|	|	|	|	33	B	34	--	--	--	--	SPACE
| |	|	|	|	|	35	C	36	--	--	--	--	SPACE
SPACE	--	--	--	--	37	A	38	--	--	--	--	SPACE
SPACE	--	--	--	--	39	B	40	--	--	--	--	SPACE
SPACE	--	--	--	--	41	C	42	--	--	--	--	SPACE

- See Single-Line Diagram for Details. && - See Transformer Schedule for Details.
Square D ; Type NF Panelboard Note 1. Coordinate breaker rating with refrigeration equipment supplier.

PANEL NO. RL1

BUSS: 225 A FEEDER: && MAIN CB: && A AIC: 10 KA
VOLTS: 208 /120 PH: 3 WIRE: 4 MOUNTING: SURFACE LOCATION: Elec. Rm 103

DESIGNATION	WIRE NO. KEY	LOAD KVA	CKT. BKR. TRIP	CKT. BKR. P	CKT. BKR. No.	PH.	CKT. BKR. No.	CKT. BKR. P	CKT. BKR. TRIP	LOAD KVA	WIRE NO. KEY	DESIGNATION
Supply Fan; SF-1	A2	0.5	15	1	1	A	2	1	20	1.0	A2	Electric Baseboard heat; EBH-1
Supply Fan; SF-2	A2	0.7	15	1	3	B	4	1	20	1.0	A2	Electric Baseboard heat; EBH-2
Exhaust Fan; EF-1	A2	0.1	15	1	5	C	6	1	20	1.0	A2	Electric Baseboard heat; EBH-3
Exhaust Fan; EF-2	A3	1.2	15	3	7	A	8	1	15	0.5	A2	Infrared Heater; IRH-1
| |	|	|	|	|	9	B	10	1	15	0.5	A2	Infrared Heater; IRH-2
| |	|	|	|	|	11	C	12	1	20EP	1.2	A2	Drain Line Heater; DLH-1, 3
Exhaust Fan; EF-3	A3	1.2	15	3	13	A	14	1	20EP	1.2	A2	Drain Line Heater; DLH-2, 4
| |	|	|	|	|	15	B	16	1	20	0.5	A2	Penthouse Conv. Recept.
| |	|	|	|	|	17	C	18	1	20	0.5	A2	Mezz. Conv. Recept.
Exhaust Fan; EF-4	A2	0.7	15	1	19	A	20	1	20	0.7	A2	Test Office Conv. Recept.
Heat Pump; HP-1	A2	1.0	20	1	21	B	22	1	20	0.9	A2	Coord. Off. Conv. Recept.
Heat Pump; HP-2	A2	1.0	20	1	23	C	24	1	20	1.0	A2	Comp. Rm. Conv. Recept. 104-A
Cooler Conven. Recept. 106-A	A2	0.7	20	1	25	A	26	1	20	1.0	A2	Comp. Rm. Conv. Recept. 104-B
Cooler Conven. Recept. 106-B	A2	0.5	20	1	27	B	28	1	20	0.7	A2	Electric Room Conv. Recept.
Cooler Conven. Recept. 106-C	A2	0.7	20	1	29	C	30	1	20	0.5	A2	Toilet Conv. Recept.
Cooler Conven. Recept. 106-D	A2	0.4	20	1	31	A	32	1	20	0.7	A2	Receiving Bay Conv. Recept.
Dock Light Recept. 106-E	A2	0.8	20	1	33	B	34	1	20	0.5	A2	Alcove Conv. Recept.
SPACE	--	--	--	--	35	C	36	1	20	1.9	A2	Battery Charging Recept. (BC-3)
SPACE	--	--	--	--	37	A	38	1	20	1.0	B2	Wastewater monitoring (WWM-1)
SPACE	--	--	--	--	39	B	40	1	20	--	--	SPARE
SPACE	--	--	--	--	41	C	42	1	20	--	--	SPARE

- See Single-Line Diagram for Details. && - See Transformer Schedule for Details.
20EP - Circuit Breaker with Equip. Ground Fault Protection.

FACILITIES DESIGN

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SEAL:
DESIGNED BY: C.E.H.
DRAWN BY: M.R.L.
CHECKED BY: M.D.H./W.R.S.

PROJECT:
NEW MILK COOLER

Oakhurst® DAIRY®
364 FORREST AVENUE
PORTLAND, MAINE 04101

PROJECT NUMBER:
2003.1141.0

DATE:
AUGUST 29, 2003

DRAWING TITLE:
SINGLE-LINE DIAGRAM
& SCHEDULES

DRAWING NUMBER: E100
REVISION: 0