REFRIGERATION SCHEDULE SYSTEM DTA

Format:	Neighborhood Mkt	Store#:	3042	System Type:	
Proto Size:	41 Prototype	City/State:	Covington, LA	Consultant:	
ProtoCycle Date:	7/29/2011	Date Prepared	9/21/2011	Prepared by:	

Case Fixture Length / Quantity						Walk-In Box Size		
CKT #	FT /# of Doors	2 Dr/4'	3 Dr/6'	4 Dr/8'	5 Dr/12'	L	W	H
A01	15 DRS				3			
A02	2 DRS	1						
A03	15 DRS				3			
A04	17 DRS	1			3			
A05	20 DRS				4			
A06	2 DRS	1						
A07	20 DRS				4			
A08	15 DRS				3			
A09	15 DRS				3			
A10	2 DRS	1						
A11	12 DRS		4					
A12	12 FT			1				
A13	1 END		1					
A14	17 DRS	1			3			
A15	MAIN CIRCUIT-SUBCIRCUITS ARE BELOW					36	15	10
A15a								
A15b								
A16								
AS01						26	15	10
AS02	24 FT				2			
AS03	44 FT			1	3			
AS04	36 FT				3			
AS05	36 FT				3			
AS06	44 FT			1	3			
AS07	32 FT			1	2			
AS08	40 FT			2				
AS09								
AS10								

Proto Type:	HEI	Primary Refrigerant:	R407A	System Elec:	460V 3Ph 60Hz	Sat. Cond. Temp *F:
Jessica Johnson		Estimated Refrigerant Charge		Defrost Elec:	208V 60Hz 1 or 3 Ph	Cond Design TD *F:
Jessica Johnson	Rack and Condenser (lbs)		N/A	Sys.Pilot Elec:	208V 1 Ph	Summer H/R Avail:
	Fixture and Field Piping (lbs)		N/A	Cond. Elec:	460V 3 Ph 60Hz	Winter H/R Avail:

CIRCUIT INFORMATION								
Case Model	Case/Coil Manuf.	Application	Evaporator Model #	LSHX Y or N? & Model # Wt Evaps	Evaporator Coil TXV / Distributor Nozzle	Sub-Circuit Load (MBH)	Circuit Load (MBH)	Evap SST
RLN-FF	HUSSMANN	Reach-in F.F.		–	–		14.6	-11
RLN-IC	HUSSMANN	Reach-in I.C.		–	–		2.3	-19
RLN-FF	HUSSMANN	Reach-in F.F.		–	–		14.6	-11
RLN-IC	HUSSMANN	Reach-in I.C.		–	–		19.7	-19
RLN-FF	HUSSMANN	Reach-in F.F.		–	–		19.4	-11
RLN-IC	HUSSMANN	Reach-in I.C.		–	–		2.3	-19
RLN-FF	HUSSMANN	Reach-in F.F.		–	–		18.4	-11
RLN-FF	HUSSMANN	Reach-in F.F.		–	–		14.6	-11
RLN-FF	HUSSMANN	Reach-in F.F.		–	–		14.6	-11
RLN-IC	HUSSMANN	Reach-in I.C.		–	–		2.1	-19
RLN-FF	HUSSMANN	Reach-in F.F.		–	–		11.7	-11
OWEZV – FF	HILL PHOENIX	Dual Temp Coffin Island		–	–		7.0	-12
OWEZV – FF	HILL PHOENIX	Dual Temp Coffin End		–	–		8.7	-12
RLN-IC	HUSSMANN	Reach-in I.C.		–	–		19.6	-19
		Freezer W.I.			TOTAL MAIN CIRCUIT:		28.8	-19
	BOHN	1/2 Freezer W.I.	LLE-170	N	EGVE-2-Z / #1	14.3		
	BOHN	1/2 Freezer W.I.	LLE-170	N	EGVE-2-Z / #1	14.3		
		SPARE STUB						
				Suction Group #1 Required Capacity (MBH)			193.3	-22
	BOHN	Produce Cooler W.I.	WK-270	N	EGVE-3-C / #1/2		16.9	28
RLN-FF – DAIRY – EGG – PIZZA	HILL PHOENIX	M.D. Dairy		–	–		29.7	26
RLN-IC – DAIRY – EGG – PIZZA	HILL PHOENIX	M.D. Dairy		–	–		54.4	26
RLN-FF – DAIRY – EGG – PIZZA	HILL PHOENIX	M.D. Produce w/ misters		–	–		44.5	26
RLN-FF – DAIRY – EGG – PIZZA	HILL PHOENIX	M.D. Deli		–	–		44.5	26
RLN-FF – DAIRY – EGG – PIZZA	HILL PHOENIX	M.D. Deli		–	–		54.4	26
RLN-IC – BEER	HILL PHOENIX	M.D. Beer		–	–		29.8	34
OSDM – NRG – CAKE – PRODUCE	HILL PHOENIX	M.D. Produce		–	–		45.6	28
		Subcooler Load Rack A		–	–		57.6	35
		SPARE STUB						–
				Suction Group #2 Required Capacity (MBH)			377.5	24

General Notes:

1.) Project coordinated with Hill Phoenix.
2.) Walk-in expansion valves sized with liquid pressure regulating valve settings shown on sheet R2.
3.) Suction Group A is subcooled by suction group AS (subcooler load 57.6 MBH). Suction Group AS is self-subcooled (subcooler load 90.0 MBH). Total subcooler load 147.6 MBH.
4.) Subcooler sized for 50°F liquid and 15°F approach.

Condenser Type:	Air	Refrig. EMS:	DANFOSS	SG1 Comp RGT *F:	30	DESIGN DB *F : 99
Sat. Cond. Temp *F:	114	System Elec:	460V 3Ph 60Hz	SG2 Comp RGT *F:	50	DESIGN WB *F : 83
Cond Design TD *F:	15	Defrost Elec:	208V 60Hz 1 or 3 Ph	SG3 Comp RGT *F:	N/A	DESIGN INTERIOR DRY BULB *F : 75
Summer H/R Avail:	N/A	Sys.Pilot Elec:	208V 1 Ph	Evap. Superheat *F:	10	DESIGN INTERIOR RH % : 55%
Winter H/R Avail:	N/A	Cond. Elec:	460V 3 Ph 60Hz			

FIXTURE ELECTRICAL INFORMATION							
Defrost Heaters		Fans		Lights Amps (120v)	Anti-Sweat Amps (120v)		
Amps	Voltage	Amps	Voltage				
29.1	208/3	7.7	120/1	3.6	11.7 / 11.7		
6.7	208/1	0.6	120/1	0.5	2.3		
29.1	208/3	7.7	120/1	3.6	11.7 / 11.7		
35.1	208/3	8.3	120/1	4.1	11.7 / 4.7		
44.5	208/3	10.3	120/1	4.8	11.7 / 11.7		
6.7	208/1	0.6	120/1	0.5	2.3		
44.5	208/3	10.3	120/1	4.8	11.7 / 11.7		
29.1	208/3	7.7	120/1	3.6	17.5		
29.1	208/3	7.7	120/1	3.6	17.5		
6.7	208/1	0.6	120/1	0.5	2.3		
26.7	208/3	5.0	120/1	2.9	14.0		
23.1	208/1	0.7	120/1		4.7		
5.8	208/1	0.3	120/1		1.5		
35.1	208/3	8.3	120/1	4.1	11.7 / 9.3		
22.6	208/3	5.0	208/1				
11.3	208/3	2.5	208/1				
11.3	208/3	2.5	208/1				
–	–	1.8	120/1				
–	–	1.4	120/1	4.2			
–	–	2.6	120/1	7.7			
–	–	2.1	120/1	6.3			
–	–	2.1	120/1	6.3			
–	–	2.6	120/1	7.7			
–	–	1.9	120/1	3.7			
–	–	2.3	120/1	4.7			

REFRIGERATION SCHEDULE SYSTEM MTB

Format:	Neighborhood Mkt	Store#:	3042	System Type:	
Proto Size:	41 Prototype	City/State:	Covington, LA	Consultant:	
ProtoCycle Date:	7/29/2011	Date Prepared	9/21/2011	Prepared by:	

Case Fixture Length / Quantity						Walk-In Box Size		
CKT #	FT /# of Doors	2 Dr/4'	3 Dr/6'	4 Dr/8'	5 Dr/12'	L	W	H
B01	MAIN CIRCUIT-SUBCIRCUITS ARE BELOW					26	19	10
B01a								
B01b								
B02	36 FT				3			
B03	36 FT				3			
B04	44 FT			1	3			
B05	8 FT			1				
B06	8 FT			1				
B07	MAIN CIRCUIT-SUBCIRCUITS ARE BELOW					26	15	10
B07a								
B07b								
B08					1			
B09					1			
B10				2	1			
B11	16 FT							

Proto Type:	HEI	Primary Refrigerant:	R407A	System Elec:	460V 3Ph 60Hz	Sat. Cond. Temp *F:
Jessica Johnson		Estimated Refrigerant Charge		Defrost Elec:	208V 60Hz 1 or 3 Ph	Cond Design TD *F:
Jessica Johnson	Rack and Condenser (lbs)		N/A	Sys.Pilot Elec:	208V 1 Ph	Summer H/R Avail:
	Fixture and Field Piping (lbs)		N/A	Cond. Elec:	460V 3 Ph 60Hz	Winter H/R Avail:

CIRCUIT INFORMATION								
Case Model	Case/Coil Manuf.	Application	Evaporator Model #	LSHX Y or N? & Model # Wt Evaps	Evaporator Coil TXV / Distributor Nozzle	Sub-Circuit Load (MBH)	Circuit Load (MBH)	Evap SST
		Dairy Cooler W.I. w/ drs.						23
	BOHN	Dairy Cooler W.I. w / drs.	ADT-180	Not Req'd	EGVE-3-C / #3/4		41.9	23
	BOHN	Dairy Cooler W.I. w / drs.	ADT-180	Not Req'd	EGVE-3-C / #3/4			23
OSDM-NRG5 E20	HILL PHOENIX	M.D. Meat		–	–		58.6	20
OSDM-NRG5 E20	HILL PHOENIX	M.D. Meat		–	–		58.6	20
OSDM – NRG – DELI – DAIRY – EGG – PIZZA	HILL PHOENIX	M.D. Deli		–	–		54.4	26
OSDM – NRG – CAKE – PRODUCE	HILL PHOENIX	M.D. Cake		–	–		9.1	28
ESBDHV	HUSSMANN	Service Deli		–	–		3.3	19
		Meat Cooler W.I.			TOTAL MAIN CIRCUIT:		24.9	20
	BOHN	1/2 Meat Cooler W.I.	WKE-180	Not Req'd	EGVE-1-1/2-C / #1/3	12.5		20
	BOHN	1/2 Meat Cooler W.I.	WKE-180	Not Req'd	EGVE-1-1/2-C / #1/3	12.5		20
FN-M	HUSSMANN	M.T. Coffin Island		–			3.4	19
FN-M	HUSSMANN	M.T. Coffin Island		–			3.4	24
FN-M	HUSSMANN	M.T. Coffin Island		–			3.4	19
O3.5UM – PIZZA	HILL PHOENIX	M.D. Deli		–	–		20.2	22
				Suction Group #1 Required Capacity (MBH)			281.3	17

Condenser Type:	Air	Refrig. EMS:	DANFOSS	SG1 Comp RGT *F:	50	DESIGN DB *F : 99
Sat. Cond. Temp *F:	114	System Elec:	460V 3Ph 60Hz	SG2 Comp RGT *F:	N/A	DESIGN WB *F : 83
Cond Design TD *F:	15	Defrost Elec:	208V 60Hz 1 or 3 Ph	SG3 Comp RGT *F:	N/A	DESIGN INTERIOR DRY BULB *F : 75
Summer H/R Avail:	N/A	Sys.Pilot Elec:	208V 1 Ph	Evap. Superheat *F:	10	DESIGN INTERIOR RH % : 55%
Winter H/R Avail:	N/A	Cond. Elec:	460V 3 Ph 60Hz			

FIXTURE ELECTRICAL INFORMATION							
Defrost Heaters		Fans		Lights Amps (120v)	Anti-Sweat Amps (120v)		
Amps	Voltage	Amps	Voltage				
–	–	5.4	120/1				
–	–	2.7	120/1				
–	–	2.7	120/1				
–	–	3.6	120/1	10.5			
–	–	3.6	120/1	10.5			
–	–	2.6	120/1	7.7			
–	–	0.5	120/1	0.9			
–	–	1.7	120/1	2.4	6.7		
34.8	208/1	3.0	208/1				
17.4	208/1	1.5	208/1				
17.4	208/1	1.5	208/1				
11.5	208/1	0.6	120/1				
11.5	208/1	0.6	120/1				
11.5	208/1	0.6	120/1				
	–	1.2	120/1	4.7			

1.) Project coordinated with Hill Phoenix.
2.) Walk-in expansion valves sized with liquid pressure regulating valve settings shown on sheet R2.
3.) Suction group B is self-subcooled (subcooler load 77.6 MBH).
4.) Subcooler sized for 50°F liquid and 15°F approach.

DX R407A REFRIGERATION SETTINGS

| | SUBCOOLER SETPOINTS | | | | | | | |