

BOILER SCHEDULE																									
MARK	MAKE	MODEL	TYPE	WORKING FLUID	INPUT CAPACITY		OUTPUT CAPACITY		DESIGN FLOW		ENT WATER TEMP		LVG WATER TEMP		PRESSURE DROP		MAX OPERATING PRESSURE		ELECTRICAL	DESIGN WEIGHT	MAXIMUM DIMENSIONS (WxDxH)		NOTES		
					(Btu/h)	(kW)	(Btu/h)	(kW)	(GPM)	(L/s)	(°F)	(°C)	(°F)	(°C)	(RH2O)	(kPa)	(RH2O)	(kPa)			(GPM)	(kPa)		(V)	(PHASE)
B 1	BOSCH	SSB1000TL3	B	WATER	3072000	900	2973000	871	57	3.58	150	66	180	82	32.0	95.6	31.0	92.7	120 V	1	941	427	900X800X1800	36X32X71	1
B 2	BOSCH	SSB1000TL3	B	WATER	3072000	900	2973000	871	57	3.58	150	66	180	82	32.0	95.6	31.0	92.7	120 V	1	941	427	900X800X1800	36X32X71	1
B 3	BOSCH	SSB1000TL3	B	WATER	3072000	900	2973000	871	57	3.58	150	66	180	82	32.0	95.6	31.0	92.7	120 V	1	941	427	900X800X1800	36X32X71	1
B 4	BOSCH	SSB1000	B	WATER	1024000	300	991000	290	57	3.60	120	49	150	66	32.0	95.6	31.0	92.7	120 V	1	880	399	900X800X1800	36X32X71	1

1. PROVIDE BACNET CONTROLS INTERFACE TO CONNECT TO BUILDING CONTROLS SYSTEM.

CHILLER WATER COOLED SCHEDULE																											
MARK	MAKE	MODEL	COOLING CAPACITY			EER	SEER	IPLV	COMPRESSOR				EVAPORATOR			CONDENSER				ELECTRICAL		DIMENSIONS			DESIGN WEIGHT		NOTES
			(Btu/h)	(kW)	(tons)				TYPE	QTY	REFRIGERANT TYPE	REFRIGERANT CHARGE (LB)	SYSTEM FLOW	RATED FLOW	EWI	LWT	WPD	FLOW	EWI	LWT	WPD	VOLTAGE	PHASE	HEIGHT (m)	LENGTH (m)	WIDTH (in)	
CH 1	AERMEC	WWM 0500	374400	110	31.2	16.19		20.83	SCROLL	2	R-410A							208 V	3	4' - 3"	4' - 4 1/2"	3' - 9 1/2"	1078	2377			
CH 1	AERMEC	WWM 0500	374440	110	31.2	16.19		20.83	SCROLL	2	R-410A							208 V	3	4' - 3"	4' - 4 1/2"	3' - 9 1/2"	1078	2377			
CH 1	AERMEC	WWM 0500	374400	110	31.2	16.19		20.83	SCROLL	2	R-410A							208 V	3	4' - 3"	4' - 4 1/2"	3' - 9 1/2"	1078	2377			

1. CHILLER MODULES TO BE SUPPLIED TOGETHER AS COMPLETE PACKAGE WITH SINGLE HEADER.  
2. PROVIDE BACNET CONTROLS INTERFACE TO CONNECT TO BUILDING CONTROLS SYSTEM.

HEAT EXCHANGER SCHEDULE - WATER/WATER																									
MARK	MAKE	TYPE	CAPACITY		FLUID	SOURCE				LOAD										NOTES					
			(Btu/h)	(kW)		FLOW (GPM)	FLOW (L/s)	PRESSURE DROP (RH2O)	PRESSURE DROP (kPa)	ENTERING TEMP (°F)	ENTERING TEMP (°C)	LEAVING TEMP (°F)	LEAVING TEMP (°C)	FLUID	FLOW (GPM)	FLOW (L/s)	PRESSURE DROP (RH2O)	PRESSURE DROP (kPa)	ENTERING TEMP (°F)		ENTERING TEMP (°C)	LEAVING TEMP (°F)	LEAVING TEMP (°C)	MAXIMUM WEIGHT (lbs)	MAXIMUM WEIGHT (kg)
HX 1	ARMSTRONG	PLATE & FRAME	1000000	351.7	HEATING WATER	60	5.05	7.0	20.92	160	71	130	54	35% PG	91	5.74	7.0	20.92	125	52	115	68	2000	907	
HX 2	ARMSTRONG	PLATE & FRAME	1000000	293.1	CH WATER 55% PG	198	12.49	7.0	20.92	35	2	45	7	CHILLED WATER	178	11.23	7.0	20.92	52	11	45	7	2000	907	
HX 3	ARMSTRONG	PLATE & FRAME	1000000	293.1	HEATING WATER	66	4.16	7.0	20.92	160	71	130	54	DOMESTIC HOT WATER - POTABLE	25	1.58	7.0	20.92	40	4	140	60	2000	907	1

1. HEAT EXCHANGER SHALL BE DOUBLE WALLED STAINLESS STEEL FOR USE IN POTABLE APPLICATION.

PUMP SCHEDULE														
MARK	MAKE	MODEL	PUMP TYPE	INLET DIAMETER	OUTLET DIAMETER	FLOW	HEAD	MOTOR	ELECTRICAL		DESIGN WEIGHT		NOTES	
									VOLTAGE	PHASE	(lbs)	(kg)		
P 1	ARMSTRONG	DESIGN ENVELOPE 4380	CLOSE COUPLED VERTICAL IN LINE	2 1/2"	2 1/2"	280 GPM	34 FT	2.00 hp	575 V	3	250	113	1, 2	
P 2	ARMSTRONG	DESIGN ENVELOPE 4380	CLOSE COUPLED VERTICAL IN LINE	2 1/2"	2 1/2"	280 GPM	34 FT	2.00 hp	575 V	3	250	113	1, 2	
P 3	Bell & Gossett	ecocirc XL 55-45	IN LINE CIRCULATOR	1 1/2"	1 1/2"	7 GPM	51 FT	1.00 hp	208 V	1	26	12	2	
P 4	Bell & Gossett	ecocirc XL 55-45	IN LINE CIRCULATOR	1 1/2"	1 1/2"	7 GPM	51 FT	1.00 hp	208 V	1	26	12	2	
P 5	Bell & Gossett	ecocirc XL 95-160	IN LINE CIRCULATOR	1 1/2"	2 1/2"	91 GPM	44 FT	2.00 hp	208 V	3	40	18	1, 2	
P 6	Bell & Gossett	ecocirc XL 95-160	IN LINE CIRCULATOR	1 1/2"	2 1/2"	91 GPM	44 FT	2.00 hp	208 V	3	40	18	1, 2	
P 7	ARMSTRONG	DESIGN ENVELOPE 4380	CLOSE COUPLED VERTICAL IN LINE	1 1/2"	1 1/2"	178 GPM	77 FT	5.00 hp	575 V	3	300	136	1, 2	
P 8	ARMSTRONG	DESIGN ENVELOPE 4380	CLOSE COUPLED VERTICAL IN LINE	1 1/2"	1 1/2"	178 GPM	77 FT	5.00 hp	575 V	3	300	136	1, 2	
P 9	ARMSTRONG	DESIGN ENVELOPE 4380	CLOSE COUPLED VERTICAL IN LINE	2"	2"	198 GPM	55 FT	5.00 hp	575 V	3	300	136	1, 2	
P 10	ARMSTRONG	DESIGN ENVELOPE 4380	CLOSE COUPLED VERTICAL IN LINE	2"	2"	198 GPM	55 FT	5.00 hp	575 V	3	300	136	1, 2	
P 11	Bell & Gossett	ecocirc XL 36-45	IN LINE CIRCULATOR	1 1/2"	1 1/2"	20 GPM	11 FT	1.00 hp	208 V	1	20	9	2	
P 12	Bell & Gossett	ecocirc XL 36-45	IN LINE CIRCULATOR	1 1/2"	1 1/2"	14 GPM	11 FT	1.00 hp	208 V	1	20	9	2	
P 13	Bell & Gossett	ecocirc XL 20-35	IN LINE CIRCULATOR	1 1/2"	1 1/2"	3 GPM	11 FT	1.00 hp	208 V	1	20	9	2	
P 15	Bell & Gossett	ecocirc XL 36-45	IN LINE CIRCULATOR	1 1/2"	1 1/2"	17 GPM	24 FT	1.00 hp	208 V	1	20	9	2	
P 16	ARMSTRONG	DESIGN ENVELOPE 4380	CLOSE COUPLED VERTICAL IN LINE	2"	2"	135 GPM	82 FT	5.00 hp	575 V	3	300	136	1, 2	
P 17	ARMSTRONG	DESIGN ENVELOPE 4380	CLOSE COUPLED VERTICAL IN LINE	2"	2"	135 GPM	82 FT	5.00 hp	575 V	3	300	136	1, 2	
P 18	Bell & Gossett	ecocirc XL 55-45	IN LINE CIRCULATOR	1 1/2"	1 1/2"	25 GPM	29 FT	1.00 hp	208 V	1	26	12	2	
P 19	Bell & Gossett	ecocirc XL 65-130	IN LINE CIRCULATOR	1 1/2"	1 1/2"	60 GPM	33 FT	1.00 hp	208 V	1	40	18	2	
P 20	Bell & Gossett	ecocirc XL 65-130	IN LINE CIRCULATOR	1 1/2"	1 1/2"	66 GPM	37 FT	1.00 hp	208 V	1	40	18	2	
P 21	Bell & Gossett	ecocirc XL 55-45	IN LINE CIRCULATOR	1 1/2"	1 1/2"	25 GPM	33 FT	1.00 hp	208 V	1	26	12	2	

1. PROVIDE AS ARMSTRONG BUILDING ENVELOPE PUMP PAIRS FOR PARALLEL OPERATION.  
2. PROVIDE WITH CONTROLS TO INTERFACE WITH BACNET BUILDING CONTROLS.

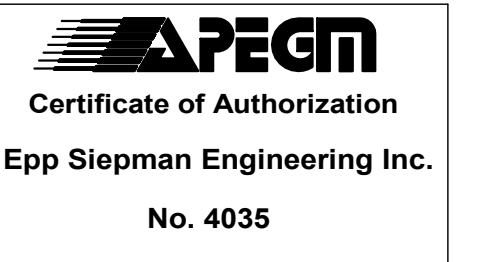
AIR & AIR SEDIMENT SEPARATOR SCHEDULE									
MARK	MAKE	MODEL	SERVES	FLOW		ALLOWABLE PRESSURE DROP (ft)	CONNECTION		NOTES
				(gpm)	(L/s)		(in)	(mm)	
AS 1	Sprotherm	VDN 400 FL	HWS 7	170	11	1	0' - 4"	102	
AS 2	Sprotherm	VDN 300 FL	GHS 3	95	6	1	0' - 3"	76	
AS 3	Sprotherm	VDN 400 FL	CWR 2	170	11	1	0' - 4"	102	

HYDRAULIC SEPARATOR SCHEDULE									
MARK	MAKE	MODEL	SERVES	FLOW		ALLOWABLE PRESSURE DROP (ft)	CONNECTION		NOTES
				(gpm)	(L/s)		(in)	(mm)	
HS 1	Sprotherm	VDX 400 FA	HWS 2,HWS 6,HWS 7,HWS 4	55	3	1	0' - 4"	102	
HS 2	Sprotherm	VDX 400 FA	HWR 2,HWR 5,HWS 7,HWS 3	189	12	1	0' - 4"	102	

EXPANSION TANK SCHEDULE														
MARK	MAKE	MODEL	TYPE	SYSTEM VOLUME		TANK VOLUME		ACCEPTANCE VOLUME		FIELD CHARGE		DESIGN WEIGHT		NOTES
				(GAL.)	(Litres)	(GAL.)	(Litres)	(GAL.)	(Litres)	(psi)	(kPa)	(kg)	(lbs)	
ET 1A	AMTROL	EXTROL 50LBC	PARTIAL ACCEPTANCE BLADDER	660.0	2498.4	13.0	49.2	11.1	42.0	50.00	344.74	160	353	HEATING WATER
ET 1B	AMTROL	EXTROL 50LBC	PARTIAL ACCEPTANCE BLADDER	660.0	2498.4	13.0	49.2	11.1	42.0	50.00	344.74	160	353	HEATING WATER
ET 2	AMTROL	EXTROL 35LBC	PARTIAL ACCEPTANCE BLADDER	150.0	567.8	10.0	37.9	10.0	37.9	50.00	344.74	150	331	35% PG
ET 3A	AMTROL	EXTROL 35LBC	PARTIAL ACCEPTANCE BLADDER	150.0	567.8	10.0	37.9	10.0	37.9	50.00	344.74	150	331	CHILLED WATER
ET 3B	AMTROL	EXTROL 35LBC	PARTIAL ACCEPTANCE BLADDER	150.0	567.8	10.0	37.9	10.0	37.9	50.00	344.74	150	331	CHILLED WATER
ET 4	AMTROL	EXTROL 35LBC	PARTIAL ACCEPTANCE BLADDER	100.0	378.5	10.0	37.9	10.0	37.9	50.00	344.74	150	331	55% PG
ET 5	AMTROL	EXTROL 35LBC	PARTIAL ACCEPTANCE BLADDER	65.0	246.1	10.0	37.9	10.0	37.9	60.00	413.69	73	161	HEATING WATER

BUFFER TANK SCHEDULE										
MARK	MAKE	MODEL	TANK VOLUME	FLUID TYPE	MAXIMUM WEIGHT		MAXIMUM DIMENSIONS			NOTES
					(lbs)	(kg)	HEIGHT	LENGTH	WIDTH	
BF 1	AMTROL	CWB1300-6-125	300 gal	CHILLED WATER	772	350	0' - 3"	0' - 1 1/2"	0' - 1 1/2"	1
BF 2	AMTROL	CWB1300-6-125	300 gal	CHILLED WATER	772	350	0' - 3"	0' - 1 1/2"	0' - 1 1/2"	1

GLYCOL FILL STATION SCHEDULE												
MARK	MAKE	MODEL	SYSTEM SERVED	STORAGE CAPACITY		MAXIMUM PRESSURE		ELECTRICAL		MAXIMUM WEIGHT		NOTES
				(GAL.)	(Litres)	(psi)	(kPa)	VOLTAGE	PHASE	(lbs)	(kg)	
GFS 1	Axiom	SF-100-L	GLYCOL HEATING	100.0	378.5	55.00	379.21	120 V	1	900	408	35% PG
GFS 2	Axiom	SF-100	FLUID COOLER	55.0	208.2	55.00	379.21	120 V	1	500	227	55% PG



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Project  
ST. JAMES CIVIC CENTRE

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HYDRONIC SCHEDULES

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