ENERGY RECOVERY VENTILATOR SCHEDULE

UNIT CODE	SERVICE	DESCRIPTION	DUTY	FANS SUPPLY FAN FLOW (L/s)	SUPPLY FAN E.S.P. (Pa)	EXHAUST FAN FLOW (L/s)	EXHAUST FAN E.S.P. (Pa)	WINTER ROOM AIR DB (°C)	SUMMER ROOM AIR DB (°C)	SUMMER ROOM AIR WB (°C)	COOLING SENSIBLE (kW)	COOLING LATENT (kW)	COOLING FLOW RATE (L/s)	COOLING EWT (°C)	COOLING LWT (°C)	COOLING P.D. (kPa)	HEATING CAPACITY (kW)	HEATING FLOW RATE (L/s)	HEATING EWT (°C)	HEATING LWT (°C)	HEATING P.D. (kPa)	WINTER DESIGN FRESH AIR O/A DB (°C)	WINTER FRESH AIR S/A DB/WB (°C)	WINTER EXHAUST AIR R/A DB/WB (°C)	WINTER EXHAUST AIR E/A DB/WB (°C)	WINTER ENERGY RECOVERY FACTOR (%)	SUMMER DESIGN FRESH AIR O/A DB/WB (°C)	SUMMER FRESH AIR S/A DB/WB (°C)	SUMMER EXHAUST AIR R/A DB/WB (°C)	SUMMER EXHAUST AIR E/A DB/WB (°C)	SUMMER ENERGY RECOVERY FACTOR (%)	ELECTRICAL SUPPLY FAN HP	SUPPLY FAN BHP	SUPPLY FAN V/PH/HZ	EXHAUST FAN HP	EXHAUST FAN BHP	EXHAUST FAN V/PH/HZ	Total FLA	Total MCA	Total MOP	WEIGHT (KG)	NOTES
MUA-1	EAST WING	PACKAGED INVERSE FLOW HEAT RECOVERY UNIT WITH HEAT / COOL UNIT WITH HEAT RECOVERY - VERTICAL SUPPLY / RETURN	TEMPERED OUTSIDE AIR AND VENTILATION	5,191	872	5,191	673	22.2	23.9	17.0	93.5	79.1	7.40	7.22	12.78	41.49	88.1	1.82	54.44	43.33	25.71	-22.2	18.0/10.3	22.2/15.6	22.2/13.9	89.3	26.7/20.6	24.6/19.9	23.9/17.0	23.9/16.9	75.7	20	14.44	575/3/60	10	8.77	575/3/60	33	38	60	5200	1, 2, 3
MUA-2	WEST WING	PACKAGED INVERSE FLOW HEAT RECOVERY UNIT WITH HEAT / COOL UNIT WITH HEAT RECOVERY - VERTICAL SUPPLY / RETURN	TEMPERED OUTSIDE AIR AND VENTILATION	5,191	872	5,191	673	22.2	23.9	17.0	93.5	79.1	7.40	7.22	12.78	41.49	88.1	1.82	54.44	43.33	25.71	-22.2	18.0/10.3	22.2/15.6	22.2/13.9	89.3	26.7/20.6	24.6/19.9	23.9/17.0	23.9/16.9	75.7	20	14.44	575/3/60	10	8.77	575/3/60	33	38	60	5200	1, 2, 3
MUA-3	ATRIUM	PACKAGED INVERSE FLOW HEAT RECOVERY UNIT WITH HEAT / COOL UNIT WITH HEAT RECOVERY - VERTICAL SUPPLY / RETURN	TEMPERED OUTSIDE AIR AND VENTILATION	3,304	623	3,304	498	22.2	23.9	17.0	59.5	50.1	4.70	7.22	12.777	33.92	58.3	1.27	54.44	43.3	26.5	-22.2	17.8/10.2	22.2/15.6	22.2/13.9	90.0	26.7/20.6	24.6/19.9	23.9/17.0	23.9/16.9	77	10	7.59	575/3/60	7.5	4.72	575/3/60	17.8	21	30	3700	1, 2, 3

NOTES:
1. MERV 13 SUPPLY FILTER
2. REFER TO ENERGY RECOVERY VENTILATOR SCHEDULE 2 FOR CONTINUATION
3. C/W FACTORY INSTALLED SMOKE DETECTORS IN SUPPLY AND RETURN AIR PLENUMS

ENERGY RECOVERY VENTILATOR SCHEDULE 2

UNIT CODE	SERVICE	SOUND (dBA) SUPPLY FAN INLET Hz 63	125	250	500	1000	2000	4000	8000	SUPPLY FAN OUTLET Hz 63	125	250	500	1000	2000	4000	8000	EXHAUST FAN INLET Hz 63	125	250	500	1000	2000	4000	8000	EXHAUST FAN OUTLET Hz 63	125	250	500	1000	2000	4000	8000	NOTES
MAU-1	EAST WING	52	64	81	79	81	80	79	74	63	66	83	87	89	84	80	76	51	64	80	78	77	76	76	70	64	69	83	85	86	81	78	72	1
MAU-2	WEST WING	52	64	81	79	81	80	79	74	63	66	83	87	89	84	80	76	51	64	80	78	77	76	76	70	64	69	83	85	86	81	78	72	1
MAU-3	ATRIUM	53	63	81	82	80	80	76	71	64	67	84	86	89	87	82	77	50	61	79	78	78	78	73	66	61	67	81	84	87	84	81	72	1

NOTES:
1. SOUND DATA DOES NOT INCLUDE THE EFFECT OF DUCT END CORRECTION

HYDRONIC HOT WATER UNIT HEATER SCHEDULE

TAG	SERVICE	kW	WATER DATA L/s	PRESSURE DROP (kPa)	EWT (°C)	WATER TEMP DROP (°C)	AIR DATA MAXIMUM MOUNTING HT (m)	HEAT THROW OR SPREAD @ MAX. HT (m)	L/s	OUTLET VELOCITY (m/s)	EAT (°C)	LAT (°C)	MOTOR DATA HP	RPM	V-Ph-Hz
UH-1 TO 15	PARKING	11.3	0.24	4.5	53	6.7	2.44	8.53	311	2.08	10	45	1/25	1550	115-1-60
UH-16 AND UH-17	MECHANICAL ROOM	11.3	0.24	4.5	53	6.7	2.44	8.53	311	2.08	10	45	1/25	1550	115-1-60
UH-18 AND UH-19	LOADING DOCK	11.3	0.24	4.5	53	6.7	2.44	8.53	311	2.08	10	45	1/25	1550	115-1-60
UH-20 TO UH-23	PENTHOUSE	12.4	0.32	7.0	60	6.7	2.44	8.53	311	2.08	10	45	1/25	1550	115-1-60

NOTES:
1. MAX. UNIT HEIGHT 470mm.
2. HORIZONTAL DISCHARGE.

HEAT RECOVERY CHILLER SCHEDULE

UNIT	DUTY	COOLING CAPACITY (kW/TONS)	EER	LOAD (kW)	AMPS	COOLING SOURCE EWT (°C)	LWT (°C)	FLOW (L/s)	P.D. (kPa)	COOLING SYSTEM EWT (°C)	LWT (°C)	FLOW (L/s)	P.D. (kPa)	HEATING CAPACITY (kW)	COP	LOAD (kW)	AMPS	HEATING SOURCE EWT (°C)	LWT (°C)	FLOW (L/s)	P.D. (kPa)	HEATING SYSTEM EWT (°C)	LWT (°C)	FLOW (L/s)	P.D. (kPa)	SIMULTANEOUS CLG CAPACITY (k/WTONS)	HTG CAPCITY (kW)	TER	LOAD (kW)	AMPS	SIMULTANEOUS COOLING EWT (°C)	LWT (°C)	FLOW (L/s)	P.D. (kPa)	SIMULTANEOUS HEATING EWT (°C)	LWT (°C)	FLOW (L/s)	P.D. (kPa)	MCA	MOP	SCCR (kA)	V/PH/HZ	WEIGHT (KG)	SOUND (dBA) Hz 125	250	500	1000	2000	4000	8000
HRCH-1	HEATING AND COOLING	427.6/121.6	13.90	105.0	121	30.0	35.6	24.6	49.9	12.8	7.2	20.2	39.4	353.6	2.57	137.8	154	1.1	-4.4	10.6	11.9	42.2	53.3	8.2	5.6	329.9/93.8	490.3	18.80	149.0	171	11.8	7.2	20.2	46.3	36.5	53.3	8.2	5.6	212	261	10	575/3/60	2552.2	48.2	72.27	78.77	84.06	81.29	76.04	58.85
HRCH-2	HEATING AND COOLING	427.6/121.6	13.90	105.0	121	30.0	35.6	24.6	49.9	12.8	7.2	20.2	39.4	353.6	2.57	137.8	154	1.1	-4.4	10.6	11.9	42.2	53.3	8.2	5.6	329.9/93.8	490.3	18.80	149.0	171	11.8	7.2	20.2	46.3	36.5	53.3	8.2	5.6	212	261	10	575/3/60	2552.2	48.2	72.27	78.77	84.06	81.29	76.04	58.85

NOTES:
1. C/W FACTORY MOUNTED DISCONNECT SWITCH.
2. C/W MULTI-CHILLER CONTROLLER, EXPANISION BOARDS, TEMPERATURES SENSORS AND ALL REQUIRED ACCESSORIES FOR COMPLETE INSTALLATION.

DESTRATIFICATION FAN SCHEDULE

TAG	DIAMETER (m)	WEIGHT (KG)	RPM	PRESSURE (kPa)	HP	FLA	V/PH/HZ
DF-1	6.1	118	64	80	2	8.8	208/3/60
DF-2	6.1	118	64	80	2	8.8	208/3/60

FAN POWERED BOX SCHEDULE

TAG	LOCATION	SERVICE	INLET SIZE (mm)	FAN FLOW (L/s)	PRIMARY AIR FLOW (L/s)	MIN. PRIMARY AIR (OA) FLOW (L/s)	SUPPLY SIZE (mm x mm)	RETURN INLET SIZE (mm x mm)	COOLING COIL ROWs	CAPACITY (kW)	FLOW (L/s)	EWT (°C)	LWT (°C)	WPD (kPa)	EAT (°C)	LAT (°C)	HEATING COIL ROWs	HEATING CAP (kW)	FLOW (L/s)	EWT (°C)	LWT (°C)	WPD (kPa)	EAT (°C)	LAT (°C)	FAN MOTOR (HP)	FLA	V-Ph-Hz	DOWNSTREAM E.S.P (Pa)	MIN.PD (Pa)	DISCHARGE NC	RADIATED NC
FPB-01	MAIN FLOOR	CORRIDOR 1-26	100	212	47	N/A	314X175	914X222	2	2.05	0.25	14.5	16.3	30	24	16.0	1	2.93	0.32	53.3	53.2	29.9	22	33.5	-	7.5	120-1-60	175	50	26	34
FPB-02	MAIN FLOOR	CORRIDOR 1-26	100	330	47	N/A	314X175	914X222	2	2.05	0.25	14.5	16.3	30	24	18.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	7.5	120-1-60	175	50	26	34
FPB-03	MAIN FLOOR	CORRIDOR 1-87	100	236	47	N/A	314X175	914X222	2	1.17	0.06	14.5	18.9	15	24	19.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	7.5	120-1-60	175	15	26	26
FPB-04	MAIN FLOOR	CORRIDOR 1-81	150	283	94	N/A	314X175	914X222	2	1.17	0.06	14.5	18.9	15	24	20.6	1	1.71	0.13	53.3	53.0	10.0	22	27.0	-	7.5	120-1-60	175	50	26	26
FPB-05	MAIN FLOOR	VARIOUS SPACES, REFER TO PLAN	150	378	94	N/A	314X175	914X222	2	1.17	0.05	14.5	19.7	15	24	21.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	7.5	120-1-60	175	50	26	34
FPB-07	MAIN FLOOR	KITCHENETTE/LOUNGE 1-06	200	378	94	17	406X381	914X381	4	3.81	0.63	14.5	15.9	29.9	24	15.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.5	120-1-60	175	2	21	34
FPB-08	MAIN FLOOR	ATRIUM 1-96	200	850	425	66	610X381	914X381	4	6.7	0.57	14.5	17.1	29.9	24	17.5	1	6.11	0.63	53.3	53.2	29.9	22	28.0	-	9.5	120-1-60	175	30	29	43
FPB-09	MAIN FLOOR	ATRIUM 1-96	200	850	330	66	610X381	914X381	4	6.7	0.57	14.5	17.1	29.9	24	17.5	1	6.11	0.63	53.3	53.2	29.9	22	28.0	-	9.5	120-1-60	175	30	29	43
FPB-10	MAIN FLOOR	ATRIUM 1-96	200	850	330	66	610X381	914X381	4	6.7	0.57	14.5	17.1	29.9	24	17.5	1	6.11	0.63	53.3	53.2	29.9	22	28.0	-	9.5	120-1-60	175	30	29	43
FPB-11	MAIN FLOOR	KITCHENETTE/LOUNGE 1-88	200	614	142	12	610X381	914X381	4	4.98	0.38	14.5	17.4	17.9	24	17.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.5	120-1-60	138	22	33	44
FPB-12	MAIN FLOOR	KITCHENETTE/LOUNGE 1-20	200	566	118	11	314X175	914X222	6	5.57	0.38	14.5	17.8	25	24	15.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.5	120-1-60	175	5	28	41
FPB-13	PARKING LEVEL	BGIS STORAGE B-21	200	519	330	N/A	406X381	914X381	2	2.9	0.25	14.5	17.1	25	24	19.4	1	2.06	0.03	53.3	53.1	0.3	22	25.3	-	6.5	120-1-60	175	5	28	38
FPB-14	SECOND FLOOR	CORRIDOR 2-53, LOCKERS 2-48	200	378	142	48	314X175	914X222	2	1.76	0.05	14.5	22.4	4.5	24	20.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	7.5	120-1-60	175	50	26	34
FPB-15	SECOND FLOOR	KITCHENETTE/LOUNGE 2-07	200	566	118	28	314X175	914X222	6	5.57	0.5	14.5	17.0	29.9	24	15.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.5	120-1-60	175	5	28	41
FPB-16	SECOND FLOOR	CORRIDOR 2-53	150	188	71	N/A	314X175	914X222	4	1.76	0.13	14.5	17.5	3	24	16.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	7.5	120-1-60	175	25	28	26
FPB-17	SECOND FLOOR	KITCHENETTE/LOUNGE 2-70	150	378	94	8	314X175	914X222	4	3.81	0.63	14.5	15.9	29.9	24	15.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.5	120-1-60	175	2	23	35
FPB-18	THIRD FLOOR	CORRIDOR 3-63	200	188	142	N/A	314X175	914X222	4	1.76	0.13	14.5	17.5	3	24	16.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	7.5	120-1-60	175	25	26	26
FPB-19	THIRD FLOOR	KITCHENETTE/LOUNGE 3-77	150	378	94	9	314X175	914X222	6	3.81	0.25	14.5	17.9	11.9	24	15.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.5	120-1-60	175	2	23	35
FPB-20	THIRD FLOOR	CORRIDOR 3-43, LOCKERS 3-22	200	330	142	N/A	314X175	914X222	2	1.76	0.13	14.5	17.5	4.5	24	19.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	7.5	120-1-60	175	50	26	34
FPB-21	THIRD FLOOR	KITCHENETTE/LOUNGE 3-07	200	566	118	28	314X175	914X222	6	5.57	0.5	14.5	17.0	29.9	24	15.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.5	120-1-60	175	5	41	41
FPB-22	FOURTH FLOOR	CORRIDOR 4-34	200	378	142	N/A	314X175	914X222	4	3.2	0.25	14.5	17.4	11.9	24	17.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	7.5	120-1-60	175	50	26	34
FPB-23	FOURTH FLOOR	KITCHENETTE/LOUNGE 4-07	200	566	118	28	314X175	914X222	6	5.57	0.38	14.5	17.8	25	24	15.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.5	120-1-60	175	5	28	41
FPB-24	FIFTH FLOOR	CORRIDOR 5-22	200	566	142	N/A	314X175	914X222	4	1.76	0.06	14.5	21.1	0.8	24	21.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	7.5	120-1-60	175	50	26	34
FPB-25	FIFTH FLOOR	KITCHENETTE/LOUNGE 5-09	200	566	118	28	314X175	914X222	6	5.57	0.38	14.5	17.8	25	24	15.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.5	120-1-60	175	5	28	41

NOTES:
1. COOLING CAPACITY IS ONLY THE SENSIBLE COOLING LOAD.
2. SELECT FPB HANDING TO MATCH INSTALLATION LOCATION AND TO ENSURE SUFFICIENT CLEARANCE FOR MAINTENANCE AND COIL REMOVAL.
3. ALL FPB TO BE C/W MERV 8 FILTERS.
2. ALL FPB TO BE C/W RETURN AIR ATTENUATOR AND 900mm DISCHARGE ATTENUATOR.
3. PROVIDE MINIMUM OF THREE DUCT DIAMETERS OF STRAIGHT DUCT BEFORE INLET OF FPB.

GRILLES, REGISTERS & DIFFUSERS

TAG	SERVICE	TYPE & MATERIAL	FACE SIZE (mm)	NECK SIZE (mm)	VOLUME DAMPER	NOTES
A	SUPPLY	SQUARE PLAQUE DIFFUSER STEEL CONSTRUCTION	500x500	(REFER TO DRAWING)	YES	1
B	SUPPLY	LOUVERED STEEL SUPPLY DOUBLE DEFLECTION 20mm BLADE SPACING GRILLE	(REFER TO DRAWING)	N/A	YES	1
C	RETURN EXHAUST	EGG CRATE ALUMNUM CONSTRUCTION	(REFER TO DRAWING)	N/A	EXH ONLY	1
D	SUPPLY	MOTORIZED SQUARE PLAQUE VAV DIFFUSER STEEL CONTRSUCTION	500x500	(REFER TO DRAWING)	NO	1, 3
G	SUPPLY	2-SLOT LINEAR DIFFUSER, 40mm WIDTH,1500mm LENGTH	(REFER TO DRAWING)	250ø	YES	2
H	SUPPLY	2-SLOT LINEAR DIFFUSER, 40mm WIDTH,1200mm LENGTH	(REFER TO DRAWING)	200ø	YES	2

NOTES:
1. FINISH TO BE OFF-WHITE FOR CEILING APPLICATIONS AND PRIME PAINTED FOR EXPOSED APPLICATIONS. REFER TO ARCHITECTURAL DRAWINGS.
2. ALUMINUM FINISH
3. C/W CONTROLLER AND BACnet INTERFACE.

DCV BOX SCHEDULE

TAG	AIRFLOW RANGE (L/s) MIN.	MAX.	INLET SIZE (mm)	INLET STATIC PRESSURE (Pa)	MAX PRESSURE DROP (Pa)	ΔP ACROSS UNIT (125 Pa) DISCHARGE NC C/W 900 mm ATTENUATOR	RADIATED NC BASIC UNIT
DCV-4	21	71	100	250	125	29	-
DCV-5	28	142	125	250	125	25	20
DCV-6	30	189	150	250	125	26	20
DCV-7	44	283	175	250	125	26	-
DCV-8	59	378	200	250	125	25	20
DCV-9	75	472	225	250	125	21	-
DCV-10	99	661	250	250	125	22	20
DCV-12	141	850	300	250	125	25	28

NOTES:
1. ALL MINIMUM FLOWS ARE BASED ON THE MINIMUM AIR VOLUME REQUIRED TO MAINTAIN REASONABLE CONTROL ACCURACY. ALL CONTROLLERS PROVIDED WITH DCV UNITS SHALL PROVDIE CONTROL TO THE MINIMUM FLOWS INDICATED.
2. ALL UNITS COMPLETE WITH DIGITAL PRESUSSRE INDEPENDENT CONTROLLER.
3. ALL UNITS C/W MIN 900mm ATTENUATORS AND TO INCLUDE MIN. 25mm ACOUSTICAL LINING.

FAN COIL UNIT SCHEDULE

TAG	LOCATION	SERVICE	SYSTEM TYPE	COIL ROWs COOLING/ HEATING	MIN. PRIMARY AIR (OA)FOR THE DCV SERVING THE ZONE (L/s)	AIR FLOW (L/s)	E.S.P (Pa)	COOLING COIL T. CAP (kW)	SEN. CAP (kW)	EAT DB (°C)	EAT WB (°C)	LAT DB (°C)	LAT WB (°C)	WATER FLOW (L/s)	EWT (°C)	LWT (°C)	WATER (P.D) KPa	HEATING COIL T. CAP (kW)	EAT DB (°C)	LAT DB (°C)	WATER FLOW (L/s)	EWT (°C)	LWT (°C)	WATER (P.D) KPa	FAN MOTOR FLA	MCA (A)	MFS	SCCR	V-Ph-Hz
FCU-01	PARKING	ELECTRICAL ROOM B-28	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-02	MAIN FLOOR	DATA ROOM 1-01	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-03	MAIN FLOOR	ELECTRICAL ROOM 1-02	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-04	MAIN FLOOR	SECURITY SERVER RM 1-04	2-PIPE COOLING	6/-	N/A	514	154.3	3.66	3.66	23.9	15.6	18.1	13.3	0.16	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12	13.5	15	2KA	115/1/60
FCU-05	PARKING	ELEC. CLOSET B-27	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-06	MAIN FLOOR	DATA ROOM 1-78	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-07	MAIN FLOOR	ELECTRICAL ROOM 1-79	2-PIPE COOLING	6/-	N/A	233	99.5	2.06	2.06	26.7	19.4	19.2	16.9	0.09	14.4	20	1.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.1	N/A	N/A	2KA	115/1/60
FCU-08	SECOND FLOOR	DATA ROOM 2-04	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-09	SECOND FLOOR	ELECTRICAL ROOM 2-06	2-PIPE COOLING	6/-	N/A	233	99.5	2.06	2.06	26.7	19.4	19.2	16.9	0.09	14.4	20	1.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.1	N/A	N/A	2KA	115/1/60
FCU-10	SECOND FLOOR	DATA ROOM 2-67	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-11	SECOND FLOOR	ELECTRICAL ROOM 2-68	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-12	THIRD FLOOR	DATA ROOM 3-04	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-13	THIRD FLOOR	ELECTRICAL ROOM 3-06	2-PIPE COOLING	6/-	N/A	233	99.5	2.06	2.06	26.7	19.4	19.2	16.9	0.09	14.4	20	1.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.1	N/A	N/A	2KA	115/1/60
FCU-14	THIRD FLOOR	ELECTRICAL ROOM 3-61	2-PIPE COOLING	6/-	N/A	233	99.5	2.06	2.06	26.7	19.4	19.2	16.9	0.09	14.4	20	1.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.1	N/A	N/A	2KA	115/1/60
FCU-15	THIRD FLOOR	DATA ROOM 3-62	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-16	FOURTH FLOOR	DATA ROOM 4-04	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-17	FOURTH FLOOR	ELECTRICAL 4-06	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-18	FIFTH FLOOR	DATA ROOM 5-02	2-PIPE COOLING	6/-	N/A	281	99.5	2.75	2.75	26.7	19.4	18.4	16.7	0.12	14.4	20	2.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	2KA	115/1/60
FCU-19	FIFTH FLOOR	ELECTRICAL 5-03	2-PIPE COOLING	6/-	N/A	233	99.5	2.06	2.06	26.7	19.4	19.2	16.9	0.09	14.4	20	1.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.1	N/A	N/A	2KA	115/1/60
FCU-20	MAIN FLOOR	ATRIUM 1-96	4-PIPE COOLING/HEATING	6/1	N/A	1410	199	19.51	13.3	26.7	19.4	11.9	11.6	0.83	7.2	12.8	37.66	8.58	21.1	30.8	0.18	53.3	42.2	48.72	13.6	15.3	20	2KA	115/1/60
FCU-21	MAIN FLOOR	ATRIUM 1-96	4-PIPE COOLING/HEATING	6/1	N/A	1410	199	19.51	13.3	26.7	19.4	11.9	11.6	0.83	7.2	12.8	37.66	8.58	21.1	30.8	0.18	53.3	42.2	48.72	13.6	15.3	20	2KA	115/1/60
FCU-22	MAIN FLOOR	ATRIUM 1-96	4-PIPE COOLING/HEATING	6/1	N/A	1410	199	19.51	13.3	26.7	19.4	11.9	11.6	0.83	7.2	12.8	37.66	8.58	21.1	30.8	0.18	53.3	42.2	48.72	13.6	15.3	20	2KA	115/1/60
FCU-23	MAIN FLOOR	MAIL DIGITIZATION ROOM 1-103	2-PIPE COOLING	6/-	4	201	99.5	3.79	3.2	23.9	16.9	11.8	11.4	0.16	7.2	12.8	3.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.1	N/A	N/A	2KA	115/1/60
FCU-24	MAIN FLOOR	MUSEUM STORAGE 1-69	4-PIPE COOLING/HEATING	6/1	N/A	201	99.5	3.79	3.20	23.9	16.9	11.8	11.4	0.16	7.2	12.8	3.89	2.18	22.2	30.6	0.06	53.3	42.2	2.69	3.1	N/A	N/A	2KA	115/1/60
FCU-25	MAIN FLOOR	STORE/SHIPPING & RECEIVING 1-63	2-PIPE COOLING	6/-	11	201	99.5	3.79	3.2	23.9	16.9	11.8	11.4	0.16	7.2	12.8	3.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.1	N/A	N/A	2KA	115/1/60
FCU-26	PARKING	WELLNESS CENTRE B-02	4-PIPE COOLING/HEATING	6/1	31	587	124.4	11.94	9.42	23.9	16.9	10.8	10.5	0.51	7.2	12.8	17.34	7.15	22.2	32.3	0.16	53.3	42.2	36.76	12	13.5	15	2KA	115/1/60
FCU-27	MAIN FLOOR	LOCKERS 1-20A & CORRIDOR 1-26	4-PIPE COOLING/HEATING	6/1	42	277	124.4	5.46	4.38	23.9	16.9	11.0	10.7	0.23	7.2	12.8	8.97	5.36	22.2	38.2	0.11	53.3	42.2	4.78	6	N/A	N/A	2KA	115/1/60
FCU-28	MAIN FLOOR	STORES ROOM 1-61 & LOADING DOCK 1-62	4-PIPE COOLING/HEATING	6/1	36	333	99.5	6.42	5.18	23.9	16.9	11.2	10.9	0.28	7.2	12.8	11.66	3.65	22.2	31.3	0.08	53.3	42.2	8.07	6	N/A	N/A	2KA	115/1/60
FCU-29	MAIN FLOOR	MUSEUM 1-77	4-PIPE COOLING/HEATING	6/1	24	672	99.5	13.43	10.67	23.9	16.9	10.9	10.6	0.57	7.2	12.8	20.92	7.78	22.2	31.8	0.17	53.3	42.2	41.85	12	13.5	15	2KA	115/1/60
FCU-30	SECOND FLOOR	MUSEUM 1-77	4-PIPE COOLING/HEATING	6/1	36	426	99.5	8.37	6.7	23.9	16.9	11.0	10.8	0.36	7.2	12.8	20.03	4.67	22.2	31.3	0.10	53.3	42.2	13.15	6.2	7	15	2KA	115/1/60
FCU-31	MAIN FLOOR	CLEANING STAFF LOUNGE 1-76	2-PIPE COOLING	6/-	5	215	99.5	2.64	2.2	23.9	16.9	12.2	11.8	0.11	7.2	12.8	6.87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.1	N/A	N/A	2KA	115/1/60

NOTES:
1. SELECT FCU HANDING TO MATCH INSTALLATION LOCATION AND TO ENSURE SUFFICIENT CLEARANCE FOR MAINTENANCE AND COIL REMOVAL.
2. ALL FCU TO BE C/W MERV 8 FILTERS.
3. ALL FCU TO BE THE HORIZONTAL TYPE.
4. PROVIDE CONDENSATE PUMPS FOR FCU-25 AND FCU-28.
5. ON ALL FCU EQUIPED WITH, HEATING COILS TO BE LOCATED IN RE-HEAT POSITION.

DRY COOLER SCHEDULE

TAG	DUTY	FLUID	DESIGN CONDITIONS EWT (°C)	LWT (°C)	FLOW (L/s)	WATER P.D. (kPa)	OA DB (°C)	OA WB (°C)	FAN POWER (HP)	HEAT REJECTION kW	TONS	ELECTRICAL MCA	MOCP	FLA	SCCR (kA)	V/PH/HZ	OPERATING WEIGHT (KG)
DC-1	DRY COOLER	GLYCOL 35%	35.6	30.0	39.9	96.5	26.7	25.6	60	868.8	197.6	84.1	90	70.1	10	575/3/60	10918

NOTES:
1. C/W FACTORY MOUNTED DISCONNECT SWITCH.

HEAT EXCHANGER SCHEDULE

OPERATING SEASON	TAG	LOAD (kW)	SYSTEM SIDE (GTS/R LOOP) EWT (°C)	LWT (°C)	SYSTEM FLUID	FLOW (L/s)	MAX. PRESSURE DROP (kPa)	CONNECTION SIZE (mm)	SOURCE SIDE (GLS/R LOOP) EWT (°C)	LWT (°C)	SYSTEM FLUID	FLOW (L/s)	MAX. PRESSURE DROP (kPa)	CONNECTION SIZE (mm)
SUMMER OPERATION	HE-1	175.7	35.6	30.0	35% PROPYLENE GLYCOL	8.23	20.7	100	26.1	30.1	25% PROPYLENE GLYCOL	11.04	20.7	100
	HE-2	175.7	35.6	30.0	35% PROPYLENE GLYCOL	8.23	20.7	100	26.1	30.1	25% PROPYLENE GLYCOL	11.04	20.7	100
WINTER OPERATION	HE-1	131.8	-4.4	1.1	35% PROPYLENE GLYCOL	6.25	20.7	100	3.9	0.9	25% PROPYLENE GLYCOL	11.04	20.7	100
	HE-2	131.8	-4.4	1.1	35% PROPYLENE GLYCOL	6.25	20.7	100	3.9	0.9	25% PROPYLENE GLYCOL	11.04	20.7	100

AIR SEPARATOR SCHEDULE

TAG	SERVICE	MAX WORKING PRESSURE (kPa)	FLOW (L/s)	PRESSURE DROP (kPa)	INLET /OUTLET CONNECTION (mm)	MAX. DIAMETER (mm)	MAX. HEIGHT (mm)	MAX. WIDTH (BETWEEN FLANGES) (mm)	WEIGHT (kg)
AS-1	CHILLED WATER	861.8	40.4	4.5	152	305	1200	800	145.9
AS-2	HEATING WATER	861.8	17.7	5.4	102	305	800	600	73.2

NOTES:
1. 50 mm NPT VALVED CONNECTIONS FOR AIR VENT AND BLOW DOWN ASSEMBLY
2. C/W WITH MAGNETIC FILTER

ELECTRIC BOILER SCHEDULE

TAG	DUTY	OUTPUT (kW)	ELECTRICAL FLA	V/PH/HZ	WEIGHT (KG)
EB-1	HYDRONIC ELECTRIC HEATERS	259.77	251	600/3/60	1383.2
EB-2	HYDRONIC ELECTRIC HEATERS	259.77	251	600/3/60	1383.2

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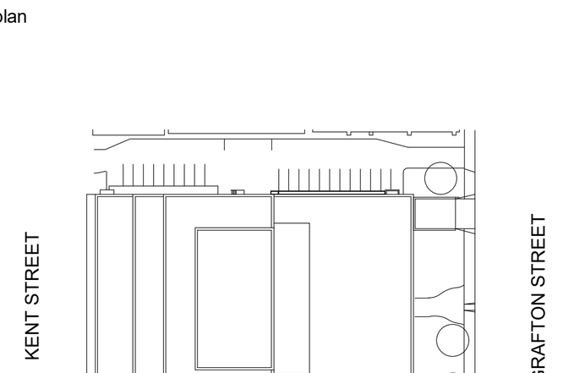

project and true North

project legend

THE ASSOCIATION OF PROFESSIONAL ENGINEER OF THE PROVINCE OF PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2022
P.N. Frasie
No. 2553
DATE: 27 MAY, 2022
LICENSED PROFESSIONAL ENGINEER PROVINCE OF PRINCE EDWARD ISLAND

Paul Frasie
Digitally signed by Paul Frasie
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