PENTHOUSE LOUVER SCHEDULE - VOCATIONAL WING

MARK		MANUFACTURER	MODEL	THROAT LENGTH		THROAT WIDTH		LOUVER HEIGHT		MAXIMUM RATED AIRFLOW		MAXIMUM ALLOWABLE PRESSURE DROP	CURB HEIGHT [in]	NOTES
				in	mm	in	mm	in	mm	CFM	L/s			
PL	8	Price	MCDE635	18"	457	36"	910	16"	410	0	0	0.10 in-wg	356	1
PL	9	Price	MCDE635	36"	914	18"	460	16"	410	0	0	0.10 in-wg	356	1
PL	10	Price	MCDE635	18"	457	18"	460	16"	410	0	0	0.10 in-wg	356	1
PL	11	Price	MCDE635	18"	457	18"	460	16"	410	0	0	0.10 in-wg	356	1
PL	12	Price	MCDE635	36"	914	36"	910	20"	510	0	0	0.10 in-wg	356	1
PL	13	Price	MCDE635	36"	914	36"	910	20"	510	0	0	0.10 in-wg	356	1
PL	14	Price	MCDE635	18"	457	40"	1020	16"	410	0	0	0.10 in-wg	457	1
PL	15	Price	MCDE635	40"	1016	18"	460	16"	410	0	0	0.10 in-wg	356	1

1. LOUVER COMPLETE WITH 1/2" BIRD SCREEN AND MOTORIZED DAMPER. FACTORY BAKED ENAMEL FINISH , COORDINATE COLOUR WITH PRIME CONSULTANT.

CONSTANT AIR VOLUME TERMINAL UNIT SCHEDULE-VOCATIONAL WING

MARK		ZONE SERVED	MAKE	MODEL	HANDEDNESS	INLET DIA.	DESIGN AIR VOLUME	
							(cfm)	(L/s)
CAV	15	CHANGEROOM 1:106A EXHAUST	Price	SDV5000	Left	4	39	18
CAV	16	STORAGE & LAUNDRY 1:107A EXHAUST	Price	SDV5000	Left	4	148	70
CAV	17	CULINARY ARTS 1:106 GENERAL EXHAUST	Price	SDV5000	Left	6	290	137
CAV	18	LOCKER ROOM 1:103A, JAN./MOP ROOM 1:106B, W/C 1:106C, W/C 1:106D EXHAUST	Price	SDV5000	Left	5	180	85
CAV	19	STORAGE ROOM 1:103C EXHAUST	Price	SDV5000	Left	9	770	363
CAV	20	FC-103 & FC-104 OUTSIDE AIR SUPPLY	Price	SDV5000	Left	4	56	26
CAV	21	FC-101 OUTSIDE AIR SUPPLY	Price	SDV5000	Left	7	445	210

CEILING FAN SCHEDULE-VOCATIONAL WING

MARK		MAKE	MODEL	LOCATION		FAN RPM	MAXIMUM WEIGHT		MAXIMUM DIMENSIONS (INCHES)		ELECTRICAL		NOTES
				ROOM NUMBER	ROOM NAME		KG	LBS	DIAMTER	HEIGHT	VOLTAGE	PHASE	
CF	19	Canarm	CP56HPWP	1:100	CONST. & WOOD TECHNOLOGY	319	10	22	56	16	120 V	1	1
CF	20	Canarm	CP56HPWP	1:100	CONST. & WOOD TECHNOLOGY	319	10	22	56	16	120 V	1	1
CF	21	Canarm	CP56HPWP	1:100	CONST. & WOOD TECHNOLOGY	319	10	22	56	16	120 V	1	1
CF	22	Canarm	CP56HPWP	1:100	CONST. & WOOD TECHNOLOGY	319	10	22	56	16	120 V	1	1
CF	23	Canarm	CP56HPWP	1:103	MACHINING & WELDING TECHNOLOGY	319	10	22	56	16	120 V	1	1
CF	24	Canarm	CP56HPWP	1:103	MACHINING & WELDING TECHNOLOGY	319	10	22	56	16	120 V	1	1
CF	25	Canarm	CP56HPWP	1:103	MACHINING & WELDING TECHNOLOGY	319	10	22	56	16	120 V	1	1
CF	26	Canarm	CP56HPWP	1:103	MACHINING & WELDING TECHNOLOGY	319	10	22	56	16	120 V	1	1

1. PROVIDE WITH FAN GUARD

AIR COMPRESSOR SCHEDULE-VOCATIONAL WING

MARK		MAKE	MODEL	ZONE SERVED	PIPE CONNECTION	AIR FLOW		VOLTAGE	PHASE	NOTES
						(cfm)	(L/s)			
AIR	1	DV Systems	VAVV-5062	DC-1, INDUSTRIAL ARTS	3/4"	26	12.3	575 V	3	1, 2, 3, 4, 5

1. 120 USG VERTICAL TANK, COMPLETE WITH MAG STARTER, IK515 INSTALLATION KIT, AND AD9400-MTD MOUNTED TANK AUTODRAIN.
2. DISCHARGE PRESSURE SHALL BE 100PSIG TO MEET REQUIREMENTS OF DUST COLLECTOR AND SHOP EQUIPMENT.
3. PROVIDE OPTIONAL BOLT-ON BA-1000 AIR-COOLED AFTERCOOLER WITH COMPRESSOR.
4. PROVIDE MODULATING HEATLESS DESICCANT DRYER. SRYER SHALL BE NANO, MODEL: NDL-050-F-V01, 115V/1PH, COMPLETE WITH COALESCING PRE-FILTER AND BUILT-IN PARTICULATE FILTER.
5. 15HP MOTOR

INTERCEPTOR SCHEDULE-VOCATIONAL WING

MARK		MAKE	MODEL	MAXIMUM DIMENSIONS			LIQUID CAPACITY	GREASE CAPACITY	FLOW	INLET DIAMETER	OUTLET DIAMETER	MAXIMUM WEIGHT	
				LENGTH	WIDTH	HEIGHT						(lbs)	(kg)
INT	1	SCHIER PRODUCTS	GB-75	1168	813	978	125 gal	19.2 gaL	75 GPM	100	100	130	59

GLYCOL FILL STATION SCHEDULE-VOCATIONAL WING

MARK		MAKE	MODEL	SYSTEM SERVED	STORAGE CAPACITY		MAXIMUM PRESSURE		ELECTRICAL		MAXIMUM WEIGHT		NOTES
					(GAL.)	(Litres)	(psi)	(kPa)	VOLTAGE	PHASE	(lbs)	(kg)	
GFS	2	Axiom	DMF-150	AHU-8 RUN AROUND COIL LOOP	4.5	17.0	45.00	310.26	120 V	1	50	23	1
GFS	3	Axiom	DMF-150	AHU-7 RUN AROUND COIL LOOP	4.5	17.0	45.00	310.26	120 V	1	50	23	1

1. PROVIDE WITH LOW PRESSURE ALARM PANEL C/W REMOTE MONITORING DRY CONTACTS AND SELECTABLE AUDIBLE ALARM.

ENGINEERS GEOSCIENTISTS MANITOBA

Certificate of Authorization

Epp Siepman Engineering Inc.

No. 4035

This is a print of a document that has been electronically authenticated with technology authorized by the Engineers Geoscientists Manitoba. The original is in electronic form.

epp siepman engineering

400 - 136 Market Avenue
Winnipeg, MB R3B 0P4
T 204 453 1080

CONTROL DAMPER SCHEDULE - VOCATIONAL WING

MARK		WIDTH		HEIGHT		THERMAL	OPERATION	CONTROLLED BY
		(in.)	(mm)	(in.)	(mm)			
M	AAA	14	356	10	254			
M	BBB	14	356	12	305			
M	CC	32	813	24	610	YES	24VAC MODULATING	DDC
M	HH	36	914	18	457	NO	24VAC MODULATING	DDC
M	II	22	559	22	559	YES	24VAC MODULATING	DDC
M	JJ	36	914	18	457	YES	24VAC MODULATING	DDC
M	LL	26	660	24	610	NO	24VAC MODULATING	DDC
M	MM	12	305	12	305	NO	24VAC MODULATING	DDC
M	NN	18	457	18	457	YES	24VAC MODULATING	DDC
M	OO	18	457	16	406	NO	24VAC MODULATING	DDC
M	PP	36	914	36	914	YES	24VAC MODULATING	DDC
M	QQ	36	914	36	914	YES	24VAC MODULATING	DDC
M	RR	18	457	18	457	YES	24VAC MODULATING	DDC
M	SS	12	305	12	305	YES	24VAC 2-POSITION	DDC
M	TT	12	305	12	305	YES	24VAC 2-POSITION	DDC
M	V	26	660	26	660	YES	24VAC 2-POSITION	DDC
M	VV	18	457	18	457	YES	24VAC 2-POSITION	DDC
M	Y	24	610	14	356	YES	24VAC 2-POSITION	DDC
M	YY	36	914	20	508	YES	24VAC 2-POSITION	DDC
M	ZZ	36	914	20	508	YES	24VAC 2-POSITION	DDC

FAN COIL CHANGEOVER COIL SCHEDULE-VOCATIONAL WING

MARK		HEATING COIL														COOLING COIL																
		CAPACITY		AIR TEMPERATURES				FLUID TEMPERATURES					FLUID FLOW			COOLING CAPACITY				AIR TEMPERATURES									FLUID FLOW			
				EDB		LDB		EWT		LWT						TOTAL		SENSIBLE		EDB		EWB		LDB		LWB						
		(Btu/h)	(kW)	(°F)	(°C)	(°F)	(°C)	(°F)	(°C)	(°F)	(°C)	FLUID	(gpm)	(L/s)	MAXIMUM FLUID PRESSURE DROP	(Btu/h)	(kW)	(tons)	(Btu/h)	(kW)	(°F)	(°C)	(°F)	(°C)	(°F)	(°C)	(°F)	(°C)	FLUID	(gpm)	(L/s)	MAXIMUM FLUID PRESSURE DROP	NOTES
FC	101	52901	15.5	28	-2	69	20	155	68	125	52	35% PROP GLYCOL	3.8	0.24	10.52 ftH2O	42167	12.4	3.5	26214	7.7	79	26	68	20	55	13	54	12	35% PROP GLYCOL	9.2	0.6	7.65 ftH2O	1
FC	103	2092	0.6	40	4	77	25	155	68	125	52	35% PROP GLYCOL	0.2	0.01	0.12 ftH2O	1800	0.5	0.2	1100	0.3	77	25	65	18	55	13	54	12	35% PROP GLYCOL	0.4	0.0	0.12 ftH2O	1
FC	104	5979	1.8	49	9	72	22	155	68	125	52	35% PROP GLYCOL	0.4	0.03	0.17 ftH2O	8066	2.4	0.7	5912	1.7	76	24	64	18	55	13	54	12	35% PROP GLYCOL	1.8	0.1	1.39 ftH2O	1

GOOSE NECK SCHEDULE-VOCATIONAL WING

MARK		THROAT LENGTH		THROAT WIDTH		LOUVER HEIGHT		DUCTED	NOTES
		in	mm	in	mm	in	mm		
GN	6	3"	76	10"	250	2"	50	Yes	1

1. GOOSENECK COMPLETE WITH 1/2" BIRD SCREEN AND BACKDRAFT DAMPER THAT IS ACCESSIBLE FOR MAINTENANCE . REFER TO DETAIL FOR HEIGHT RESTRICTIONS.

DUCT MOUNTED GLYCOL RUNAROUND COIL SCHEDULE -VOCATIONAL WING

MARK		ZONE SERVED	RECOVERY CAPACITY		AIR TEMPERATURES								FLUID TEMPERATURES				MAX DIMENSIONS (mm)		MAXIMUM VELOCITY	MEDIUM	SUPPLY AIRFLOW		MAXIMUM AIR PRESSURE DROP	FLUID FLOW		MAXIMUM FLUID PRESSURE DROP
					EDB		EWB		LDB		LWB		EWT		LWT											
			(Btu/h)	(kW)	(°F)	(°C)	(°F)	(°C)	(°F)	(°C)	(°F)	(°C)	(°F)	(°C)	(°F)	(°C)	HEIGHT	WIDTH			(cfm)	(L/s)		(gpm)	(L/s)	
RC	1A	Construction Tech AHU-8	44800.0	13.1	-30.0	-34.4	-30.0	-34.4	-5.5	-20.8	-5.5	-20.8	38	3	25	-4	457	914	310 FPM	50% PG	1411	666	0.17 in-wg	8	1	14.20 ftH2O
RC	1B	Construction Tech AHU-8	44800.0	13.1	80.0	26.7	67.0	19.4	57.6	14.2	56.5	13.6	25	-4	38	3	457	914	310 FPM	50% PG	1411	666	0.24 in-wg	8	1	12.90 ftH2O
RC	2A	Welding AHU-7	54900.0	16.1	-30.0	-34.4	-30.0	-34.4	-5.5	-20.8	-5.5	-20.8	39	4	23	-5	610	813	320 FPM	50% PG	1728	816	0.17 in-wg	8	1	16.90 ftH2O
RC	2B	Welding AHU-7	54800.0	16.1	80.0	26.7	67.0	19.4	57.7	14.3	56.5	13.6	23	-5	39	4	610	813	320 FPM	50% PG	1728	816	0.25 in-wg	8	1	15.50 ftH2O

FAN COIL SOUND POWER SCHEDULE-VOCATIONAL WING

MARK		MAXIMUM SOUND POWER LEVELS (dB) (RADIATED/DISCHARGE)						
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
FC	101	70/66	65/62	64/62	63/62	60/56	56/53	47/44
FC	103	53/65	46/59	42/52	40/50	36/46	31/40	30/33
FC	104	53/65	46/59	42/52	40/50	36/46	31/40	30/33

LM esp
LM Architectural Group | Environmental Space Planning
500-136 Market Avenue Winnipeg, Manitoba Canada R3B 0P4
t: 204.942.0681 lm-esp.ca

EXPANSION TANK SCHEDULE-VOCATIONAL WING

MARK		MAKE	MODEL	TYPE	ZONE SERVED	SYSTEM VOLUME		TANK VOLUME		ACCEPTANCE VOLUME		FIELD CHARGE		DESIGN WEIGHT		HEIGHT x DIAMETER	
						(GAL.)	(Litres)	(GAL.)	(Litres)	(GAL.)	(Litres)	(psi)	(kPa)	(kg)	(lbs)	(mm)	(in)
ET	3	AMTROL	AX-15V-DD	Diaphram	RUN AROUND COILS RC-1A/B	13.5	51.1	8.6	32.6	3.2	12.1	12.00	82.74	24	53	559 x 305	22 x 12
ET	4	AMTROL	AX-15V-DD	Diaphram	RUN AROUND COILS RC-2A/B	14.4	54.5	8.6	32.6	3.2	12.1	12.00	82.74	24	53	559 x 305	22 x 12

No.	REVISION/DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JS/MP	24-04-01

SEAL

PROVINCE OF MANITOBA
J.P. SCHELLENBERG
Member
31336
2024-04-02
REGISTERED PROFESSIONAL ENGINEER

RANGE HOOD SCHEDULE-VOCATIONAL WING

MARK		MAKE	MODEL	LOCATION	MINIMUM DUCT DIAMETER	HOOD LENGTH		HOOD WIDTH		NOTES
						(in)	(mm)	(in)	(mm)	
RH	3	VICTORY	TWISTER ISLAND 36"	FOOD & NUTRITION 1:107	6"	36"	914	27"	152	1
RH	4	VICTORY	TWISTER ISLAND 36"	FOOD & NUTRITION 1:107	6"	36"	914	27"	152	1
RH	5	VICTORY	TWISTER ISLAND 36"	FOOD & NUTRITION 1:107	6"	36"	914	27"	152	1
RH	6	VICTORY	TWISTER ISLAND 36"	FOOD & NUTRITION 1:107	6"	36"	914	27"	152	1
RH	7	VICTORY	TWISTER ISLAND 36"	FOOD & NUTRITION 1:107	6"	36"	914	27"	152	1
RH	8	VICTORY	TWISTER ISLAND 36"	FOOD & NUTRITION 1:107	6"	36"	914	27"	152	1
RH	9	VICTORY	TWISTER ISLAND 36"	FOOD & NUTRITION 1:107	6"	36"	914	27"	152	1

1. ORDER UNIT WITHOUT BLOWER. ORDER UNIT COMPLETE WITHB LED LIGHTS OPTION AS WELL AS NECESSARY VERTICAL DUCTEXTENSIONS TO ACCOMODATE ARCHITECHTURAL CEILING HEIGHT. REFER TO ARCHITECTURAL FOR CEILING HEIGHT REQUIRED.

FAN COIL SCHEDULE-VOCATIONAL WING

MARK		MAKE	MODEL	ZONE SERVED	SUPPLY AIRFLOW		SUPPLY FAN E.S.P.	MINIMUM O/A		FILTERS	MAXIMUM WEIGHT		MAXIMUM DIMENSIONS (MM)			VOLTAGE	PHASE
					(cfm)	(L/s)	(" w.c.)	(Pa)	(cfm)	(L/s)		(lbs)	(Kg)	HEIGHT	LENGTH	WIDTH		
FC	101	Carrier	42DCA16LRAY6CYAU	DESIGN LAB 1:101	1200	566	0.50	124	445	210	2" MERV 8	178	81	416	749	1193	115 V	1
FC	103	Jaga	Briza 22 BABC.055055222/2/BT	OFFICE :103B	53	25	0.20	50	14	7	2" MERV 8	38	17	559	559	229	115 V	1
FC	104	Jaga	Briza 22 BABC.055075222/2/BT	TEACHER PREP 1:107B	238	112	0.20	50	42	20	2" MERV 8	38	17	559	559	229	115 V	1

1. PROVIDE 6- WAY VALVE TO SERVE THE CHANGE OVER COIL. REFER TO SPECIFICATIONS FOR MORE DETAILS

LOUVER SCHEDULE-VOCATIONAL WING

MARK		MANUFACTURER	MODEL	WIDTH		HEIGHT		MAXIMUM RATED AIRFLOW		MAXIMUM ALLOWABLE PRESSURE DROP	NOTES
				in	mm	in	mm	CFM	L/s		
L	28	PRICE	DE635	24"	610	14"	360	0 CFM	0	0.12 in-wg	1
L	29	PRICE	DE439	34"	860	18"	460	7900 CFM	3728	0.14 in-wg	1
L	30	PRICE	DE439	34"	860	18"	460	7900 CFM	3728	0.14 in-wg	1
L	31	PRICE	DE635	48"	1220	72"	1830	11300 CFM	5333	0.12 in-wg	1
L	32	PRICE	DE635	48"	1220	72"	1830	11300 CFM	5333	0.12 in-wg	1
L	33	PRICE	DE635	12"	300	12"	300	310 CFM	146	0.12 in-wg	1
L	34	PRICE	DE635	12"	300	12"	300	400 CFM	189	0.12 in-wg	1
L	35	PRICE	DE439	18"	460	18"	460	1500 CFM	708	0.14 in-wg	1
L	36	PRICE	DE635	36"	910	36"	910	2800 CFM	1321	0.12 in-wg	1

1. LOUVER COMPLETE WITH 1/2"BIRDSCREEN AND MOTORIZED DAMPER. FACTORY BAKED ENAMEL FINISH, COORDINATE COLOUR WITH PRIME CONSULTANT.

DUST COLLECTOR SCHEDULE-VOCATIONAL WING

MARK		MAKE	MODEL	FAN MANUFACTUER	ZONE SERVED	NOZZLE SIZE		AIRFLOW		FAN ESP		FAN POWER	FILTER	ELECTRICAL	DESIGN WEIGHT		NOTES
						(in)	(mm)	(CFM)	(L/s)	(in-wg)	(Pa)				(kg)	(lb)	
DC	1	DONALDSON	TORIT DFE 3-18	AIRPRO BCMS SIZE 245 ARR. 9	CONSTRUCTION TECH	18	457	8500	4012	8.20	2040	40.00 hp	MERV 15	575V/3PH	1588	3501	1,2,3,4,5,6,7,8,9,10

1. PLEATED HIGH EFFICIENCY CARTRIDGE STYLE DUST COLLECTOR COMPLETE WITH STANDARD HOPPER, LEG PACK, HEATED SOLENOID ENCLOSURE. COMPLETE WITH TWO (2) SIDE MOUNT CUSTOM EXPLOSION VENT FLANGES TO SUIT DONALDSON MEMBREX TOP MOUNT EXPLOSION NFPA 68 COMPLIANT VENTS.
2. PROVIDE 40HP MOTOR FOR DUST COLLECTOR BLOWER.
3. PROVIDE DUST COLLECTOR CONTROL SYSTEM COMPLETE WITH CSA APPROVED CONTROL PANEL INCLUDING PULSE CLEANING INTEGRATION, PHOTOHELIC GAUGE, 40 hp WITH REMOTE MOUNTED VFD, FUSED DISCONNECT, E STOP, FIRE ALARM SHUT DOWN INPUT, SPARK DETECTION SYSTEM SHUTDOWN INPUT, ATEX DAMPER SHUT DOWN INPUT, ISOLATED BARRIER RELAY FOR REMBE Q BOX BURST INDICATORS, AND "OK TO RUN" SHOP EQUIPMENT RELAY IN NEMA 12 ENCLOSURE.
4. PROVIDE OUTPUT FROM E-STOP IN DC-1 CONTROLLER WIRED IN SERIES WITH 120V SHOP EQUIPMENT POWER CONTROL CIRCUIT.
5. COMPLETE WITH TWO (2) TOP MOUNT EXPLOSION NFPA 68 COMPLIANT VENTS, MODEL # DONALDSON MEMBREX SIZE 864MM X 1168MM, RELIEF AREA 0.79 M2 AND NOMINAL BURST PRESSURE 1.45 PSIG. WITH STAINLESS STEEL BURSTING DISK AND INTEGRATING GASKET OF SILICONE. INCLUDE BURST TEST CERTIFICATE (EN 10204-3.1) acc. TO AD-MERKBLATT A1 BVS 06 ATEX H 028 X.
6. COMPLETE WITH CONQUEST MODEL EM24 HIGH SPEED ABORT GATE (AG-1) WITH WEATHER COWL AND SCREEN, CSA APPROVED CONTROL BOX WITH INDICATOR LIGHTS AND ELECTROMAGNETIC MECHANISM, AND POWERED RESET LEVER. PROVIDE UPS FOR ABORT GATE POWER.
7. COMPLETE WITH VIGILEX ATEX NRV INLET ISOLATION VALVE MODEL VIGIFLAP SIZE 20 COMPLETE WITH MICRO SWITCH FOR SHUTDOWN ENUNCIATION AND DUST BUILD UP SENSOR REQUIRING INTRINSICALLY SAFE CIRCUIT.
8. PROVIDE HANSENTEK AN104 SINGLE ZONE SPARK DETECTION SYSTEM DESIGNED TO DETECT, SPRAY, AND ACTIVATE HIGH SPEED ABORT GATE. COMPLETE WITH NEMA 12 CONTROL PANEL, 2 INFRARED DETECTORS WITH SENSITIVITY CHECKING AND ONE SPRAY ASSEMBLY. CONTRACTOR TO PROVIDE VALVES FOR SPRAY ASSEMBLY AS REQUIRED BY MANUFACTURES REQUIREMENTS.
9. CONTRACTOR TO PROVE FOUR (4) 55 GALLON BARRELS FOR MATERIAL REMOVAL.
10. FAN TO BE AIRPRO BCMS SIZE 245 ARRANGEMENT 9 CLASS 4 REMOTE PAD MOUNTED FAN.

JS DRAWN	JS CHECKED	JS DESIGNED	JS APPROVED
DATE 2024-04-01	USER APPROVAL		

Winnipeg

THE CITY OF WINNIPEG
ASSETS & PROJECT MANAGEMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

PROJECT

PEMBINA TRAILS COLLEGIATE VOCATIONAL WING
TENDER NO. 954-2023B

50 FRONTIER TRAIL, WINNIPEG, MANITOBA, R3Y 2H1

SHEET TITLE

Mechanical Schedules 2

SCALE	PROJECT No:	SHEET No:
	2020-127	M7.2

DRAWING SHEET SIZE: A1 (594x841) PLOT 1:1
ESE 24049