

TANK						
REF. No.	TYPE	CAPACITY (L)	FLUID	FLANGES		NOTES
				INLET Ø (mm)	OUTLET Ø (mm)	
T-01	BUFFER TANK	757	50% GLYCOL	80	80	C/W ASME STAMP, SEISMIC RATED LEGS, INTERNAL BAFFLE & 13mm INSULATION (BY MANUFACTURER)

GLYCOL FILL STATION						
REF. No.	TYPE	CAPACITY (L)	PRESSURE (kPa)	FLUID MEDIUM	ELECTRICAL V/Ph AMPS	NOTES
GFS-01	GLYCOL PRESSURIZATION	65	160	50% GLYCOL	120 2	COMPLETE WITH INTEGRAL DIVERTOR VALVE AND LOW LEVEL CUT-OFF.

EXPANSION TANK							
REF. No.	TYPE	CAPACITY (L)	ACCEPTANCE VOLUME (L)	FLUID	INITIAL PRESSURE (kPa)	OPERATING PRESSURE (kPa)	NOTES
ET-01	DIAPHRAGM	8	3.7	50% GLYCOL	83	166	
ET-02	DIAPHRAGM	50	31	50% GLYCOL	83	166	

CONTROL VAVLES											
REF. No.	APPLICATION	PRESSURE DROP (kPa)	BODY PATTERN	FLOW (L/s)	FLUID	CV	REQUIRED ACTION	CONNECTION	BODY SIZE (mm)	CLOSEOFF (kPa)	NOTES
CV-01	CHILLER CH-01	-	-	-	50% GLYCOL	-	-	-	-	-	BY CHILLER MANUFACTURER, FACTORY INSTALLED.
CV-02	CHILLER CH-02	-	-	-	50% GLYCOL	-	-	-	-	-	BY CHILLER MANUFACTURER, FACTORY INSTALLED.
CV-03	FLOW CONTROL	20	2-WAY	3.2	50% GLYCOL	20	FAIL LAST POSITION	SCREWED	40	690	NON-SPRING RETURN, 2-10 VDC
CV-04	FREE COOLING	91	3-WAY	6.2	50% GLYCOL	91	FAIL LAST POSITION	ANSI 150 FLANGE	80	1034	NON-SPRING RETURN, 2 POSITION
CV-05	FLUID COOLER FC-02	65	2-WAY	7.6	50% GLYCOL	65	FAIL LAST POSITION	SCREWED	50	340	NON-SPRING RETURN, 2 POSITION
CV-06	FLUID COOLER FC-01	65	2-WAY	7.6	50% GLYCOL	65	FAIL LAST POSITION	SCREWED	50	340	NON-SPRING RETURN, 2 POSITION
CV-07	FAN COIL AC-02	5.5	2-WAY	0.76	50% GLYCOL	5.5	FAIL LAST POSITION	SCREWED	20	690	NON-SPRING RETURN, 2-10 VDC
CV-08	FAN COIL AC-01	5.5	2-WAY	0.76	50% GLYCOL	5.5	FAIL LAST POSITION	SCREWED	20	690	NON-SPRING RETURN, 2-10 VDC
CV-09	FC-01	5.5	2-WAY	0.09	50% GLYCOL	1.6	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 0-10 VDC
CV-10	FC-03	11.7	2-WAY	0.13	50% GLYCOL	1.6	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 0-10 VDC
CV-11	RC-01	8.3	2-WAY	0.05	WATER	.63	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 0-10 VDC
CV-12	FC-06	9.6	2-WAY	0.12	WATER	1.6	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 0-10 VDC
CV-13	FC-07	6.9	2-WAY	0.10	WATER	1.6	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 0-10 VDC
CV-14	RC-02	8.3	2-WAY	0.05	WATER	.63	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 0-10 VDC

FLUID COOLERS																				
REF. No.	MEDIUM	NOMINAL (kW)	COIL INFORMATION									FAN				ELECTRICAL				OPERATING WEIGHT (kg)
			AMBIENT (°C)	EGT (°C)	LGT (°C)	FLOW RATE (L/s)	PRESSURE (kPa)	NO. OF CIRCUITS	NO. OF ROWS	CONNECTION SIZE (mm)	FINS PER INCH	L/s	RPM	FAN CONFIG.	AIR FLOW DIRECTION	V/Ph	FLA	MCA	MOCP	
FC-1	50% GLYCOL	176	35.5	46.6	40.5	7.71	84.1	56	3	80Ø	12	30,800	850	2x4	VERTICAL	575/3	16.8	21	25	1270
FC-2	50% GLYCOL	176	35.5	46.6	40.5	7.71	84.1	56	3	80Ø	12	30,800	850	2x4	VERTICAL	575/3	16.8	21	25	1270
NOTES: PROVIDE WITH MOTOR CONTACTORS (1 CONTACTOR PER PAIR OF FANS) AND NON-FUSED DISCONNECT. PROVIDE WITH 300mm HIGH LEGS.																				


FAN COIL																				
REF. No.	TYPE	FLOW (L/s)	ESP (pa)	MEDIUM	COOLING					HEATING					ELECTRICAL				OPERATING WEIGHT (kg)	NOTES
					NOMINAL (kW)	EGT (°C)	LGT (°C)	EAT (°C)	LAT (°C)	NOMINAL (kW)	EGT (°C)	LGT (°C)	EAT (°C)	LAT (°C)	V/Ph	FLA	MCA	MOCP		
AC-01	UPBLAST - BELT DRIVE	944	62	50% GLYCOL	17.6	7.2	15.6	26.7	15.2	-	-	-	-	-	575/3		-		250	FLOOR MOUNTED FAN COIL UNIT, TOP DISCHARGE, MERV 8 FILTER.
AC-02	UPBLAST - BELT DRIVE	944	62	50% GLYCOL	17.6	7.2	15.6	26.7	15.2	-	-	-	-	-	575/3		-		250	FLOOR MOUNTED FAN COIL UNIT, TOP DISCHARGE, MERV 8 FILTER.
FC-06	CEILING HUNG	283	62	WATER	-	-	-	-	-	5.75	54.4	43.3	21.1	37.7	115/1	2.6	3.25	15	46.7	
FC-07	CEILING HUNG	241	62	WATER	-	-	-	-	-	5.65	54.4	43.3	21.1	37.7	115/1	2-6	3.25	15	74.4	

PUMPS															
REF. No.	TYPE	APPLICATION	PUMP CHARACTERISTICS			CONSTRUCTION		PIPE CONNECTIONS			ELECTRICAL			OPERATING WEIGHT (kg)	NOTES
			FLOW (L/s)	HEAD (kPa)	RPM	BODY	IMPELLER	TYPE	INLET (mm)	OUTLET (mm)	V/Ph	MOTOR HP	FLA		
P-1	VERTICAL CLOSE-COUPLED	CONDENSER	7.57	272	3450	CAST IRON	BRASS	FLANGED	50Ø	50Ø	575/3	5		38.6	WATER
P-2	VERTICAL CLOSE-COUPLED	CONDENSER	7.57	272	3450	CAST IRON	BRASS	FLANGED	50Ø	50Ø	575/3	5		38.6	WATER
P-3A	VERTICAL CLOSE-COUPLED	MAIN COOLING	6.12	411	3500	CAST IRON	BRASS	FLANGED	50Ø	50Ø	575/3	10		40.8	WATER
P-3B	VERTICAL CLOSE-COUPLED	MAIN COOLING	6.12	411	3500	CAST IRON	BRASS	FLANGED	50Ø	50Ø	575/3	10		40.8	WATER
P-4	VERTICAL CLOSE-COUPLED	RTU-1/HEATING COIL	1.58	65	1170	CAST IRON	BRASS	FLANGED	40Ø	40Ø	575/3	1.0		-	GLYCOL-PROPYLENE 50%
P-5	VERTICAL CLOSE-COUPLED	RTU-2/HEATING COIL	2.28	72	1170	CAST IRON	BRASS	FLANGED	40Ø	40Ø	575/3	.75		-	GLYCOL-PROPYLENE 50%

TEMPORARY CHILLER																	
REF. No.	TYPE	COOLING					EVAPORATOR				REFRIGERANT	ELECTRICAL				OPERATING WEIGHT (kg)	NOTES
		MEDIUM	NOMINAL (kW)	EER	EGT (°C)	LGT (°C)	FLOW RATE (L/s)	PRESSURE (kPa)	EGT (°C)	LGT (°C)		V/Ph	FLA	MCA	MOCP		
TCH-1	AIR COOLED	50% GLYCOL	183	15	12.2	6.6	9.8	122	12.2	6.6	R-410A	575/3	74	93	110	1728	MIN. FOUR STAGES OF REFRIGERATION, COMPLETE WITH PUMP

CHILLERS																						
REF. No.	TYPE		COOLING					CONDENSER				EVAPORATOR				REFRIGERANT	ELECTRICAL				OPERATING WEIGHT (kg)	NOTES
			MEDIUM	NOMINAL (kW)	EER	EGT (°C)	LGT (°C)	FLOW RATE (L/s)	PRESSURE (kPa)	EGT (°C)	LGT (°C)	FLOW RATE (L/s)	PRESSURE (kPa)	EGT (°C)	LGT (°C)		V/Ph	FLA	MCA	MOCP		
CH-1	WATER	COOLED	50% GLYCOL	281	15.80	12.2	6.6	15.1	15.2	35.0	29.4	12.3	31.3	12.2	6.6	R-410A	575/3	54	123	160	1300	MODULAR, C/W TWO MODULES OF 143 kW, 2 STAGES/MODULES


ROOF TOP AIR HANDLERS																																				
REF. No.	LOCATION	APPLICATION	SUPPLY AIR FAN							RETURN FAN							ELECTRICAL		OPERATING WEIGHT (kg)	MAIN COOLING COIL					MAIN HEATING COIL											
			FAN TYPE	L/s	ESP (pa)	BHP	SPEED (RPM)	DRIVE TYPE	VOLUME CONTROL	MOTOR HP	FAN TYPE	L/s	ESP (pa)	BHP	SPEED (RPM)	DRIVE TYPE	VOLUME CONTROL	MOTOR HP		V/Ph	MCA	MEDIUM	CAPACITY (kW)	EAT (°C)		LAT (°C)		MEDIUM	CAPACITY (kW)	FLUID FLOW L/s	FLUID TEMPERATURE		EAT (°C)		LAT (°C)	
																								DB	WB	DB	WB				EGT (°C)	LGT (°C)	DB	WB	DB	WB
RTU-1	ROOF	MAIN BUILDING	FC	5560	374		970	BELT	CONSTANT	15	FC	4955	124.5		730	BELT	CONSTANT	7.5	575/3	41.7	3000	R-410A	111	26	18.9	14	13.1	50% GLYCOL	63	1.58	82.2	71.1	15.6	-	24.8	-
RTU-2	ROOF	SIMULATOR BAYS	FC	3398	125		776	BELT	CONSTANT	7.5	-	-	-	-	730	-	-	-	575/3	78.8	1682	R-410A	59.8	25	17.8	14	12.6	50% GLYCOL	92.3	2.28	82.2	71.1	21.1	-	43.6	-

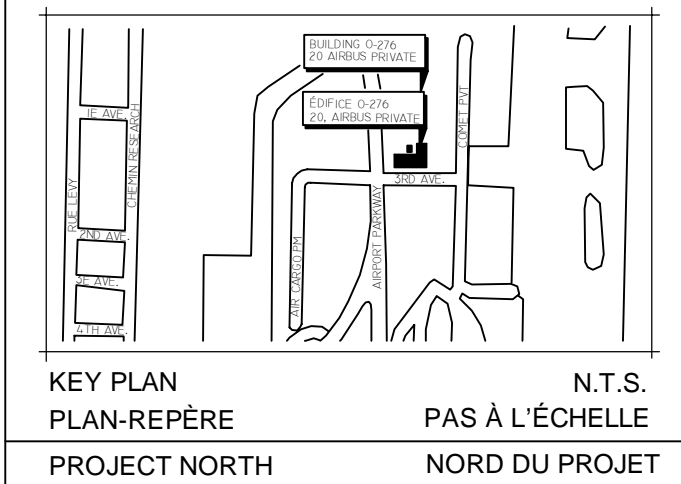


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4	ISSUED FOR TENDER	2015-04-15
3	ISSUED FOR 100% REVIEW - TENDER	2015-01-30
2	ISSUED FOR 99% REVIEW	2014-10-23
1	ISSUED FOR 66% REVIEW	2014-09-09
revisions	description	date
<div><div>A</div><div>C</div></div>	A detail no. no du détail B location drawing no. no du dessin de localisation C drawing no. no du dessin	<div><div>A</div><div>B</div><div>C</div></div>

projectproject

CHILLER REPLACEMENT  
FOR TRANSPORT CANADA  
TRAINING CENTRE  
(BUILDING O-276)

drawingdessin

MECHANICAL SCHEDULES

Designed By	CARL MUIR	Conçu par	
Date	2014-08-21	(yyyy/mm/dd)	
Drawn By	CARL MUIR	Dessiné par	
Date	2014-08-21	(yyyy/mm/dd)	
Reviewed By	DAVID LANDSBERG	Examiné par	
Date	2014-09-10	(yyyy/mm/dd)	
Approved By	DAVID LANDSBERG	Approuvé par	
Date	2014-09-10	(yyyy/mm/dd)	
Tender	2015-01-30	Soumission	
Project Manager		K. DUNN Administrateur de projet	
Project no.		no du projet	
R.060139.002			
Drawing no.		no du dessin	
M002			

