

SPLIT HEAT PUMP SYSTEM INDOOR UNIT SCHEDULE																
TAG	NOMINAL TONNAGE	REFRIGERANT	AIRFLOW (l/s)	E.S.P. (Pa)	FAN POWER (HP)	TOTAL COOLING (kW)	SENSIBLE COOLING (kW)	HEAT PUMP HEATING (kW)	ELECTRIC HEATING COIL (kW)	FILTERS (MERV)	EER	C.O.P.	ELECTRIC			REMARKS
													MCA	MOCP	SERVICE	
AHU-1	7.5 TON	R410A	1226	373	-	26.4	19.8	25.5	35	8	11.0	3.30	104.7	110	208/3/60	c/w DISCONNECT, ECONOMIZER WITH CO <sub>2</sub> DEMAND CONTROLLED VENTILATION, 2 STAGE ELECTRIC HEATING COIL. c/w STAGED AIR VOLUME WITH VFD TO AUTOMATICALLY ADJUST MOTOR SPEED IN SEQUENCE WITH COOLING OPERATION. CONTROLS INTERFACE TO BE AS PER DRAWINGS

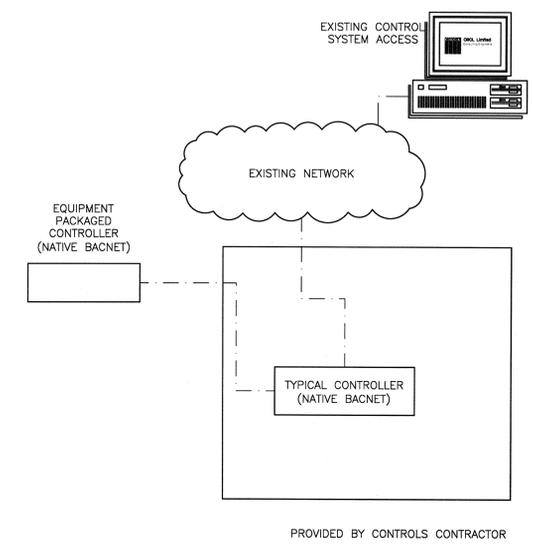
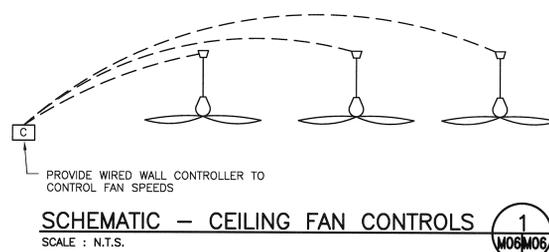
SPLIT HEAT PUMP SYSTEM OUTDOOR UNIT SCHEDULE									
TAG	NOMINAL TONNAGE	REFRIGERANT	TYPE	TOTAL COOLING (kW)	HEAT PUMP HEATING (kW)	ELECTRIC			REMARKS
						MCA	MOCP	SERVICE	
CU-1	7.5 TON	R410A	DX, SINGLE STAGE	26.4	25.5	35	50	208/3/60	c/w DISCONNECT, E-COAT ANTI-CORROSION ON COIL. CONTROLS INTERFACE TO BE AS PER DRAWINGS

NOTES:  
1. COOLING RATINGS BASED ON 27 DEG. CELSIUS DB, 19 DEG. CELSIUS WB INDOOR AND 35 DEG. CELSIUS OUTDOOR.  
2. HEATING RATING BASED ON 8 DEG. CELSIUS.

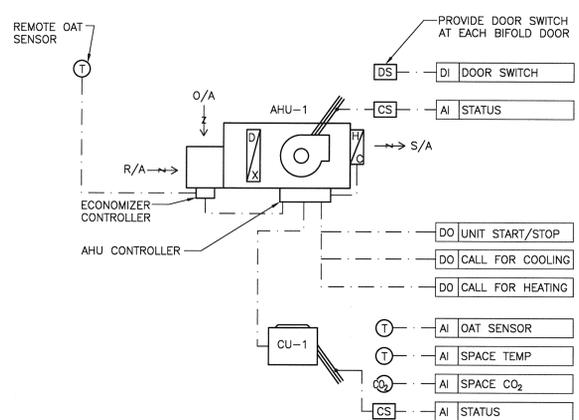
CEILING PROPELLER SCHEDULE						
TAG	TYPE	AIRFOIL QUANTITY	AIRFOIL MATERIAL	FAN DIA. (mm)	ELECTRIC	REMARKS
CPF-1	CEILING FAN	3	BAMBOO	2100	120/1/60 EC MOTOR WITH DIGITAL INVERTER DRIVE. 38W MAX.	c/w 1524mm EXTENSION TUBE. COLOUR AND FINISH BY ARCHITECT (SUBMIT COLOUR CHART WITH SHOP DRAWINGS). c/w WALL CONTROLLER

EXHAUST FAN SCHEDULE								
TAG	LOCATION	SERVICE	TYPE	AIRFLOW (l/s)	TOTAL S.P. (Pa)	BACKDRAFT DAMPER	ELECTRIC MOTOR SERVICE	REMARKS
EF-1	CEILING	WASHROOM	CEILING CABINET EXHAUST	70	125	YES	120/1/60	DIRECT DRIVE WITH ECM MOTOR AND FACTORY MOUNTED SPEED CONTROL DIAL c/w WHITE PLASTIC GRILLE AND 150# WALL CAP

GRILLE AND DIFFUSER SCHEDULE				
TAG	TYPE	SIZE (mm)	CAPACITY (l/s)	REMARKS
S-1	CURVED SPIRAL DUCT LINEAR SLOT	1830 LONG	306	WIPERBLADE PATTERN CONTROLLERS, 25mm SLOT WIDTH, 4 SLOTS, COLOUR BY ARCHITECT. SUBMIT COLOUR CHART WITH SHOP DRAWINGS. c/w AIR SCOOP. TO SUIT EXPOSED DUCT
S-2	LINEAR BAR GRILLE	1500x150	190	COLOUR BY ARCHITECT. SUBMIT COLOUR CHART WITH SHOP DRAWINGS. c/w OPPOSED BLADE DAMPER, 12mm BLADE SPACING, MOUNTING TO SUIT
R-1	CURVED SPIRAL DUCT PERFORATED FACE	900x400	613	COLOUR BY ARCHITECT. SUBMIT COLOUR CHART WITH SHOP DRAWINGS. TO SUIT EXPOSED DUCT
R-2	LOUVRED FACE RETURN GRILLE	650x800	380	COLOUR BY ARCHITECT. SUBMIT COLOUR CHART WITH SHOP DRAWINGS. 19mm BLADE SPACING. MOUNTING TO SUIT

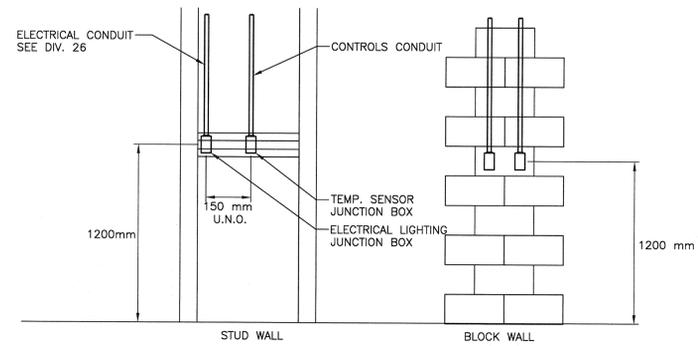


DETAIL - NETWORK ARCHITECTURE 2  
SCALE : N.T.S. M02M02



- SEQUENCE OF OPERATION:
- UNIT TO RECEIVE ITS OWN INDIVIDUAL FULLY MODIFIABLE SCHEDULE c/w SETBACK SETPOINT. SET SCHEDULES TO MATCH EXISTING HEAT PUMPS. COORDINATE WITH STAFF
  - OCCUPIED MODE: UNIT SHALL OPERATE AND THE HEATING AND COOLING SECTIONS SHALL MODULATE/STAGE TO MAINTAIN SETPOINT.
  - UNOCCUPIED MODE: UNIT SHALL BE NORMALLY OFF AND SHALL BE ENERGIZED TO MAINTAIN SETPOINT.
  - UNIT STATUS AND SETPOINTS SHALL BE INDICATED AT THE BMS.
  - BMS TO RECEIVE ALARM ON UNIT FAILURE OR LOW SPACE TEMPERATURE.
  - COOLING FAN SHALL MODULATE USING MANUFACTURER'S STAGED AIR VOLUME SYSTEM (SAV). ECONOMIZER COOLING TO BE ENABLED AND CONTROLLED WHEN OUTDOOR AIR TEMPERATURE PERMITS AND SHALL OVERRIDE DX COOLING.
  - HEATING: HEATING SHALL PROVIDED BY THE HEAT PUMP WITH ELECTRIC 2 STAGE COIL PROVIDING SECOND STAGE OF HEAT AS REQUIRED.
  - ECONOMIZER TO MODULATE MIN. OA BASED ON CO<sub>2</sub> MIN. OA: 100 L/S.
  - UNIT IS TO BE TURNED OFF IF OAT IS ABOVE 15 DEG. CELSIUS AND ANY OF THE BIFOLD DOORS ARE OPEN.

DETAIL - CONTROLS SEQUENCE 3  
SCALE : N.T.S. AHU-1 AND CU-1 M02M02



- NOTES:
- WITH THE EXCEPTION OF MECHANICAL AND ELECTRICAL ROOMS JUNCTION BOXES AND CONDUIT FOR ALL WALL MOUNTED CONTROL DEVICES SHALL BE HIDDEN WITHIN THE WALL, NO SURFACE MOUNTED EQUIPMENT.
  - USE PLASTER RINGS WHERE REQUIRED.
  - COORDINATE WITH OTHER TRADES.
  - REFER TO ELECTRICAL DRAWINGS FOR LIGHT SWITCH LOCATIONS.
  - REFER TO ELECTRICAL SPECIFICATIONS FOR CONDUIT AND WIRING REQUIREMENTS.

DETAIL - TYPICAL CONTROLS SENSOR MOUNTING HEIGHT 4  
SCALE : N.T.S. M02M02

The Association of Professional Engineers of the Province of Prince Edward Island  
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No. 1459  
DATE: Nov 29, 2016  
LICENSED PROFESSIONAL ENGINEER  
PROVINCE OF PRINCE EDWARD ISLAND

revisions	date
2	ISSUED FOR TENDER 11.29.2016
1	100% SUBMISSION 11.23.2016
0	99% SUBMISSION 11.8.2016

project GREEN GABLES-PHASE 1 BARN EXPANSION AND RENOVATION  
project QUEENS CO., PEI

drawing MECHANICAL HVAC SCHEDULES AND DETAILS  
dessin

designed CJR	conçu
date OCT-2016	
drawn MEH	dessiné
date OCT-2016	
approved	approuvé
date	
Tender	Soumission
PWSC Project Manager	Administrateur de projets TPSCC
project number R.081199.001	no. du projet
drawing no. M06 OF 6	no. du dessin