

1
NEW AIR HANDLING UNIT (AHU-1) AND CONDENSING UNIT (CU-1) CONTROL SCHEMATIC
(PROVIDE NEW DDC CONTROLS FOR ABOVE C/W GRAPHICS)
SCALE: N.T.S.

HVAC CONTROLS SCOPE OF WORK:

THE SCOPE OF WORK FOR THE HVAC SYSTEM REPLACEMENT INCLUDES THE FOLLOWING:

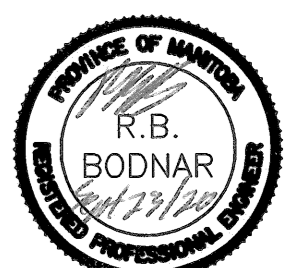
- REMOVAL/DEMOLITION OF THE FOLLOWING:**
1. PERIMETER RADIATOR, UNIT HEATER, AND FORCE FLOW CONTROL VALVES AND THERMOSTATS. EXISTING WIRING TO BE RETAINED.
 2. ALL GAS RADIANT HEATER (BU-1 THROUGH 9) THERMOSTATS INCLUDING BU-4 AND 5 DOOR SWITCH AND OUTDOOR SENSOR TO BE REMOVED.
 3. AHU-1 AND CU-1 CONTROLS, CONTROL PANEL, MOTORIZED DAMPERS, AND ACTUATORS.
 4. EXISTING HUMIDIFIER CONTROLS TO BE REMOVED, NOT TO BE REPLACED.
 5. EXHAUST FAN (EF-1 THROUGH 10, EXCLUDING EF-9) AND ASSOCIATED AIR INTAKE AND EXHAUST MOTORIZED DAMPERS AND ACTUATORS.
 6. EXISTING VEHICLE EMISSION DETECTORS TO BE RETAINED AND CALIBRATED. EXTEND WIRING FOR NEW NO DETECTORS UP TO ROOF LEVEL. CO DETECTORS TO REMAIN AS IS.
 7. SPRAY BOOTH AMU-1 AND EF-9 CONTROLS TO BE REMOVED, NOT TO BE REPLACED.
 8. BOILER CONTROLS TO BE REMOVED.
 9. HYDRONIC HEATING PUMPS (P-1, 2 AND 4) CONTROLS AND CONTROL PANEL TO BE REMOVED.
 10. EF-2 (LUNCHROOM) AND EF-4 (WORK SHOP) COUNT DOWN TIMER TO BE REMOVED.
 11. RETAIN ALL EXISTING CONTROL WIRING.

SUPPLY, INSTALLATION, AND COMMISSIONING OF THE FOLLOWING:

1. PERIMETER RADIATOR, UNIT HEATER, AND FORCE FLOW CONTROL VALVES AND THERMOSTATS. PROVIDE PROGRAMMABLE THERMOSTATS FOR PERIMETER OFFICES ONLY AND STANDARD THERMOSTATS FOR THE REMAINING HEATERS.
2. ALL GAS RADIANT HEATER (BU-1 THROUGH 9) THERMOSTATS INCLUDING BU-4 AND 5 DOOR SWITCH AND OUTDOOR SENSORS.
3. NEW AHU-1 AND CU-1, BOILERS, LOCKER EXHAUST FAN (EF-1), AHU HEATING PUMP (P-4) AND PRIMARY HEATING PUMPS (P-1 AND P-2) IN DDC CONTROLS, MOTORIZED DAMPERS (OUTSIDE AIR, RETURN AIR, AND RELIEF AIR), AND ACTUATORS. PROVIDE ENTHALPHY ECONOMIZER, DDC GRAPHIC DISPLAY LAPTOP, AND 7-DAY TIME CLOCK C/W REMOTE THERMOSTAT. THIS INCLUDES NEW CONTROLS FOR HYDRONIC HEATING PUMPS P1 AND P2. AHU-1 TO BE PROTECTED BY A FREEZE STAT.
4. PROVIDE NEW CONTROLS FOR NEW EXHAUST FANS (EF-1 THROUGH 10, EXCLUDING EF-9) INCLUDING ASSOCIATED AIR INTAKE AND EXHAUST MOTORIZED DAMPERS & ACTUATORS AND TEMPERATURE/ HUMIDITY SENSORS.
5. CALIBRATE AND RECOMMISSION EXISTING VEHICLE EMISSION DETECTORS. VEHICLE BAY VENTILATION SYSTEM SHALL BE CONTROLLED BY THE VEHICLE EMISSION DETECTORS. EXTEND CO2 SENSOR TO ROOF LEVEL.
6. PROVIDE NEW BOILER VENDOR CONTROLS FOR B1 AND B2 C/W OUTDOOR TEMPERATURE RESET AND BOILER STAGING.
7. NEW COUNT DOWN TIMER FOR EF-2 (LUNCHROOM) AND EF-4 (WORK SHOP).
8. COMMISSION NEW AHU CONTROLS BOTH IN SUMMER AND WINTER OPERATION.
9. ALL NEW WIRING TO BE IN CONDUIT.

NOTE:

1. REFER TO SPECIFICATIONS FOR EXISTING CONTROL DRAWINGS.



Revision	Description	Date
1	Issued for Construction	2020/09/23
0	Issued for Tender	2020/03/23

Client: client

DFO CENTRAL AND ARCTIC REGION

CANADIAN COAST GUARD BASE

Project: **SELKIRK, MANITOBA**

HVAC REFURBISHMENT

Designed by: MJ Conçu par

Drawn by: MJ Dessiné par

Approved by: *[Signature]* Approuvé par

DFO Project Manager: **ALDIN JANSEN** Administrateur de Projets MPO

Drawing title: **MECHANICAL HVAC - CONTROLS** Titre du dessin

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
	M05	1
	OF 7	