



1 MAIN FLOOR PLAN - HVAC NEW
SCALE: 1:100mm

KEY NOTES:

- 1. INSTALL NEW BOILERS (B-1&2) ON THE EXISTING CONCRETE PAD. CONTRACTOR TO INSTALL AS PER UNITS REQUIRED CLEARANCES, EXTEND EXISTING CONCRETE PAD AS REQUIRED. PROVIDE NEW NATURAL GAS PIPING TO THE NEW BOILERS AND CONTRACTOR TO CONFORM TO NATIONAL GAS INSTALLATION CODE CAN/CGA-B149.1 AND MANITOBA GAS NOTICES FOR INSTALLATION OF GAS PIPING. PROVIDE NEW HEATING PUMPS (P-1&2) AS REQUIRED. RUN BOILER EXHAUST VENTS WITHIN EXISTING FLUE STACK CHIMNEY UP THROUGH ROOF AND SEAL WATER TIGHT. INSTALL PER MANUFACTURER'S INSTRUCTIONS. COMBUSTION AIR SHALL BE DRAWN FROM THE MODIFIED COMBUSTION AIR INTAKE WITHIN MECHANICAL ROOM. PROVIDE NEW BOILER CONTROLS.
- 2. SUPPLY NEW AIR HANDLER (AHU-1) IN PIECES AND INSTALL/ ASSEMBLE INSIDE MECHANICAL ROOM COMPLETE WITH NEW OUTDOOR CONDENSING UNIT (CU-1). MODIFY/ EXTEND DUCTWORK TO SUIT AND PROVIDE FLEXIBLE DUCT FITTINGS AT THE UNITS CONNECTIONS. INSULATE DUCTWORK TO MATCH EXISTING. PROVIDE NEW REFRIGERANT PIPING FROM THE NEW CU-1 TO THE NEW AHU-1 AND CHARGE PIPING WITH REQUIRED REFRIGERANT. CONTRACTOR SHALL DESIGN, SIZE, SUPPLY AND INSTALL INSULATED REFRIGERANT PIPING TO SUIT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALUMINUM JACKET OVER THE INSULATED REFRIGERANT PIPING OUTSIDE. PROVIDE NEW CONTROL PANEL AND CONTROLS. CONTRACTOR SHALL MODIFY EXISTING AIR HANDLING UNIT AND CONDENSING UNIT SUPPORTS TO SUIT NEW UNITS. PAINT TO MATCH EXISTING. NEW CONDENSING UNIT (CU-1) SUPPORT TO BE INSTALLED ON A NEW CONCRETE PAD SIZED TO SUIT NEW UNIT.
- 3. PROVIDE AND INSTALL NEW EXHAUST FANS (EF-1-12 EXCLUDING EF-9). MODIFY/ EXTEND EXISTING DUCTWORK TO SUIT. PROVIDE FLEXIBLE FITTING AT EACH FAN CONNECTIONS AND VIBRATION ISOLATORS.
- 4. PROVIDE AND INSTALL NEW RADIANT HEATERS (BU-1-9) COMPLETE WITH NEW THERMOSTATS. MODIFY/ EXTEND NATURAL GAS PIPING AND COMBUSTION INTAKE AND EXHAUST TO EACH UNIT TO SUIT. TYPICAL. CONTRACTOR TO CONFORM TO NATIONAL GAS INSTALLATION CODE CAN/CGA-B149.1 AND MANITOBA GAS NOTICES FOR INSTALLATION OF GAS PIPING.
- 5. PROVIDE AND INSTALL NEW UNIT HEATERS (UH-1&2) COMPLETE WITH NEW THERMOSTATS. MODIFY/ EXTEND HYDRONIC PIPING TO EACH UNIT TO SUIT.
- 6. PROVIDE TWO (2) NEW ELECTRIC DOMESTIC HOT WATER TANK (HWT-1 &2). MODIFY/ EXTEND PLUMBING PIPING TO SUIT. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS COMPLETE WITH EQUAL LENGTH MANIFOLDS. EXTEND EXISTING CONCRETE PAD TO SUIT.
- 7. PROVIDE 125MM DIAMETER NEW VENTILATION OPENING AT THE EXTERIOR WALL OF THE EXISTING MECHANICAL/ BOILER ROOM TO MEET CODE.
- 8. PROVIDE AND INSTALL NEW HYDRONIC BASEBOARD HEATERS (BB-#) AND FORCE FLOW HEATERS (FF-1-5) COMPLETE WITH NEW THERMOSTATS. MODIFY/ EXTEND HYDRONIC PIPING TO SUIT. EXISTING WALL FIN IN THE CRAWLSPACE TO BE REPLACED. REFER TO ATTACHED REFERENCE DRAWINGS FOR INFORMATION.
- 9. EXTEND EXISTING 900Ø DIA COMBUSTION INTAKE PLENUM ATTACHED TO EXTERIOR LOUVER TO ACCOMMODATE NEW 500X450 COMBUSTION AIR INTAKE. INSULATE DUCTWORK TO MATCH EXISTING.
- 10. SUPPLY AND INSTALL NEW CEILING FANS (CF-1-6) AS SHOWN COMPLETE WITH BIRD SCREEN.
- 11. SUPPLY AND INSTALL NEW FLOOR MOUNTED EXPANSION TANK AND PROVIDE NECESSARY PIPING ACCESSORIES SUCH AS UNIONS AND SHUTOFF VALVE. REFER TO PIPING SCHEMATIC.
- 12. SUPPLY AND INSTALL NEW CHEMICAL FEEDER AND CONNECT TO EXISTING. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.

SCALE VERIFIED BY: *[Signature]*



**ENGINEERS
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MANITOBA
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No. 245

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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: _____ Projet

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: _____ Titre du dessin

**MECHANICAL
HVAC - NEW
MAIN FLOOR PLAN**

Project no./No. du projet: _____ Drawing no./No. du dessin: _____ Revision no.: _____

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