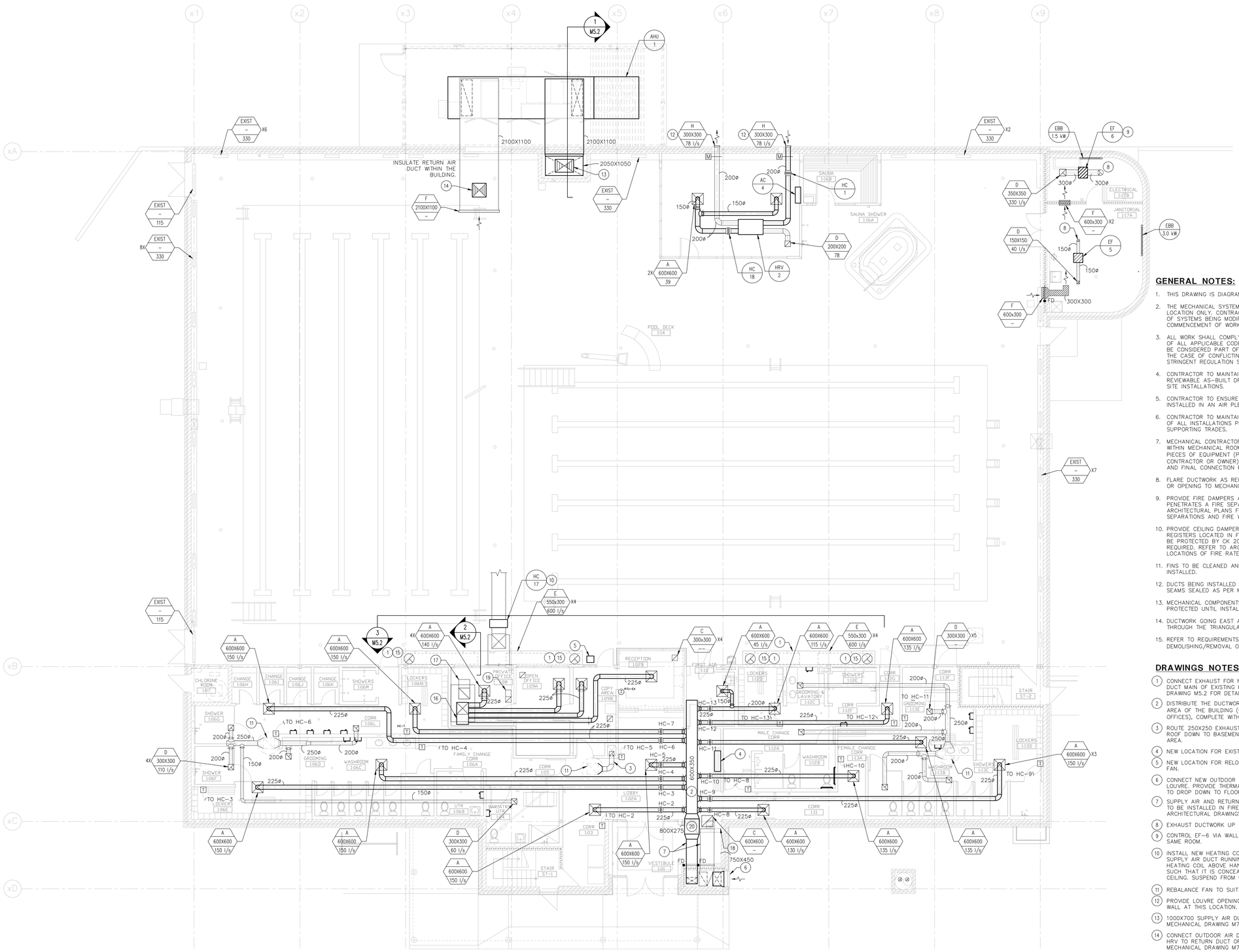

1 M5.1 MAIN FLOOR – HVAC RENOVATION LAYOUT
SCALE: 1:100

GENERAL NOTES:

1. THIS DRAWING IS DIAGRAMMATIC ONLY. DO NOT SCALE.
2. THE MECHANICAL SYSTEMS SHOWN ARE APPROXIMATE IN LOCATION ONLY. CONTRACTOR TO VERIFY EXACT LOCATION OF SYSTEMS BEING MODIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK.
3. ALL WORK SHALL COMPLY WITH THE MOST CURRENT VERSION OF ALL APPLICABLE CODES AND STANDARDS, WHICH SHALL BE CONSIDERED PART OF THESE CONTRACT DOCUMENTS. IN THE CASE OF CONFLICTING REQUIREMENTS, THE MOST STRINGENT REGULATION SHALL PREVAIL.
4. CONTRACTOR TO MAINTAIN CURRENT AND READILY REVIEWABLE AS-BUILT DRAWINGS ACCURATELY REFLECTING SITE INSTALLATIONS.
5. CONTRACTOR TO ENSURE ALL MATERIALS MODIFIED OR INSTALLED IN AN AIR PLENUM ARE RATED FOR SUCH USE.
6. CONTRACTOR TO MAINTAIN DIGITAL PHOTOGRAPHIC RECORDS OF ALL INSTALLATIONS PRIOR TO CONCEALMENT BY SUPPORTING TRADES.
7. MECHANICAL CONTRACTOR TO ALLOW FOR ADDITIONAL PIPING WITHIN MECHANICAL ROOM AS REQUIRED TO CONNECT TO PIECES OF EQUIPMENT (PROVIDED BY MECHANICAL CONTRACTOR OR OWNER) BASED ON FINAL ROOM LAYOUT AND FINAL CONNECTION POINT LOCATION OF EQUIPMENT.
8. FLARE DUCTWORK AS REQUIRED TO SUIT CONNECTION SIZE OR OPENING TO MECHANICAL EQUIPMENT.
9. PROVIDE FIRE DAMPERS AT EACH LOCATION WHERE A DUCT PENETRATES A FIRE SEPARATION OR FIRE WALL. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF FIRE SEPARATIONS AND FIRE WALLS, AND THEIR RATINGS.
10. PROVIDE CEILING DAMPERS FOR ALL DIFFUSERS, GRILLES OR REGISTERS LOCATED IN FIRE RATED CEILINGS. DIFFUSERS TO BE PROTECTED BY CK 2000 THERMAL BLANKET WHERE REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED CEILINGS.
11. FINS TO BE CLEANED AND COMBED PRIOR TO BEING INSTALLED.
12. DUCTS BEING INSTALLED TO BE WIPED CLEAN AND HAVE SEAMS SEALED AS PER MECHANICAL SPECIFICATION.
13. MECHANICAL COMPONENTS BEING STORED ON SITE TO BE PROTECTED UNTIL INSTALLATION INTO SYSTEM.
14. DUCTWORK GOING EAST AND WEST TO BE THREADED THROUGH THE TRIANGULAR TRUSSES.
15. REFER TO REQUIREMENTS IN SPECIFICATIONS FOR DEMOLISHING/REMOVAL OF ASBESTOS.

DRAWINGS NOTES:

1. CONNECT EXHAUST FOR NEW EXHAUST BENCHES TO EXHAUST DUCT MAIN OF EXISTING HRV. REFER TO MECHANICAL DRAWING M5.2 FOR DETAILS.
2. DISTRIBUTE THE DUCTWORK FROM AHU–2 TO THE FRONT AREA OF THE BUILDING (CHANGE ROOMS, RECEPTION, OFFICES), COMPLETE WITH DAMPERS AND DIFFUSERS/GRILLES.
3. ROUTE 250X250 EXHAUST FROM EXISTING EXHAUST FAN ON ROOF DOWN TO BASEMENT TO NEW STAFF ROOM CHANGE AREA.
4. NEW LOCATION FOR EXISTING AC–1.
5. NEW LOCATION FOR RELOCATED EXISTING WALL MOUNTED FAN.
6. CONNECT NEW OUTDOOR AIR DUCT TO EXISTING OUTSIDE AIR LOUVRE. PROVIDE THERMAL INSULATION ON ALL DUCTWORK TO DROP DOWN TO FLOOR BELOW.
7. SUPPLY AIR AND RETURN AIR DUCTWORK ABOVE VESTIBULE TO BE INSTALLED IN FIRE RATED BULKHEAD. REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER DETAIL.
8. EXHAUST DUCTWORK UP THROUGH GOOSENECK ABOVE.
9. CONTROL EF–6 VIA WALL MOUNTED THERMOSTAT WITHIN SAME ROOM.
10. INSTALL NEW HEATING COIL HC–17 ONTO EXISTING HRV–1 SUPPLY AIR DUCT RUNNING ACROSS THE POOL. INSTALL NEW HEATING COIL ABOVE HANGING CEILING TILE AT LOCATION SUCH THAT IT IS CONCEALED FROM BELOW BY THE HANGING CEILING. SUSPEND FROM UNDERSIDE OF ROOF STRUCTURE.
11. REBALANCE FAN TO SUIT NEW AIR VOLUME.
12. PROVIDE LOUVRE OPENING FOR HRV–2 WITHIN MASONRY WALL AT THIS LOCATION.
13. 1000X700 SUPPLY AIR DUCT RISE TO ABOVE. SEE MECHANICAL DRAWING M7.0 FOR DUCT CONTINUATION.
14. CONNECT OUTDOOR AIR DUCT FROM ABOVE FROM EXISTING HRV TO RETURN DUCT OF NEW AIR HANDLING UNIT. SEE MECHANICAL DRAWING M7.0 FOR CONTINUATION.
15. 550ø EXHAUST DUCT RISE UP FROM EXHAUST BENCH. SEE MECHANICAL DRAWING M5.2 FOR CONNECTION DETAILS.
16. INSTALL NEW SUPPLY AIR PLENUM BELOW EXISTING RTU TO ALLOW FOR MULTIPLE DUCT TAKEOFF AS SHOWN.
17. INSTALL NEW ACOUSTICALLY INSULATED ELBOW ABOVE CEILING FOR EXISTING RTU RETURN AIR.
18. OPEN ENDED RETURN AIR DUCT OPEN TO CEILING SPACE ABOVE TO ALLOW FOR RETURN AIR PATH BACK TO AHU–2
19. ACOUSTICALLY LINED TRANSFER ELBOW ABOVE CEILING.
20. COORDINATE DUCTWORK PATH WITH EXISTING STRUCTURAL BEAMS/JOIST LAYOUT AND MODIFY ON SITE TO TRANSITION BETWEEN AS NECESSARY.

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PROVINCE OF MANITOBA
J.E. VAN LEEUWEN
Member 38282
REGISTERED PROFESSIONAL ENGINEER
2023-12-21

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MAIN FLOOR - HVAC RENOVATION LAYOUT

Comm. No.: 2129
Sheet: **M5.1**
Plotted on: