

LEGEND:

- — EXISTING EQUIPMENT AND VENTING RE-INSTALLED
- — NEW EQUIPMENT AND DUCTWORK
- — DUCTWORK SUPPORT
- ⊠ — SUPPLY DUCT RISER DOWN
- ⊠ — RETURN/EXHAUST DUCT RISER DOWN
- ⊙ — BALANCE DAMPER

GENERAL NOTES:

1. PERFORM WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
2. REVIEW EQUIPMENT LOCATIONS WITH CONTRACT ADMINISTRATOR PRIOR TO INSTALLATION.
3. EQUIPMENT LOCATIONS, DUCT, AND PIPE ROUTING INDICATED ON THE DRAWINGS IS APPROXIMATE ONLY. CONFIRM IN THE FIELD. REROUTE DUCTWORK AND PIPING AS REQUIRED TO ELIMINATE FIELD INTERFERENCES WITH BUILDING STRUCTURE, ELECTRICAL, ETC. CONFIRM CHANGES WITH CONSULTANT. **COORDINATE WORK WITH ALL SUBTRADES**.
4. WHERE DIMENSIONS ARE INDICATED FOR PIPING, DUCTWORK, DUCT SIZES, EQUIPMENT SIZES, ETC. THESE ARE FOR BIDDING PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO ORDERING EQUIPMENT AND COMMENCING INSTALLATION WITHOUT EXTRA CHARGES TO THE PROJECT. THE CONTRACTOR IS RESPONSIBLE TO ENSURE ALL EQUIPMENT, DUCTWORK, AND PIPING FITS IN THE SPACE AVAILABLE AND TO MAINTAIN THE GENERAL DESIGN INTENT FOR THE SYSTEMS.
5. CONFORM TO SMACNA STANDARDS FOR SUPPLY AND INSTALLATION OF DUCTWORK. SEAL ALL DUCT JOINTS.
6. SEAL ALL FLOOR, ROOF AND WALL PENETRATIONS WATER AND AIR TIGHT.
7. FIRE SEAL ALL PENETRATIONS THROUGH FIRE SEPARATIONS.
8. MAINTAIN SERVICE CLEARANCES FOR ALL EQUIPMENT AS PER SUPPLIER RECOMMENDATIONS.
9. COORDINATE THE NEW CONSTRUCTION WORK WITH THE ROOF WORK AS PER THE REQUIRED PHASING SEQUENCE.

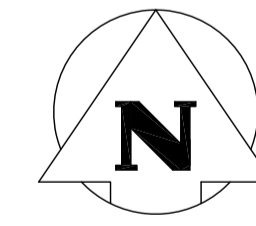
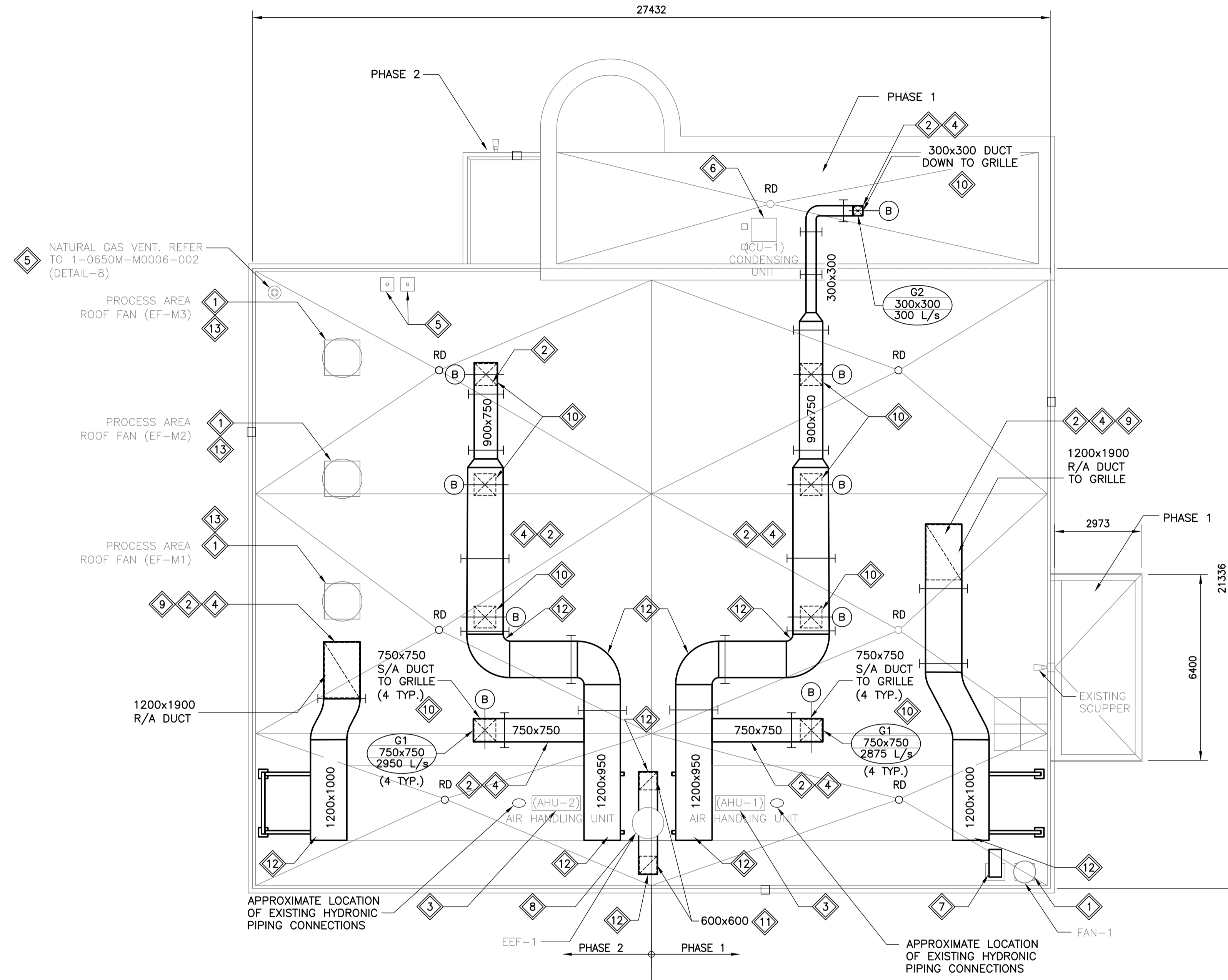
CONSTRUCTION PHASING SEQUENCE:

1. COMPLETION OF THE MECHANICAL WORK FOR PHASE 1 IS REQUIRED PRIOR TO STARTING PHASE 2 WORK. EACH PHASE SHALL BE CONSIDERED COMPLETE ONCE THE EXISTING ROOFTOP HVAC EQUIPMENT HAS BEEN RE-INSTALLED, COMMISSIONED, AND TESTED.
2. COMPLETION OF THE MECHANICAL WORK SHALL INVOLVE THE TESTING AND COMMISSIONING OF THE REINSTALLED EQUIPMENT AND DEMONSTRATION TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR THAT EACH SYSTEM IS FULLY FUNCTIONAL.
3. THE REINSTALLATION OF EXISTING CHLORINE ROOM EXHAUST FAN EEF-1 AND THE INSTALLATION OF THE NEW ASSOCIATED DUCTWORK SHALL BE PERFORMED DURING PHASE 1 OF THE ROOF WORK.
4. THE INSTALLATION OF NEW INTERIOR DUCTWORK SHALL NOT BE CONDUCTED UNTIL THE ABATEMENT OF THE ASBESTOS CEILING TILES IS COMPLETE TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR.

KEYNOTES:

1. SUPPLY AND INSTALL NEW EXTERIOR DUCTWORK AND RE-INSTALL THE EXISTING ROOFTOP FANS FAN-1, EF-M1, EF-M2, AND EF-M3 AND CONNECT THEM TO THEIR EXISTING INTERIOR DUCTWORK. REFER TO DRAWING 1-0650M-E0018-001 AND DRAWING 1-0650M-E0024-001 FOR THE WIRING DETAILS. REFER TO DRAWING 1-0650M-S0003-001 FOR THE ROOF CURB REQUIREMENTS.
2. FIELD VERIFY THE DIMENSIONS OF THE EXISTING DUCTWORK PRIOR TO REMOVAL TO ENSURE THAT THE NEWLY FABRICATED DUCTWORK MATCHES THE EXISTING DUCTWORK DIMENSIONS.
3. RE-INSTALL THE EXISTING ROOFTOP AIR HANDLING UNITS AHU-1 AND AHU-2 ONTO EXISTING STRUCTURAL SUPPORTS. REFER TO DRAWING 1-0650M-E0003-001 AND DRAWING 1-0650M-E0024-001 FOR THE WIRING DETAILS. SUPPLY AND INSTALL NEW 75MM DIAMETER COOLING WATER SUPPLY AND RETURN WATER PIPING TO THE EXISTING AIR HANDLING UNITS AND CONNECT THE NEW PIPING TO THE EXISTING INTERIOR SUPPLY AND RETURN PIPING CONNECTIONS. INSULATE ALL NEW PIPING AS PER THE SPECIFICATIONS. PROVIDE NEW ISOLATION BUTTERFLY VALVES ON THE ROOFTOP PIPING FOR SUPPLY AND RETURN PIPING. REFER TO DRAWING 1-0650M-M0006-002 (DETAIL-5).
4. SUPPLY AND INSTALL NEW EXTERIOR DUCTWORK TO THE EXISTING ROOFTOP AIR HANDLING UNITS AHU-1 AND AHU-2. INSULATE AND JACKET THE NEW EXTERIOR DUCTWORK AS PER THE SPECIFICATIONS. SUPPORT THE NEW EXTERIOR DUCTWORK AS PER THE SPECIFICATIONS. REFER TO DETAIL 1 ON DRAWING 1-0650M-M0006-001 FOR DETAILS ON THE DUCTWORK SUPPORTS.
5. THE EXISTING VENT STACKS TO BE RETAINED AND TO REMAIN OPERATIONAL DURING BOTH PHASES OF THE ROOF WORK. REFER TO DRAWING 1-0650M-S0004-001 (DETAIL-4) FOR THE EXHAUST STACK PENETRATION FLASHING DETAILS.
6. REINSTALL THE EXISTING CONDENSING UNIT CU-1 AND CONNECT IT TO ITS EXISTING REFRIGERANT PIPES. RECHARGE THE REFRIGERANT FOR THE EXISTING CONDENSING UNIT CU-1.
7. SUPPLY AND INSTALL A NEW GOOSENECK DUCTWORK AIR INTAKE AND CONNECT IT TO THE EXISTING INTERIOR DUCTWORK. REFER TO DETAIL 4 ON DRAWING 1-0650M-M0006-001 FOR DETAILS ON THE GOOSENECK HOOD.
8. RE-INSTALL THE EXISTING CHLORINE ROOM EXHAUST FANS EEF-1 WITH NEW EXTERIOR DUCTWORK AND BRANCHES AND CONNECT TO THE EXISTING INTERIOR DUCTWORK. REFER TO DRAWING 1-0650M-E0018-001 AND DRAWING 1-0650M-E0024-001 FOR THE WIRING DETAILS.
9. SUPPLY AND INSTALL NEW OPEN ENDED INTERIOR RETURN AIR DUCTWORK WITH NEW 50MM HEIGHT STAINLESS STEEL DRAIN PAN. CONNECT TO THE NEW EXTERIOR ROOFTOP DUCTWORK AS SHOWN IN DETAIL-2 ON DRAWING 1-0650M-M0006-001.

10. SUPPLY AND INSTALL NEW INTERIOR DUCTWORK EQUIPPED WITH GRILLE. CONNECT TO THE NEW EXTERIOR ROOFTOP DUCTWORK AS SHOWN IN DETAIL-3 ON DRAWING 1-0650M-M0006-001.
11. SUPPLY AND INSTALL NEW EXTERIOR DUCTWORK AND CONNECT TO THE EXISTING INTERIOR DUCTWORK.
12. SUPPLY AND INSTALL TURNING VANES WITHIN THE NEW DUCTWORK.
13. THE EXISTING ROOF FANS EF-M1, EF-M2, AND EF-M3 ARE CONNECTED TO THE EXISTING GAS DETECTION SYSTEM AND THEREFORE OPERATIONAL DOWNTIME MUST BE MINIMIZED. EF-M1, EF-M2, AND EF-M3 TO REMAIN OPERATIONAL THROUGHOUT PHASE 1 OF THE ROOF WORK. REMOVAL AND REINSTALLATION OF EF-M1, EF-M2, AND EF-M3 TO TAKE PLACE DURING PHASE 2 OF ROOF WORK AND TO BE COMPLETED EXPEDITIOUSLY.



HVAC ROOF PLAN - NEW
SCALE: 1:100

10	-	-
9	-	-
8	-	-
7	-	-
6	-	-
5	-	-
4	1-0650M-M0006-001	MECHANICAL - PUMP STATION - DETAILS (1 OF 2)
3	1-0650M-E0024-001	ELECTRICAL - PUMP STATION ROOF POWER PLAN
2	1-0650M-E0018-001	ELECTRICAL - PUMP STATION SINGLE LINE DIAGRAM
1	1-0650A-D0001-001	COVER SHEET
NO.	DRAWING NUMBER	REFERENCE DRAWING TITLE

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
KGS Group
No. 245

B.M.	-
ELEV.	-
0	ISSUED FOR CONSTRUCTION
NO.	REVISIONS
2020/06/18	CPH RCC
DATE	DESIGN CHECK

KGS GROUP

DESIGNED BY: C. HOLBROOK
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DATE: 2020-06-18

CHECKED BY: R. CHEN
APPROVED BY: C. HOLBROOK
ISSUED FOR CONSTRUCTION BY:
DATE:

CONSULTANT NO.: 19-0107-005_M14

ENGINEER'S SEAL

PROVINCE OF MANITOBA
C.P. HOLBROOK
REGISTERED PROFESSIONAL ENGINEER
43309
2020-06-18

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

HURST PUMPING STATION
STRUCTURAL REPAIRS AND DRAINAGE BUILDING UPGRADES
MECHANICAL
PUMP STATION ROOF
HVAC PLAN - NEW

CITY DRAWING NUMBER: 1-0650M-M0005
SHEET: 001
REV: 0
SIZE: A1