

BUILDING KEY PLAN

LEGEND

- (N) NEW  
(E) EXISTING  
— NEW EQUIPMENT  
— EXISTING EQUIPMENT  
— EXISTING PIPE

0 ISSUED FOR TENDER 23-JUN-2017  
REV Description Date

A detail no.  
no. du detail  
B location drawing no.  
sur dessin no.  
C drawing no.  
dessin no.

A  
B C

project project

MECHANICAL UPGRADE  
115 PERIMETER ROAD  
SASKATOON, SK

ENVIRONMENT CANADA  
335 River Rd  
Ottawa ON, K1V 1C7

drawing dessin

MECHANICAL  
HVAC SYSTEM  
SECOND FLOOR PLAN

Designed By GDK Conçu par  
Date 17/05/09 (yyyy/mm/dd)  
Drawn By BJB Dessiné par  
Date 17/05/09 (yyyy/mm/dd)  
Reviewed By ADR Examiné par  
Date 17/06/23 (yyyy/mm/dd)  
Approved By AMB Approuvé par  
Date 17/06/23 (yyyy/mm/dd)  
Tender Soumission

Project Manager Administrateur de projets  
EC PMDI Proj no. Consultant Proj no.  
17-0006-001

Drawing no. No. du dessin

M104

GENERAL NOTES:

1. REFER TO DRAWINGS M01 AND M02 FOR ALL SPECIFICATIONS

SCOPE OF WORK:

- PROVIDE AND INSTALL HYDRONIC CABINET UNIT HEATERS AS INDICATED.
- PROVIDE AND INSTALL NEW HYDRONIC BASEBOARDS, SUPPLY AND RETURN PIPING, AND ANCILLARIES AS INDICATED.
- PROVIDE AND INSTALL ALL NEW CONTINUOUS CONVECTOR COVERS AS INDICATED c/w ASSOCIATED END CAPS AT NEW DRYWALL PIPE CHASES, BULKHEADS, ETC. PROVIDE AND INSTALL END CAPS, ACCESS DOORS, AND JOINT COVERS AS REQUIRED.
- PROVIDE AND INSTALL CEILING MOUNTED UNIT HEATER c/w WALL BRACKETS AND ANCILLARIES.
- PERFORM TESTING AND COMMISSIONING OF HEATING SYSTEM AND CONTROLS OPERATOR. PROVIDE SIGN-OFF SHEETS CERTIFYING CORRECT AND PROPER INSTALLATION FOR ALL EQUIPMENT, BOILER ADJUSTING AND COMMISSIONING SHALL BE PERFORMED AS PER MANUFACTURER'S INSTRUCTIONS.
- REMOVE AND REPLACE EXISTING ANIMAL AUTOPSY AHU HEATING COIL WITH COIL SIZED FOR EQUAL BTU/Hr OUTPUT WITH 54.4°C EWT AND 22.2°C ΔT. COIL MODEL: DAIKIN SWQ1206A
- BASE BOARD CONVECTOR HEATERS AND UNIT HEATERS HAVE PIPING INSULATION CONTAINING ASBESTOS. ENSURE PROPER PROCEDURES ARE FOLLOWED TO AVOID CONTAMINATION.

ALTERNATES

EQUIPMENT AND DESIGN ARE BASED ON THE MANUFACTURERS AND PRODUCTS NOTED IN THE EQUIPMENT SCHEDULES. ALTERNATES OF EQUAL OR SUPERIOR PERFORMANCE WILL BE CONSIDERED. HOWEVER, THE RESPONSIBILITY LIES WITH THE CONTRACTOR TO IMPLEMENT ALL NECESSARY & RESULTANT DESIGN AND FIELD MODIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.

EQUIPMENT SCHEDULE

**BB-1 to BB-11 BASEBOARD HEATERS**  
UNIT TO PROVIDE CONVECTIVE HEATING IN ACCORDANCE WITH THE BASE BOARD SCHEDULE. UNIT SHALL BE EQUIPPED WITH MULTI PASS FIN-TUBE HEATING ELEMENTS. BRASS COLLECTORS WITH 1/2" NPTF CONNECTIONS @ 55 FPF, DUST PROOF COATING, FLAT TOP ENCLOSURE. HEATING MEDIUM IS WATER.  
ACCEPTABLE PRODUCT: JAGA TEMPO WALL MOUNTED.

**FF-1 FORCE FLOW HEATER**  
FAN FORCED CABINET HEATER 35.5 MBH OUTPUT @ 54.4°C EWT, 12°C TEMPERATURE RISE. FLOW RATE: 0.112 L/s, 16°C EAT, ELECTRICAL 1/7 HP, 1.7A, 120V/1Ø/60Hz.  
ACCEPTABLE PRODUCT: RITTLING RW280

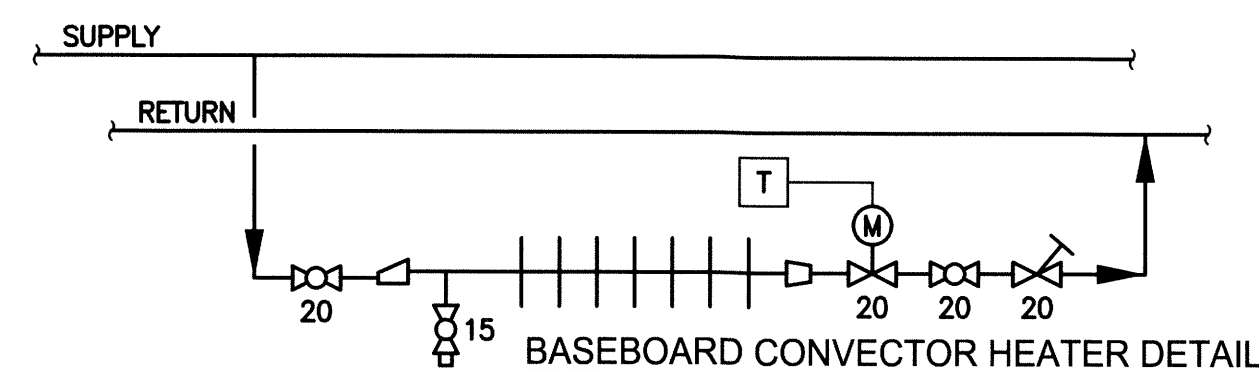
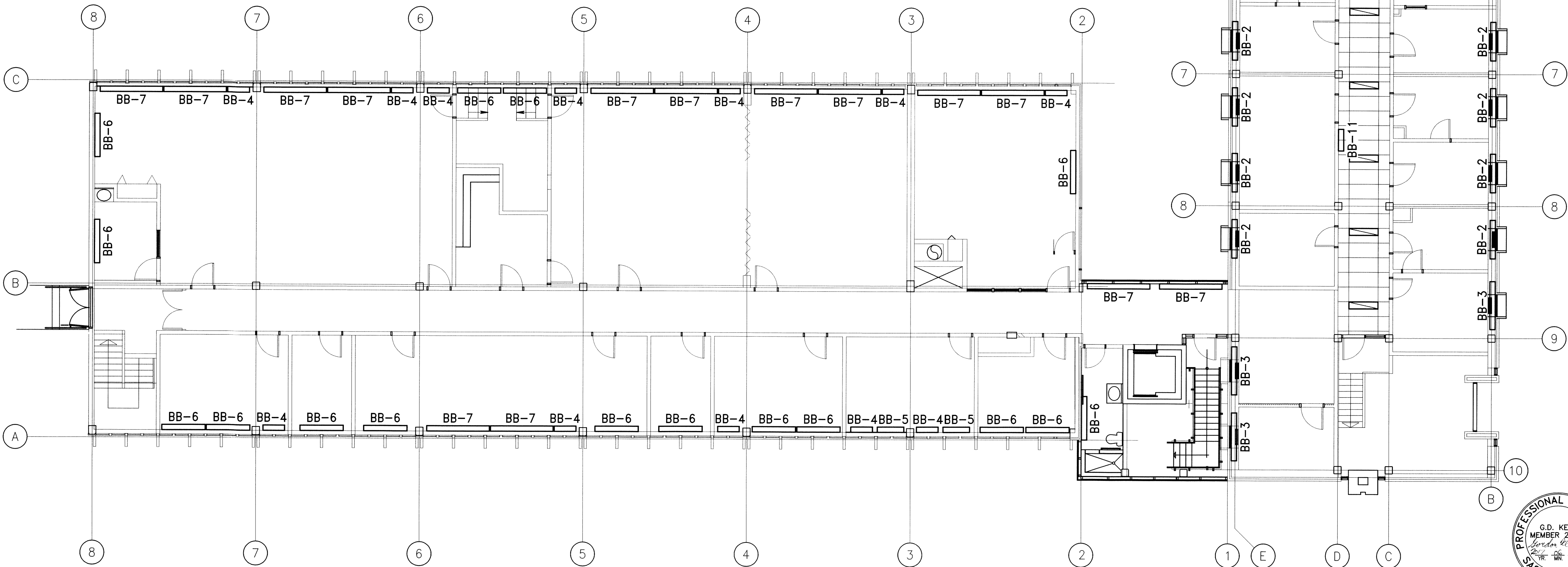
**UH-1 to UH-3 UNIT HEATERS**  
COMMERCIAL UNIT HEATER IN ACCORDANCE WITH UNIT HEATER SCHEDULE SUPPORT BRACKETS AND BUILT IN THERMOSTAT COLOUR: WHITE.  
ACCEPTABLE PRODUCT: REZNOR 'WS' SERIES.

BASE BOARD SCHEDULE

TAG	DESCRIPTION	CAPACITY BTU/Hr	FIN TYPE	EWT °C	FLOW L/s	FIN LENGTH	UNIT HEIGHT	QUANTITY
BB-1	BASE BOARD CONVECTOR HEATER	4411	21	54.44	0.014	1397	597	1
BB-2	BASE BOARD CONVECTOR HEATER	5869	21	54.44	0.018	1600	902	19
BB-3	BASE BOARD CONVECTOR HEATER	8130	21	54.44	0.026	1994	902	5
BB-4	BASE BOARD CONVECTOR HEATER	2557	21	54.44	0.008	902	495	12
BB-5	BASE BOARD CONVECTOR HEATER	3124	21	54.44	0.010	1105	495	2
BB-6	BASE BOARD CONVECTOR HEATER	5113	21	54.44	0.017	1804	495	16
BB-7	BASE BOARD CONVECTOR HEATER	7385	21	54.44	0.0233	2604	495	14
BB-8	BASE BOARD CONVECTOR HEATER	5661	21	54.44	0.018	1397	902	0
BB-9	BASE BOARD CONVECTOR HEATER	2273	21	54.44	0.007	800	495	0
BB-10	BASE BOARD CONVECTOR HEATER	6301	21	54.44	0.020	1994	597	0
BB-11	BASE BOARD CONVECTOR HEATER	4100	21	54.44	0.013	902	902	2

UNIT HEATER SCHEDULE

TAG	CAPACITY BTU/Hr	TYPE	EWT °C	FLOW/FLA L/s	HP
UH-1	23	WS 60/85	54.44	0.163	1.9
UH-2	40.2	WS 96/120	54.44	0.585	1.8
UH-3	78	WS 190/238	54.44	0.966	3.4



1 0 1 2 3m  
SCALE: 1:40 mm (24"x36")

Association of Professional Engineers & Geoscientists  
of Saskatchewan  
CERTIFICATE OF AUTHORIZATION  
KGS Group  
Number C0620  
Permission to Consult held by:  
Discipline SK. Reg. No. Signature  
MECHANICAL 20402

