

BILL OF MATERIAL DESCRIPTION MANUFACTURER CATALOG NUMBER SINGLE-DOOR TYPE 12 & 13 WALL-MOUNTED HOFFMAN A422408LP ENCLOSURE BACKPAN HOFFMAN A42P24 MINIATURE CIRCUIT BREAKER, 5 AMP, 1 POLE, DIN FAZ-D5/1-NA-SP RAIL MOUNTED 120:24VAC TRANSFORMER, 200 VA 4 | 1 SQUARE D 9070T200D13 5 | AS REQ'D | LAMACOID, WHITE PLATE WITH BLACK TEXT 6 AS REQ'D 35mm DIN RAIL PHOENIX CONTACT 0801733 7 | AS REQ'D|FEED-THROUGH TERMINAL PHOENIX CONTACT 3046184 8 | AS REQ'D | FUSED TERMINAL PHOENIX CONTACT 3046142 9 | AS REQ'D | FUSE CONNECTOR PHOENIX CONTACT 3036806 10 AS REQ'D POTENTIAL EARTH TERMINAL 3046207 PHOENIX CONTACT 11 AS REQ'D TERMINAL END PLATE 3047141 PHOENIX CONTACT 12 | AS REQ'D | TERMINAL END CLAMP PHOENIX CONTACT 1201442 13 AS REQ'D PLUG-IN BRIDGE PHOENIX CONTACT 3030365 14 AS REQ'D NARROW SLOT WIRING DUCT, 2.25" x 3.12" PANDUIT 15 AS REQ'D TERMINAL BLOCK MARKER PHOENIX CONTACT 1004348 16 AS REQ'D KNIFE DISCONNECT TERMINAL PHOENIX CONTACT 3046139 RELAY, 24 VAC, DPDT, LED INDICATOR OMRON LY2N 24AC RELAY BASE, FOR ITEM 17 OMRON PTF08A-E RELAY, 24 VAC, 4PDT, LED INDICATOR OMRON LY4N 24AC RELAY BASE, FOR ITEM 19 OMRON PTF14A-E

- 1. WHERE MANUFACTURER AND MODEL ARE SPECIFIED, SUBSTITUTIONS MUST BE APPROVED.
- 2. ALL 120 VAC POWER WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 14 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
- 3. ALL 24 VAC POWER WIRING TO BE TEW/MTW 300V OR HIGHER, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
- 4. ALL CONTROL WIRING TO BE TEW/MTW 300V OR HIGHER, 105°C INSULATION, STRANDED COPPER, 16
- 5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V OR
- 6. EXTERNAL COMPONENTS ARE TO BE LABELED AS SHOWN ON THE DRAWINGS.
- 7. ALL FUSES ARE TO BE PROVIDED. IN ADDITION, TWO SPARES OF EACH FUSE SIZE ARE TO BE
- 8. ALL MAJOR COMPONENTS INSIDE THE PANEL ARE TO BE LABELED WITH LAMACOIDS IN ACCORDANCE
- WITH MAJOR DESCRIPTIONS ON THE DRAWINGS. 9. PROVIDE WIRE BARREL FERULES FOR ALL WIRING.
- 10. ALL TERMINAL BLOCKS SHALL BE NUMBERED AS SHOWN IN THE DRAWINGS, COMPLETE WITH GROUP
- 11. ALL WIRES SHALL BE MARKED AS INDICATED ON THE DRAWINGS.
- 12. REFER TO POWER DISTRIBUTION AND LOOP DRAWINGS FOR INTERNAL WIRING REQUIREMENTS. SEE
 - 1-0309U-A0013
- 1-0309U-A0020 1-0309U-A0021
- 1-0309U-A0022
- 1-0309U-A0023
- 1-0309U-A0024 1-0309U-A0025
- 1-0309U-A0026 1-0309U-A0027
- 1-0309U-A0028
- 1-0309U-E0014 1-0309U-E0015 1-0309U-E0016

APEGIN Certificate of Authorization SNC-Lavalin Inc. No. 4489

					SNC+LAVALIN	SNC-LAVALIN INC. 148 Nature Park Way Winnipeg, MB, Canada R3P 0X7 204-786-8080	ENGINEER'S SEAL
					DESIGNED BY: T. CHURCH DRAWN BY: Y. KONIG SCALE: AS NOTED DATE: 2018/03/16	CHECKED BY: B. CLEVEN APPROVED BY: B. CLEVEN ISSUED FOR CONSTRUCTION BY: DATE:	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION
00 NO.	ISSUED FOR TENDER, BID OPP. 475-2018 REVISIONS	2018/05/09 DATE	TC DESIGN	BC	CONSULTANT NO.:		

<u>PRELIMINARY</u>

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT

METRO ROUTE 20 UNDERPASS PUMPING STATION 2018 UPGRADES PANEL LAYOUT VENTILATION PANEL JBA-U86

CITY DRAWING NUMBER SHEET | REV. | SIZE 1-0309U-A0019 001 | 00 | A1

1-0309U-A0019-001-00.dwg