

LEGEND:

—	EXISTING
—	NEW WORK
- - -	FUTURE
[K1]	KIRK KEY INTERLOCK
[RTU]	REMOTE TERMINAL UNIT
[PM]	MULTIFUNCTION POWER METER

MANITOBA HYDRO SCOPE OF WORK:

1. PROVIDE AND INSTALL SURGE ARRESTORS AND CUTOFF FUSES ON 5KV HYDRO POLE.
2. PROVIDE AND INSTALL NEW UTILITY CABLE (C-UTIL) FROM 5KV HYDRO POLE TO SGR-F70, FUSED DISCONNECT COMPARTMENT.
3. PROVIDE AND INSTALL NEW METER ALONG WITH METERING TRANSFORMERS IN SGR-F70, METERING COMPARTMENT.

GENERAL NOTES:

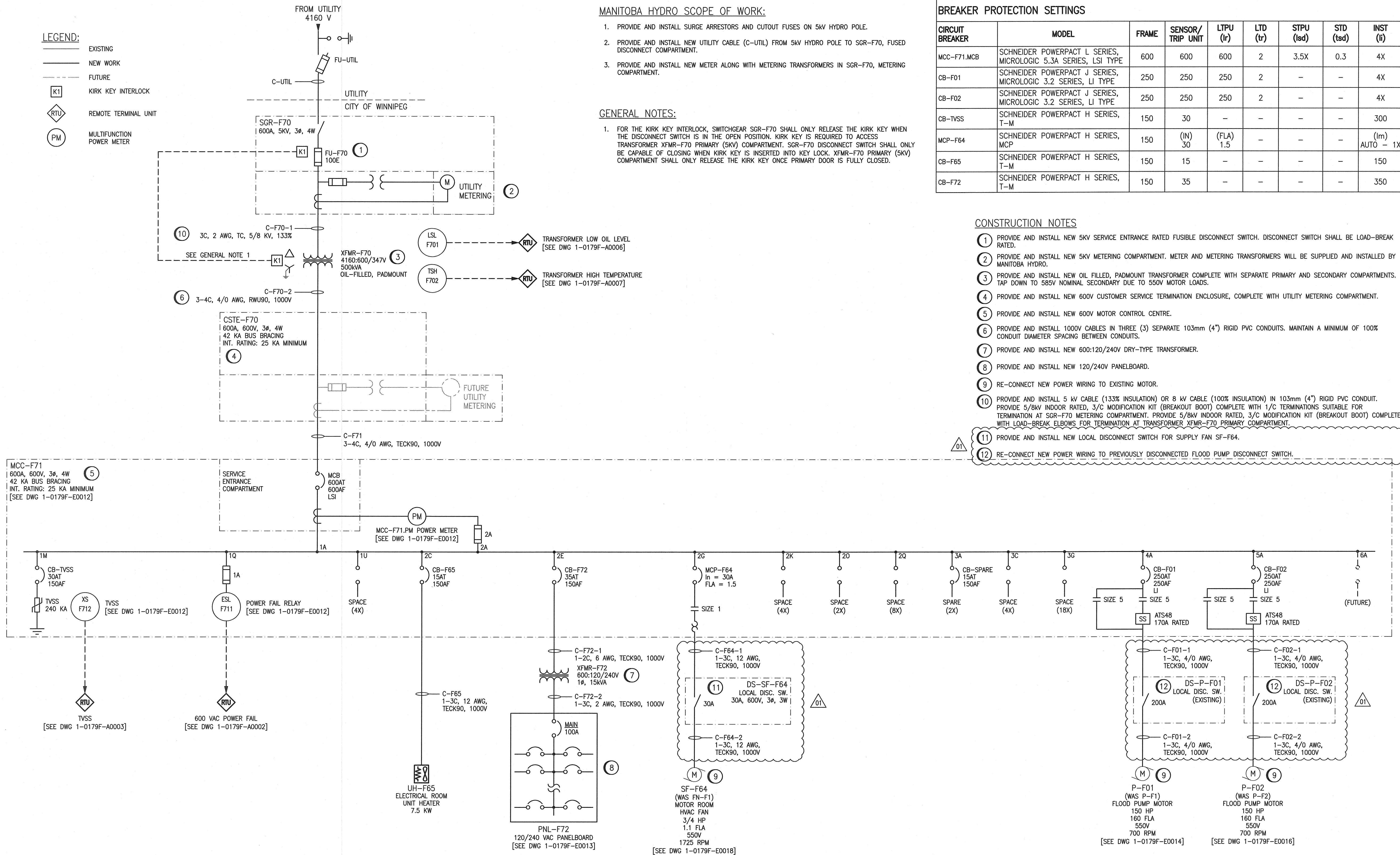
1. FOR THE KIRK KEY INTERLOCK, SWITCHGEAR SGR-F70 SHALL ONLY RELEASE THE KIRK KEY WHEN THE DISCONNECT SWITCH IS IN THE OPEN POSITION. KIRK KEY IS REQUIRED TO ACCESS TRANSFORMER XFMR-F70 PRIMARY (5KV) COMPARTMENT. SGR-F70 DISCONNECT SWITCH SHALL ONLY BE CAPABLE OF CLOSING WHEN KIRK KEY IS INSERTED INTO KEY LOCK. XFMR-F70 PRIMARY (5KV) COMPARTMENT SHALL ONLY RELEASE THE KIRK KEY ONCE PRIMARY DOOR IS FULLY CLOSED.

BREAKER PROTECTION SETTINGS

CIRCUIT BREAKER	MODEL	FRAME	SENSOR/TRIP UNIT	LTPU (Ir)	LTD (tr)	STPU (Isd)	STD (tsd)	INST (ti)
MCC-F71.MCB	SCHNEIDER POWERPACT L SERIES, MICROLOGIC 5.3A SERIES, LSI TYPE	600	600	600	2	3.5X	0.3	4X
CB-F01	SCHNEIDER POWERPACT J SERIES, MICROLOGIC 3.2 SERIES, LI TYPE	250	250	250	2	-	-	4X
CB-F02	SCHNEIDER POWERPACT J SERIES, MICROLOGIC 3.2 SERIES, LI TYPE	250	250	250	2	-	-	4X
CB-TVSS	SCHNEIDER POWERPACT H SERIES, T-M	150	30	-	-	-	-	300
MCP-F64	SCHNEIDER POWERPACT H SERIES, MCP	150	(IN) 30	(FLA) 1.5	-	-	-	(Im) AUTO - 1X
CB-F65	SCHNEIDER POWERPACT H SERIES, T-M	150	15	-	-	-	-	150
CB-F72	SCHNEIDER POWERPACT H SERIES, T-M	150	35	-	-	-	-	350

CONSTRUCTION NOTES

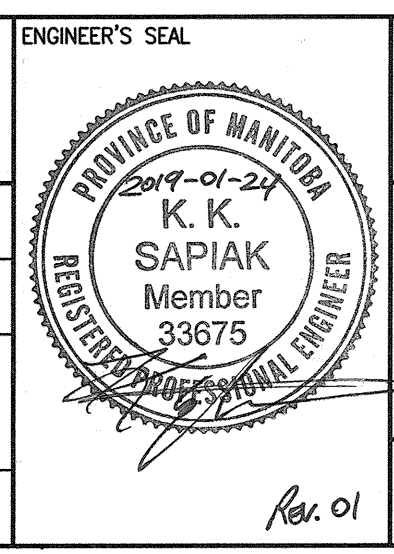
1. PROVIDE AND INSTALL NEW 5KV SERVICE ENTRANCE RATED FUSIBLE DISCONNECT SWITCH. DISCONNECT SWITCH SHALL BE LOAD-BREAK RATED.
2. PROVIDE AND INSTALL NEW 5KV METERING COMPARTMENT. METER AND METERING TRANSFORMERS WILL BE SUPPLIED AND INSTALLED BY MANITOBA HYDRO.
3. PROVIDE AND INSTALL NEW OIL FILLED, PADMOUNT TRANSFORMER COMPLETE WITH SEPARATE PRIMARY AND SECONDARY COMPARTMENTS. TAP DOWN TO 585V NOMINAL SECONDARY DUE TO 550V MOTOR LOADS.
4. PROVIDE AND INSTALL NEW 600V CUSTOMER SERVICE TERMINATION ENCLOSURE, COMPLETE WITH UTILITY METERING COMPARTMENT.
5. PROVIDE AND INSTALL NEW 600V MOTOR CONTROL CENTRE.
6. PROVIDE AND INSTALL 1000V CABLES IN THREE (3) SEPARATE 103mm (4") RIGID PVC CONDUITS. MAINTAIN A MINIMUM OF 100% CONDUIT DIAMETER SPACING BETWEEN CONDUITS.
7. PROVIDE AND INSTALL NEW 600:120/240V DRY-TYPE TRANSFORMER.
8. PROVIDE AND INSTALL NEW 120/240V PANELBOARD.
9. RE-CONNECT NEW POWER WIRING TO EXISTING MOTOR.
10. PROVIDE AND INSTALL 5 kV CABLE (133% INSULATION) OR 8 kV CABLE (100% INSULATION) IN 103mm (4") RIGID PVC CONDUIT. PROVIDE 5/8KV INDOOR RATED, 3/C MODIFICATION KIT (BREAKOUT BOOT) COMPLETE WITH 1/C TERMINATIONS SUITABLE FOR TERMINATION AT SGR-F70 METERING COMPARTMENT. PROVIDE 5/8KV INDOOR RATED, 3/C MODIFICATION KIT (BREAKOUT BOOT) COMPLETE WITH LOAD-BREAK ELBOWS FOR TERMINATION AT TRANSFORMER XFMR-F70 PRIMARY COMPARTMENT.
11. PROVIDE AND INSTALL NEW LOCAL DISCONNECT SWITCH FOR SUPPLY FAN SF-F64.
12. RE-CONNECT NEW POWER WIRING TO PREVIOUSLY DISCONNECTED FLOOD PUMP DISCONNECT SWITCH.



DRAWING NUMBER	REFERENCE DRAWINGS
1-0179F-E0011	GROUNDING INSTALLATION DETAILS
1-0179F-E0008	ELECTRICAL PLAN LAYOUT MAIN AND LOWER LEVEL FLOOR
1-0179F-E0005	ELECTRICAL INSTALLATION DETAILS SERVICE EQUIPMENT
1-0179F-E0004	ELECTRICAL SITE PLAN

NO.	REVISIONS	DATE	DESIGN	CHECK
01	ADDED LOCAL SWITCHES, ISSUED FOR CONSTRUCTION	2019/01/24	KS	BC
00	ISSUED FOR TENDER AND CONSTRUCTION	2018/12/14	KS	BC

<p>SNC-LAVALIN INC. 148 Nature Park Way Winnipeg, MB, Canada R3P 0X7 204-786-8080</p>	
DESIGNED BY: K. SAPIAK	CHECKED BY: B. CLEVEN
DRAWN BY: Y. KONIG	APPROVED BY: B. CLEVEN
SCALE: NTS	ISSUED FOR CONSTRUCTION BY: K. ZUREK
DATE: 2018/06/26	DATE: 2019/01/24
CONSULTANT NO.:	



THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT

ROLAND FLOOD PUMPING STATION
 2019 UPGRADES
 ELECTRICAL SINGLE LINE DIAGRAM

CITY DRAWING NUMBER
1-0179F-E0003

SHEET
001

REV.
01

SIZE
A1