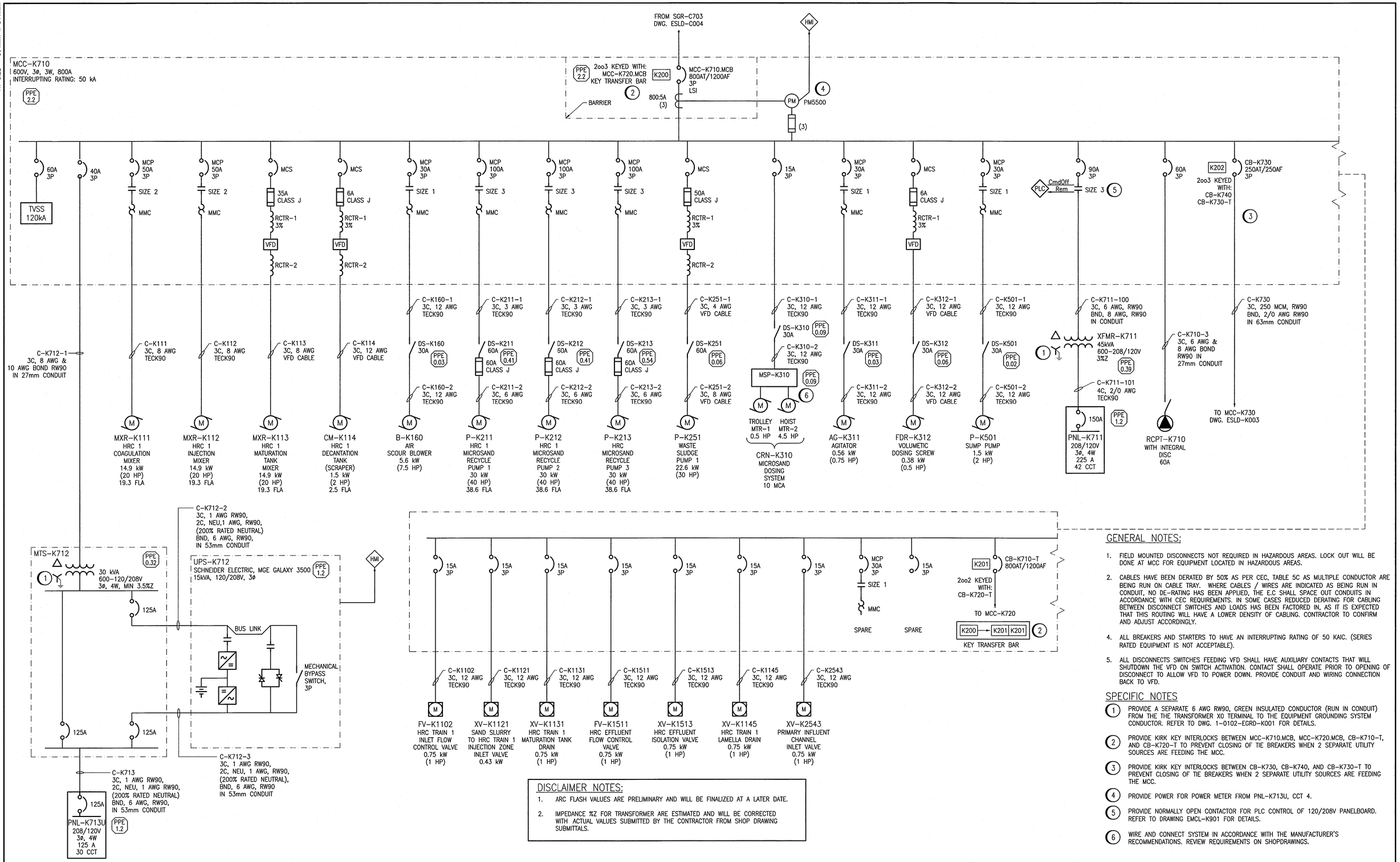
A1 SIZE – 594mm x 841mm



GENERAL NOTES:

1. FIELD MOUNTED DISCONNECTS NOT REQUIRED IN HAZARDOUS AREAS. LOCK OUT WILL BE DONE AT MCC FOR EQUIPMENT LOCATED IN HAZARDOUS AREAS.
2. CABLES HAVE BEEN DERATED BY 50% AS PER CEC, TABLE 5C AS MULTIPLE CONDUCTOR ARE BEING RUN ON CABLE TRAY. WHERE CABLES / WIRES ARE INDICATED AS BEING RUN IN CONDUIT, NO DE–RATING HAS BEEN APPLIED, THE E.C SHALL SPACE OUT CONDUITS IN ACCORDANCE WITH CEC REQUIREMENTS. IN SOME CASES REDUCED DERATING FOR CABLING BETWEEN DISCONNECT SWITCHES AND LOADS HAS BEEN FACTORED IN, AS IT IS EXPECTED THAT THIS ROUTING WILL HAVE A LOWER DENSITY OF CABLING. CONTRACTOR TO CONFIRM AND ADJUST ACCORDINGLY.
4. ALL BREAKERS AND STARTERS TO HAVE AN INTERRUPTING RATING OF 50 KAIC. (SERIES RATED EQUIPMENT IS NOT ACCEPTABLE).
5. ALL DISCONNECTS SWITCHES FEEDING VFD SHALL HAVE AUXILIARY CONTACTS THAT WILL SHUTDOWN THE VFD ON SWITCH ACTIVATION. CONTACT SHALL OPERATE PRIOR TO OPENING OF DISCONNECT TO ALLOW VFD TO POWER DOWN. PROVIDE CONDUIT AND WIRING CONNECTION BACK TO VFD.

SPECIFIC NOTES

1. PROVIDE A SEPARATE 6 AWG RW90, GREEN INSULATED CONDUCTOR (RUN IN CONDUIT) FROM THE THE TRANSFORMER XO TERMINAL TO THE EQUIPMENT GROUNDING SYSTEM CONDUCTOR. REFER TO DWG. 1–0102–ECRD–K001 FOR DETAILS.
2. PROVIDE KIRK KEY INTERLOCKS BETWEEN MCC–K710.MCB, MCC–K720.MCB, CB–K710–T, AND CB–K720–T TO PREVENT CLOSING OF TIE BREAKERS WHEN 2 SEPARATE UTILITY SOURCES ARE FEEDING THE MCC.
3. PROVIDE KIRK KEY INTERLOCKS BETWEEN CB–K730, CB–K740, AND CB–K730–T TO PREVENT CLOSING OF TIE BREAKERS WHEN 2 SEPARATE UTILITY SOURCES ARE FEEDING THE MCC.
4. PROVIDE POWER FOR POWER METER FROM PNL–K713U, CCT 4.
5. PROVIDE NORMALLY OPEN CONTACTOR FOR PLC CONTROL OF 120/208V PANELBOARD. REFER TO DRAWING EMCL–K901 FOR DETAILS.
6. WIRE AND CONNECT SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. REVIEW REQUIREMENTS ON SHOPDRAWINGS.

DISCLAIMER NOTES:

1. ARC FLASH VALUES ARE PRELIMINARY AND WILL BE FINALIZED AT A LATER DATE.
2. IMPEDANCE %Z FOR TRANSFORMER ARE ESTIMATED AND WILL BE CORRECTED WITH ACTUAL VALUES SUBMITTED BY THE CONTRACTOR FROM SHOP DRAWING SUBMITTALS.

MCC–K710 MAXIMUM LOAD ESTIMATE

	CONNECTED LOAD (A)	DEMAND FACTOR	DEMAND LOAD (A)
LIGHTING	0	1	0
HVAC	67	0.8	54
MISC.	9.8	0.5	4.9
PROCESS	225	0.8	180
TOTAL	302		239

REFERENCE DRAWINGS	DESCRIPTION
1–0102–ECBD–K001	ELECTRICAL, MCC–K710 LAYOUT AND SCHEDULE
1–0102–EAAA–A001	ELECTRICAL, LEGEND AND DETAILS

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

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR CONSTRUCTION – 976–2016	2017/04/05	WE	DEB

CH2MHILL.
SNC·LAVALIN
KGS GROUP CONSULTING ENGINEERS

DESIGNED BY: V. ELIMBAN	CHECKED BY: E. RYCZKOWSKI
DRAWN BY: MJ. PERSSON	APPROVED BY: D. BECKER
SCALE: NTS	ISSUED FOR CONSTRUCTION BY: J. SHUMKA
DATE: 2014/12/11	DATE: 2017/04/05
CONSULTANT NO.: 474248	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
D.E. BECKER
Member
23646
REGISTERED PROFESSIONAL ENGINEER
April 5/2017

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
ELECTRICAL – SINGLE LINE DIAGRAM
HIGH RATE CLARIFICATION BUILDING
MCC–K710

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0102–ESLD–K001	001	00	A1

LAST SAVE: 2017/03/24 – 9:55am
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PLOT DATE: Mar 24, 2017 – 9:55am

FILE NAME: 1–0102–ESLD–K001.dwg