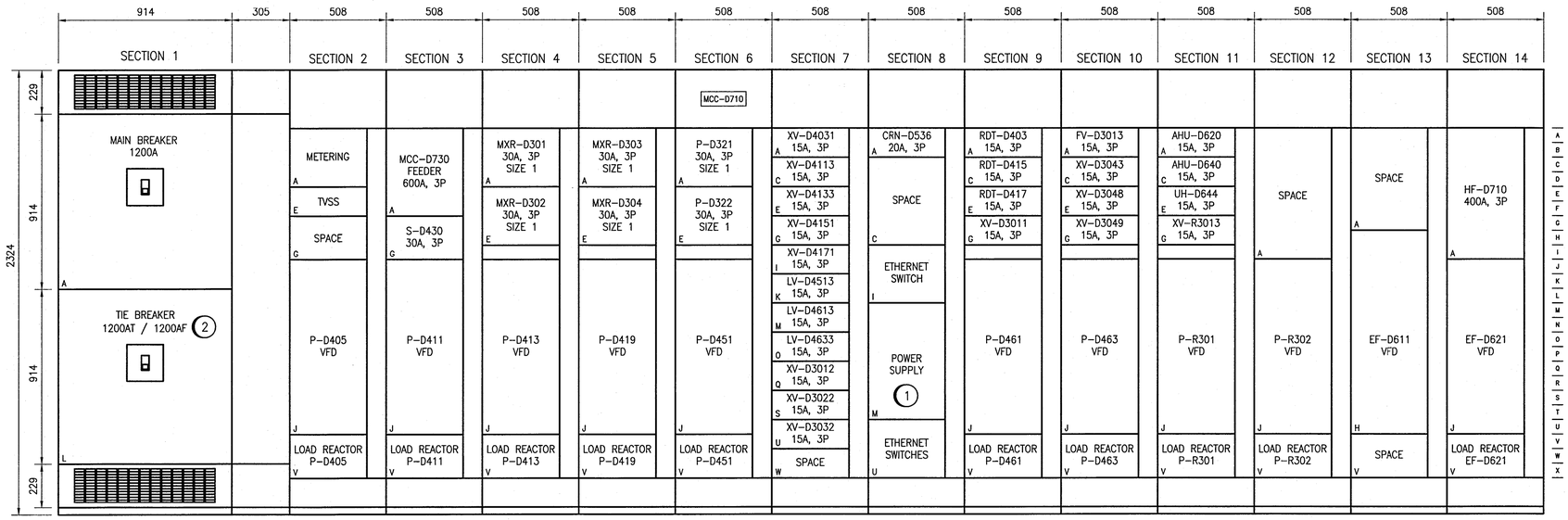
A1 SIZE – 594mm x 841mm

600 VOLT MOTOR CONTROL CENTRE – MCC–D710 (MCC NUMBER CONTINUED TO RIGHT)

MCC NUMBER	EQUIP. NUMBER	LOAD		MOTOR			STARTER			CIRCUIT PROTECTION	
		DESCRIPTION	LOCATION	HP	kW	FULL LOAD AMPS	EEMAC SIZE	TYPE	OVERLOAD	CONT. RATING (AMPS)	REMARKS
1A		MAIN BREAKER								1200AT/1200AF	LSIG
1L		TIE BREAKER								1200AT/1200AF	LSIG
2A		METERING									PM5500
2E		TVSS SURGE PROTECTION DEVICE								60	
2G		SPACE									
2J	P–D405	TWAS PUMP 1		20	14.9			VFD		35	CONSTANT TORQUE VFD
2V		P–D405 LOAD REACTOR									
3A		MCC–D730 FEEDER								600AT/600AF	LSIG
3G	S–D430	RDT FLUSHING WATER BOOSTER PACKAGE (P–D431/P–D432)		7.5	5.6					30	
3J	P–D411	FSL RDT FEED PUMP 1		15	11.2			VFD		30	CONSTANT TORQUE VFD
3V		P–D411 LOAD REACTOR									
4A	MXR–D301	FERMENTER TRAIN 1 CELL 1 MIXER		7.5	5.6		SIZE 1		MMC	30	
4E	MXR–D302	FERMENTER TRAIN 1 CELL 2 MIXER		7.5	5.6		SIZE 1		MMC	30	
4J	P–D413	FSL RDT FEED PUMP 3		15	11.2			VFD		30	CONSTANT TORQUE VFD
4V		P–D413 LOAD REACTOR									
5A	MXR–D303	FERMENTER TRAIN 1 CELL 3 MIXER		7.5	5.6		SIZE 1		MMC	30	
5E	MXR–D304	FERMENTER TRAIN 1 CELL 4 MIXER		7.5	5.6		SIZE 1		MMC	30	
5J	P–D419	TFS PUMP 1		20	14.9			VFD		35	CONSTANT TORQUE VFD
5V		P–D419 LOAD REACTOR									
6A	P–D321	FERMENTER RECIRCULATION PUMP 1		7.5	5.6		SIZE 1		MMC	30	
6E	P–D322	FERMENTER RECIRCULATION PUMP 2		7.5	5.6		SIZE 1		MMC	30	
6J	P–D451	WAS FILTRATE PUMP 1		10	7.5			VFD		20	
6V		P–D451 LOAD REACTOR									
7A	XV–D4031	RDT–D403 WAS INLET VALVE		1	0.75					15	
7C	XV–D4113	FSL RDT PUMPS CROSS CONNECTION VALVE		1	0.75					15	
7E	XV–D4133	FSL RDT PUMPS CROSS CONNECTION VALVE		1	0.75					15	
7G	XV–D4151	FSL RDT–D415 INLET VALVE		1	0.75					15	
7I	XV–D4171	FSL RDT–D417 INLET VALVE		1	0.75					15	
7K	LV–D4513	WAS FILTRATE P–D451 OUTLET VALVE		1	0.75					15	
7M	LV–D4613	FSL FILTRATE P–D461 OUTLET VALVE		1	0.75					15	
7O	LV–D4633	FSL FILTRATE P–D463 OUTLET VALVE		1	0.75					15	
7Q	XV–D3012	FERMENTER TRAIN 1 CELL 1 FLUSHING WATER VALVE		1	0.75					15	
7S	XV–D3022	FERMENTER TRAIN 1 CELL 2 FLUSHING WATER VALVE		1	0.75					15	
7U	XV–D3032	FERMENTER TRAIN 1 CELL 3 FLUSHING WATER VALVE		1	0.75					15	
7W		SPACE									

600 VOLT MOTOR CONTROL CENTRE – MCC–D710 (MCC NUMBER CONTINUED FROM LEFT)

MCC NUMBER	EQUIP. NUMBER	LOAD		MOTOR			STARTER			CIRCUIT PROTECTION	
		DESCRIPTION	LOCATION	HP	kW	FULL LOAD AMPS	EEMAC SIZE	TYPE	OVERLOAD	CONT. RATING (AMPS)	REMARKS
8A	CRN–D536	WAS RDT GANTRY CRANE			5					20	
8C		SPACE									
8I		16 PORT ETHERNET SWITCH									PRODUCT NO. TCSESM163F23F0
8M		POWER SUPPLY FOR ETHERNET SWITCHES									(1)
8U		2x 16 PORT ETHERNET SWITCHES									PRODUCT NO. TCSESM163F23F0
9A	RDT–D403	WAS ROTARY DRUM THICKENER AND MIXER			2.7					15	
9C	RDT–D415	FSL ROTARY DRUM THICKENER AND MIXER			2.7					15	
9E	RDT–D417	FSL ROTARY DRUM THICKENER AND MIXER			2.7					15	
9G	XV–D3011	FERMENTER TRAIN 1 CELL 1 PRIMARY SLUDGE VALVE		1	0.75					15	
9J	P–D461	FSL FILTRATE PUMP 1		5	3.7			VFD		10	
9V		P–D461 LOAD REACTOR									
10A	FV–D3013	FERMENTER TRAIN 1 CELL 1 FLUSHING FLOW VALVE		1	0.75					15	
10C	XV–D3043	FERMENTER TRAIN 1 CELL 4 PRIMARY SLUDGE VALVE		1	0.75					15	
10E	XV–D3048	FERMENTER TRAIN 1 CELL 4 FLUSHING WATER VALVE		1	0.75					15	
10G	XV–D3049	FERMENTER TRAIN 1 CELL 4 FLUSHING WATER VALVE		1	0.75					15	
10J	P–D463	FSL FILTRATE PUMP 3		5	3.7			VFD		10	
10V		P–D463 LOAD REACTOR									
11A	AHU–D620	AIR HANDLING UNIT			2 x 1.49					15	
11C	AHU–D640	AIR HANDLING UNIT RDT ELECTRICAL ROOM			0.75					15	
11E	UH–D644	ELECTRICAL ROOM UNIT HEATER			4.0					15	
11G	XV–R3013	WAS RDT CONTROL VALVE		1	0.75					15	
11J	P–R301	WAS RDT FEED PUMP		15	11.2			VFD		30	CONSTANT TORQUE VFD
11V		P–R301 LOAD REACTOR									
12A		SPACE									
12J	P–R302	WAS RDT FEED PUMP		15	11.2			VFD		30	CONSTANT TORQUE VFD
12V		P–R302 LOAD REACTOR									
13A		SPACE									
13H	EF–D611	WAS RDT ROOM EXTRACTION FAN 1			5.5			VFD		15	
13V		SPACE									
14A	HF–D710	ACTIVE HARMONIC FILTER & POWER FACTOR CORRECTION				235				400AT/600AF	LSIG
14J	EF–D621	RDT PUMP ROOM EXHAUST FAN		0.75	0.55			VFD		6	
14V		EF–D621 LOAD REACTOR									



SPECIFIC NOTES

(1) MCC–D710 TO BE FABRICATED COMPLETE WITH DUAL (REDUNDANT) POWER SUPPLIES FOR ETHERNET SWITCHES. REFER TO SPECIFICATIONS. PROVIDE UPS POWER TO ETHERNET SWITCHES FROM PNL–6S, CCT. 18. REFER TO DWG AGAD–S001 FOR LOCATION OF PNL–6S.

(2) TIE BREAKER ADJUSTABLE 1200AT UNIT TO BE SET TO 0.7 (OR 840A) FOR COORDINATION PURPOSES.

REFERENCE DRAWINGS	DESCRIPTION
1–0102–EGAD–D001	POWER LAYOUT, PRIMARY FERMENTERS/SLUDGE THICKENING, ELECTRICAL ROOM AND MECHANICAL PLATFORM
1–0102–ESLD–D001	ELECTRICAL, SINGLE LINE DIAGRAM, MCC–D710

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: 2016/06/07
DATE: 2017/04/05
CONSULTANT NO.: 474248

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

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
ELECTRICAL – MCC/CABINETS DRAWING
FERMENTERS/THICKENERS
MCC–D710 LAYOUT AND SCHEDULE

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0102–ECBD–D001	001	00	A1

LAST SAVE: 2017/03/24 – 2:19pm
PATH: C:\Users\persm2\DWG\1–0102–ECBD–D001.dwg
PLOT DATE: Mar 24, 2017 – 2:19pm
FILE NAME:1–0102–ECBD–D001.dwg