

PANEL ID: MCC-M1		VOLTS: 600V	RATING: 600A	PHASE: 3P	WIRE: 3 W	MAIN BREAKER: 350AT/ 400AF	MAIN BREAKER TYPE: LSI	MAIN BREAKER SETTINGS: LTPU: 350A INST: 12 LTD: 16 GFPU: N/A STPU: 6 GFD: N/A STD: 0.2					
DESCRIPTION: NON-ESSENTIAL MCC		LOCATION: ELECTRICAL ROOM											
UNIT LOC'N	ID	DESCRIPTION	MOTOR LOAD			NON-MOTOR LOAD		STARTER			CIRCUIT PROTECTION		NOTES
			HP	KW	FLA	KW	NEMA SIZE	TYPE	OVERLOAD	RATING	TYPE		
1A	MCC-M1.MCB	MAIN BREAKER									350AT	LSI, 3P	
1K	METERING	METERING AND ESL-M913				.012					2A/1A	FUSE, 3P	
10	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR									BY MFG	TM, 3P	
1Q	24VDC P/S	24VDC POWER SUPPLY FOR NETWORK SWITCH				250 VA					BY MFG	BY MFG	LOAD ASSUMED
1S	MCC-M1.NSW	NETWORK SWITCH, 16 PORT											
2A	P-M631	CHILLED WATER PUMP 1 (WAS CHWP-1)	7.5	5.60	8						20A	TM, 3P	
2C	P-M632	CHILLED WATER PUMP 2 (WAS CHWP-2)	7.5	5.60	8						20A	TM, 3P	
2E	P-M633	COOLING TOWER PUMP 1 (WAS CTP-1)	10	7.46	10.4						20A	TM, 3P	
2G	P-M634	COOLING TOWER PUMP 2 (WAS CTP-2)	10	7.46	10.5						20A	TM, 3P	
2I	FN-M635-1	COOLING TOWER FAN 1 (WAS CTP-1 FAN 1)	3	2.24	3.62						15A	TM, 3P	
2K	FN-M635-2	COOLING TOWER FAN 2 (WAS CTP-1 FAN 2)	3	2.24	3.62						15A	TM, 3P	
2M	WELDING RECEPTACLE	WELDING RECEPTACLE				20 KVA					70A	TM, 3P	
20	EF-M683	PUMP ROOM EXHAUST FAN (WAS F3)	0.75	0.56	1.2			1	FVNR	MMC	30A	MCP, 3P	
2S	FN-M684	PUMP ROOM EXHAUST FAN (WAS F4)	0.75	0.56	1.2			1	FVNR	MMC	30A	MCP, 3P	
2W	CHLR-M630	CHILLER	120	89.52	154						200A	TM, 3P	
3A	HCE-M609	PREHEAT DUCT HEATER (WAS E1)				75					100A	TM, 3P	
3I	HCE-M603	ELECTRIC HEATER PREHEAT FOR AHU-M3 (WAS E3)				60					80A	TM, 3P	
3K	UH-M661	CL2 STORAGE ROOM UNIT HEATER (WAS E11)				20					30A	TM, 3P	
3M	UH-M662	CL2 STORAGE ROOM UNIT HEATER (WAS E12)				20					30A	TM, 3P	
3O	CRN-M991	MONORAIL HOIST CL2 ROOM (WAS H1)	2.8	2.09	3						20A	TM, 3P	LOAD ASSUMED
3Q	CRN-M992	PUMP ROOM CRANE (WAS H2)	16.75	12.50	18.5						40A	TM, 3P	
3S	AC-M901	INSTRUMENT AIR COMPRESSOR (WAS R1)	5	3.73	5.3			1	FVNR	MMC	30A	MCP, 3P	
3W	XFMR-M10	PNL-M10 TRANSFORMER				0 KVA					60A	TM, 3P	
4A	MCC-M3E	ESSENTIAL MCC BACKUP FEEDER									200A	TM, 3P	NORMALLY OPEN
4C	PFC-M1	POWER FACTOR CORRECTION UNIT				0					250A	TM, 3P	NOT IN LOAD CALCULATIONS
4O	AHU-M602	PUMP ROOM AIR HANDLING UNIT (WAS FC2)	10	7.46	10			1	FVNR	MMC	30A	MCP, 3P	
4S	AHU-M604	PUMP ROOM AIR HANDLING UNIT (WAS AHU-4)	10	7.46	10			1	FVNR	MMC	30A	MCP, 3P	
4W	AHU-M605	ELECTRICAL ROOM FAN (WAS ACU-1)	1	0.75	1.4			1	FVNR	MMC	30A	MCP, 3P	
5A	TIE TO DP-M2	MCC-M1 / DP-M2 TIE									400A	TM, 3P	NORMALLY OPEN
TOTAL CONNECTED LOAD: 433 KVA		TOTAL DEMAND LOAD - SUMMER: 181 KVA	TOTAL DEMAND LOAD - WINTER: 162 KVA		LEGEND: FVNR FULL VOLTAGE NON-REVERSING TM THERMAL MAGNETIC MMC MOTOR MANAGEMENT CONTROLLER (TESYS T)			MCP MOTOR CIRCUIT PROTECTOR 3P 3 POLE MCS MOULDED CASE SWITCH					

PANEL ID: MCC-M3E		VOLTS: 600V	RATING: 600A	PHASE: 3P	WIRE: 3 W	MAIN BREAKER: 250AF	MAIN BREAKER TYPE: MCS	MAIN BREAKER SETTINGS: LTPU: N/A INST: N/A LTD: N/A GFPU: N/A STPU: N/A GFD: N/A STD: N/A					
DESCRIPTION: ESSENTIAL MCC		LOCATION: ELECTRICAL ROOM											
UNIT LOC'N	ID	DESCRIPTION	MOTOR LOAD			NON-MOTOR LOAD		STARTER			CIRCUIT PROTECTION		NOTES
			HP	KW	FLA	KW	NEMA SIZE	TYPE	OVERLOAD	RATING	TYPE		
1A	MCC-M3E.MCS-A	MAIN BREAKER (PRIMARY)									250AF	MCS, 3P	
1I	METERING	METERING AND ESL-M915				.012					2A/1A	FUSE, 3P	
1M	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR									BY MFG	TM, 3P	
10	MCC-M3E.MCS-B	MAIN BREAKER (SECONDARY)									250AF	MCP, 3P	
2A	P-M941	SUMP PUMP (WAS P7)	5	3.73	5.8			1	FVNR	MMC	30A	MCP, 3P	
2E	P-M942	SUMP PUMP (WAS P8)	5	3.73	5.8			1	FVNR	MMC	30A	MCP, 3P	
2I	UPS-M1	UPS-M1 VIA XFMR-M31E				15 KVA					30A	TM, 2P	
2M	AC-M902	INSTRUMENT AIR COMPRESSOR (WAS R2)	5	3.73	5.1			1	FVNR	MMC	30A	MCP, 3P	
2Q	AC-M903	VALVE AIR COMPRESSOR (WAS LZ-902-AC)	10	7.46	10.4			1	FVNR	MMC	30A	MCP, 3P	
2U	XFMR-M30E	PNL-B TRANSFORMER				25 KVA					30A	TM, 3P	
2W	UH-M657	CL2 EQUIP ROOM UNIT HEATER (WAS E7)				12					15A	TM, 3P	
3A	EF-M681	PUMP ROOM EXHAUST FAN (WAS F1)	0.75	0.56	1.2			1	FVNR	MMC	30A	MCP, 3P	
3E	EF-M682	PUMP ROOM EXHAUST FAN (WAS F2)	0.75	0.56	1.2			1	FVNR	MMC	30A	MCP, 3P	
3I	EF-M686	CL2 EQUIPMENT ROOM EXHAUST FAN (WAS F6)	0.75	0.56	1.2			1	FVNR	MMC	30A	MCP, 3P	
3M	EF-M689	CL2 SCALE ROOM EXHAUST FAN (WAS F9)	0.75	0.56	1.2			1	FVNR	MMC	30A	MCP, 3P	
3Q	24 VDC P/S	24 VDC POWER SUPPLY FOR NETWORK SWITCH				250 VA					BY MFG	BY MFG	LOAD ASSUMED
3S	MCC-M3E.NSW	NETWORK SWITCH, 24-PORT											
4A	EF-M690	CL2 STORAGE ROOM EXHAUST FAN (WAS F10)	0.75	0.56	1.2			1	FVNR	MMC	30A	MCP, 3P	
4E	EF-M692	CL2 STORAGE ROOM EXHAUST FAN (WAS F12)	0.75	0.56	1.2			1	FVNR	MMC	30A	MCP, 3P	
4I	XV-M041	SUCTION HEADER BUTTERFLY VALVE (WAS SHV-1)	2	1.49	2.9						15A	TM, 3P	
4K	XV-M043	SUCTION HEADER BUTTERFLY VALVE (WAS SHV-3)	2	1.49	2.9						15A	TM, 3P	
4M	XV-M051	DISCHARGE HEADER BUTTERFLY VALVE (WAS DHV-1)	1	0.75	2.3						15A	TM, 3P	
4O	XV-M054	DISCHARGE HEADER BUTTERFLY VALVE (WAS DHV-4)	1	0.75	2.3						15A	TM, 3P	
4Q	AHU-M601	PUMP ROOM AIR HANDLING UNIT (WAS FC1)	10	7.46	10			1	FVNR	MMC	30A	MCP, 3P	
4U	AHU-M603	PUMP ROOM AIR HANDLING UNIT (WAS FC3)	10	7.46	10			1	FVNR	MMC	30A	MCP, 3P	
TOTAL CONNECTED LOAD: 117 KVA		TOTAL DEMAND LOAD - SUMMER: 73 KVA	TOTAL DEMAND LOAD - WINTER: 78 KVA		LEGEND: FVNR FULL VOLTAGE NON-REVERSING TM THERMAL MAGNETIC MMC MOTOR MANAGEMENT CONTROLLER (TESYS T)			MCP MOTOR CIRCUIT PROTECTOR 3P 3 POLE MCS MOULDED CASE SWITCH					

LAST SAVE: 2012/07/26 - 3:59pm
PATH: M:\508955\ENGL\47ELE.DWG - General DWG\1-0630M-E0028-001-00.dwg

1-0630M-E0027	MCC-ELEVATION - MCC-M3E
1-0630M-E0026	MCC-ELEVATION - MCC-M1
1-0630M-E0025	SINGLE LINE DIAGRAM - MCC-M3E
1-0630M-E0023	SINGLE LINE DIAGRAM - MCC-M1
DRAWING NUMBER	REFERENCE DRAWINGS



00	ISSUED FOR TENDER, BID OPP: 490-2012	2012/07/23	BJC	CJR
NO.	REVISIONS	DATE	DESIGN	CHECK

		SNC-LAVALIN INC. 148 Nature Park Way Winnipeg, MB, Canada R3P 0X7 204-786-8080	
DESIGNED BY: B. CLEVEN	CHECKED BY: C. REIMER	DRAWN BY: M.J. PERSSON	APPROVED BY: C. REIMER
SCALE: NTS	RELEASED FOR CONSTRUCTION BY:	DATE: 2012/01/12	DATE:
CONSULTANT NO.: 508955-0000-47DD-0028			

ENGINEER'S SEAL
PRELIMINARY
NOT TO BE
USED FOR
CONSTRUCTION

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

MACLEAN WATER PUMPING STATION

MCC SCHEDULES
MCC-M1 AND MCC-M3E

CITY DRAWING NUMBER: **1-0630M-E0028** SHEET: **001** REV: **00** SIZE: **A1**