A1 SIZE – 594mm x 841mm

600 VOLT MOTOR CONTROL CENTER – MCC–P720 (OLD TAG MCC–2P)

CONNECTED KW: 220
DEMAND KW: 140

MCC NUMBER	EQUIP. NUMBER	MOTOR					STARTER			FEEDER			CIRCUIT PROTECTION		REMARKS
		DESCRIPTION	LOCATION	HP	KW	FULL LOAD AMPS	EEMAC SIZE	TYPE	OVERLOAD	CAP IN AMPS	SIZE	TYPE	CONT. RATING (AMPS)	FRAME SIZE	
5F–1		SPARE					2	CMFVNR	FH49				50	HMCP	
4F–1		SPARE					2	CMFVNR	FH49				50	HMCP	
5F–2	P–P202	SCUM PUMP	ROOM P107	5	3.7	6.1	1	CMFVNR	FH35	20	#12	RW90	15	HMCP	
4F–2	P–P212	SCUM PUMP	ROOM P124	5	3.7	6.1	1	CMFVNR	FH35	20	#12	RW90	15	HMCP	
3F–1	P–P684	GLYCOL PUMP		3	2.2		1	CMFVNR	FH30		#12	RW90	7	HMCP	
4F–3A	TBC–P302	TRAVELLING BRIDGE / SCRAPPER HOIST	ROOM P108	2.5	1.9	3.9	–	–	–	20	#12	RW90	20A–3P	HFD	BREAKER FOR MOTORS P302–BDM & P304–SC
4F–3B	SPACE														
4F–4	U–P102	SLUDGE THICKENER	ROOM P117	1	0.75	1.4	1	CMFVNR	FH22	20	#12	RW90	3	HMCP	
5F–3	P–P208	SCUM CIRCULATION PUMP	ROOM P107	5	3.7	6.1	1	CMFVNR	FH35	20		RW90	15	HMCP	
2R–3	P–P672	HOT WATER PUMP	ROOM P106	1.5	1	2.1	1	CMFVNR	FH25	20	#12	RW90	7	HMCP	
3R–1	EF–P632	EXHAUST FAN	ROOM P123	30	22.5	32	3	CMFVNR	FH46/FH76	85	#4	RW90	100	HMCP	
1R–1	EF–P636	EXHAUST FAN	ROOM P129	15	11.2	17	2	CMFVNR	FH40/FH46	30	#10	RW90	50	HMCP	2 SPEED FAN
2R–1	EF–P638	EXHAUST FAN	ROOM P129	15	11.2	17	2	CMFVNR	FH40/FH46	30	#10	RW90	50	HMCP	2 SPEED FAN
1R–3	P–P662	GLYCOL HEAT RECOVERY PUMP	ROOM P106	5	3.7	6.1	1	CMFVNR	FH35	20	#12	RW90	15	HMCP	
1R–2	AHU–P682	AIR HANDLING UNIT	ROOM P117	5	3.7	6.1	1	CMFVNR	FH35	20	#12	RW90	15	HMCP	
2R–2A	AHU–P634	AIR HANDLING UNIT	ROOM P134	20	15	22	–	–	–	45	#8	RW90	30A–3P	HFD	LOCAL STARTER
2R–4	EF–P686	GALLERY EXHAUST FAN–GALLERY 4A	ROOM P124	0.5	0.38	0.8	1	CMFVNR	FH13	20	#12	RW90	3	HMCP	
1R–4	AHU–P668	CONTROL ROOM RECIRCULATION UNIT	ROOM P112	0.75	0.6	1.1	1	CMFVNR	FH21	20	#12	RW90	3	HMCP	
1R–5	P666–F66	ELECTRICAL ROOM AIR HANDLING UNIT	ROOM P112	0.5	0.38	0.8	1	CMFVNR	FH20	20	#12	RW90	3	HMCP	
5F–4A		WELDING RECEPTACLES (CLAR. 3)	ROOM P124/P127		50		–	–	–	65	#6	RW90	60A–3P	HFD	2 RECEPTACLES FROM 60A BREAKER
5F–4B		WELDING RECEPTACLES (CLAR. 3)	ROOM P130/P132		50		–	–	–	65	#6	RW90	60A–3P	HFD	
3F–4		CAPACITOR MCC 2P			20KVAR		–	–	–	30	#10	RW90	30A–3P	HFD	CAPACITOR C/W BREAKER
5F–5		CAPACITOR MCC 2P			10KVAR		–	–	–	20	#12	RW90	15A–3P	HFD	CAPACITOR C/W BREAKER
4F–5		CAPACITOR MCC 2P			10KVAR		–	–	–	20	#12	RW90	15A–3P	HFD	CAPACITOR C/W BREAKER
1F–2		MAIN LUGS													INCOMING CONDUCTORS
2F–1	P–P116	SLUDGE TRANSFER PUMP	ROOM P124	15	11.2			VFD		50	8 AWG	RW90	35A–3P	HFD	
2F–2	P–P106	SLUDGE TRANSFER PUMP	ROOM P106	15	11.2			VFD		50	8 AWG	RW90	35A–3P	HFD	
2F–3	XFMR–P721	600–208/120V TRANSFORMER BREAKER	ELEC. ROOM B		30KVA		–	–	–	65	6 AWG	RW90	60A–3P	HFD	
3F–2		SPARE STARTER (WAS P116–STP)					3	CMFVNR	FH76				100–3P	HMCP	
3F–3		SPARE STARTER (WAS P106–STP)					3	CMFVNR	FH76				100–3P	HMCP	

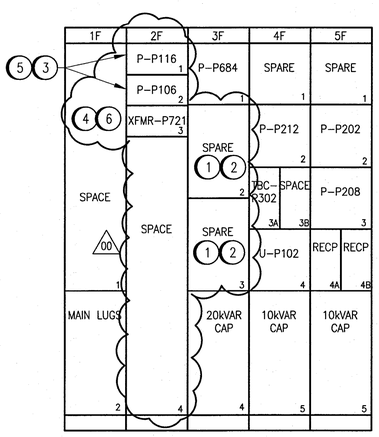
(3)(5) (3)(5) (4)(6) (1)(2) (1)(2) 00

GENERAL NOTES:

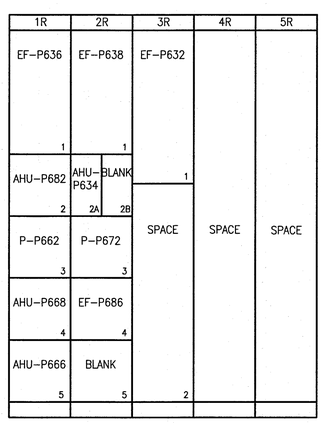
1. THIS DRAWING SUPERSEDES DWG. SEP–289.
2. RE–TAG MOTOR CONTROL CENTER, DISTRIBUTION EQUIPMENT, AND ALL LOADS ON THE ENTIRE MCC SCHEDULE. PROVIDE NEW LAMACOIDS. REFER TO SEP–289 FOR PREVIOUS EQUIPMENT IDENTIFIERS. THESE ITEMS ARE NOT SHOWN CLOUDED.
3. THIS DRAWING IS BASED UPON EXISTING DOCUMENTATION, OF THE EXISTING FACILITY.
4. CLOUDED PORTION INDICATE NEW WORK / MODIFICATIONS TO EXISTING EQUIPMENT, EXCEPT AS NOTED. ALL CLOUDED PORTIONS ARE NEW AND ARE TO BE PROVIDED BY THE CONTRACTOR.
5. PROVIDE MCC COVERPLATES, BUCKETS, AND ALL ACCESSORIES AS REQUIRED FOR A COMPLETE, WORKING MODIFIED MCC. (00)
6. MCC–P720 LOCATED IN ELECTRICAL ROOM A, ROOM P102.
7. EXISTING MCC–2P IS A WESTINGHOUSE MCC, WITH 25 KAIC RATED BREAKERS.

SPECIFIC NOTES:

1. REMOVE EXISTING CABLING / CONDUIT FOR PUMPS P116–STP AND P106–STP.
2. LEAVE EXISTING STARTERS P116–STP AND P106–STP IN MCC. MARK AS 'SPARE'.
3. PROVIDE NEW THERMAL MAGNETIC TRIP CIRCUIT BREAKERS IN EXISTING MCC FOR NEW P–P116 AND P–P106. MATCH EXISTING BREAKER TYPE / MANUFACTURER.
4. PROVIDE NEW THERMAL MAGNETIC TRIP CIRCUIT BREAKERS IN EXISTING MCC FOR NEW TRANSFORMER LOAD. MATCH EXISTING BREAKER TYPE / MANUFACTURER.
5. PROVIDE NEW CABLING/CONDUIT FROM THE MCC TO THE NEW VFDS (FOR NEW PUMPS P–P116 AND P–P106) LOCATED IN THE NEW ELECTRICAL ROOM B, AND FROM THE VFDs TO THE DISCONNECTS AND MOTORS.
6. PROVIDE NEW CABLES/CONDUIT FOR XFMR–P721 LOCATED IN ELECTRICAL ROOM B.



MCC–P720 – FRONT ELEVATION



MCC–P720 – REAR ELEVATION

REFERENCE DRAWINGS	DESCRIPTION
1–0102–EGAD–P002	PRIMARY CLARIFIER ELECTRICAL ROOM AND STORAGE RM LAYOUT
1–0102–ESLD–P002	MCC–P720 AND MISCELLANEOUS
1–0102–EDTL–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

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: 2014/12/12
DATE: 2017/04/05
CONSULTANT NO.: 474248

ENGINEER'S SEAL
PROVINCE OF MANITOBA
D.E. BECKER
Member 23646
REGISTERED PROFESSIONAL ENGINEER
Apr. 15/2017

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
ELECTRICAL – MCC/CABINETS DRAWING
PRIMARY CLARIFIERS
MCC–P720 LAYOUT AND SCHEDULE

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0102–ECBD–P002	001	00	A1

PLOT DATE: Mar 28, 2017 – 7:36am
FILE NAME: 1–0102–ECBD–P002.dwg

LAST SAVE: 2017/03/28 – 7:36am
PATH: C:\Users\persm2\DWG\1–0102–ECBD–P002.dwg