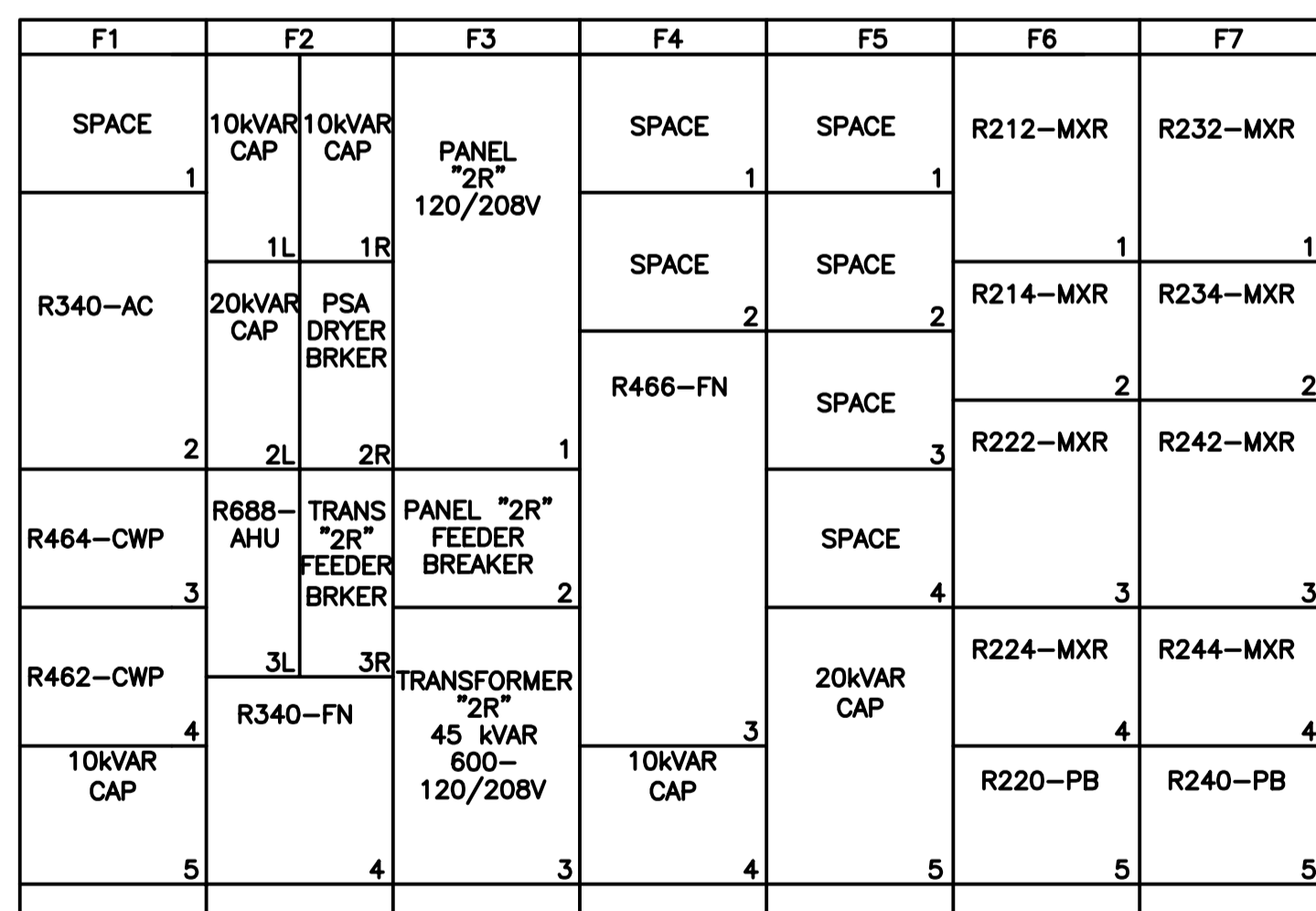


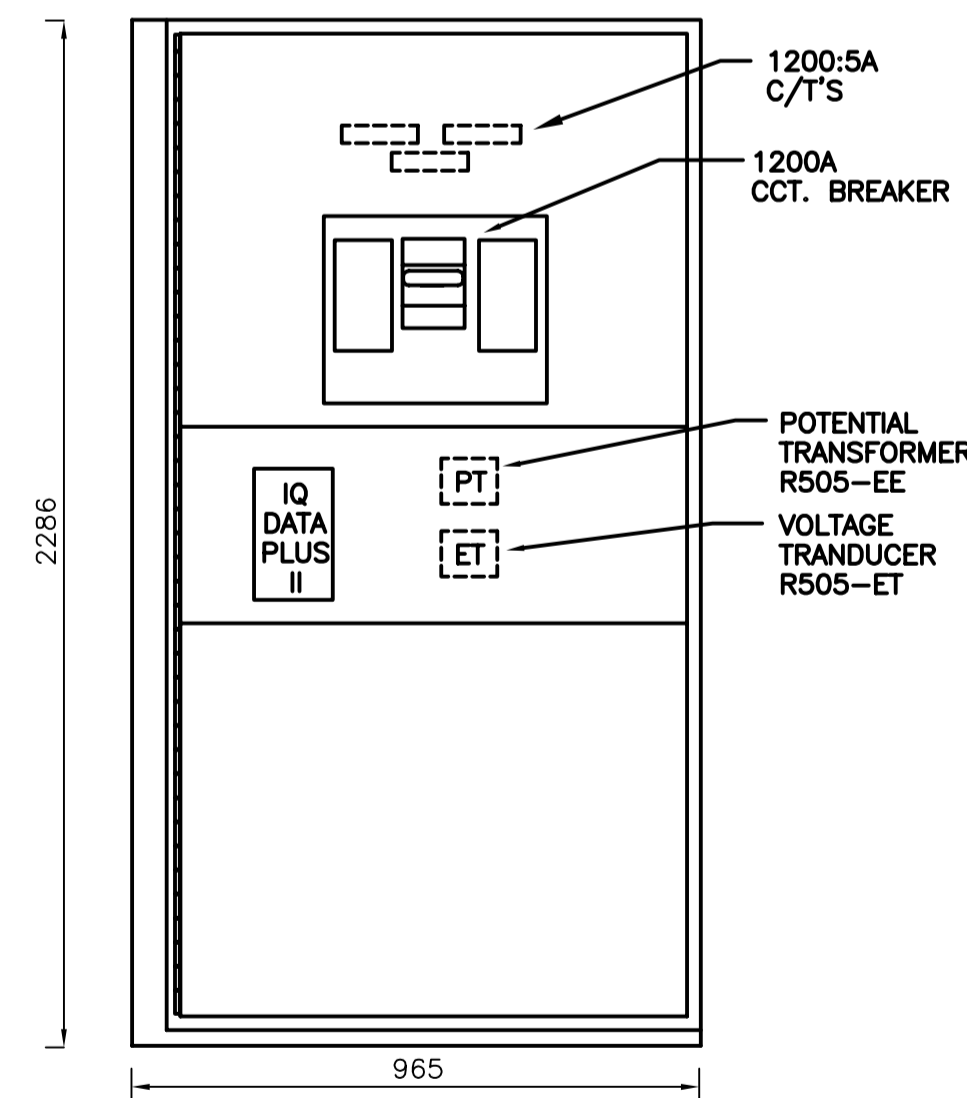
600 VOLT MOTOR CONTROL CENTER – MCC 2R

CONNECTED kW: 500  
DEMAND kW: 450

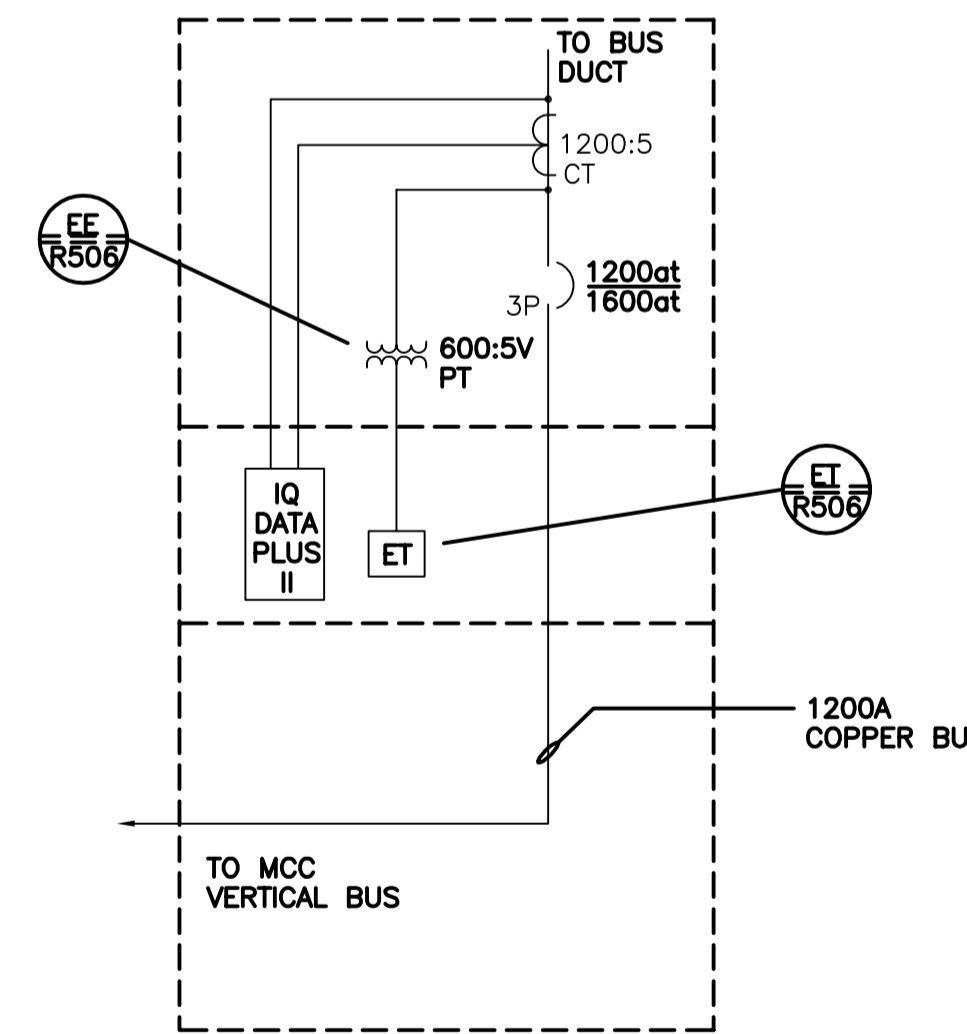
MCC NUMBER	EQUIP. NUMBER	MOTOR						STARTER		FEEDER			CIRCUIT PROTECTION		REMARKS
		DESCRIPTION	LOCATION	HP	KW	FULL LOAD AMPS	SERV. FACT.	EEMAC SIZE	TYPE	CAP (AMPS)	SIZE	TYPE	CONT. RATING (AMPS)	FRAME SIZE	
F1-1		SPACE													
F1-2	R340-AC	PSA AIR COMPRESSOR	R101	350	261	300	1.15	-	-	420	2-3/0 per ?	RW90	600 A - 3P	HMCP	WYE-DELTA STARTER, PFC AT MOTOR
F1-3	R464-CWP	COOLING TOWER CIRCULATION PUMP	R101	7.5	5.6	8.1	1.15	1	CMFVNR	20	#12	RW90	15 A - 3P	HMCP	
F1-4	R462-CWP	COOLING TOWER CIRCULATION PUMP	R101	7.5	5.6	8.1	1.15	1	CMFVNR	20	#12	RW90	15 A - 3P	HMCP	
F1-5		10 KVAR CAPACITOR													BREAKER IN F2-1L
F2-1L		10 KVAR CAPACITOR BREAKER								20	#12	RW90	15 A - 3P	HFD/CL	
F2-1R		10 KVAR CAPACITOR BREAKER								20	#12	RW90	15 A - 3P	HFD/CL	
F2-2L		20 KVAR CAPACITOR BREAKER								30	#10	RW90	30 A - 3P	HFD/CL	
F2-2R	R900-AD	PSA DRYER BREAKER	R102					-	-	45	#8	RW90	40 A - 3P	HFD/CL	PACKAGED UNIT
F2-3L	R688-AHU	AIR HANDLING UNIT - PSA COMPRESSOR ROOM	R101-ROOF	10	7.5	9.9	1.15	-	-	65	#6	RW90	50 A - 3P	HFD/CL	PACKAGED UNIT
F2-3R		TRANSFORMER '2R' BREAKER	MCC 2R			45 KVA		-	-	65	#6	RW90	60 A - 3P	HFD/CL	
F2-4	R340-FN	COMPRESSOR VENT FAN	COMP R340	3	2.2	3.1	1.15	-	-	20	#12	RW90	15 A - 3P	HFD/CL	
F3-1		PANEL '2R'	MCC 2R												BREAKER IN F3-2
F3-2		PANEL '2R' BREAKER	MCC 2R					-	-	145	#1	RW90	125 A - 3P	HFD/CL	
F3-3		TRANSFORMER '2R'	MCC 2R												BREAKER IN F2-3R
F4-1		SPACE													
F4-2		SPACE													
F4-3	R466-FN	COOLING TOWER FAN	R101-ROOF	3	2.2	3.4/1.5	1.15	1	CMFVNR	20	#12	RW90	15A-3P	HMCP	2 SPEED REVERSING FAN
F4-4		10 KVAR CAPACITOR													BREAKER IN F2-1R
F5-1		SPACE													
F5-2		SPACE													
F5-3		SPACE													
F5-4		SPACE													
F5-5		20 KVAR CAPACITOR													BREAKER IN F2-2L
F6-1	R212-MXR	MIXER FOR REACTOR 1, STAGE 1A	TANK 1-DECK	30	22.4	32	1.15	3	CMFVNR	45	#8	RW90	100A-3P	HMCP	
F6-2	R214-MXR	MIXER FOR REACTOR 1, STAGE 2	TANK 1-DECK	25	18.7	27	1.15	2	CMFVNR	45	#8	RW90	50A-3P	HMCP	
F6-3	R222-MXR	MIXER FOR REACTOR 2, STAGE 1B	TANK 2-DECK	30	22.4	32	1.15	3	CMFVNR	45	#8	RW90	100A-3P	HMCP	
F6-4	R224-MXR	MIXER FOR REACTOR 2, STAGE 3	TANK 2-DECK	25	18.7	26	1.15	2	CMFVNR	45	#8	RW90	50A-3P	HMCP	
F6-5	R220-PB	PURGE BLOWER FOR REACTOR 2	ROOM P110	5	3.7	5.5	1.15	1	CMFVNR	20	#12	RW90	15A-3P	HMCP	PURGE BLOWER IN PRI. CLAR. 1&2
F7-1	R232-MXR	MIXER FOR REACTOR 3, STAGE 1A	TANK 3-DECK	30	22.4	31	1.15	3	CMFVNR	45	#8	RW90	100A-3P	HMCP	
F7-2	R234-MXR	MIXER FOR REACTOR 3, STAGE 2	TANK 3-DECK	25	18.7	26	1.15	2	CMFVNR	45	#8	RW90	50A-3P	HMCP	
F7-3	R242-MXR	MIXER FOR REACTOR 4, STAGE 1B	TANK 4-DECK	30	22.4	31	1.15	3	CMFVNR	45	#8	RW90	100A-3P	HMCP	
F7-4	R244-MXR	MIXER FOR REACTOR 4, STAGE 3	TANK 4-DECK	20	14.9	19.5	1.15	2	CMFVNR	30	#10	RW90	50A-3P	HMCP	
F7-5	R240-PB	PURGE BLOWER FOR REACTOR 4	ROOM P127	5	3.7	5.5	1.15	1	CMFVNR	20	#12	RW90	15A-3P	HMCP	PURGE BLOWER IN PRI. CLAR. 3



MCC 2R FRONT ELEVATION



FRONT VIEW SWITCHGEAR



SWITCHGEAR SCHEMATIC

AS CONSTRUCTED  
DATE JUNE/93 BY R.H.  
APPROVED BY B.T.

B.M. ELEV.	MACLAREN ENGINEERS INC. WARDROP ENGINEERING INC. ENGINEERING CONSULTANTS	ENGINEER'S SEAL
	DESIGNED BY B.T.	CHECKED BY
	DRAWN BY S.R.	APPROVED BY
1 AS CONSTRUCTED 06/93 B.T.	HOR. SCALE: N.T.S.	RELEASED FOR CONSTRUCTION:
0 ISSUED FOR TENDER 07/90 B.T.	VERTICAL: N.T.S.	DATE
- ISSUED FOR APPROVAL 04/90 B.T.	DATE NOVEMBER 1989	DATE
NO. REVISIONS	DATE BY	DATE

SNC-LAVALIN INC.  
148 Notaire Park Way  
Winnipeg, Manitoba  
Canada R3P 0X7

FOR REFERENCE ONLY

PROJECT No.	SUBDIV.	SUBJECT	SERIAL	REV.
112577	0105	47 DD	0404	1

THE CITY OF WINNIPEG  
WORKS AND OPERATIONS DIVISION  
WATERWORKS, WASTE & DISPOSAL DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE  
OXYGEN REACTOR EXPANSION - ELECTRICAL  
MOTOR CONTROL CENTER 2R

CITY DRAWING NUMBER  
SHEET OF  
SEP-352

CONSULTANT DRAWING NO.  
870012-01-19-R-E102