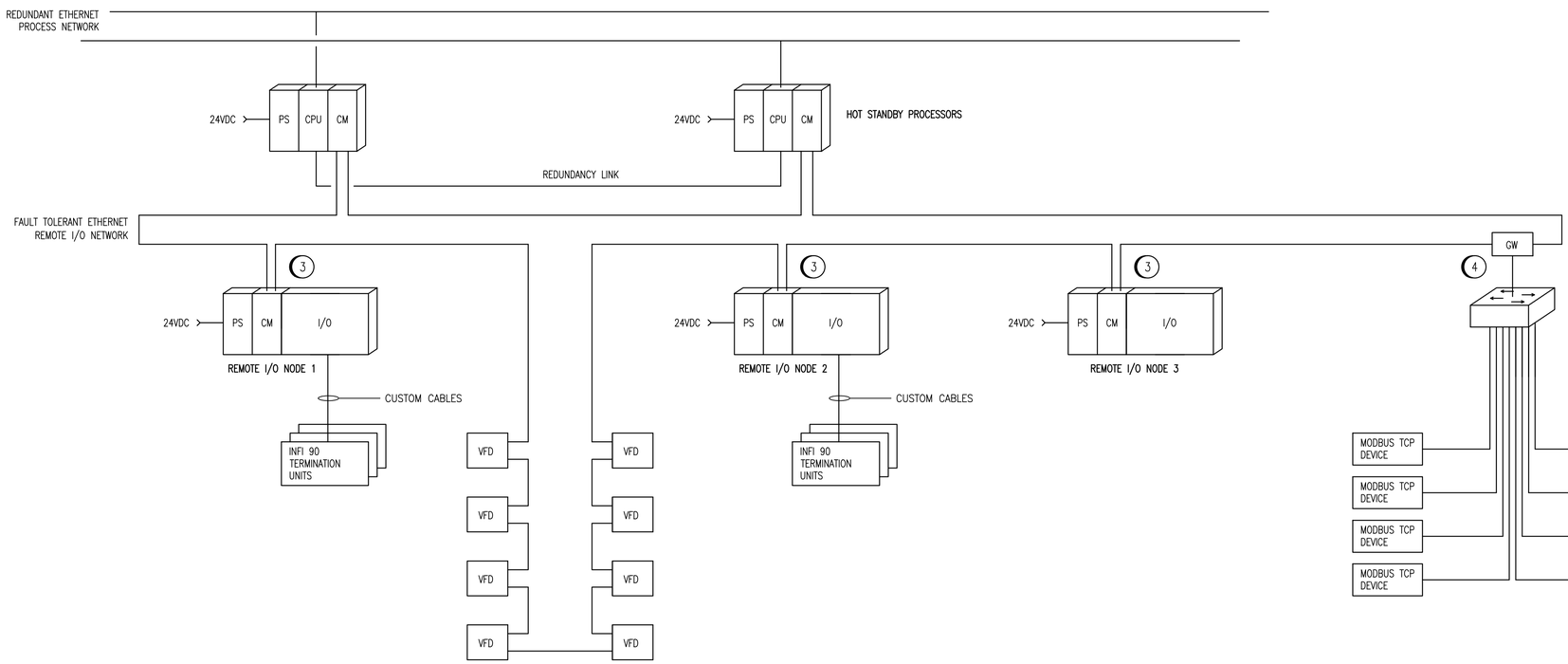
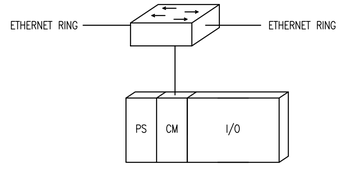


LEGEND:

CM	COMMUNICATION MODULE
CPU	PROGRAMMABLE CONTROLLER CENTRAL PROCESSING UNIT
FBUS	FIELDBUS
GW	GATEWAY
INST	INSTRUMENT
MOD–TCP	MODBUS TCP
MS	MOTOR STARTER
NETW	NETWORK
PS	POWER SUPPLY
VFD	VARIABLE FREQUENCY DRIVE

I/O REQUIREMENTS

NODE	DI–120VAC	DI–24VDC	DO–24VDC	AI 4–20mA	AI HART	AO 4–20mA	AO HART	NETW MS	NETW VFD	FBUS	MOD–TCP
RIO NODE 1	160 (2)		64	32 (2)		16 (2)					
RIO NODE 2	160 (2)		64	32 (2)		16 (2)					
RIO NODE 3		128	32	16	16		8				8
NETWORK									8		
FIELDBUS											



DETAIL 1 – ALTERNATE REMOTE I/O NETWORK CONNECTION

NOTES:

1. THE CONFIGURATION SHOWN REPRESENTS THE GENERAL REQUIREMENTS FOR THE SYSTEM ARCHITECTURE. THE ACTUAL CONFIGURATION WILL VARY SLIGHTLY BASED UPON THE SPECIFIC VENDOR PROPOSAL.
2. SOME OF THE EXISTING INFI 90 TERMINATION UNITS ARE GROUPED WITH LESS THAN 16 POINT PER MODULE. THE I/O REQUIREMENTS SHOWN ARE BASED ON 16 POINTS PER TERMINATION UNIT.
3. COMMUNICATION MODULES WITH INTEGRATED ETHERNET SWITCHES SHOWN. IF COMMUNICATION MODULES DO NOT HAVE INTEGRATED SWITCHES, PROVIDE ADDITIONAL EHTERNET SWITCHES AS SHOWN IN DETAIL 1.
4. THE MODBUS TCP GATEWAY IS ONLY REQUIRED IF THE PROGRAMMABLE CONTROLLER CAN NOT NATIVELY COMMUNICATE MODBUS TCP.

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

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR TENDER	2013/10/30	CJR	BJC

SNC·LAVALIN INC.
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DESIGNED BY: C. REIMER	CHECKED BY: B. CLEVEN
DRAWN BY: MJ. PERSSON	APPROVED BY: C. REIMER
SCALE: NTS	RELEASED FOR CONSTRUCTION BY:
DATE: 2013/09/23	DATE:
CONSULTANT NO.: 612620–0004–40DD–0004	

ENGINEER'S SEAL

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

WASTEWATER TREATMENT SYSTEM

SYSTEM ARCHITECTURE
PROGRAMABLE CONTROLLER SYSTEM 1

CITY DRAWING NUMBER	SHEET	REV.	SIZE
SK–A0004	001	00	A1

SK–A0004.dwg