

INSTRUMENT AND DEVICE IDENTIFICATION TABLE				
FIRST-LETTER		SUCCEEDING-LETTERS		
MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS OR SAMPLER	ALARM, TROUBLE		
B	BURNER FLAME			CLOSE, DECREASE
C	CONDUCTIVITY		CONTROL	
D	DENSITY	DIFFERENTIAL		OPEN, INCREASE
E	VOLTAGE (EMF)		SENSOR (PRIMARY ELEMENT)	
F	FLOW RATE	RATIO (FRACTION)	FAILURE	
G	GAS		GLASS, VIEWING DEVICE	GENERATOR (ULTRASONIC)
H	HAND (MANUAL)			HIGH
I	CURRENT (ELECTRICAL)		INDICATE	
J	POWER	SCAN		
K	TIME	TIME RATE OF CHANGE		CONTROL STATION
L	LEVEL		LIGHT	LOW
M	MOTOR	MOMENTARY	OPERATE, ON/OFF	MIDDLE, INTERMEDIATE
N	MOISTURE			START
O	TORQUE		ORIFICE, RESTRICTION	STOP, OVERLOAD
P	PRESSURE, VACUUM		POINT (TEST CONNECTION)	
Q	COMMON, QUANTITY	INTEGRATE, TOTALIZE		
R	RADIOACTIVITY		RECORD	
S	SPEED, FREQUENCY	SAFETY		SWITCH
T	TEMPERATURE		TRANSMITTER	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS, VALVE, DAMPER (2)			VALVE, DAMPER, LOUVER
W	WEIGHT, FORCE		WELL	
X	UNCLASSIFIED (1)	X AXIS	UNCLASSIFIED (1)	UNCLASSIFIED (1)
Y	EVENT, STATE, OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT
Z	POSITION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT

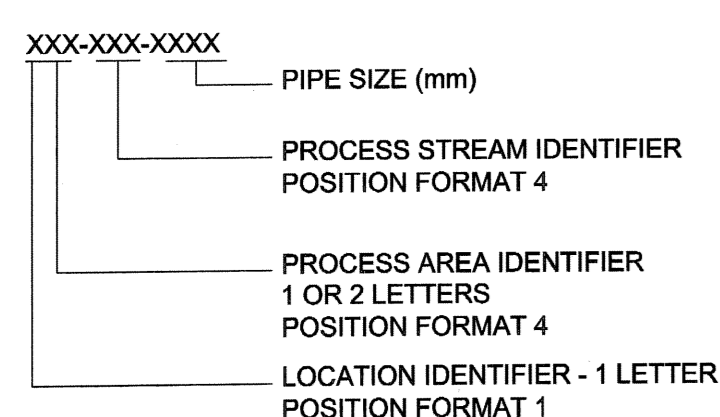
**NOTES FOR INSTRUMENT AND DEVICE IDENTIFICATION TABLE:**

1. THE LETTER X IS TO BE DEFINED AT THE TIME OF USE, AND MAY BE USED FOR MULTIPLE DEFINITIONS WHERE NO OTHER LETTER IS APPLICABLE.
2. THE USE OF V AS AN INITIAL LETTER TO REPRESENT A VALVE OR A DAMPER DOES NOT MEET THE INTENT OF ISA STANDARD 5.1, AND ITS CURRENT USE SHOULD BE REVIEWED.

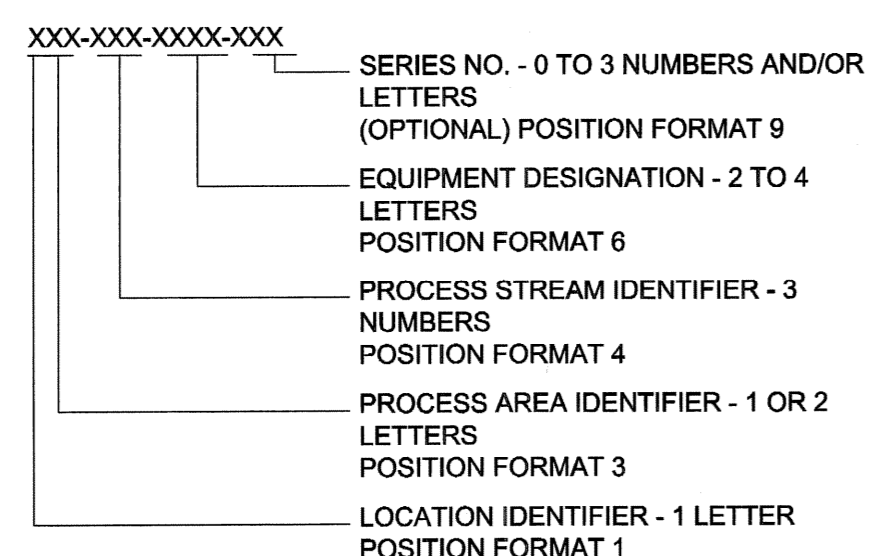
POSITION FORMATS	
<p>1. LOCATION IDENTIFIER - 1 LETTER</p> <p>I INTAKE D DEACON T TACHE C CENTRAL CONTROL - MCPHILLIPS H HURST L MACLEAN P MCPHILLIPS Q DISTRIBUTION SYSTEM W WATER TREATMENT PLANT (FUTURE) A AQUEDUCT R RIVER</p> <p>2. PLC OR RTU IDENTIFIER - 1 LETTER</p> <p>- ASCENDING FROM A TO Z - USE "M" FOR STATION MASTER - USE A - G FOR STATION PUMPS 1 TO 7</p> <p>3. PROCESS AREA - UP TO 2 LETTERS</p> <p>C CHLORINE S SUCTION D DISCHARGE R RESERVOIR T TELEMETERING E ELECTRIC DRIVE G GAS DRIVE H HVAC Z GENERAL STATION FUNCTIONS (UTILITIES)</p> <p>SA SARGENT AVENUE AND ST. JAMES STREET RR ROUGE ROAD AND ASSINIBOINE AVENUE JB JOHN BLACK AVENUE AND MAIN STREET IB INKSTER BOULEVARD AND BROOKSIDE BOULEVARD GR GATEWAY ROAD AND SPRINGFIELD ROAD PR PLESSIS ROAD AND DEVONSHIRE DRIVE LB LAGIMODIERE BOULEVARD AT OFFTAKE TO SMUGGLER'S COVE</p> <p>PC PADDINGTON ROAD AND CHARING CROSS CRESCENT PH PEMBINA HIGHWAY AND CHANCELLOR MATHESON ROAD RS REDONDA STREET AND KILDARE AVENUE RV RUE DES TRAPPISTES AND VILLENEUVE BOULEVARD FG FORT GARRY BRIDGE JA JAMES AVENUE KB KILDONAN BRIDGE</p>	<p>4. PROCESS STREAM IDENTIFIER - 3 DIGITS</p> <p>001 TO 039 AQUEDUCT AND RESERVOIR PIPING 040 SUCTION HEADER 041 TO 049 PIPING AND EQUIPMENT BETWEEN SUCTION AND DISCHARGE HEADER 050 DISCHARGE HEADER 051 TO 059 BRANCHES OFF DISCHARGE 100 TO 599 EXTERIOR PIPING AND DISTRIBUTION SYSTEM 599 REMOTE PRESSURE POINTS 600 TO 699 HVAC 800 TO 899 CHEMICAL SYSTEMS 800 TO 829 CHLORINE 830 TO 839 AMMONIA 840 TO 849 FLOURIDE 850 TO 899 MISC.</p> <p>900 TO 999 GENERAL UTILITIES 900 TO 909 AIR PRESSURE 910 TO 919 ELECTRICAL DISTRIBUTION 920 TO 929 BUILDING SAFETY AND SECURITY 930 TO 939 SUMPS 940 TO 949 FLOOD 950 TO 959 FLUSH WATER 960 TO 969 GAS (NATURAL) 970 TO 999 MISC. 999 RIVER MONITORING</p> <p>5. INSTRUMENT OR DEVICE IDENTIFICATION - 2-4 LETTERS</p> <p>- REFER TO TABLE AT LEFT</p> <p>6. EQUIPMENT DESIGNATION - 2-4 LETTERS</p> <p>- REFER TO EQUIPMENT LIST AT RIGHT</p> <p>7. PLC IDENTIFIER - 1 LETTER</p> <p>- FROM A TO Z IF APPLICABLE, IE. CONTROLLER, SETPOINT, OUTPUT, ETC. - 0 IF THE INFORMATION IS NOT EXPLICITLY ASSOCIATED WITH A PARTICULAR PLC</p> <p>8. INTERNAL VALUE - 1 LETTER</p> <p>A - CONTROL VALUE C - CALCULATION E - OPERATOR ENTRY M - MANUAL DATA</p> <p>9. SERIES NUMBER - UP TO 3 DIGITS OR LETTERS</p> <p>- ANY COMBINATION OF THREE LETTERS AND/OR NUMBERS</p>

EQUIPMENT DESIGNATIONS	
AC	AIR COMPRESSOR
AV	AQUEDUCT VALVE
CAR	COMPRESSED AIR RECEIVER
CL (CL2)	CHLORINE VALVE
CLR	CHLORINATOR
DHV	DISCHARGE HEADER VALVE
DV	DISCHARGE VALVE
GN	ELECTRIC GENERATOR
INJ	INJECTOR
PP	PUMP
RV	RESERVOIR VALVE
SHV	SUCTION HEADER VALVE
SV	SUCTION VALVE
VLV	VALVE (GENERAL)

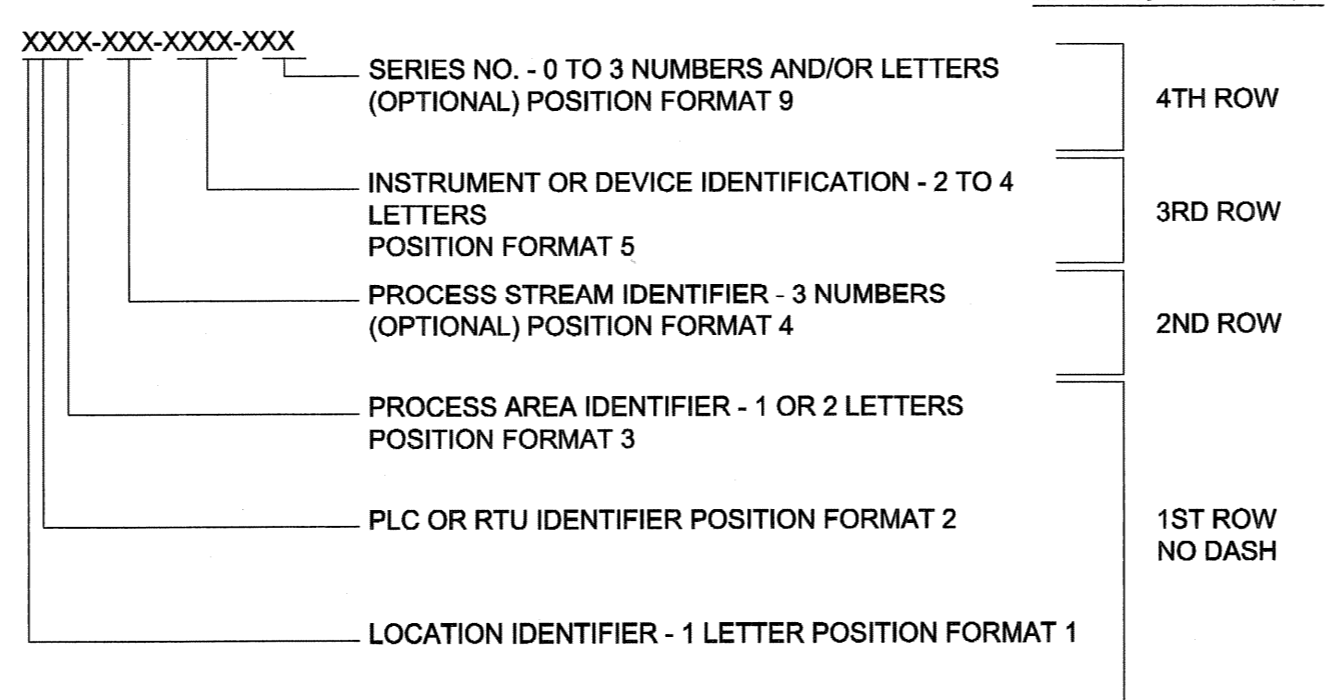
**PROCESS LINE IDENTIFIERS**



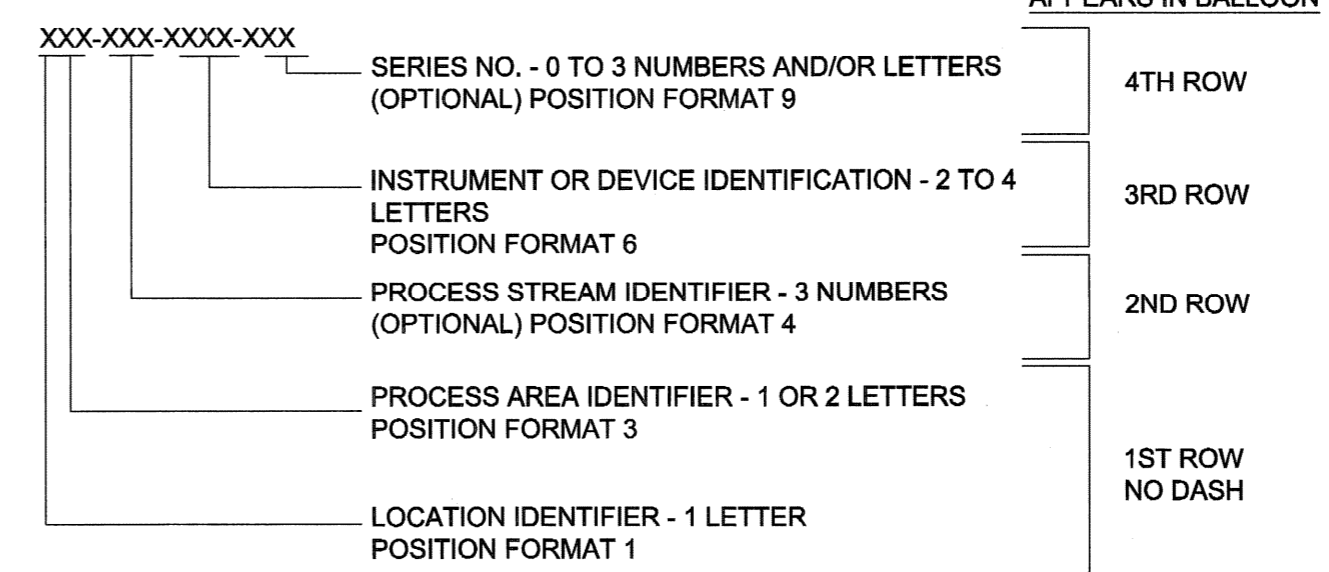
**EQUIPMENT IDENTIFICATION**



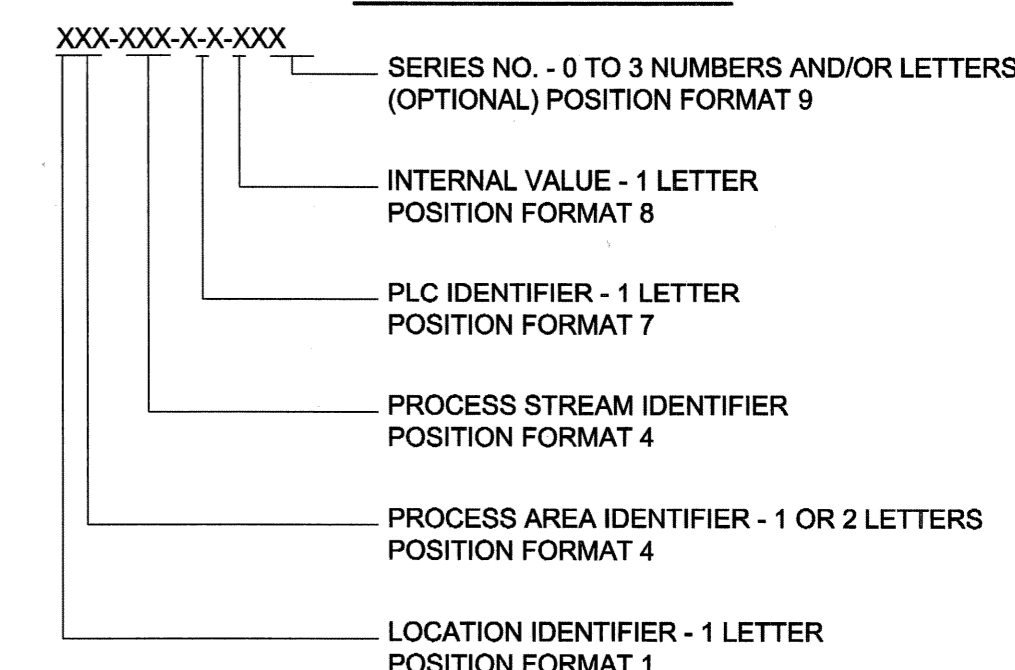
**INPUT/OUTPUT (I/O) IDENTIFICATION**



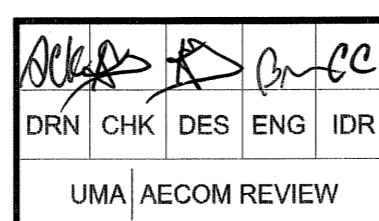
**FIELD DEVICES AND INSTRUMENTATION**



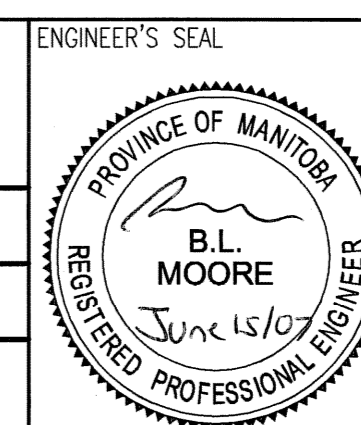
**INTERNAL SOFTWARE POINT IDENTIFICATION**



NOTE:



B.M. ELEV.	FIELD BOOK #:	UMA   AECOM	
POSTED TO LBIS		DESIGNED BY	CHECKED BY
		DRAWN BY	APPROVED BY
C ISSUED FOR BID	07/06/15	SCK	
B ISSUED FOR 99% REVIEW	07/05/04	SCK	
A ISSUED FOR 75% REVIEW	07/03/15	SCK	
NO. REVISIONS	DATE	BY	FILENAME: D265-199-00_01-110002_RX.dwg



**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

**G. C. MACLEAN PUMPING STATION**  
Contract No.  
Natural Gas Engine Drives Replacement  
Process and Instrumentation Diagrams  
Legend and Details

CITY DRAWING NUMBER: 1-0630A-D-A0002 | SHEET: 001 | REV: C | SIZE: D