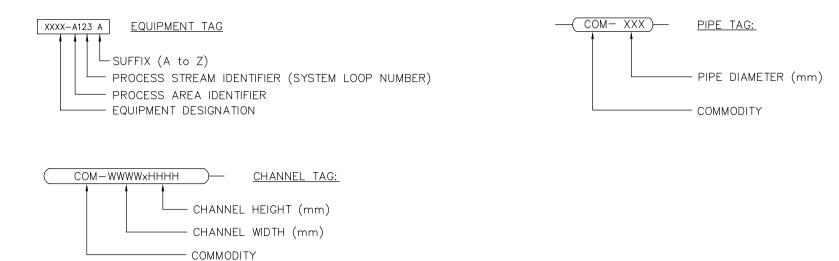
	INSTRUMENT IDENTIFICATION TABLE			
	FIRST-LETTER	SUCCEEDING-LETTERS		
	MEASURED OR INITIATING VARIABLE	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	
А	ANALYSIS (1)	ALARM		
В	BURNER, COMBUSTION	CLOSED	CLOSE	
С	CONDUCTIVITY		CONTROL	
D	DENSITY	OPEN	OPEN	
Е	VOLTAGE	SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE	FAILURE		
G	GAS	GLASS, VIEWING DEVICE		
Н	HAND	HIGH		
1	CURRENT (ELECTRICAL)	INDICATE		
J	POWER			
К	TIME, TIME SCHEDULE		CONTROL STATION	
L	LEVEL	LOW, LIGHT		
М	MOTOR	OPERATING OR ON/OFF		
N	MOISTURE		START	
0		OVERLOAD	STOP	
Р	PRESSURE, VACUUM	POINT (TEST) CONNECTION		
Q	COMMON	QUANTITY		
R	RADIATION	RECORD		
S	SPEED, FREQUENCY		SWITCH	
Т	TEMPERATURE		TRANSMIT	
U	MULTIVARIABLE	MULTIFUNCTION	MULTIFUNCTION	
٧	VIBRATION, MECHANICAL ANALYSIS (1)		VALVE DAMPER, LOUVER	
W	WEIGHT, FORCE	WELL		
X	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	
Υ	EVENT, STATE OR PRESENCE (2)		RELAY, COMPUTE, CONVERT (3)	
Z	POSITION, DIMENSION		DRIVER, ACTUATOR UNCLASSIFIED FINAL CONTROL ELEMENT	

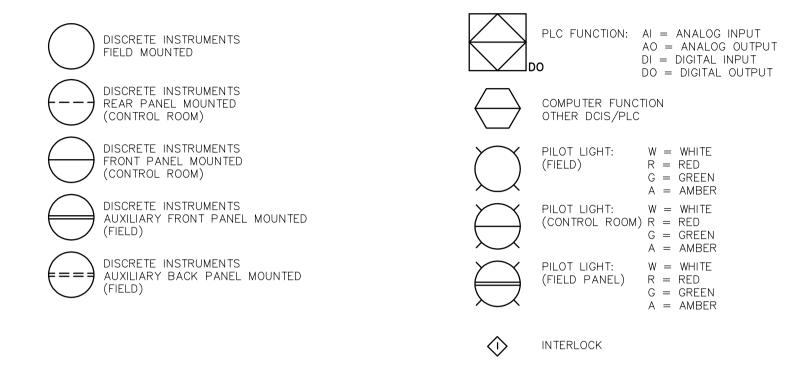
- 1. IT IS EXPECTED THAT THE TYPE OF ANALYSIS BE DEFINED OUTSIDE THE TAGGING BUBBLE.
- 2. FIRST LETTER Y IS INTENDED FOR USE WHEN CONTROL OR MONITORING RESPONCES ARE EVENT DRIVEN AS OPPOSED TO TIME OR TIME—SCHEDULE DRIVEN. THE LETTER Y, IN THIS POSITION, CAN ALSO SIGNIFY PRESENCE OR STATE.
- 3. IT IS EXPECTED THAT THE FUNCTIONS ASSOCIATED WITH THE USE OF SUCCEEDING LETTER Y WILL BE DEFINED OUTSIDE THE TAGGING BUBBLE. THIS DEFINITION NEED NOT BE MADE WHEN THE FUNCTION IS SELF-EVIDENT, AS FOR A SOLINOID VALVE IN A FLUID SIGNAL LINE.

	COMMON INSTRUMENT	/ DEVICE	IDENTIFIERS
ISA IDENTIFIER	INITIATING VARIABLE AND FUNCTION	ISA IDENTIFIER	INITIATING VARIABLE AND FUNCTION
AS	ANALYSIS SWITCH	PI	PRESSURE INDICATOR
AE	ANALYSIS ELEMENT	PT	PRESSURE TRANSMITTER
АТ	ANALYSIS TRANSMITTER	PIT	PRESSURE INDICATOR TRANSMITTER
CS	CONDUCTIVITY SWITCH	PS	PRESSURE SWITCH
СТ	CONDUCTIVITY TRANSMITTER	SC	SPEED CONTROLLER
DS	DENSITY SWITCH	SI	SPEED INDICATOR
ET	VOLTAGE TRANSMITTER	ST	SPEED TRANSMITTER
FC	FLOW CONTROLLER	TC	TEMPERATURE CONTROLLER
FE	FLOW ELEMENT	TE	TEMPERATURE ELEMENT
FI	FLOW INDICATOR	TI	TEMPERATURE INDICATOR
FS	FLOW SWITCH	TS	TEMPERATURE SWITCH
FT	FLOW TRANSMITTER	TT	TEMPERATURE TRANSMITTER
FY	FLOW RELAY	TY	TEMPERATURE RELAY
FZ	FLOW DRIVE	UR	MULTIVARIABLE RECORDER
HS	HAND SWITCH	VT	VIBRATION TRANSMITTER
IT	CURRENT TRANSMITTER	WE	WEIGHT ELEMENT
JT	POWER TRANSMITTER	WT	WEIGHT TRANSMITTER
KC	TIME CONTROLLER	XX	UNCLASSIFIED
KI	ELAPSED TIME INDICATOR	YC	STATE CONTROL
LE	LEVEL ELEMENT	YN	STATE ON
LI	LEVEL INDICATOR	YY	EVENT RELAY
LS	LEVEL SWITCH	YS	EVENT SWITCH
LT	LEVEL TRANSMITTER	ZS	POSITION SWITCH
LY	LEVEL RELAY	ZT	POSITION TRANSMITTER
PC	PRESSURE CONTROLLER	ZZ	POSITION DRIVE

EQUIPMENT IDENTIFICATION AND TAGGING



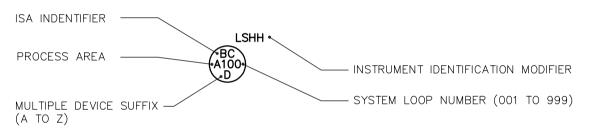
INSTRUMENT SYMBOLS



XXXX — Drawina No. —Source or destination

LINE CONTINUATION

INSTRUMENT DESIGNATION NUMBER



PURGE CONNECTION

POSITION FORMATS

PROCESS AREA IDENTIFIER		PROCESS STREAM IDENTIFIER (LOOP NUMBER)
CHEMICAL FEED DEACON BOOSTER PUMP STATION FILTRATION	C D F	001 - 999 001 - 999 001 - 999
PLANT UTILITIES: AIR PRESSURE ELECTRICAL DISTRIBUTION EMERGENCY GENERATOR ELECTRICAL SUBSTATION HVAC SITE COMMUNICATION FLUSH WATER NATURAL GAS FIRE PUMPS AUXILLIARY BUILDINGS HVAC BUILDING SAFETY & SECURITY PROCESS SUMPS SANITARY SUMPS POTABLE WATER	Н	600 - 650 901 - 950 951 - 999 000 - 100 100 - 199 200 - 299 300 - 299 400 - 499 500 - 599 700 - 799
INLET WORKS & RAW WATER FREEZE THAW POND GENERAL SITE SERVICES/ MISCELLANEOUS:	L M	001 - 999 001 - 999 001 - 999
YARD PIPING AND VALVE CHAMBERS SURGE TOWERS YARD PIPING YARD LIGHTING OZONE FLOCULATION AND DAF RESIDUALS HANDLING BULK CHEMICAL STORAGE TREATED WATER STORAGE & HANDLING (CLEARWELL) ULTRAVIOLET LIGHT DISINFECTION ON—SITE HYPOCHLORITE GENERATION	N N N O P R S T U J	001 - 099 100 - 199 200 - 299 001 - 999 001 - 999 001 - 999 001 - 999 001 - 999 001 - 999 001 - 999

INSTRUMENT IDENTIFICATION MODIFIER

LSH LEVEL SWITCH HIGH

ACK

ALM

A/M

A/S

BRG

CURR

DEC

DE

E/A

E/S

ESD

FCL

FOP

F/R

HP

kW HVAC

INC

INJ

LO

LOS

L/R

MLD

NC

NNF

ARV

ACU

ACR

AHU ATS

BAT BB

BFP BPV BKR BLR

BLW CAL

CC

CCTV CDR

CDU

CE

CFR

CHLR

CHR

CMP

CON

CP

CPU

CRN

CTS

CV

DC

DEM

DES

DF

DIF

DS

EF EL EPR ETM ETNK

FAP FC

FCV FF FG FLC

FV

GF

GEN

GV

GP

GT

HC

HEX

HWH

HTR

HV

HWP

IMP

KP

LCP

LCV

SODIUM BISULPHITE

SODIUM HYPOCHLORITE

SUMP PUMP DISCHARGE

STORMWATER DRAINAGE

VACUUM LABORATORY

VENT TO ATMOSPHERE

SOFTENED WATER

SULPHURIC ACID

DRY SALT

SEAL OIL

SLUDGE

DAF RECYCLE

SUPERNATANT

SEAL WATER

TREATED WATER

TRAP PRIMER

SUBMERGED

CONCRETE ENCASED

PVDF LINED STEEL

POLYVINYL CHLORIDE

RUBBER LINED STEEL

VITRIFIED CLAY PIPE

STAINLESS STEEL

PNEUMATIC

RELEASED FOR CONSTRUCTION BY:

DATE 06/03/07

R. SOROKOWSKI

NOT APPLICABLE

POLYVINYLIDENE FLOURIDE

REINFORCED CONCRETE PIPE

PRESTRESSED CONCRETE CYLINDER

AD

ACKNOWLEDGE

AUTO/MANUAL

ALARM

BEARING

CURRENT

DECREASE

DRIVE END

FAIL CLOSE

FAIL OPEN

INCREASE

INJECTOR

LOCAL/OFF/STOP

MEGALITERS PER DAY

NORMALLY LIQUID LEVEL

NORMALLY CLOSED

NORMALLY NO FLOW

LOCAL/REMOTE

LOW

HIGH

EXHAUST AIR

ELECTRICAL SUPPLY

EMERGENCY SHUTDOWN

FORWARD or REVERSE

HORSE POWER (kW)

HEATING/VENTILATION/AIR CONDITIONING

CONDUCTIVITY ALARM HIGH

COH	COMPUTER/OFF/HAND	LSL	LEVEL SWITCH LOW
DO	DISSOLVED OXYGEN	MCC	MOTOR CONTROL CENTRE
D/P	DIFFERENTIAL PRESSURE	0/L	OVERLOAD
FAH	FLOW ALARM HIGH	PAH	PRESSURE ALARM HIGH
FAL	FLOW ALARM LOW	PAL	PRESSURE ALARM LOW
FSH	FLOW SWITCH HIGH	рН	рН
FSL	FLOW SWITCH LOW	PSH	PRESSURE SWITCH HIGH
H/A	HAND / AUTO	PSL	PRESSURE SWITCH LOW
HOA	HAND / OFF / AUTO	RTD	RESISTIVE TEMPERATURE DEVICE
1/1	CURRENT / CURRENT ISOLATOR	S/S	START / STOP
I/P	CURRENT / PRESSURE CONVERTER	SEL	SELECTOR
IAH	CURRENT ALARM HIGH	SOL	SOLENOID
LAH	LEVEL ALARM HIGH	T/C	THERMOCOUPLE
LAL	LEVEL ALARM LOW	TAH	TEMPERATURE ALARM HIGH
		TAL	TEMPERATURE ALARM LOW
		TSH	TEMPERATURE SWITCH HIGH
L/L	LEAD / LAG	TSL	TEMPERATURE SWITCH LOW
LOS	LOCK-OFF-STOP	WDG	WINDING
L/R	LOCAL / REMOTE		

PROCESS LINE CODES

COMMODITY

AA	AQUA AMMONIA	GOX	GASEOUS OXYGEN
AGA	ATOMIZING AIR	HCO	HYDRAULIC OIL
AS	AIR SCOUR (FILTERS)	HFS	HYDROFLUOSILICIC ACID
AHP	AIR HIGH PRESSURE (OZONE)	HP	HYDROGEN PEROXIDE
ALP	AIR LOW PRESSURE (OZONE)	HST	12% HYPOCHLORITE SOLUTION
	, ,		
BS	BRINE SOLUTION	HYP	0.8% HYPOCHLORITE SOLUTION
BWS	BACKWASH SUPPLY WATER	ITA	INSTRUMENT AIR
BWW	BACKWASH WASTE WATER	LGO	LUBRICATING OIL
CA	COMPRESSED AIR (DAF)	LOX	LIQUID OXYGEN
CCW	CIRCULATING COOLING WATER	NG	GAS
CL2	CHLORINE	OF	OVERFLOW
CLG	CHLORINE GAS	OZG	OZONE OFF GAS
CLS	CHLORINE SOLUTION	OZO	OZONATED OXYGEN
CO2	CARBON DIOXIDE	OZW	OZONATED WATER
CRW	CLARIFIER DISCHARGE WATER	PEF	PHOSPHATE FEED
CS	CAUSTIC SODA	PLD	DRY POLYMER
CWR	COOLING WATER RETURN	PLS	POLYMER SOLUTION
CWS	COOLING WATER SUPPLY	PSW	PLANT SERVICE WATER
DD	DEACON EFFLUENT (POST UV)	PW	POTABLE WATER
DDW	DEMINERALIZED WATER	RD	ROOF DRAIN
DEA	DILUTE ACID	RW	RAW WATER
DEC	DILUTE CAUSTIC	SAM	SAMPLE
DF	DAF FLOAT	SAN	SANITARY DRAINAGE

SBS

SCA

SHC

SPD

STD

SDR

SLO

SLU

SUP

SWD

SUB

PSTL

PVC

PVDF

RSTL

STL

SST

ELC FERRIC CHLORIDE FED FILTER MEDIA EDUCTION FILTER INFLUENT

FTR

FW

DFS

DO

DRA

DRN

DRS

DS

ΕE

DSW

PIPE
BUR EXP
PIPE
CISP CLDI CMP COP CPVC DI FRPX GLDI GSP HDPE

DIESEL FUEL RETURN

DIESEL FUEL SUPPLY

DISOLVED OXYGEN

DEACON SUCTION

DISTILLED WATER

ENGINE EXHAUST

DEACON UV (PRE UV)

FIRE PROTECTION WATER

FILTER-TO-RECYCLE

FILTERED WATER

SUBDRAIN

DRAINAGE (FLOORS)

DRAINS, CLEAN DRAINS

PRESSURE TESTING

HYDROSTATIC

IN SERVICE

DATE BY DATE

Frederickson Cooper	Earth Tech A Tyco International Ltd. Company	EI
DESIGNED BY NT	CHECKED SWT	
DRAWN BY LAE	APPROVED DJT	

2005/12/21

ENGINEER'S SEAL ORIGINAL SIGNED BY S.W. TORMEY

2006/03/07

CONSULTANT DRAWING NO.

WL-P0003

HEAT EXCHANGER

ELECTRIC HEATER

HOT WATER PUMP

LOCAL CONTROL PANEL

LEVEL CONTROL VALVE

INSTRUMENT MARSHALLING PANEL

HAND VALVE

KEY PAD

HOT WATER HEATER HEAT RECOVERY COIL

CONSTRUCTION OF DEWATERING CELLS

CONSTRUCTION STANDARDS PROCESS AND INSTRUMENTATION IDENTIFICATION

ABBREVIATIONS NO

O/A

0/C

ODE

POWER FACTOR
PUMP OUT
PLANT SHUTDOWN
PROCESS VARIABLE
POWER
REMOTE SET POINT
RESET
SAMPLE POINT or SET POINT (Depending on Application)
STATION
SPEED
STANDBY
STOP
START
STATUS
TEST
TYPICAL
ULTRA-VIOLET LIGHT
UNDER SIDE
VACUUM
VIBRATION
WATER SUPPLY
WINDING

NORMALLY OPEN

OUTSIDE AIR

OPEN/CLOSED

OPPOSITE DRIVE END

EQUIPMENT DESIGNATIONS

AIR RELEASE VALVE	LJB	LOCAL JUNCTION BOX
AIR CONDITIONING UNIT	LOP	LUBE OIL PUMP
ACCESS CARD READER	LV	LEVEL CONTROL VALVE (OPEN/CLOSE)
AIR DRYER	М	MOTOR
AIR HANDLING UNIT	MAU	MAKE-UP AIR UNIT
AUTOMATIC TRANSFER SWITCH	MCC	MOTOR CONTROL CENTRE
BATTERY	MD	MOTION DETECTOR
BASEBOARD HEATER	MDV	MUD VALVE
BACK FLOW PREVENTER	MP	METERING PUMP
BACK-PRESSURE VALVE	MXR	MIXER
BREAKER	OP	ORIFICE PLATE
BOILER	P	PUMP
BLOWER	PCT	PARTICLE COUNTER
CALIBRATION COLUMN	PCU	POLYMER BULK BAG UNLOADER
COOLING COIL	PCV	PRESSURE CONTROL VALVE
CLOSED CIRCUIT TELEVISION	PFC	POWER FACTOR CORRECTION
CONDENSER	PFLT	POWER FILTER (LINE REACTOR, ETC)
CATALYTIC DESTRUCT UNIT	PNL	PANEL BOARD
CENTRIFUGE	PLC	PROGRAMMABLE LOGIC CONTROLLER
CHEMICAL FEEDER (POLYMER, CHLORINATOR, ETC.)	PPU	POLYMER PREPARATION UNIT
CHILLER	PRV	PRESSURE REGULATING / REDUCING VALVE
BATTERY CHARGER	PSU	POWER SUPPLY UNIT
COMPRESSOR	PSV	PRESSURE / VACUUM RELIEF VALVE
CONVEYOR	PV	PRESSURE VESSEL
PLC CONTROL PANEL	RV	RELIEF VALVE / RUPTURE DISC
COMPUTER	SOL	SOLENOID ACTUATOR
CRANE OR HOIST	SCRB	SCRUBBER
CATHODIC TEST STATION	SE	SAMPLER ELEMENT
CHECK VALVE	SF	SUPPLY FAN
	SP	SAMPLE PUMP
DOOR CONTACT	SLG	SLUICE GATE
DEMISTER	SLR	SILENCER
DESICCANT DRYER	SMP	SUMP PUMP
DAF SKIMMER	SPS	SUPERNATANT PUMP STATION
DIFFUSER	STA	STATIC MIXER
DISCONNECT SWITCH	STR	STRAINER
ENGINE	SUB	SUBSTATION
EXHAUST FAN	SWGR	SWITCHGEAR
ELECTROLYTIC CELL	SWP	SWASH PLATE
EVAPORATOR	T	TRAP
ELAPSED TIME METER	TCV	TEMPERATURE CONTROL VALVE
EXPANSION TANK	TNK	TANK (NON-PRESSURIZED)
FAN	TOTE	TOTE TANK
FIRE ALARM ANNUNICATOR PANEL	TV	TEMPERATURE / VIBRATION MONITOR
FLOCCULATION CHAMBER	UH	UNIT HEATER ELECTRIC AND NON-ELECTRIC
FLOW CONTROL VALVE	UPS	UNINTERRUPTIBLE POWER SUPPLY
FORCE FLOW HEATER	UVR	ULTRA-VIOLET LIGHT REACTOR
FLAP GATE	VFD	VARIABLE FREQUENCY DRIVE
FLOCCULATOR	VSD	
FILTER		VARIABLE SPEED DRIVE
FLOW CONTROL VALVE (OPEN/CLOSE)	V	VADOUDIZED
GAS FILTER	VP	VAPOURIZER
GENERATOR	WP	WELL PUMP
GATE VALVE	W	WEIR
GLYCOL PUMP	WRT	WASHWATER RECOVERY TANK
GRAVITY THICKENER	WSF	WATER SOFTENER
HEAT COIL	XFMR	TRANSFORMER
WEAT EVOLUNIOES	86	FOLUPMENT LOCKOUT RELAY

NO. REVISIONS

CITY FILE NUMBER

CITY DRAWING NUMBER

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

EQUIPMENT LOCKOUT RELAY