

Appendix G

Instrumentation List

		INSTRUMENT LIST		Document Code 1-0101-AELI-P002	
				Revision 00	
Client City of Winnipeg					
Project NEWPCC Primary Clarification Upgrade					
Package / Area Primary Clarifiers					
Prepared By	Name	Signature		Date	
	T. Wilson			2024-11-01	
Checked By	Name	Signature		Date	
	S. Symons			2024-11-01	
Approved By	Name	Signature		Date	
	S. Boghosian			2024-11-01	
Notes / Comments				Seal	

Revisions					
Rev	Description	Date	By	Checked	Approved
00	Issued for Tender	2024-11-01	T. Wilson	S. Symons	S. Boghosian

INSTRUMENT LIST

Tag	Description	P&ID City #	P&ID Consult. #	Plan Drawing	Segment/Schem./ Loop Drawing	Datasheet	Installation Detail	Mounting	Supplied By	Notes	Manufacturer	Model
XV-P31102	FSW FROM DISTRIBUTION	1-0101-PPID-P301-001	P3-X601		1-0101-AILD-P301-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
XV-P31112	SCUM TANK 1A FSW VALVE	1-0101-PPID-P301-001	P3-X601		1-0101-AILD-P302-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
XV-P32122	SCUM TANK 1B FSW VALVE	1-0101-PPID-P301-001	P3-X601	P1-A401	1-0101-AILD-P303-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
XV-P32112	P-P3211 INTAKE FSW VALVE	1-0101-PPID-P301-001	P3-X601	P1-A401	1-0101-AILD-P304-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
XV-P32121	P-P3212 INTAKE FSW VALVE	1-0101-PPID-P302-001	P3-X602		1-0101-AILD-P305-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
XV-P32132	P-P3213 INTAKE FSW VALVE	1-0101-PPID-P302-001	P3-X602	P1-A401	1-0101-AILD-P306-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
FE/FIT-P33132	PRIMARY SCUM MAGNETIC FLOWMETER	1-0101-PPID-P302-001	P3-X602				120 VAC		Contractor	Profibus DP	SIEMENS	3100 PFA + MAG6000
FE/FIT-P33113	TK-P3311 SCP MAGNETIC FLOWMETER	1-0101-PPID-P302-001	P3-X602				120 VAC		Contractor	Profibus DP	SIEMENS	3100 PFA + MAG6000
FE/FIT-P33123	TK-P3321 SCP MAGNETIC FLOWMETER	1-0101-PPID-P302-001	P3-X602				120 VAC		Contractor	Profibus DP	SIEMENS	3100 PFA + MAG6000
FE/FIT-P33133	SCUM TANK 1B RETURN MAGNETIC FLOWMETER	1-0101-PPID-P302-001	P3-X602				120 VAC		Contractor	Profibus DP	SIEMENS	3100 PFA + MAG6000
XV-P32211	FSW FROM DISTRIBUTION	1-0101-PPID-P303-001	P3-X603		1-0101-AILD-P307-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
XV-P32212	SCUM TANK 2 FSW VALVE	1-0101-PPID-P303-001	P3-X603	P1-A403	1-0101-AILD-P308-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
XV-P32223	P-P3222 FSW VALVE	1-0101-PPID-P304-001	P3-X604	P1-A403	1-0101-AILD-P309-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
XV-P32233	P-P3223 FSW VALVE	1-0101-PPID-P304-001	P3-X604	P1-A403	1-0101-AILD-P310-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
XV-P35011	PROCESS DRAIN TO CONTROL CHAMBER OUTER RING	1-0101-PPID-P002-001	P3-X607		1-0101-AILD-P311-001		120 VAC		Contractor	Hardwire	ROTORK	RCEL
XV-P35012	PROCESS DRAIN TO CONTROL CHAMBER INNER RING	1-0101-PPID-P002-001	P3-X607		1-0101-AILD-P312-001		120 VAC		Contractor	Hardwire	ROTORK	RCEL
XV-P35021	PROCESS DRAIN TO CONTROL CHAMBER OUTER RING	1-0101-PPID-P002-001	P3-X607		1-0101-AILD-P313-001		120 VAC		Contractor	Hardwire	ROTORK	RCEL
XV-P35022	PROCESS DRAIN TO CONTROL CHAMBER INNER RING	1-0101-PPID-P002-001	P3-X607		1-0101-AILD-P314-001		120 VAC		Contractor	Hardwire	ROTORK	RCEL
XV-P34112	POLYMER FOR ROTARY PRESS 1	1-0101-PPID-P307-001	P3-X608		1-0101-AILD-P315-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
XV-P34122	POLYMER FOR ROTARY PRESS 2	1-0101-PPID-P307-001	P3-X608		1-0101-AILD-P316-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
FE/FIT-P35012	PROCESS DRAIN LIFT STATION MAGNETIC FLOWMETER	1-0101-PPID-P002-001	P3-X607				120 VAC		Contractor	Profibus DP	SIEMENS	3100 PFA + MAG6000
FE/FIT-P35022	PROCESS DRAIN LIFT STATION MAGNETIC FLOWMETER	1-0101-PPID-P002-001	P3-X607				120 VAC		Contractor	Profibus DP	SIEMENS	3100 PFA + MAG6000
DIT-P33130	DENSITY TRANSMITTER BEFORE DEWATERING UNIT 1	1-0101-PPID-P305-001	P3-X605				120 VAC		Contractor	Profibus PA	VALMET	
DIT-P33230	DENSITY TRANSMITTER BEFORE DEWATERING UNIT 2	1-0101-PPID-P306-001	P3-X606				120 VAC		Contractor	Profibus PA	VALMET	
LELIT-P31111	SCUM TANK 1A ULTRASONIC LEVEL SENSOR	1-0101-PPID-P301-001	P3-X601				24 Vdc		Contractor	Profibus DP	SIEMENS	MultiRanger 200 with XPS-15
LELIT-P31121	SCUM TANK 1B ULTRASONIC LEVEL SENSOR	1-0101-PPID-P301-001	P3-X601				24 Vdc		Contractor	Profibus DP	SIEMENS	MultiRanger 200 with XPS-15
LELIT-P32111	SCUM TANK 2 ULTRASONIC LEVEL SENSOR	1-0101-PPID-P303-001	P3-X603				24 Vdc		Contractor	Profibus DP	SIEMENS	MultiRanger 200 with XPS-15
WEW/T-P34131	LOADING BAY LOAD CELL 1	1-0101-PPID-P305-001	P3-X605				24 Vdc		Contractor	Profibus DP		
WEW/T-P34231	LOADING BAY LOAD CELL 3	1-0101-PPID-P306-001	P3-X606				24 Vdc		Contractor	Profibus DP		
PIT-P32111	P-P32110 DISCHARGE PRESSURE SENSOR	1-0101-PPID-P301-001	P3-X601	P1-A401			24 vdc 2 wire loop		Contractor	Profibus PA	SIEMENS SITRANS	DS III with Profibus PA
PIT-P32121	P-P3212 DISCHARGE PRESSURE TRANSMITTER	1-0101-PPID-P302-001	P3-X602	P1-A401			24 vdc 2 wire loop		Contractor	Profibus PA	SIEMENS SITRANS	DS III with Profibus PA
PIT-P32131	P-P3213 DISCHARGE PRESSURE TRANSMITTER	1-0101-PPID-P302-001	P3-X602	P1-A401			24 vdc 2 wire loop		Contractor	Profibus PA	SIEMENS SITRANS	DS III with Profibus PA
PIT-P32211	P-P3221 DISCHARGE PRESSURE TRANSMITTER	1-0101-PPID-P303-001	P3-X603	P1-A403			24 vdc 2 wire loop		Contractor	Profibus PA	SIEMENS SITRANS	DS III with Profibus PA
PIT-P32221	P-P3222 DISCHARGE PRESSURE TRANSMITTER	1-0101-PPID-P304-001	P3-X604	P1-A403			24 vdc 2 wire loop		Contractor	Profibus PA	SIEMENS SITRANS	DS III with Profibus PA
PIT-P32231	P-P3223 DISCHARGE PRESSURE TRANSMITTER	1-0101-PPID-P304-001	P3-X604	P1-A403			24 vdc 2 wire loop		Contractor	Profibus PA	SIEMENS SITRANS	DS III with Profibus PA
LELIT-P35012	PROCESS DRAIN LIFT STATION ULTRASONIC LEVEL SENSOR	1-0101-PPID-P002-001	P3-X607				24 Vdc 2 wire loop		Contractor	Profibus DP	Endress+Hauser	Water Pilot FMX21
PIT-P51114	FOUL AIR FANS INTAKE PRESSURE TRANSMITTER	1-0101-PPID-P501-001	P5-X601				24 vdc 2 wire loop		Contractor	Profibus PA	SIEMENS SITRANS	DS III with Profibus PA
XV-P31101	SCUM TANK 1A 1B SCP VALVE	1-0101-PPID-P301-001	P3-X601				600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
XV-P31113	SCUM TANK 1A VALVE	1-0101-PPID-P301-001	P3-X601	P1-A401			600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
XV-P31123	SCUM TANK 1B VALVE	1-0101-PPID-P301-001	P3-X601	P1-A401			600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
XV-P33111	SCP VALVE	1-0101-PPID-P302-001	P3-X602				600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
XV-P33121	SCP VALVE	1-0101-PPID-P302-001	P3-X602	P3-E103			600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
XV-P33131	PRIMARY SCUM CONTROL VALVE	1-0101-PPID-P302-001	P3-X602				600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
FV-P33121	SCP VALVE	1-0101-PPID-P302-001	P3-X602				600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
FV-P33112	TK-P3311 SCP FLOW CONTROL VALVE	1-0101-PPID-P302-001	P3-X602				600 VAC		Contractor	Profibus DP	ROTORK	IQM Multi turn
FV-P33122	TK-P3321 SCP FLOW CONTROL VALVE	1-0101-PPID-P302-001	P3-X602				600 VAC		Contractor	Profibus DP	ROTORK	IQM Multi turn
XV-P33131	SCUM TANK 1B RETURN VALVE	1-0101-PPID-P302-001	P3-X602				600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
XV-P32222	SCUM TANK 1A RETURN VALVE	1-0101-PPID-P304-001	P3-X604	P1-A403			600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
XV-P32232	SCP VALVE	1-0101-PPID-P304-001	P3-X604	P1-A403			600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
PSL-P01103	P-0110 LOW PRESSURE SWITCH	1-0101-AILD-P001-001	P0-X602		1-0101-AILD-P318-001		24 vdc 2 wire loop		Contractor	Hardwire	ASHCROFT	B-Series
PSL-P01203	P-0120 LOW PRESSURE SWITCH	1-0101-AILD-P001-001	P0-X602		1-0101-AILD-P318-001		24 vdc 2 wire loop		Contractor	Hardwire	ASHCROFT	B-Series
XV-P11110	PRIMARY CLARIFIER 1 VALVE	1-0101-PPID-P102-001	P1-X602	P1-A402			600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
XV-P11210	PRIMARY CLARIFIER 2 VALVE	1-0101-PPID-P102-001	P1-X602	P1-A402			600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
XV-P11310	PRIMARY CLARIFIER 3 VALVE	1-0101-PPID-P102-001	P1-X602	P1-A402			600 VAC		Contractor	Profibus DP	ROTORK	IQT Quarter turn (Open/Close)
ZS-P11111	PRIMARY CLARIFIER 1 LIMIT SWITCH	1-0101-PPID-P102-001	P1-X602		1-0101-AILD-P300-001		24 vdc 2 wire loop		Contractor	Hardwire	ROCKWELL AUTOM	802XR Nema Type 7 and 9
ZS-P11211	PRIMARY CLARIFIER 2 LIMIT SWITCH	1-0101-PPID-P102-001	P1-X602		1-0101-AILD-P300-001		24 vdc 2 wire loop		Contractor	Hardwire	ROCKWELL AUTOM	802XR Nema Type 7 and 9
ZS-P11311	PRIMARY CLARIFIER 3 LIMIT SWITCH	1-0101-PPID-P102-001	P1-X602		1-0101-AILD-P300-001		24 vdc 2 wire loop		Contractor	Hardwire	ROCKWELL AUTOM	802XR Nema Type 7 and 9
XV-P33112	FLUSH WATER FROM DISTRIBUTION	1-0101-PPID-P305-001	P3-X605				120 VAC		Contractor	Profibus DP	ROTORK	ROMPak Open/Close
XV-P33222	FLUSH WATER FROM DISTRIBUTION	1-0101-PPID-P306-001	P3-X606				120 VAC		Contractor	Profibus DP	ROTORK	ROMPak Open/Close
LSHH-P35003	PROCESS DRAIN LIFT STATION HIGH LEVEL SWITCH	1-0101-PPID-P002-001	P3-X607		1-0101-AILD-P317-001		24 vdc 2 wire loop		Contractor	Hardwire	FLYGT	ENM-10
XV-P34144	W2 FROM DISTRIBUTION	1-0101-PPID-P307-001	P3-X608		1-0101-AILD-P319-001		120 VAC		Contractor	Hardwire	ROTORK	ROMPak Open/Close
FAD-P78501	FAN ROOM SMOKE DETECTOR				1-0101-AILD-P905-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78502	BASEMENT SMOKE DETECTOR				1-0101-AILD-P905-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78503	ELECTRICAL ROOM SMOKE DETECTOR				1-0101-AILD-P905-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78551	ELECTRICAL ROOM HEAT DETECTOR				1-0101-AILD-P906-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78504	LOADING BAY SMOKE DETECTOR A				1-0101-AILD-P906-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78505	LOADING BAY SMOKE DETECTOR B				1-0101-AILD-P906-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78506	LOADING BAY SMOKE DETECTOR C				1-0101-AILD-P907-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78507	LOADING BAY SMOKE DETECTOR D				1-0101-AILD-P907-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78508	MECHANICAL ROOM SMOKE DETECTOR				1-0101-AILD-P907-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78509	STAIR 2-202 SMOKE DETECTOR				1-0101-AILD-P908-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78510	DEWATERING UNIT 1 SMOKE DETECTOR				1-0101-AILD-P908-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
FAD-P78511	DEWATERING UNIT 2 SMOKE DETECTOR				1-0101-AILD-P908-001		120 VAC		Contractor	Hardwire	AMERICAN SENSORS	ESA5011
GDC-P69010	GAS DETECTOR CONTROLLER	1-0101-MPID-P603-001	P6-X605		1-0101-AILD-P601-001		120 VAC		Contractor	Hardwire	ULTIMA XE	GASGARD XL821C
AIT-P69011	H2S GAS DETECTOR FANS ROOM	1-0101-MPID-P603-001	P6-X605		1-0101-AILD-P602-001		2 wire loop from GDC		Contractor	Hardwire	ULTIMA XE	H2S DETECTOR
AIT-P69012	H2S GAS DETECTOR EAST LOADING BAY	1-0101-MPID-P603-001	P6-X605		1-0101-AILD-P602-001		2 wire loop from GDC		Contractor	Hardwire	ULTIMA XE	H2S DETECTOR
AIT-P69013	H2S GAS DETECTOR WEST LOADING BAY	1-0101-MPID-P603-001	P6-X605		1-0101-AILD-P603-001		2 wire loop from GDC		Contractor	Hardwire	ULTIMA XE	H2S DETECTOR
AIT-P69014	LEL GAS DETECTOR LOADING BAY	1-0101-MPID-P603-001	P6-X605		1-0101-AILD-P603-001		2 wire loop from GDC		Contractor	Hardwire	ULTIMA XE	LEL DETECTOR

INSTRUMENT LIST

Tag	Description	P&ID City #	P&ID Consult. #	Plan Drawing	Segment/Schem./ Loop Drawing	Datasheet	Installation Detail	Mounting	Supplied By	Notes	Manufacturer	Model
AIT-P69015	CO GAS DETECTOR LOADING BAY	1-0101-MPID-P603-001	P6-X605		1-0101-AILD-P604-001		2 wire loop from GDC		Contractor	Hardwire	ULTIMA XE	CO DETECTOR
AIT-P69016	H2S GAS DETECTOR SECOND LEVEL	1-0101-MPID-P603-001	P6-X605		1-0101-AILD-P604-001		2 wire loop from GDC		Contractor	Hardwire	ULTIMA XE	H2S DETECTOR
TT-P67000	OUTDOOR TEMPERATURE	1-0101-MPID-P601-001	P3-M501		1-0101-AILD-P625-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	
LSL-P66911	FDR-P6691 LEVEL SWITCH LOW	1-0101-MPID-P601-001	P3-M501		1-0101-AILD-P624-001		24 vdc 2 wire loop		Contractor	hardwire	FLYGT	ENM-10
PIT-P66004	HV-P6630-B PRESSURE SENSOR	1-0101-MPID-P601-001	P3-M501		1-0101-AILD-P625-001		24 vdc 2 wire loop		Contractor	hardwire	SIEMENS	SITRANS P320
TT-P66005	HV-P6630-B TEMPERATURE SENSOR	1-0101-MPID-P601-001	P3-M501		1-0101-AILD-P625-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
TT-P66001	HYDRONIC HWS FROM PRIMARIES TEMP SENSOR	1-0101-MPID-P601-001	P3-M501		1-0101-AILD-P625-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
TV-P66002	HYDRONIC HWS FROM PRIMARIES MOD VALVE	1-0101-MPID-P601-001	P3-M501		1-0101-AILD-P626-001		24 vdc 2 wire loop		Contractor	Hardwire	SCHISCHEK	MODULATING ACTUATOR
TT-P66003	HOT WATER CIRCULATION PUMP TEMP SENSOR	1-0101-MPID-P601-001	P3-M501		1-0101-AILD-P625-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
TSL-P66512	FAN ROOM B-003 UH-P6651 TEMP SWITCH LOW	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P627-001		24 vdc 2 wire loop		Contractor	hardwire	DEFENDER	RUFFNECK
UH-P6651	FAN ROOM B-003 UNIT HEATER P6651	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P627-001				Contractor	hardwire		
TT-P66513	FAN ROOM B-003 TEMP SENSOR	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P627-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
XV-P66511	FAN ROOM B-003 UH-P6651 ON/OFF VALVE	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P627-002				Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66522	FAN ROOM B-003 UH-P6652 TEMP SWITCH LOW	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P627-003		24 vdc 2 wire loop		Contractor	Hardwire	DEFENDER	RUFFNECK
UH-P6652	FAN ROOM B-003 UNIT HEATER P6652	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P627-003				Contractor	Hardwire		
XV-P66521	FAN ROOM B-003 UH-P6652 ON/OFF VALVE	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P627-004				Contractor	hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66702	STAIRS B-001 HTR-P6670 TEMP SWITCH LOW	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P628-001		24 vdc 2 wire loop		Contractor	hardwire	DEFENDER	RUFFNECK
HTR-P6670	STAIRS B-001 HEATER P6670	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P628-001				Contractor	Hardwire		
XV-P66701	STAIRS B-001 HTR-P6670 ON/OFF VALVE	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P628-002				Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66502	B-002 UH-P6650 TEMP SWITCH LOW	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P629-001		24 vdc 2 wire loop		Contractor	Hardwire	DEFENDER	RUFFNECK
UH-P6650	B-002 UNIT HEATER P6650	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P629-001				Contractor	Hardwire		
TT-P66503	B-002 TEMP SENSOR	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P629-001		24 vdc 2 wire loop		Contractor	hardwire	SIEMENS	TH300 PUCK
XV-P66501	B-002 UH-P6651 ON/OFF VALVE	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P629-002				Contractor	hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66532	POLYMER ROOM M-103 UH-P6653 TEMP SWITCH LOW	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P630-001		24 vdc 2 wire loop		Contractor	Hardwire	DEFENDER	RUFFNECK
UH-P6653	POLYMER ROOM M-103 UNIT HEATER P6653	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P630-001				Contractor	Hardwire		
TT-P66533	POLYMER ROOM M-103 TEMP SENSOR	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P630-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
XV-P66531	POLYMER ROOM M-103 UH-P6653 ON/OFF VALVE	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P630-002				Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
UH-P6654	POLYMER ROOM M-103 UNIT HEATER P6654	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P630-003				Contractor	hardwire		
TSL-P66542	POLYMER ROOM M-103 TEMP SENSOR	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P630-003		24 vdc 2 wire loop		Contractor	hardwire	DEFENDER	RUFFNECK
XV-P66541	POLYMER ROOM M-103 UH-P6654 ON/OFF VALVE	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P630-004				Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66732	STAIRS M-104 HTR-P6673 TEMP SWITCH LOW	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P631-001		24 vdc 2 wire loop		Contractor	Hardwire	DEFENDER	RUFFNECK
HTR-P6673	STAIRS M-104 HEATER P6673	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P631-001				Contractor	Hardwire		
XV-P66731	STAIRS M-104 HTR-P6673 ON/OFF VALVE	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P631-002				Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66712	STAIRS M-101 HTR-P6671 TEMP SWITCH LOW	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P632-001		24 vdc 2 wire loop		Contractor	hardwire	DEFENDER	RUFFNECK
HTR-P6671	STAIRS M-101 HEATER P6671	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P632-001				Contractor	hardwire		
XV-P66711	STAIRS M-101 HTR-P6673 ON/OFF VALVE	1-0101-MPID-P601-002	P3-M502		1-0101-AILD-P632-002				Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66722	STAIR 2-201 HTR-P6672 TEMP SWITCH LOW	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P633-001		24 vdc 2 wire loop		Contractor	Hardwire	DEFENDER	RUFFNECK
HTR-P6672	STAIR 2-201 UNIT HEATER P6672	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P633-001				Contractor	Hardwire		
TT-P66723	STAIR 2-201 TEMP SENSOR	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P633-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
XV-P66721	STAIR 2-201 UH-P6653 ON/OFF VALVE	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P633-002				Contractor	hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66552	LOADING BAY M-100 UH-P6655 TEMP SWITCH LOW	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P634-001		24 vdc 2 wire loop		Contractor	hardwire	DEFENDER	RUFFNECK
UH-P6655	LOADING BAY M-100 UNIT HEATER P6655	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P634-001				Contractor	Hardwire		
TT-P66553	LOADING BAY M-100 TEMP SENSOR	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P634-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
XV-P66551	LOADING BAY M-100 UH-P6651 ON/OFF VALVE	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P634-002				Contractor	hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66562	LOADING BAY M-100 UH-P6656 TEMP SWITCH LOW	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P634-003		24 vdc 2 wire loop		Contractor	hardwire	DEFENDER	RUFFNECK
UH-P6656	LOADING BAY M-100 UNIT HEATER P6656	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P634-003				Contractor	Hardwire		
XV-P66561	LOADING BAY M-100 UH-P6656 ON/OFF VALVE	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P634-004				Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66742	STAIR 2-203 UH-P6674 TEMP SWITCH LOW	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P635-001		24 vdc 2 wire loop		Contractor	Hardwire	DEFENDER	RUFFNECK
HTR-P6674	STAIR 2-203 UNIT HEATER P6674	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P635-001				Contractor	Hardwire		
TT-P66743	STAIR 2-203 TEMP SENSOR	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P635-001		24 vdc 2 wire loop		Contractor	hardwire	SIEMENS	TH300 PUCK
XV-P66741	STAIR 2-203 HTR-P6674 ON/OFF VALVE	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P635-002				Contractor	hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66572	DEWATERING 2-200 UH-P6657 TEMP SWITCH LOW	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P636-001		24 vdc 2 wire loop		Contractor	Hardwire	DEFENDER	RUFFNECK
UH-P6657	DEWATERING 2-200 UNIT HEATER P6657	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P636-001				Contractor	Hardwire		
TT-P66572	DEWATERING 2-200 TEMP SENSOR	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P636-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
XV-P66571	DEWATERING 2-200 UH-P6657 ON/OFF VALVE	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P636-002				Contractor	hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66582	DEWATERING 2-200 UH-P6658 TEMP SWITCH LOW	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P636-003		24 vdc 2 wire loop		Contractor	hardwire	DEFENDER	RUFFNECK
UH-P6658	DEWATERING 2-200 UNIT HEATER P6658	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P636-003				Contractor	hardwire		
XV-P66581	DEWATERING 2-200 UH-P6658 ON/OFF VALVE	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P636-004				Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
TSL-P66592	MECH ROOM 2-202 UH-P6659 TEMP SWITCH LOW	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P637-001		24 vdc 2 wire loop		Contractor	Hardwire	DEFENDER	RUFFNECK
UH-P6659	MECH ROOM 2-202 UNIT HEATER P6659	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P637-001				Contractor	Hardwire		
TT-P66593	MECH ROOM 2-202 TEMP SENSOR	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P637-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
XV-P66591	MECH ROOM 2-202 UH-P6659 ON/OFF VALVE	1-0101-MPID-P601-003	P3-M503		1-0101-AILD-P637-002				Contractor	hardwire	SCHISCHEK	ON/OFF ACTUATOR
FSL-P51201	EEWS FLOW SWITCH LOW	1-0101-MPID-P602-001	P3-X609		1-0101-AILD-P320-001		24 vdc 2 wire loop		Contractor	hardwire	HAWES	9001
FSL-P51101	EEW FLOW SWITCH LOW	1-0101-MPID-P602-001	P3-X609		1-0101-AILD-P320-001		24 vdc 2 wire loop		Contractor	Hardwire	HAWES	9001
LSH-P52001	SCALE PIT SUMP LOW SWITCH LEVEL	1-0101-MPID-P602-001	P3-X609		1-0101-AILD-P321-001		24 vdc 2 wire loop		Contractor	Hardwire	FLYGT	ENM-10
XV-P61001	SF-P6101 ON/OFF VALVE		P6-X601		1-0101-AILD-P607-001		120 VAC		Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
XV-P61002	EF-P6102 ON/OFF VALVE		P6-X601		1-0101-AILD-P608-001		120 VAC		Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
FIT-P61004	SF-P6101 FLOW METER		P6-X601		1-0101-AILD-P609-001		120 VAC		Contractor	hardwire	PROLINE T-MASS	65F
TT-P61005	SF-P6101 TEMPERATURE SENSOR		P6-X601		1-0101-AILD-P609-001		24 vdc 2 wire loop		Contractor	hardwire	SIEMENS	TH300 PUCK
DPT-P61007	LOAD BAY - OUTSIDE AIR DIFF PRESSURE TRANSMITTER		P6-X601		1-0101-AILD-P609-001		24 vdc 2 wire loop		Contractor	Hardwire		
TV-P61006	AHU-P6100 GLYCOL FLOW MODULATING VALVE		P6-X601		1-0101-AILD-P610-001		120 VAC		Contractor	Hardwire	SCHISCHEK	MODULATING ACTUATOR
XV-P62001	SF-P6201 ON/OFF VALVE		P6-X602		1-0101-AILD-P612-001		120 VAC		Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
XV-P62002	EF-P6202 ON/OFF VALVE		P6-X602		1-0101-AILD-P613-001		120 VAC		Contractor	Hardwire	SCHISCHEK	ON/OFF ACTUATOR
TV-P62004	AHU-P6200 GLYCOL TEMPERATURE MODULATING VALVE		P6-X602		1-0101-AILD-P614-001		120 VAC		Contractor	hardwire	SCHISCHEK	MODULATING ACTUATOR
TT-P63005	SF-P6300 TEMPERATURE TRANSMITTER		P6-X603		1-0101-AILD-P616-001		24 vdc 2 wire loop		Contractor	hardwire	SIEMENS	TH300 PUCK
TV-P63004	AHU-P6300 GLYCOL TEMPERATURE MODULATING VALVE		P6-X603		1-0101-AILD-P617-001		120 VAC		Contractor	Hardwire	SCHISCHEK	MODULATING ACTUATOR

INSTRUMENT LIST

Tag	Description	P&ID City #	P&ID Consult. #	Plan Drawing	Segment/Schem./ Loop Drawing	Datasheet	Installation Detail	Mounting	Supplied By	Notes	Manufacturer	Model
DPT-P64007	ELEC ROOM - OUTSIDE AIR DIFF PRESSURE TRANSMITTER		P6-X604		1-0101-AILD-P619-001		24 vdc 2 wire loop		Contractor	Hardwire		
TV-P64006	AHU-P6400 GLYCOL TEMPERATURE MODULATING VALVE		P6-X604		1-0101-AILD-P619-001		120 VAC		Contractor	Hardwire	SCHISCHEK	MODULATING ACTUATOR
TT-P64005	SF-P6400 TEMPERATURE TRANSMITTER		P6-X604		1-0101-AILD-P619-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
TT-P64009	ELECT ROOM TEMP SENSOR		P6-X604		1-0101-AILD-P619-001		24 vdc 2 wire loop		Contractor	Hardwire	SIEMENS	TH300 PUCK
PV-P64008	ELECT ROOM PRESSURE VALVE		P6-X604		1-0101-AILD-P621-001		24 vdc 2 wire loop		Contractor	hardwire	SCHISCHEK	MODULATING ACTUATOR
ZSC-P91010	XD-94134 LOADING BAY SOUTH OVERHEAD DOOR CLOSED	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P901-001		24 vdc 2 wire loop		Contractor	hardwire		
ZSC-P91020	XD-94234 LOADING BAY SOUTH OVERHEAD DOOR CLOSED	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P901-001		24 vdc 2 wire loop		Contractor	hardwire		
ZSC-P91030	M-103 POLYMER ROOM WEST OVERHEAD DOOR CLOSED	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P901-001		24 vdc 2 wire loop		Contractor	hardwire		
ZSC-P92010	M-100 LOADING BAY SOUTH MAN DOOR CLOSED	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P901-001		24 vdc 2 wire loop		Contractor	hardwire		
ZSC-P92020	M-101 LOADING BAY DEWAT WEST STAIRWELL DOOR 1 CLOSED	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P902-001		24 vdc 2 wire loop		Contractor	hardwire		
ZSC-P92030	M-103 POLMER ROOM WEST DOOR CLOSED	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P902-001		24 vdc 2 wire loop		Contractor	hardwire		
ZSC-P92040	M-100 LOADING BAY EAST DOOR CLOSED	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P902-001		24 vdc 2 wire loop		Contractor	hardwire		
ZSC-P92050	M-104 DEWATERING EAST STAIRWELL DOOR 2 CLOSED	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P902-001		24 vdc 2 wire loop		Contractor	hardwire		
WS-P95201	SECOND LEVEL FLOCULATOR OCCUPANCY MOTION DETECTOR	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P903-001		24 vdc 2 wire loop		Contractor	hardwire		
WS-P95202	SECOND LEVEL ROTARY PRESSES OCCUPANCY MOTION DETECT	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P903-001		24 vdc 2 wire loop		Contractor	hardwire		
ZSC-P95006	SECOND LEVEL WEST STAIRS DOOR OCCUPANCY SWITCH	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P903-001		24 vdc 2 wire loop		Contractor	hardwire		
ZSC-P95007	SECOND LEVEL EAST STAIRS DOOR OCCUPANCY SWITCH	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P903-001		24 vdc 2 wire loop		Contractor	hardwire		
TC-71100	HEAT TRACE	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P638-001		24 vdc 2 wire loop		Contractor	hardwire		
TC-71100	HEAT TRACE	1-0101-MPID-P901-001	P9-X601		1-0101-AILD-P638-001		24 vdc 2 wire loop		Contractor	hardwire		
XV-P64002	AIR FLOW RELIEF DAMPER	1-0101-MPFD-P601-001	P3-M601		1-0101-AILD-P639-001		120 VAC		Contractor	hardwire		
PS-P01101	AIR RECEIVER PRESSURE SWITCH	1-0101-PPID-P001-001	P0-X602									
PG-P01102	AIR RECEIVER PRESSURE GAUGE	1-0101-PPID-P001-001	P0-X602									
PG-P01111	AD-P01111 OUTLET PRESSURE	1-0101-PPID-P001-001	P0-X602									
PG-P01121	RP-P3312 IAS PRESSURE GAUGE	1-0101-PPID-P001-001	P0-X602									
PS-P01201	AIR RECEIVER PRESSURE SWITCH	1-0101-PPID-P001-001	P0-X602									
PG-P01202	AIR RECEIVER PRESSURE GAUGE	1-0101-PPID-P001-001	P0-X602									
PG-P01211	AD-P0121 OUTLET PRESSURE	1-0101-PPID-P001-001	P0-X602									
PG-P01221	RP-P3322 IAS PRESSURE GAUGE	1-0101-PPID-P001-001	P0-X602									
PG-P01321	LCP-P3400 IAS PRESSURE GAUGE	1-0101-PPID-P001-001	P0-X602									
PG-P35011	P-P3501 DISCHARGE PRESSURE GAUGE	1-0101-PPID-P002-001	P3-X607									
PG-P35021	P-P3502 DISCHARGE PRESSURE GAUGE	1-0101-PPID-P002-001	P3-X607									
TG-P66001	HVAC HOT WATER FROM APC TEMPERATURE GAUGE	1-0101-MPID-P601-001	P3-M501									
TG-P66003	HOT WATER CIRCULATION PUMP TEMPERATURE GAUGE	1-0101-MPID-P601-001	P3-M501									
PG-P66912	FDR-P6691 PRESSURE GAUGE	1-0101-MPID-P601-001	P3-M501									
PG-P66101	P-P6610 HOT WATER CIRC. PUMP PRESSURE GAUGE	1-0101-MPID-P601-001	P3-M501									
PG-P66201	P-P6620 HOT WATER CIRC. PUMP PRESSURE GAUGE	1-0101-MPID-P601-001	P3-M501									
PG-P66301	P-P6630 GLYCOL CIRC. PUMP PRESSURE GAUGE	1-0101-MPID-P601-001	P3-M501									
PG-P66401	P-P6640 GLYCOL CIRC. PUMP PRESSURE GAUGE	1-0101-MPID-P601-001	P3-M501									
TG-P66005	GLYCOL CIRC. OUT TEMPERATURE GAUGE	1-0101-MPID-P601-001	P3-M501									
PG-P51001	TK-P5100 DOMESTIC HOT WATER INLET PRESSURE GAUGE	1-0101-MPID-P602-001	P3-X609									
TG-P51002	TK-P5100 DOMESTIC HOT WATER INLET TEMPERATURE GAUGE	1-0101-MPID-P602-001	P3-X609									
PG-P51002	TK-P5100 DOMESTIC HOT WATER OUTLET PRESSURE GAUGE	1-0101-MPID-P602-001	P3-X609									