

City of Winnipeg
Upgrades to the McPhillips and Tache
Pumping Stations
Tender Opportunity 1070-2019

APPENDIX C

Major Equipment List – Contractor Supplied and Installed

McPhillips Station

Equipment Tag	Description	Training Required	Lamacoid	Shop Drawing Required	Drawing Number
Collection Building "B"					
CB-PNL-B10	250A 2P Circuit Breaker (located in existing panel PNL-B10)	No	Yes	Yes	1-0640B-E0001-001
DP-B701	600V Distribution Panel DP-B701	No	Yes	Yes	1-0640B-E0001-001
HMI-G767	Human Machine Interface HMI-G767	Yes	Yes	Yes	1-0640B-E0013-001
MCC-G766	Motor Control Center MCC-G767	Yes	Yes	Yes	1-0640B-E0006-001
CB-G767	125A 3P Circuit Breaker	No	Yes	Yes	1-0640B-E0007-001
LDB-G767	100kW Load Bank	Yes	Yes	Yes	1-0640B-E0007-001 1-0640B-E0013-001
AAH-G6901	Horn/Strobe AAH-G6901	No	Yes	Yes	1-0640B-A0002-001
AE-G6901	Methane LEL Detector AE-G6901	No	Yes	Yes	1-0640B-A0002-001
AIT-G6901	Methane LEL Detector Controller AIT-G6901	Yes	Yes	Yes	1-0640B-A0002-001
ESL-G7661	MCC-G766 Voltage Present (Located Inside MCC-G766)	No	Yes	Yes	1-0640B-A0001-001
Chlorine Building "C"					
MCC-C710	Non-Essential Motor Control Centre 600V, 3φ, 3W, 600A	Yes	Yes	Yes	1-0640C-E0003-001 1-0640C-E0004-001
MCC-C720E	Essential Motor Control Centre 600V, 3φ, 3W, 600A	Yes	Yes	Yes	1-0640C-E0003-001 1-0640C-E0004-001
XFMR-C711	600-208/120V 30kVA Transformer	No	Yes	Yes	1-0640C-E0003-001
XFMR-C731E	600-208/120V 15kVA Transformer	No	Yes	Yes	1-0640C-E0003-001
PNL-C711	120/208 3φ, 4W 225A 30CCT Panel	No	Yes	Yes	1-0640C-E0003-001
PNL-C731E	120/208 3φ, 4W 225A 30CCT Panel	No	Yes	Yes	1-0640C-E0003-001
FAS-C-A01	30cd Fire Alarm System Strobe A01, Chlorine Building, Gallery	Yes	Yes	Yes	1-0640M-E0056-001
FAS-C-A02	15cd Fire Alarm System Strobe A02, Chlorine Building, Stairwell	Yes	Yes	Yes	1-0640M-E0056-001
FAS-C-A03	15cd Fire Alarm System Horn/Strobe A03, Chlorine Building	Yes	Yes	Yes	1-0640M-E0056-001
FAS-C-A04	15cd Fire Alarm System Strobe A04, Chlorine Building	Yes	Yes	Yes	1-0640M-E0056-001
FAS-C-A05	15cd Fire Alarm System Strobe A05, Chlorine Building	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-D01	Fire Alarm System Smoke Detector D01, Chlorine Building, Gallery/Electrical Rm	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-D02	Fire Alarm System Smoke Detector D02, Chlorine Building, Stairwell	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-D03	Fire Alarm System Heat Detector D03, Chlorine Building	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-D04	Fire Alarm System Heat Detector D04, Chlorine Building	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-D05	Fire Alarm System Heat Detector D05, Chlorine Building	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-P01	Fire Alarm System Pull Station P01, Chlorine Building, Gallery /Electrical Room	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-P02	Fire Alarm System Pull Station P02, Chlorine Building	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-P03	Fire Alarm System Pull Station P03, Chlorine Building	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-E01	Fire Alarm System End of Line Resistor E01, Chlorine Building	Yes	Yes	Yes	1-0640M-E0056-001
FAS-C-E02	Fire Alarm System End of Line Resistor E01, Chlorine Building	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-E03	Fire Alarm System End of Line Resistor E01, Chlorine Building	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-M01	Fire Alarm System Input Module, Chlorine Building	Yes	Yes	Yes	1-0640M-E0055-001
FAS-C-M02	Fire Alarm System Input Module, Chlorine Building	Yes	Yes	Yes	1-0640M-E0055-001
ESL-C7201	MCC-C720E Voltage Present (Located Inside MCC-C720E)	No	Yes	Yes	1-0640C-A0001-001
ESL-C7101	MCC-C710 Voltage Present (Located Inside MCC-C710)	No	Yes	Yes	1-0640C-A0002-001
Main Pumping Station "M"					
FDS-M720.FU	Fuse Disconnect 100A E-Rated Fuses	No	Yes	Yes	1-0640M-E0032-001
PM-M1	Switchgear M1 Power Meter, ION9000	Yes	Yes	Yes	1-0640M-E0002-001
XFMR-M710	4160-600V 500kVA, ~5.0%Z Transformer	No	Yes	Yes	1-0640M-E0002-001
XFMR-M720	4160-600V 500kVA, ~5.0%Z Transformer	No	Yes	Yes	1-0640M-E0032-001
MCC-M710	600V Motor Control Centre, 600A, 3φ, 3W	Yes	Yes	Yes	1-0640M-E0032-001 1-0640M-E0033-001
MCC-M720	600V Motor Control Centre, 600A, 3φ, 3W	Yes	Yes	Yes	1-0640M-E0034-001 1-0640M-E0035-001
XFMR-M640	600/480V, 300kVA 3φ, 3W Transformer	No	Yes	Yes	1-0640M-E0032-001
DP-M640	480V, 600A, 3φ, 4W Distribution Panel	No	Yes	Yes	1-0640M-E0032-001
DS-M640-1	Chiller CHLR-M640 250A Disconnect Switch	No	Yes	Yes	1-0640M-E0032-001
DS-M640-2	Condenser CDR-M640 60A Disconnect Switch	No	Yes	Yes	1-0640M-E0032-001
DS-FN1	Supply Fan FN1 Disconnect Switch	No	Yes	Yes	1-0640M-E0036-001
DS-FN2	Supply Fan FN2 Disconnect Switch	No	Yes	Yes	1-0640M-E0036-001
DS-FN3	Supply Fan FN3 Disconnect Switch	No	Yes	Yes	1-0640M-E0032-001
DS-M641	Chilled Water Pump P-M641 30A Disconnect Switch	No	Yes	Yes	1-0640M-E0032-001
DS-M642	Chilled Water Pump P-M642 30A Disconnect Switch	No	Yes	Yes	1-0640M-E0032-001
DS-CRANE	Crane 60A Disconnect Switch	No	Yes	Yes	1-0640M-E0032-001
DS-SP1	Sump Pump SP1 30A Disconnect Switch	No	Yes	Yes	1-0640M-E0036-001
DS-SP2	Sump Pump SP2 30A Disconnect Switch	No	Yes	Yes	1-0640M-E0036-001
DS-AC1	Instrument Air Compressor AC1 30A Disconnect Switch	No	Yes	Yes	1-0640M-E0036-001
DS-AC2	Instrument Air Compressor AC2 30A Disconnect Switch	No	Yes	Yes	1-0640M-E0036-001
CHLR-M640	460V, Main Pumphouse Chiller	Yes	Yes	Yes	1-0640M-A0083-001 1-0640M-E0032-001
CDR-M640	460V, Condenser Unit	Yes	Yes	Yes	1-0640M-E0032-001
LP-A	120/208, 3φ, 4W, 225A, 42CCT, Local Panel LP-A (just the interior is being replaced)	No	Yes	Yes	1-0640M-E0032-001
LP-B	120/208, 3φ, 4W, 150A, 30CCT, Local Panel LP-B (just the interior is being replaced)	No	Yes	Yes	1-0640M-E0036-001
PFC-M713	200kVAR Power Factor Corrector PFC-M713	Yes	Yes	Yes	1-0640M-E0032-001
MCC-M730E	600V Motor Control Centre, 600A, 3φ, 3W	Yes	Yes	Yes	1-0640M-E0036-001 1-0640M-E0037-001
PNL-M732E	120/208V, 225A, 3φ, 4W, 42CCT Panel PNL-M732	No	Yes	Yes	1-0640M-E0036-001
XFMR-M731E	600-208/120V, 30kVA Transformer	No	Yes	Yes	1-0640M-E0036-001
XFMR-M732E	600-208/120V, 15kVA Transformer	No	Yes	Yes	1-0640M-E0036-001
XFMR-M721	600-208/120V, 45kVA Transformer	No	Yes	Yes	1-0640M-E0034-001
PNL-M721	120/208V, 3φ, 4W, 225A, 42CCT, Panel PNL-M721	No	Yes	Yes	1-0640M-E0034-001
HCE-M601	150kW, 600V, Duct Heater Heating Coil Element	No	Yes	Yes	1-0640M-E0034-001
P-M641	11.2kW (15HP), 1770 RPM, Chilled Water Pump	No	Yes	Yes	1-0640M-E0032-001 1-0640M-E0077-001
P-M642	11.2kW (15HP), 1770 RPM, Chilled Water Pump	No	Yes	Yes	1-0640M-E0032-001 1-0640M-E0078-001
RCPT-M720-1	Welding Receptacle	No	Yes	Yes	1-0640M-E0034-001
LCP-M500	Air Compressor AC2 Local Control Panel LCP-M500	No	Yes	Yes	1-0640M-A0035-001
LCP-M540	Sump Pump SP1 & SP2 Local Control Panel LCP-M540	No	Yes	Yes	1-0640M-A0036-011
FACP-M922	Fire Alarm Control Panel FACP-M922 c/w Remote Annunciator and Expander	Yes	Yes	Yes	1-0640M-A0082-001
FAS-M-A01	75cd Fire Alarm System Strobe A01, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A02	75cd Fire Alarm System Horn/Strobe A02, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A03	15cd Fire Alarm System Strobe A03, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A04	15cd Fire Alarm System Strobe A04, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A05	15cd Fire Alarm System Strobe A05, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A06	30cd Fire Alarm System Strobe A06, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001

FAS-M-A07	15cd Fire Alarm System Strobe A07, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A08	15cd Fire Alarm System Strobe A08, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A09	15cd Fire Alarm System Strobe A09, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A10	75cd Fire Alarm System Horn/Strobe A10, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A11	75cd Fire Alarm System Strobe A11, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A12	75cd Fire Alarm System Strobe A12, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A13	75cd Fire Alarm System Strobe A13, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A14	75cd Fire Alarm System Strobe A14, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A15	15cd Fire Alarm System Horn/Strobe A15, Main Pumphouse, Service Tunnel	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-A16	15cd Fire Alarm System Strobe A16, Main Pumphouse, Service Tunnel	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-C01	Fire Alarm System Control Relay Module C01, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-C02	Fire Alarm System Control Relay Module C02, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-C03	Fire Alarm System Control Relay Module C03, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D01	Fire Alarm System Smoke Detector D01, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D02	Fire Alarm System Smoke Detector D02, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D03	Fire Alarm System Smoke Detector D03, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D04	Fire Alarm System Smoke Detector D04, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D05	Fire Alarm System Smoke Detector D05, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D06	Fire Alarm System Smoke Detector D06, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D07	Fire Alarm System Smoke Detector D07, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D08	Fire Alarm System Smoke Detector D08, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D09	Fire Alarm System Smoke Detector D09, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D10	Fire Alarm System Smoke Detector D10, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D11	Fire Alarm System Smoke Detector D11, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D12	Fire Alarm System Smoke Detector D12, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D13	Fire Alarm System Smoke Detector D13, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D14	Fire Alarm System Heat Detector D14, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D15	Fire Alarm System Heat Detector D15, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D16	Fire Alarm System Fixed Temperature Heat Detector D16, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D17	Fire Alarm System Fixed Temperature Heat Detector D17, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D18	Fire Alarm System Smoke Detector D18, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D19	Fire Alarm System Smoke Detector D19, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D20	Fire Alarm System Smoke Detector D20, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D21	Fire Alarm System Smoke Detector D21, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D22	Fire Alarm System Heat Detector D22, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D23	Fire Alarm System Smoke Detector D23, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D24	Fire Alarm System Smoke Detector D24, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D25	Fire Alarm System Smoke Detector D25, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-D26	Fire Alarm System Duct Smoke Detector D26, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-E01	Fire Alarm System End of Line Resistor E01, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-E02	Fire Alarm System End of Line Resistor E02, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-E03	Fire Alarm System End of Line Resistor E03, Main Pumphouse, Service Tunnel	Yes	Yes	Yes	1-0640M-E0056-001
FAS-M-E04	Fire Alarm System End of Line Resistor E04, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-E05	Fire Alarm System End of Line Resistor E04, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-P01	Fire Alarm System Pull Station P01, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-P02	Fire Alarm System Pull Station P02, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-P03	Fire Alarm System Pull Station P03, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-P04	Fire Alarm System Pull Station P04, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-P05	Fire Alarm System Pull Station P05, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-P06	Fire Alarm System Pull Station P06, Main Pumphouse	Yes	Yes	Yes	1-0640M-E0055-001
FAS-M-P07	Fire Alarm System Pull Station P07, Service Tunnel	Yes	Yes	Yes	1-0640M-E0055-001
CP-M826	Control Panel CP-M826	Yes	Yes	Yes	1-0640M-A0050-001 & 002
XV-M6111	Supply Fan FN1 Inlet Damper Actuator	No	Yes	Yes	1-0640M-E0074-001 & 002
XV-M6121	Supply Fan FN2 Inlet Damper Actuator	No	Yes	Yes	1-0640M-E0075-001 & 002
XV-M6131	Supply Fan FN3 Inlet Damper Actuator	No	Yes	Yes	1-0640M-E0076-001 & 002
XV-M6144	Outdoor Intake Air Damper Actuator	No	Yes	Yes	1-0640M-A0062-001
JBA-M6111	Supply Fan FN1 Damper XV-M6111 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6121	Supply Fan FN2 Damper XV-M6121 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6131	Supply Fan FN3 Damper XV-M6131 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6145-1	Outdoor Air Flow Damper FV-6145-1 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6145-2	Outdoor Air Flow Damper FV-6145-2 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6145-3	Outdoor Air Flow Damper FV-6145-3 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6145-4	Outdoor Air Flow Damper FV-6145-4 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6416-1	Return Air Flow Damper FV-6146-1 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6416-2	Return Air Flow Damper FV-6146-2 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6147	Station Relief Damper FV-6147 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6148	Station Relief Damper FV-6148 Junction Box	No	Yes	Yes	1-0640M-A0037-001
JBA-M6144	Junction Box JBA-M6144	No	Yes	Yes	1-0640M-A0038-001
FV-M6145-1	Outdoor Air Flow Damper Actuator	No	Yes	Yes	1-0640M-A0063-001
FV-M6145-2	Outdoor Air Flow Damper Actuator	No	Yes	Yes	1-0640M-A0063-002
FV-M6145-3	Outdoor Air Flow Damper Actuator	No	Yes	Yes	1-0640M-A0063-002
FV-M6145-4	Outdoor Air Flow Damper Actuator	No	Yes	Yes	1-0640M-A0063-002
FV-M6146-1	Return Air Flow Damper Actuator	No	Yes	Yes	1-0640M-A0067-001
FV-M6146-2	Return Air Flow Damper Actuator	No	Yes	Yes	1-0640M-A0067-002
FV-M6147	Station Relief Air Flow Damper Actuator	No	Yes	Yes	1-0640M-A0065-001
FV-M6148	Station Relief Air Flow Damper Actuator	No	Yes	Yes	1-0640M-A0066-001
TT-M6041	Outside Air Temperature Transmitter	No	Yes	Yes	1-0640M-A0060-001
TT-M6011	Supply Fan Temperature Transmitter	No	Yes	Yes	1-0640M-A0064-001
TT-M6301	Electrical Room Temperature Transmitter	No	Yes	Yes	1-0640M-A0060-001
TT-M6042	Inlet Air Temperature Transmitter	No	Yes	Yes	1-0640M-A0060-001
TSL-M6043	Mix Air (Freezestat) Temperature Switch	No	Yes	Yes	1-0640M-A0069-001
FSL-M6112	Supply Fan FN1 Air Flow Switch	No	Yes	Yes	1-0640M-A0072-001
FSL-M6122	Supply Fan FN2 Air Flow Switch	No	Yes	Yes	1-0640M-A0072-001
FSL-M6132	Supply Fan FN3 Air Flow Switch	No	Yes	Yes	1-0640M-A0072-001
PDS-M6021	Air Filter Differential Pressure Switch	No	Yes	Yes	1-0640M-A0068-001
PH-600-TSH	Station High Temperature Switch	No	Yes	Yes	D-2231
PH-600-TSL	Station Low Temperature Switch	No	Yes	Yes	D-2232
AE-M6901-1	Methane LEL Detector, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-001
AE-M6901-2	Methane LEL Detector, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-001
AE-M6901-3	Methane LEL Detector, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-002
AIT-M6901-1	Methane LEL Detector Controller, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-001
AIT-M6901-2	Methane LEL Detector Controller, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-001
AIT-M6901-3	Methane LEL Detector Controller, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-002
AE-M6401	Chiller CHLR-M640 Sample Inlet Filter Leak Detector	No	Yes	Yes	1-0640M-A0076-001
AE-M6902-1	Carbon Monoxide Detector, Main Pumphouse	No	Yes	Yes	1-0640M-A0075-001
AE-M6902-2	Carbon Monoxide Detector, Main Pumphouse	No	Yes	Yes	1-0640M-A0075-001
AIT-M6401	Chiller CHLR-M640 Leak Detection Controller	No	Yes	Yes	1-0640M-A0076-001
AIT-M6902	Carbon Monoxide Detector Controller, Main Pumphouse	No	Yes	Yes	1-0640M-A0075-001
AAH-M6401	Horn/Strobe Chiller CHLR-M640 Leak Detection	No	Yes	Yes	1-0640M-A0076-001
AAH-M6901-1	Strobe, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-002

LIT-M54					
AAH-M6901-2	Strobe, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-002
AAH-M6901-3	Horn/Strobe, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-002
AAH-M6901-4	Strobe, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-002
AAH-M6901-5	Strobe, Main Pumphouse	No	Yes	Yes	1-0640M-A0074-002
FSL-M6411	Chilled Water Pump P-M641 Flow Switch	No	Yes	Yes	1-0640M-A0070-001
FSL-M6421	Chilled Water Pump P-M642 Flow Switch	No	Yes	Yes	1-0640M-A0070-001
TT-M6045	Pumping Station Temperature Transmitter	No	Yes	Yes	1-0640M-A0064-001
TT-M6403	Chilled Water Supply Temperature Transmitter	No	Yes	Yes	1-0640M-A0071-001
TT-M6404	Chilled Water Return Temperature Transmitter	No	Yes	Yes	1-0640M-A0071-001
LE-M5411	Sump SP1 & SP2 Level Element	No	Yes	Yes	1-0640M-A0049-001
LIT-M5411	Sump SP1 & SP2 Level Indicating Transmitter	No	Yes	Yes	1-0640M-E0070-001
ESL-M7101	MCC-M710 Voltage Present (Located Inside MCC-M710)	No	Yes	Yes	1-0640M-A0077-001
ESL-M7201	MCC-M720 Voltage Present (Located Inside MCC-M720)	No	Yes	Yes	1-0640M-A0078-001
ESL-M7301	MCC-M730E Voltage Present (Located Inside MCC-M730E)	No	Yes	Yes	1-0640M-A0079-001
TSH-M7100	XFMR-M710 Winding High Temperature Switch (Located Inside XFMR-M710)	No	Yes	Yes	1-0640M-A0080-001
TSH-M7200	XFMR-M720 Winding High Temperature Switch (Located Inside XFMR-M720)	No	Yes	Yes	1-0640M-A0081-001

Control Centre "S"

XFMR-S702	45kVA, 600-208/120V, 5.0%Z Transformer	No	Yes	Yes	1-0640S-E0001-001
CB-S712U	50A Circuit Breaker	No	Yes	Yes	1-0640S-E0001-001
CB-S710	125AT, 250AF Circuit Breaker	No	Yes	Yes	1-0640S-E0001-001

Yard "Y"

MTS-Y712	Manual Transfer Switch MTS-Y712	Yes	Yes	Yes	1-0640Y-E0001-001
PNL-Y12U	120/208, 1ϕ, 3W, 100A, 30CCT, Panel PNL-Y712U	No	Yes	Yes	1-0640Y-E0001-001
UPS-Y712	Uninterruptible Power Supply & 1 Additional Battery Module, UPS-Y712	Yes	Yes	Yes	1-0640Y-E0001-001

All Areas - Lighting

Type A Lighting	Phillips Model No. V3W443L840-UNV-LFA, Ceiling Surface Mounted, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Type B Lighting	Phillips Model No. V3W443L840-UNV-LFA, Wall mounted, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Type C Lighting	Phillips Model No. RBX20L840-UNV-A22R, Stem Hung, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Type D Lighting	Phillips Model No. RBX10L840-UNV-ARR16S, Stem Hung, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Type E Lighting	Phillips Model No. V3W435L840-UNV-LFA, Stem Hung, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Type F Lighting	Lumark, Model No. WPL6B, Wall Mounted, Qty:	No	No	Yes	1-0640M-E0042-002
Type G Lighting	Phillips Model No. 1TG42L840-4-FS-12F-UNV, Recessed/T Bar Mounted, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Type H Lighting	Phillips Model No. V3W435L840-UNV-LFA, Ceiling Surface, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Type J Lighting	Phillips Model No. V3W451L840-UNV-LFA., Stem Hung, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Emergency Battery Unit	Ready-Lite, Model No. LDX12-1002LD7, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Remote Fixtures	Ready-Lite, Model No. RL150D-LD7, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Nema 4X Remote Fixtures	Ready-Lite, Model No. NMM2-LD7, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Exit Sign, Single Faced	Ready-Lite Model No. RA1WU, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Exit Sign, Double Faced	Ready-Lite Model No. RA2WU, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002
Nema 4X Exit Sign	Ready-Lite Model No. RN1WU, Qty: See Dwgs	No	No	Yes	1-0640M-E0042-002

General Notes

1. - Not all equipment required for the project is included in the list herein. This is a partial listing of main equipment only.
Refer to the drawings and specifications for all equipment requirements.
2. - Include all costs for the supply and complete installation of all equipment herein, and all equipment shown on the drawings and in the specifications.
3. - Include all costs for new lamacoids, and training.
4. - In the event of discrepancy between this list and the drawings/specifications, the most onerous and costly option takes precedence prior to clarification from the City.

Tache Station

Equipment Tag	Description	Training Required	Lamacoid	Shop Drawing Required	Drawing Number
Main Pumping Station "M"					
CSTE-M701	600A, 600V, 3ø, 3W, Service Termination Enclosure With Breaker, Utility Metering Socket Potential Transformers, Current Transformers and Fiberglass Pad.	No	Yes	Yes	1-0660M-E0007-001
MCC -M710	Non-Essential MCC, 600V, 3ø, 4W, 600A, 42 KA Buss Bracing INT. Rating: 25 KA Minimum Motor Control Center	Yes	Yes	Yes	1-0660M-E0007-001
PNL-M712	120/240V , 1ø, 3W, 225A 32CCT	No	Yes	Yes	1-0660M-E0007-001
JB-M702	Generator Connection Enclosure	No	Yes	Yes	1-0660M-E0007-001
TT M6000	Temperature Transmitter	No	Yes	Yes	1-0660M-E0013-001
FAS-M-D01	Fire Alarm System Smoke Detector, Pump Room.D01	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-D02	Fire Alarm System Smoke Detector, Pump Room.D02	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-D03	Fire Alarm System Smoke Detector, Pump Room.D03	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-D04	Fire Alarm System Smoke Detector, Pump Room.D04	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-D05	Fire Alarm System Smoke Detector, Pump Room.D05	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-D06	Fire Alarm System Heat Detector, Fixed Temp, Pump Room.D06	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-D07	Fire Alarm System Smoke Detector, Pump Room.D07	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-D08	Fire Alarm System Smoke Detector, Pump Room.D08	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-D09	Fire Alarm System Smoke Detector, Pump Room.D09	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-A01	Alarm Strobe Light (mounted), Pump Room.A01	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-A02	Alarm Strobe Light (mounted), Pump Room.A02	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-A03	Alarm Strobe Light (mounted), Pump Room.A03	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-A04	Alarm Strobe Light (mounted), Pump Room.A04	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-A05	Alarm Horn w/Strobe Light, Pump Room.A05	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-E01	Fire Alarm System End of Line Resistor, Pump Room.E01	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-P01	Fire Alarm System Pull Station, Pump Room.P01	Yes	Yes	Yes	1-0660M-E0023-001
FAS-M-D10	Heat Detector (Rate of Rise), Basement.D01	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D11	Heat Detector (Rate of Rise), Basement.D11	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D12	Heat Detector (Rate of Rise), Basement.D12	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D13	Heat Detector (Rate of Rise), Basement.D13	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D14	Heat Detector (Rate of Rise), Basement.D14	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D15	Heat Detector (Rate of Rise), Basement.D15	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D16	Heat Detector (Rate of Rise), Basement.D16	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D17	Heat Detector (Rate of Rise), Basement.D17	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D18	Heat Detector (Rate of Rise), Basement.D18	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D19	Heat Detector (Rate of Rise), Basement.D19	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D20	Heat Detector (Rate of Rise), Basement.D20	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D21	Heat Detector (Rate of Rise), Basement.D21	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D22	Heat Detector (Rate of Rise), Basement.D22	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D23	Fire Alarm System Smoke Detector, Basement.D23	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D24	Heat Detector (Rate of Rise), Basement.D24	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D25	Heat Detector (Rate of Rise), Basement.D25	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D26	Heat Detector (Rate of Rise), Basement.D26	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D27	Heat Detector (Rate of Rise), Basement.D27	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-D28	Heat Detector (Rate of Rise), Basement.D28	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-A06	Alarm Horn w/Strobe Light, Basement.A06	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-A07	Alarm Strobe Light (mounted), Basement.A07	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-A08	Alarm Strobe Light (mounted), Basement.A08	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-A09	Alarm Strobe Light (mounted), Basement.A09	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-A10	Alarm Strobe Light (mounted), Basement.A10	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-E02	Fire Alarm System End of Line Resistor, Basement.E02	Yes	Yes	Yes	1-0660M-E0024-001
FAS-M-P02	Fire Alarm System Pull Station, Basement.P02	Yes	Yes	Yes	1-0660M-E0024-001
FACP-M922	Fire Alarm Control Panel, FACP-M922	Yes	Yes	Yes	1-0660M-E0024-001
All Areas - Lighting					
Type A Lighting	Phillips Model No. V3W470L840-UNV, Ceiling Surface Mounted, Qty: See Dwgs	No	No	Yes	1-0660M-E0009-001
Type B Lighting	Phillips Model No. LPW32-50-NW-G3-4-120-PCB, Wall mounted, Qty: See Dwgs	No	No	Yes	1-0660M-E0009-001
Type C Lighting	Phillips Model No. V3W243L840-UNV, Ceiling Surface Mounted, Qty: See Dwgs	No	No	Yes	1-0660M-E0009-001
Type D Lighting	Phillips Model No. V3W470L840-UNV, Chain Hung, Qty: See Dwgs	No	No	Yes	1-0660M-E0009-001
Type E Lighting	Phillips Model No. V3W243L840-UNV, Chain Hung, Qty: See Dwgs	No	No	Yes	1-0660M-E0009-001
Type F Lighting	Phillips Model No. V3W451L840-UNV, Ceiling Surface Mounted, Qty: See Dwgs	No	No	Yes	1-0660M-E0009-001
Emergency Battery Unit/Exit	Ready-Lite, Model No. RAC-1W12802LD7, Qty: See Dwgs	No	No	Yes	1-0660M-E0009-001
Remote Fixtures	Ready-Lite, Model No. RL150D-LD7, Qty: See Dwgs	No	No	Yes	1-0660M-E0009-001

General Notes

1. - Not all equipment required for the project is included in the list herein. This is a partial listing of main equipment only.

Refer to the drawings and specifications for all equipment requirements.

2. - Include all costs for the supply and complete installation of all equipment herein, and all equipment shown on the drawings and in the specifications.

3. - Include all costs for new lamacoids, and training.

4. - In the event of discrepancy between this list and the drawings/specifications, the most onerous and costly option takes precedence prior to clarification from the City.