



1070-2019 ADDENDUM 5

ELECTRICAL & HVAC UPGRADES AT MCPHILLIPS & TACHE PUMPING STATIONS

URGENT

PLEASE FORWARD THIS DOCUMENT TO WHOEVER IS IN POSSESSION OF THE TENDER

ISSUED: 2020-01-27
BY: Vivek Elimban
TELEPHONE NO. 204 786-8080

THIS ADDENDUM SHALL BE INCORPORATED INTO THE TENDER AND SHALL FORM A PART OF THE CONTRACT DOCUMENTS

Template Version: A20190115

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Tender, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid may render your Bid non-responsive.

PART A – BID SUBMISSION

Replace: 1070-2019 Form B with 1070-2019 Addendum 5 – Form B. The following is a summary of changes incorporated in the replacement Proposal Submission:

Form B(R1): Included an excel version of Form B.

PART E – SPECIFICATIONS

Revise: E1.6: Drawing table for McPhillips Regional Pumping Station and Tache Booster Pumping Station is updated as follows. Revised or additional Drawings are shown in **BOLD**.

Drawings			
McPhillips Station			
Drawing Number	Sheet	Rev No.	Drawing Name and Title
Main Pumping Station "M" MCC REPLACEMENT / HVAC Upgrade			
1-0640M-E0001	-001	02	ELECTRICAL SINGLE LINE DIAGRAM, LEGEND & DETAILS
1-0640M-E0002	-001	05	ELECTRICAL SINGLE LINE DIA7GRAM, 4160 V DISTRIBUTION
1-0640M-E0003	-001	05	ELECTRICAL SINGLE LINE DIAGRAM, 600V GENERATORS AND SWITCHGEAR
1-0640M-E0004	-001	05	ELECTRICAL SINGLE LINE DIAGRAM, 600V DISTRIBUTION
1-0640M-E0011	-001	05	SINGLE LINE DIAGRAM & LAYOUT, REMOVALS & INSTALLATIONS
1-0640M-E0013	-001	03	ELECTRICAL EQUIPMENT PLAN, ELECTRICAL & CONTROL ROOMS - DEMOLITION
1-0640M-E0014	-001	02	ELECTRICAL EQUIPMENT PLAN, GENERATOR ROOM
1-0640M-E0015	-001	02	ELECTRICAL EQUIPMENT ELEVATIONS, 4160V SWITCHGEAR & 600V SWITCHGEAR/MCC
1-0640M-E0016	-001	02	CONTROL SCHEMATIC, 4160V MAIN BREAKER
1-0640M-E0017	-001	03	THREE LINE DIAGRAM, 4160V MAIN BREAKER
1-0640M-E0020	-001	02	ELECTRICAL SINGLE LINE DIAGRAM, MISCELLANEOUS DISTRIBUTION
1-0640M-E0025	-001	01	CONNECTION DIAGRAM AND DETAILS, ATS-M2E, TRANSFER SWITCH
1-0640M-E0030	-001	00	ELECTRICAL SINGLE LINE DIAGRAM, OVERVIEW
1-0640M-E0032	-001	00	ELECTRICAL SINGLE LINE DIAGRAM, PUMPHOUSE, MCC-M710
1-0640M-E0033	-001	00	ELECTRICAL PANEL LAYOUT, PUMPHOUSE, MCC-M710 LAYOUT AND SCHEDULE
1-0640M-E0034	-001	00	ELECTRICAL SINGLE LINE DIAGRAM, PUMPHOUSE, MCC-M720

1-0640M-E0035	-001	00	ELECTRICAL PANEL LAYOUT, PUMPHOUSE, MCC-M720 LAYOUT AND SCHEDULE
1-0640M-E0036	-001	00	ELECTRICAL SINGLE LINE DIAGRAM, PUMPHOUSE, MCC-M730E
1-0640M-E0037	-001	00	ELECTRICAL PANEL LAYOUT, PUMPHOUSE, MCC-M730E LAYOUT AND SCHEDULE
1-0640M-E0039	-001	00	ELECTRICAL EQUIPMENT PLAN, ELECTRICAL & CONTROL ROOMS - FINAL CONFIGURATION
1-0640M-E0040	-001	01	ELECTRICAL EQUIPMENT PLAN, MEZZANINE LEVEL
1-0640M-E0041	-001	01	ELECTRICAL EQUIPMENT PLAN, LOWER LEVEL
1-0640M-E0042	-001	00	PANELBOARD SCHEDULE
1-0640M-E0042	-002	01	PANELBOARD & LUMINAIRE SCHEDULE
1-0640M-E0043	-001	00	ELECTRICAL GROUNDING, INSTALLATION DETAILS
1-0640M-E0044	-001	01	ELECTRICAL GROUNDING, RISER DIAGRAM
1-0640M-E0045	-001	02	ELECTRICAL GROUNDING LAYOUT, MAIN FLOOR PLAN
1-0640M-E0046	-001	00	CONSTRUCTION PLAN, PHASE 1
1-0640M-E0047	-001	00	CONSTRUCTION PLAN, PHASE 2
1-0640M-E0048	-001	00	CONSTRUCTION PLAN, PHASE 3
1-0640M-E0049	-001	00	ELECTRICAL LIGHTING PLAN, PUMPHOUSE, LOWER LEVEL
1-0640M-E0050	-001	00	ELECTRICAL LIGHTING PLAN, PUMPHOUSE, MEZZANINE LEVEL
1-0640M-E0051	-001	00	ELECTRICAL FIRE ALARM PLAN, PUMPHOUSE LOWER LEVEL, DEMOLITION
1-0640M-E0052	-001	00	ELECTRICAL FIRE ALARM PLAN, PUMPHOUSE MEZZANINE LEVEL, DEMOLITION
1-0640M-E0053	-001	00	ELECTRICAL FIRE ALARM PLAN, PUMPHOUSE, LOWER LEVEL
1-0640M-E0054	-001	00	ELECTRICAL FIRE ALARM PLAN, PUMPHOUSE, MEZZANINE LEVEL
1-0640M-E0055	-001	00	ELECTRICAL FIRE ALARM, RISER DIAGRAM, DETECTION CIRCUITS
1-0640M-E0056	-001	00	ELECTRICAL FIRE ALARM, RISER DIAGRAM, NOTIFICATION CIRCUITS
1-0640M-E0057	-001	00	ELECTRICAL FIRE ALARM, LEGEND AND DETAILS
1-0640M-E0058	-001	01	SWITCHGEAR SGR-M1 DETAILS
1-0640M-E0070	-001	00	MOTOR STARTER SCHEMATIC, SP1, SUMP PUMP
1-0640M-E0071	-001	00	MOTOR STARTER SCHEMATIC, SP2, SUMP PUMP
1-0640M-E0072	-001	00	MOTOR STARTER SCHEMATIC, AC1, INSTRUMENT AIR COMPRESSOR
1-0640M-E0073	-001	00	MOTOR STARTER SCHEMATIC, AC2, INSTRUMENT AIR COMPRESSOR
1-0640M-E0074	-001	00	MOTOR STARTER SCHEMATIC, FN1, SUPPLY FAN
1-0640M-E0074	-002	00	CONNECTION DIAGRAM, FN1, SUPPLY FAN
1-0640M-E0075	-001	00	MOTOR STARTER SCHEMATIC, FN2, SUPPLY FAN
1-0640M-E0075	-002	00	CONNECTION DIAGRAM, FN2, SUPPLY FAN
1-0640M-E0076	-001	00	MOTOR STARTER SCHEMATIC, FN3, SUPPLY FAN
1-0640M-E0076	-002	00	CONNECTION DIAGRAM, FN3, SUPPLY FAN
1-0640M-E0077	-001	00	MOTOR STARTER SCHEMATIC, P-M641, CHILLED WATER PUMP
1-0640M-E0078	-001	00	MOTOR STARTER SCHEMATIC, P-M642, CHILLED WATER PUMP
1-0640M-E0079	-001	00	HEATER SCHEMATIC, HCE-M601, DUCT HEATER
1-0640M-M0005	-001	00	MECHANICAL, BUILDING CHILLER, DEMOLITION PLANS
1-0640M-M0006	-001	00	MECHANICAL, CHLR-M640, ELEV. 228.295 PART PLAN
1-0640M-M0007	-001	00	MECHANICAL, CHLR-M640, ELEV. 233.020 PART PLAN
1-0640M-M0008	-001	00	MECHANICAL, CHLR-M640, SECTIONS AND DETAILS
1-0640M-M0009	-001	00	MECHANICAL, CHLR-M640, PROCESS FLOW DIAGRAM AND EQUIPMENT SCHEDULES
		00	
1-0640M-P0012	-001	02	PROCESS AND INSTRUMENTATION DIAGRAM, MISCELLANEOUS
1-0640M-P0013	-001	00	PROCESS AND INSTRUMENTATION DIAGRAM, PUMPING STATION HVAC
1-0640M-P0014	-001	00	MECHANICAL, CHILLER SYSTEM, PROCESS AND INSTRUMENTATION DIAGRAM
1-0640M-P0015	-001	00	MECHANICAL, ELECTRICAL ROOM HVAC, PROCESS AND INSTRUMENTATION DIAGRAM
		00	
1-0640M-A0035	-001	00	PANEL LAYOUT, LCP-M500 (AC1 AND AC2), INSTRUMENT AIR COMPRESSOR CONTROL PANEL
1-0640M-A0036	-001	00	PANEL LAYOUT, LCP-M540, SUMP PUMP SP1 & SP2 CONTROL PANEL
1-0640M-A0037	-001	00	PANEL LAYOUT, JUNCTION BOXES
1-0640M-A0038	-001	00	JUNCTION BOX LAYOUT, JBA-M6144
1-0640M-A0048	-001	00	INSTRUMENTATION PLAN - DEMO & NEW WORK, MEZZANINE LEVEL
1-0640M-A0049	-001	00	INSTRUMENTATION PLAN - DEMO AND NEW WORK, LOWER LEVEL
1-0640M-A0050	-001	00	PANEL LAYOUT, HVAC CONTROL PANEL CP-M826
1-0640M-A0050	-002	00	PANEL LAYOUT, HVAC CONTROL PANEL CP-M826
1-0640M-A0051	-001	01	POWER DISTRIBUTION, HVAC CONTROL PANEL CP-M826
1-0640M-A0052	-001	01	AUTOMATION - WIRING DIAGRAM, HVAC PANEL CP-M826, DISCRETE INPUTS RACK 0, MODULE 3
1-0640M-A0053	-001	00	AUTOMATION - WIRING DIAGRAM, HVAC PANEL CP-M826, DISCRETE INPUTS RACK 0, MODULE 4
1-0640M-A0054	-001	00	AUTOMATION - WIRING DIAGRAM, HVAC PANEL CP-M826, DISCRETE INPUTS RACK 0, MODULE 5
1-0640M-A0055	-001	00	AUTOMATION - WIRING DIAGRAM, HVAC PANEL CP-M826, DISCRETE OUTPUTS RACK 0, MODULE 6
1-0640M-A0056	-001	00	AUTOMATION - WIRING DIAGRAM, HVAC PANEL CP-M826, ANALOG INPUTS RACK 0, MODULE 7&8
1-0640M-A0057	-001	00	AUTOMATION - WIRING DIAGRAM, HVAC PANEL CP-M826, ANALOG OUPUTS RACK 0, MODULE

			9&10
1-0640M-A0058	-001	00	AUTOMATION CONTROL SYSTEM ARCHITECTURE
1-0640M-A0060	-001	00	LOOP DIAGRAM, TT-M6041, TT-M6042, AND TT-M6301, TEMPERATURE TRANSMITTERS
1-0640M-A0061	-001	00	LOOP DIAGRAM, FC-1, FC-2, FC-3, ELECTRICAL ROOM FAN COILS
1-0640M-A0062	-001	00	LOOP DIAGRAM, XV-M6144, OUTDOOR INTAKE AIR DAMPER
1-0640M-A0063	-001	00	LOOP DIAGRAM, FV-M6145, OUTDOOR AIR FLOW DAMPER
1-0640M-A0063	-002	00	LOOP DIAGRAM, FV-M6145, OUTDOOR AIR FLOW DAMPER
1-0640M-A0064	-001	00	LOOP DIAGRAM, DISCHARGE AIR AND PUMPING STATION, TEMPERATURE TRANSMITTERS, TT-M6011 AND TT-M6045
1-0640M-A0065	-001	00	LOOP DIAGRAM, FV-M6147, STATION RELIEF AIR FLOW DAMPER
1-0640M-A0066	-001	00	LOOP DIAGRAM, FV-M6148, STATION RELIEF AIR FLOW DAMPER
1-0640M-A0067	-001	00	LOOP DIAGRAM, FV-M6146, RETURN AIR FLOW DAMPER
1-0640M-A0067	-002	00	LOOP DIAGRAM, FV-M6146, RETURN AIR FLOW DAMPER
1-0640M-A0068	-001	00	LOOP DIAGRAM, PDS-M6021, AIR FILTER DIFFERENTIAL PRESSURE SWITCH
1-0640M-A0069	-001	00	LOOP DIAGRAM, TSL-M6043, MIX AIR (FREEZESTAT) TEMPERATURE SWITCH
1-0640M-A0070	-001	00	LOOP DIAGRAM, FSL-M6411 AND FSL-M6421, CHILLED WATER PUMP P-M641 AND P-M642 FLOW SWITCH
1-0640M-A0071	-001	00	LOOP DIAGRAM, TT-M6403 AND TT-M6404, CHILLED WATER RETURN AND SUPPLY TRANSMITTERS
1-0640M-A0072	-001	00	LOOP DIAGRAM, FSL-M6112, FSL-M6122, AND FSL-M6132, SUPPLY FANS FN1, FN2, FN3 AIR FLOW SWITCH
1-0640M-A0073	-001	00	LOOP DIAGRAM, CP-M826.UPS01, POWER SUPPLY ALARM
1-0640M-A0074	-001	00	LOOP DIAGRAM, AIT-M6901-1, AIT-M6901-2, AIT-M6901-3, METHANE LEL DETECTION - MAIN PUMP HOUSE
1-0640M-A0074	-002	00	LOOP DIAGRAM, AIT-M6901-1, AIT-M6901-2, AIT-M6901-3, METHANE LEL DETECTION - MAIN PUMP HOUSE
1-0640M-A0075	-001	00	LOOP DIAGRAM, AIT-M6902, CARBON MONOXIDE DETECTION - MAIN PUMP HOUSE
1-0640M-A0076	-001	00	LOOP DIAGRAM, AIT-M6401, CHILLER LEAK DETECTION
1-0640M-A0077	-001	00	LOOP DIAGRAM, MCC-M710 VOLTAGE PRESENT, ESL-M7101
1-0640M-A0078	-001	00	LOOP DIAGRAM, MCC-M720 VOLTAGE PRESENT, ESL-M7201
1-0640M-A0079	-001	00	LOOP DIAGRAM, MCC-M730E VOLTAGE PRESENT, ESL-M7301
1-0640M-A0080	-001	00	LOOP DIAGRAM, XFMR-M710 WINDING HIGH TEMPERATURE SWITCH, TSH-M7100
1-0640M-A0081	-001	00	LOOP DIAGRAM, XFMR-M720 WINDING HIGH TEMPERATURE SWITCH, TSH-M7200
1-0640M-A0082	-001	00	LOOP DIAGRAM, FIRE ALARM CONTROL PANEL FACP-M922
1-0640M-A0083	-001	00	LOOP DIAGRAM, CHILLER CHLR-M640
1-0640M-A0084	-001	00	LOOP DIAGRAM, SUMP PUMP CONTROLLER, LIT-M5411
1-0640M-A0085	-001	00	NETWORK DIAGRAM
1-0640M-A0085	-002	00	NETWORK DIAGRAM
1-0640M-A0086	-001	00	INSTALLATION DETAILS
D-2231		00	STATION HIGH TEMP SWITCH
D-2232		00	STATION LOW TEMP SWITCH
1-0640A-S0001	-001	01	STRUCTURAL, CDR-M640 EQUIPMENT PAD, PLAN, SECTION AND GENERAL NOTES
1-0640A-S0002	-001	01	CIVIL, CDR-M640 FENCING LAYOUT, ELEVATION AND DETAILS
1-0640A-S0002	-002	00	CIVIL, CDR-M640 FENCE, GROUNDING DETAILS
1-0640A-S0003	-001	01	STRUCTURAL, CHILLER EQUIPMENT PAD, DEMOLITION DETAILS
1-0640A-S0004	-001	01	STRUCTURAL, LDB-G767 LOAD BANK, PLAN AND DETAILS
			<i>Collection Building "B"</i>
1-0640B-E0001	-001	03	ELECTRICAL SINGLE LINE DIAGRAM, COLLECTIONS BUILDING
1-0640B-E0002	-001	01	PLAN LAYOUT AND EQUIPMENT ELEVATION, COLLECTIONS BUILDING, ELECTRICAL ROOM - DEMOLITION
1-0640B-E0003	-001	01	PLAN LAYOUT AND EQUIPMENT ELEVATION, COLLECTIONS BUILDING, ELECTRICAL ROOM - NEW WORK
1-0640B-E0004	-001	01	PANEL SCHEDULE AND LAYOUT, COLLECTIONS BUILDING DP-B701
1-0640B-E0005	-001	01	PLAN AND SECTIONS, TYPICAL HOUSEKEEPING PAD, DETAILS
1-0640B-E0006	-001	00	MCC ELEVATION AND SINGLE LINE, GENERATOR ROOM, MCC-G766
1-0640B-E0007	-001	00	ELECTRICAL SINGLE LINE DIAGRAM, COLLECTION BUILDING, 600V GENERATORS AND SWITCHGEAR
1-0640B-E0008	-001	01	ELECTRICAL EQUIPMENT PLAN, COLLECTION BUILDING, GENERATOR ROOM AND LOAD BANK LDB-G767
1-0640B-E0009	-001	00	MOTOR STARTER SCHEMATIC, GENERATOR ROOM, EF-G1 EXHAUST FAN
1-0640B-E0010	-001	00	MOTOR STARTER SCHEMATIC, GENERATOR ROOM, EF-G2 EXHAUST FAN
1-0640B-E0011	-001	00	MOTOR STARTER SCHEMATIC, GENERATOR ROOM, EF-G3 EXHAUST FAN
1-0640B-E0012	-001	00	MOTOR STARTER SCHEMATIC, GENERATOR ROOM, EF-G4 EXHAUST FAN
1-0640B-E0013	-001	00	CONNECTION DIAGRAM, LOAD BANK LDB-G767

1-0640B-A0001	-001	00	LOOP DIAGRAM, MCC-G766 VOLTAGE PRESENT, ESL-G7661
1-0640B-A0002	-001	01	LOOP DIAGRAM, AIT-G6901, METHANE LEL DETECTION - GENERATOR ROOM
1-0640B-A0003	-001	00	LOOP DIAGRAM, AIT-G6902, CARBON MONOXIDE DETECTION – GENERATOR ROOM
<i>Chlorine Building "C"</i>			
1-0640C-E0001	-001	04	ELECTRICAL SINGLE LINE DIAGRAM, CHLORINE BUILDING
1-0640C-E0002	-001	00	EQUIPMENT PLAN & ELEVATION, CHLORINE BUILDING, DEMOLITION PLAN
1-0640C-E0003	-001	00	ELECTRICAL SINGLE LINE DIAGRAM, CHLORINE BUILDING, MCC-C710/ MCC-C720E
1-0640C-E0004	-001	00	ELECTRICAL PANEL LAYOUT, CHLORINE BUILDING, MCC-C710/ MCC-C720E LAYOUT AND SCHEDULE
1-0640C-E0005	-001	00	ELECTRICAL PANEL LAYOUT, CHLORINE BUILDING, MCC-C710/ MCC-C720E LOCATION PLAN - GALLERY LEVEL
1-0640C-E0006	-001	00	PANELBOARD SCHEDULES, CHLORINE BUILDING, PNL-C711 AND PNL C731E
1-0640C-E0007	-001	00	ELECTRICAL EQUIPMENT PLAN, CHLORINE BUILDING
1-0640C-E0008	-001	00	ELECTRICAL LIGHTING PLAN, CHLORINE BUILDING, GROUND LEVEL AND SERVICE TUNNELS
1-0640C-E0009	-001	00	ELECTRICAL FIRE ALARM PLAN, CHLORINE BUILDING, GROUND LEVEL AND SERVICE TUNNELS - DEMOLITION
1-0640C-E0010	-001	00	ELECTRICAL FIRE ALARM PLAN, CHLORINE BUILDING, GROUND LEVEL AND SERVICE TUNNELS
1-0640C-E0011	-001	01	ELECTRICAL GROUNDING DETAILS, CHLORINE BUILDING
1-0640C-E0012	-001	00	ELECTRICAL - HAZARDOUS LOCATION, CHLORINE BUILDING, GROUND LEVEL
1-0640C-A0001	-001	00	LOOP DIAGRAM, MCC-C720E VOLTAGE PRESENT, ESL-C7201
1-0640C-A0002	-001	00	LOOP DIAGRAM, MCC-C710 VOLTAGE PRESENT, ESL-C7101
<i>Reservoir "R"</i>			
1-0640R-E0001	-001	03	ELECTRICAL SINGLE LINE DIAGRAM, RESERVOIR VALVE HOUSE
<i>Control Centre "S"</i>			
1-0640S-E0001	-001	02	SINGLE LINE DIAGRAM
1-0640S-E0002	-001	00	PANEL SCHEDULES
<i>Yard "Y"</i>			
1-0640Y-E0001	-001	00	ELECTRICAL SINGLE LINE DIAGRAM, AQUEDUCT VALVE CHAMBER
1-0640Y-E0002	-001	00	PANELBOARD SCHEDULE, PNL-Y712U
1-0640Y-E0003	-001	00	ELECTRICAL EQUIPMENT PLAN, AQUEDUCT VALVE CHAMBER
<i>Drawings</i>			
<i>Tache Booster Station</i>			
<i>Drawing Number</i>	<i>Sheet</i>	<i>Rev No.</i>	<i>Drawing Name and Title</i>
<i>Main Pumping Station "M" MCC REPLACEMENT / UPS Upgrade</i>			
1-0660M-E0002	001	05	SINGLE LINE DIAGRAM & LAYOUT, UPS
1-0660M-E0006	001	00	ELECTRICAL SINGLE LINE DIAGRAM, DEMOLITION
1-0660M-E0007	001	01	ELECTRICAL SINGLE LINE DIAGRAM, MCC-M710
1-0660M-E0008	001	00	MCC ELEVATION AND SCHEDULE, MCC-M710
1-0660M-E0009	001	01	ELECTRICAL PANEL SCHEDULE AND DETAILS
1-0660M-E0010	001	00	PLAN AND SECTION, TYPICAL HOUSEKEEPING PAD, DETAILS
1-0660M-E0011	001	00	MAIN FLOOR EQUIPMENT & DEVICE LAYOUT, PUMP ROOM, DEMOLITION
1-0660M-E0012	001	00	ELECTRICAL EQUIPMENT PLAN, BASEMENT, DEMOLITION
1-0660M-E0013	001	00	ELECTRICAL EQUIPMENT PLAN, PUMP ROOM

1-0660M-E0014	001	00	ELECTRICAL EQUIPMENT PLAN, CEILING
1-0660M-E0015	001	00	ELECTRICAL EQUIPMENT PLAN, BASEMENT
1-0660M-E0016	001	00	ELECTRICAL SITE PLAN
1-0660M-E0017	001	00	PANEL LAYOUT, JB-M702, TEMPORARY GENERATOR CONNECTION
1-0660M-E0018	001	00	GROUNDING INSTALLATION DETAILS
1-0660M-E0020	001	00	MOTOR STARTER SCHEMATIC, PUMP PP-1
1-0660M-E0020	002	00	CONNECTION DIAGRAM, PUMP PP-1
1-0660M-E0021	001	00	MOTOR STARTER SCHEMATIC, PUMP PP-2
1-0660M-E0021	002	00	CONNECTION DIAGRAM, PUMP PP-2
1-0660M-E0022	001	00	MOTOR STARTER SCHEMATIC, PUMP PP-3
1-0660M-E0022	002	00	CONNECTION DIAGRAM, PUMP PP-3
1-0660M-E0023	001	00	ELECTRICAL FIRE ALARM PLAN, PUMP ROOM
1-0660M-E0024	001	00	ELECTRICAL FIRE ALARM PLAN, BASEMENT
1-0660M-E0025	001	00	ELECTRICAL FIRE ALARM, RISER DIAGRAM, DETECTION AND NOTIFICATION CIRCUITS
1-0660M-E0026	001	00	ELECTRICAL FIRE ALARM, LEGEND AND DETAILS
1-0660M-A0001	001	00	LOOP DIAGRAM, MAIN CONTROL TEMPERATURE TRANSMITTER, TT-M6000
1-0660M-A0002	001	00	LOOP DIAGRAM, STATION INLET FLOW INDICATING TRANSMITTER, FIT-M0401
1-0660M-A0003	001	00	LOOP DIAGRAM, SURGE TANK DIFFERENTIAL PRESSURE LEVEL TRANSMITTER, LIT-M0402
1-0660M-A0004	001	00	LOOP DIAGRAM, MCC-M710 VOLTAGE PRESENT
1-0660M-A0005	001	00	LOOP DIAGRAM, FACP-M922 ALARMS
1-0660M-A0006	001	00	LOOP DIAGRAM, LCP-1, PP-1 ELECTRICAL PUMP DRIVE
1-0660M-A0007	001	00	LOOP DIAGRAM, LCP-2, PP-2 ELECTRICAL PUMP DRIVE
1-0660M-A0008	001	00	LOOP DIAGRAM, LCP-3, PP-3 ELECTRICAL PUMP DRIVE
D-3400		4	PUMP DISCHARGE VALVE DV-1
D-3401		4	PUMP DISCHARGE VALVE DV-2
D-3402		4	PUMP DISCHARGE VALVE DV-3
D-3404		4	PP#1 ELECTRIC PUMP DRIVE
D-3408		4	PP#2 ELECTRIC PUMP DRIVE
D-3412		4	PP#3 ELECTRIC PUMP DRIVE

DRAWINGS

The following modifications were made which require the Drawings listed below to be addended.

- Modified note regarding conduit type to reference Specification 26 05 34.
Replace: 1070-2019 Drawing 1-0640C-E0011-001-00 with 1070-2019 Addendum 3 Drawing 1-0640C-E0011-001-01
1070-2019 Drawing 1-0640M-E0044-001-00 with 1070-2019 Addendum 3 Drawing 1-0640M-E0044-001-01,
1070-2019 Drawing 1-0640M-E0045-001-01 with 1070-2019 Addendum 3 Drawing 1-0640M-E0045-001-02,
1070-2019 Drawing 1-0660M-E0007-001-00 with 1070-2019 Addendum 3 Drawing 1-0660M-E0007-001-01.

APPENDICES

Add: Appendix_J Issued for Information Only Drawings

- The following historical drawings are being provided for information only in Appendix J. The City or SNC-Lavalin Inc. makes no claim or liability to the accuracy of the information provided.
 - Q-MCP-183 (Re-Issuing drawing to show the locations of the Reservoir Valve House (R area) and the Aqueduct Valve Chamber (Y area))

Add: Appendix_K Photograph Log – McPhillips Regional Pumping Station and Tache Booster Pumping Station

NMS SPECIFICATIONS

Section 23 82 00 Liquid Heat Transfer

Revise: 2.3.2 to read: Acceptable materials: Expanflex, Bell & Gossett, or approved equal in accordance with B7.

Revise: 2.7.1 to read: Flex connectors: 400 mm long 316 stainless steel corrugated/bellow internals with 316 stainless steel braided jacket located at building to pad interface and for equipment as required. Manufactured by Flextech, Flex-Hose, or approved equal in accordance with B7.

Section 40 91 00 Automation – Process Measurement Devices

Revise: 2.2.2.1 to read: Siemens SITRANS TH300 or Autrol Series Temperature Transmitter.

Revise: 2.3.2.1 to read: Siemens SITRANS TH300 or Autrol Series Temperature Transmitter.

Revise: 2.4.2.1 to read: Siemens SITRANS TH300 or Autrol Series Temperature Transmitter.

Revise: 2.5.2.1 to read: Siemens SITRANS TH300 or Autrol Series Temperature Transmitter.

Revise: 2.9.2.1 to read: Rosemount 3051 Series or Autrol Series Differential Pressure Transmitter.

Revise: 2.10.2.1 to read: Rosemount 3051 Series or Autrol Series Differential Pressure Transmitter.

QUESTIONS AND ANSWERS

McPhillips Regional Pumping Station, Chlorine Building, Collections Building and Control Centre:

Q1: Are both the PLC software and programming code are to be provided?

A1: Yes. Both the PLC software and programming code are to be provided.

Q2: Please provide part numbers or specifications for the horn/strobe with tags AAH-G6901, AAH-M6901-1, AAH-M6901-2, AAH-M6901-3, AAH-M6901-4, AAH-M6901-5 and AAH-M6401 which are used in conjunction with the gas monitors.

A2: The strobes and horn/strobes for the gas detection system shall be:

- o 120 VAC,
- o CSA or ULC approved,
- o Suitable for wall mount,
- o Brightness: At least 75cd brightness,
- o Audible Sound (for Horn): At least 90 dba.

Q3: For the conduit runs that connect equipment in the McPhillips Regional Pumping Station to equipment in the Collections Building, is there an underground pathway for these runs or will they need to be trenched from building to building?

A3: Conduits shall be run in the tunnel between the McPhillips Regional Pumping Station and the Collections Building. Please refer to Drawing 1-0640C-E0007 for tunnel details. Issued for information drawing Q-MCP-187 (uploaded as part of Appendix_H in Addendum 3) shows the Collection Building layout. Conduit runs made to the McPhillips Control Centre will also be routed through the tunnel.

Q4: Should note #4 under SUBMITTALS on Drawing 1-640A-S0001 be interpreted that the Contractor is to engage and pay an engineer to stamp the Shop Drawings prior to submittal to the Contract Administrator?

A4: Yes.

Q5: Please confirm the make of the existing generators at McPhillips Regional Pumping Station.

A5 The generators are Cummins model 100ENRA. Generator nameplate is included in Appendix_K.

Q6: Drawing 1-0640M-E0017-001-03 makes reference to Drawing D-2227. This drawing is not found in this package. Please provide or advise if this is not pertinent to this Tender.

A6 Drawing 1-0640M-E0017-001-03 is an existing drawing being revised for this Tender package. Reference drawing D-2227 was a previous reference and is not related to this Tender package.

Q7: Drawing 1-0640M-E0017-001-03 clouded the 600A disconnect switch rating and the 100A fuse rating for the switch for transformer XFMR-M710. According to Drawing 1-0640M-E0002-001-05, the fuse and disconnect switch are not being modified. Please clarify the intended scope of Work.

A7 The fuse and disconnect switch are not being modified. The fuse was replaced in the past, but this Drawing was not updated to reflect the modification at that time. The specific revision to 1-0640M-E0017-001-03 is only updating the Drawing to reflect the existing configuration and no work is required.

Q8: Addendum 3 indicated that the crane must be operated by a qualified crane operator. Can one of our own personnel be trained to operate the crane?

A8 The Contractor may provide a qualified crane operator.

Q9: On Drawing 1-0640M-A0049-001-00, note 11 indicates "*Provide new ultrasonic transducer LE-M5411, to measure the sump level. Provide appropriate bracket supports and locate to avoid signal interferences. Connect transducer to level indicating transmitter LIT-M5411 as per manufacturer requirements*". Further, in Section 40 91 00 clause 2.10 there are no specifications listed for an ultrasonic type level transmitter only for a differential pressure level transmitter. Please provide requirements for LIT / LE-M5411.

A9: The LIT-M5411 will be a Multiranger 200 Transmitter as per drawing 1-0640M-A0084-001-00 and the LE-M5411 will be a Siemens Echomax XRS-5 transducer or approved equal.

Q10: Is Bell & Gossett expansion tank equal to the specified Expanflex expansion tank light for McPhillips Regional Pumping Station?

A10: Bell & Gossett expansion tank has been approved as an equal for McPhillips Regional Pumping Station. If the Contractor's intent is to use the Bell & Gossett expansion tank, the Contractor shall update all Drawings affected by using Bell & Gossett instead of Expanflex and cover any additional cost that arise from using a different manufacturer.

Q11: Is Flex-Hose flex connector equal to the specified Flextech flex connector for McPhillips Regional Pumping Station?

A11: Flex-Hose flex connector has been approved as an equal for McPhillips Regional Pumping Station. If the Contractor's intent is to use the Flex-Hose flex connector, the Contractor shall update all Drawings affected by using Flex-Hose instead of Flextech and cover any additional cost that arise from using a different manufacturer

Tache Booster Pumping Station:

Q12: Is Autrol America differential flow and level pressure transmitters equal to the specified Rosemount differential flow and level transmitters for the Tache Booster Pumping Station?

A12: Autrol America differential flow and level pressure transmitters have been approved as an equal for Tache Booster Pumping Station. If the Contractor's intent is to use Autrol America differential pressure transmitters, the Contractor shall update all Drawings affected by using Autrol America instead of Rosemount and cover any additional cost that arise from using a different manufacturer. **Question 5 on Addendum 3 referred to these transmitters as Magnetrol transmitters. Magnetrol is not affiliated with Autrol America.**

The addendum should have just stated Autrol America. An equivalent Magnetrol product as not been approved. See NMS Specification section noted above for associated revisions.

General

- Q13: Is the Autrol America temperature transmitter equal to the specified Siemens temperature transmitter for the McPhillips Regional Pumping Station and Tache Booster Pumping Station?
- A13: Autrol America temperature transmitter has been approved as an equal for the McPhillips Regional Pumping Station and Tache Booster Pumping Station. If the Contractor's intent is to use Autrol America temperature transmitter, the Contractor shall update all Drawings affected by using Autrol America instead of Siemens and cover any additional cost that arise from using a different light manufacturer. **Question 8 on Addendum 3 referred to these transmitters as Magnetrol transmitters. Magnetrol is not affiliated with Autrol America. The addendum should have just stated Autrol America. An equivalent Magnetrol product as not been approved. See NMS Specification section noted above for associated revisions**
- Q14: Please advise if a differential pressure range of 250 inch H2O is adequate for the following instruments; flow transmitter (differential pressure) tag FIT-M0401 and level transmitter (differential pressure) tag LIT-M0402 as shown on Drawings 1-0660M-A0002-001-00 and 1-0660M-A0003-001-00 ,respectively??
- A14: The differential pressure range for the existing level transmitter is 0-750 inch H2O and a similar range shall be provided. The differential pressure range for the existing flow transmitter is 0-150 inch H2O, and 250 inch H2O is acceptable.
- Q15: Will the costs of security clearances be the responsibility of the Contractor?
- A15 The cost shall be covered by the Contractor.
- Q16: Please confirm all Manitoba Hydro fees will be cared for by City or advise otherwise.
- A16 The Contractor shall be responsible for all fees.
- Q17: Where coring is done thru walls containing vermiculite, it is quite possible this insulation will drain out to the level of the core. Will there be any requirement to replace this insulation? If so, please specify method.
- A17 Yes there will be a requirement to replace the insulation. The Contractor shall use a controlled expansion/low expansion foam such as Sika Boom to replace insulation.
- Q18: Section 26 05 31 – Splitters, Junction, Pull Boxes and Cabinets clause 2.1 and Drawing 1-0640C-E0012 lists only chlorine rooms as wet and corrosive. Are we to assume all other interior areas throughout all Drawings are dry?
- A18 All interior areas, excluding the Chlorine Building Equipment and Tanks Rooms, are unclassified at the McPhillips Regional Pumping Station. All interior areas at the Tache Booster Pumping Station are unclassified.
- Q19: Please advise if there is a sprinkler system in any of the building associated with the Tender?
- A19 There are no sprinkler systems in any of the buildings associated with the Tender.
- Q20: Section 26 05 34 – Conduits, Conduit Fastenings, and Fittings clause 2.1 indicates only EMT and rigid PVC are required for this project. However, rigid aluminum is noted on Drawings 1-0640M-E0044-001-00, 1-0640M-E0045-001-01, 1-0640C-E0011-001-00 and 1- 0660M-E0007-001-00. Please advise if rigid PVC can be used in lieu of aluminum, or if the scope of aluminum conduit is limited to building grounding. Please confirm if aluminum conduit is necessary (or not) in the Tache Booster Pumping Station?
- A20 Please refer to Section 26 05 34 – Conduits, Conduit Fastenings, and Fittings for conduit type. The Drawings have been modified to reflect the specification as part of this addendum.
- Q21: There is a PPE symbol indicated on several single line diagrams. Please clarify the intent of this symbol.

A21 These symbols are related to the Arc Flash Personal Protective Equipment Category Level. The numbers are based on the existing configuration. These numbers will be updated once construction is complete. These symbols are not related to any scope of Work.

Q22: What is the model number for the crane at McPhillips Regional Pumping Station and Tache Booster Pumping Station.

A22 The crane at Tache Booster Pumping Station is a Ricard Wilcox model 925S (3 Tons). The crane McPhillips Regional Pumping Station is a Demag (22000 lbs).