Members of the Board
Corey O'Connor
Chair Person
Rep. Harry Readshaw
Sylvia C. Wilson
Shannah Tharp-Gilliam, Ph.D.
Jack Shea
John Weinstein
Brenda L. Smith

Arletta Scott Williams
Executive Director
William H. Inks, CPA
Director
Finance & Administration
Jan M. Oliver
Director
Regional Conveyance
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Operations & Maintenance
Kimberly N. Kennedy, P.E.
Director
Engineering & Construction
Michelle M. Buys, P.E.
Director
Environmental Compliance
Jeanne K. Clark
Director
Governmental Affairs
Joseph Vallarian
Director
Communications

June 17, 2020

CONTRACT NO. 1728 G, E, H, P

RAS PIPE AND PUMP REPLACEMENT

ADDENDUM NO. 1

All bidders bidding Contract No. 1728 G, E, H, P shall read and take note of this Addendum No. 1. The Contract Documents for **Contract No. 1728 G, E, H, P – RAS Pipe and Pump Replacement** are hereby revised and/or clarified as stated below.

Acknowledgement of Contract No. 1728 G, E, H, P; Addendum No. 1

The Acknowledgement attached to Addendum No. 1 is to be signed and returned immediately via fax at 412-734-8716 or email to John Findley at John.Findley@alcosan.org and acknowledged with Bidder's Proposal.

Kimberly Kennedy, P.E.
Director – Engineering and Construction

3300 Preble Avenue • Pittsburgh, PA 15233-1092 • ph: 412.766.4810
www.alcosan.org

ACKNOWLEDGEMENT OF

CONTRACT NO. 1728 G, E, H, P - RAS PIPE AND PUMP REPLACEMENT

ADDENDUM NUMBER 1

FIRM NAME: _____

SIGNATURE: _____

TITLE: _____

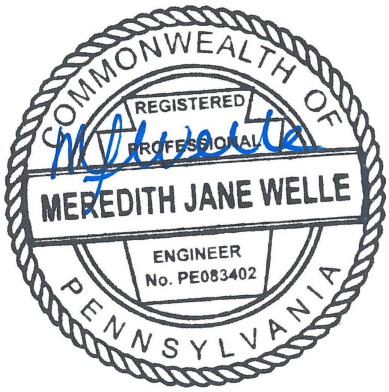
DATE: _____

JUNE 17, 2020

CONTRACT NO. 1728 G, E, H, P

RAS PIPE AND PUMP REPLACEMENT

ADDENDUM NO. 1



JUNE 17, 2020

CONTRACT NO. 1728 G, E, H, P

RAS PIPE AND PUMP REPLACEMENT

ADDENDUM NO. 1

A. Contract Documents – Volume 1

1. *(No Items)*

B. Contract Specifications – Volume 2

1. Demolition (Section 02 41 00)

    a) Page 02 41 00 – 4, Section 3.2.F, ADD the following as Section 3.2.F.2:

"2. Items to be salvaged and delivered to Owner are as indicated in Table 02 41 00 A.

Table 02 41 00-A – Items to be Salvaged

Equipment Name/ Designation	Equipment Location	Deliver to Owner's Location
Samsung Split Air Conditioners Systems (four)	911, 912, 921, and 922 – RAS Pump Stations	To be determined (TBD)
RAS Station Hoist (one)	911, 912, 921, or 922 – RAS Pump Station	(TBD)
RAS Station UPS (four)	911, 912, 921, and 922 – RAS Pump Stations	(TBD)
RAS Station VFD and Cabinet (one)	911, 912, 921, or 922 – RAS Pump Station	(TBD)
MCC032-911	911 – E-1 RAS Pump Station	(TBD)
RAS Station PLC Control Panel (one)	911 – E-1 RAS Pump Station	(TBD)
RAS Station PLC Control Panel contents (three)	912, 921, or 922 – RAS Pump Station	(TBD)
Venturi Flow Meter instrumentation (all)	930 – Central Pipe Gallery	(TBD)
Omega Temperature Monitors (all)	911, 912, 921, and 922 – RAS Pump Stations	(TBD)

"

    b) Page 02 41 00 – 4, Section 3.2.F, Section 3.2.F.2 will become Section 3.2.F.3.

C. Contract Specifications – Volume 3

1. DCS Input-Output Database (Section 40 61 93)

    a) ADD attached Specification Section 40 41 93 DCS Input-Output Database.

2. Process Control System Instrument list (Section 40 61 97)

    a) ADD attached Appendix A Instrument List to the end of Specification Section 40 61 97 Process Control System Instrument List.

3. Pumping equipment – Non-Clog Centrifugal (Section 43 23 14)

    a) Page 43 23 14 – 5, Section 2.7.A.1 Extra Materials: ADD the following paragraphs:
    "e. One full rotating spare assembly for the RAS pump to be used in E-1, E-2, W-1 or W-2 pump station and two replacement mechanical seals for this assembly.
    f. One full rotating spare assembly for the RAS pump to be used in W-3 pump station and two replacement mechanical seals for this assembly."

D. Contract Drawings – Volume 4

1. *(No Items)*

E. Questions

1. *(No Items)*

Attachments:

Specifications:

Specification Section 40 61 93 – DCS Input-Output Database

Specification Section 40 61 97 – Appendix A Instrumentation List

Other:

Pre-bid meeting agenda, minutes, & sign-in sheets

*** * * * END OF ADDENDUM NO. 1* * * ***

SECTION 40 61 93
DCS INPUT-OUTPUT DATABASE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. This Section describes the Distributed Control System (DCS) Input/Output (I/O) list. The I/O List is an Appendix to this Section.
   2. I/O list includes the following types of points:
      a. Points that are hardwired between the DCS and field instrumentation and control devices.
      b. Points that are interfaced to the DCS via a communication links.

B. Related Sections include but are not necessarily limited to:
   1. Division 01 - General Requirements.
   2. Section 40 61 13 – Process Control System General Provisions.
   3. Section 40 61 97 – Process Control System Instrument List.
   4. Section 40 63 43 – Distributed Control System.

1.2 QUALITY ASSURANCE

A. Referenced Standards:
   1. The International Society of Automation (ISA).
   2. ALCOSAN Control System Guidelines Rev. 5.

B. Any proposed deviations from the I/O List format, content and attributes stipulated by the ALCOSAN Control System Guidelines shall be submitted to the OWNER for approval.

1.3 SUBMITTALS

A. See Specification Section 01 33 00 – Submittal Procedures for requirements for the mechanics and administration of the submittal process.

B. Submittals (see Section 3.01 below):
   1. Pre-fabrication I/O List for OWNER approval.
   2. Post-Commissioning Final I/O List.

C. Submit bound I/O Lists indexed by facility, DPU, and I/O Rack.

D. Shop Drawings:
   1. Product technical data including:
      a. Acknowledgement that products submitted meet requirements of standards referenced.

1.4 I/O POINT LIST DESRIPTION

A. The I/O point list in the Appendix to this section contains I/O point information derived from the Contract drawings, Functional Descriptions, and specifications. The I/O List is organized in columns as described in the ALCOSAN Control System Guidelines.

PART 2 - PRODUCTS – (NOT USED)

PART 3 - EXECUTION

3.1 I/O DATABASE DEVELOPMENT

A. It is the responsibility of the SYSTEM INTEGRATOR, to develop the complete I/O List containing all information needed to facilitate panel building, testing and programming, and to fully document the I/O layout and interconnections.

B. Prior to the start of DPU panel fabrication, the Contractor shall submit an I/O List for OWNER review and approval that shall include for each I/O point, at a minimum, the following information:
   1. I/O Tag.
   2. Panel.
   3. P&ID Number.
   4. Point Description.
   5. Point Type.
   6. Input From / Output To.
   7. Signal to DPU.
   8. Min. – Max. Value Range.
   9. Engineering Units.
   10. Alarm Limits (HH, H, L, LL).
   11. Remarks.

C. Maintain a copy of the complete Input/Output List with modifications during construction in Excel format. I/O List shall be accessible to OWNER on demand.

D. Following successful DCS Commissioning, submit an "As Installed" final I/O Point list, with all fields listed in 1.4A representing the updated information, including all field-updated information.

3.2 I/O HARDWARE CONFIGURATION

A. Refer to the ALCOSAN Control System Guidelines for tag naming conventions, abbreviations, facility codes, standard state descriptors, and other information that is needed for guidance.

B. Partition the signals among I/O modules as described in Section 40 63 43, 2.3C to provide enhanced process control and monitoring resiliency.

3.3 POINT DATA FIELDS

A. Information in the I/O List data fields may be subject to review and modification by the OWNER during the Shop Drawing review phase. Incorporate changes directed by the OWNER throughout the system and associated documentation, at no additional cost to OWNER, subject to the following limitations:
   1. Requested modifications will be limited to 20 percent of the total number of I/O points.
   2. Each unique change will count as one modification. For example, modifying the description, range, and engineering unit on an analog input count as three modifications.
   3. Analog input alarm limit adjustments will not be counted as modifications.

END OF SECTION

Point Name	IO English Description	IO Type	Set (1)	Reset (0)	BOTBAR	TOPBAR	Units	Characteristic	Alarm Priority	Alarm	AlarmC	Trip	TripC	HW Address
PN	ED		ST	RS	BW	TW	EU	KR	AP					DPU Number
F911PRS000	PS W-1 Disch. Flow	AI			0	13	MGD							DPU 50-911
L911PRS000	PS W-1 Wetwell Level	AI			0	8	Ft							DPU 50-911
P911PRS001	PS W-1 Disch. Pres.	AI			0	150	PSIG							DPU 50-911
ST911PRS001	W-1 PRS 1 VFD Speed	AI			0	100	PCNT							DPU 50-911
ST911PRS002	W-1 PRS 2 VFD Speed	AI			0	100	PCNT							DPU 50-911
ST911PRS003	W-1 PRS 3 VFD Speed	AI			0	100	PCNT							DPU 50-911
SC911PRS001	W-1 PRS 1 VFD Speed Contr	AO			0	100	PCNT							DPU 50-911
SC911PRS002	W-1 PRS 2 VFD Speed Contr	AO			0	100	PCNT							DPU 50-911
SC911PRS003	W-1 PRS 3 VFD Speed Contr	AO			0	100	PCNT							DPU 50-911
FSL911PRS001	W-1 PRS 1 Seal Water Low Flow	DI	Low	Not Low										DPU 50-911
FSL911PRS002	W-1 PRS 2 Seal Water Low Flow	DI	Low	Not Low										DPU 50-911
FSL911PRS003	W-1 PRS 3 Seal Water Low Flow	DI	Low	Not Low										DPU 50-911
HS*E911BFV011	W-1 PRS 1 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-911
HS*E911BFV021	W-1 PRS 2 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-911
HS*E911BFV031	W-1 PRS 3 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-911
HS*E911KGV010	W-1 PRS 1 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-911
HS*E911KGV020	W-1 PRS 2 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-911
HS*E911KGV030	W-1 PRS 3 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-911
HS*E911PRS001	W-1 PRS 1 In Remote	DI	Remote	Local										DPU 50-911
HS*E911PRS002	W-1 PRS 2 In Remote	DI	Remote	Local										DPU 50-911
HS*E911PRS003	W-1 PRS 3 In Remote	DI	Remote	Local										DPU 50-911
HS*F911PRS001	W-1 PRS 1 Emerg. Stop	DI	E-stopped	Normal										DPU 50-911
HS*F911PRS002	W-1 PRS 2 Emerg. Stop	DI	E-stopped	Normal										DPU 50-911
HS*F911PRS003	W-1 PRS 3 Emerg. Stop	DI	E-stopped	Normal										DPU 50-911
L911TRS001	PS W-1 Wetwell Level Hi	DI	High	Not High										DPU 50-911
MS*A911PRS001	W-1 PRS 1 Run	DI	Running	Off										DPU 50-911
MS*A911PRS002	W-1 PRS 2 Run	DI	Running	Off										DPU 50-911
MS*A911PRS003	W-1 PRS 3 Run	DI	Running	Off										DPU 50-911
TSH911PRS001A	W-1 PRS 1 Hi Motor Temp.	DI	High	Not High										DPU 50-911
TSH911PRS001B	W-1 PRS 1 Hi Pump Temp.	DI	High	Not High										DPU 50-911
TSH911PRS002A	W-1 PRS 2 Hi Motor Temp.	DI	High	Not High										DPU 50-911
TSH911PRS002B	W-1 PRS 2 Hi Pump Temp.	DI	High	Not High										DPU 50-911
TSH911PRS003	W-1 PRS 3 Hi Motor Temp.	DI	High	Not High										DPU 50-911
TSH911PRS003B	W-1 PRS 3 Hi Pump Temp.	DI	High	Not High										DPU 50-911
XA911BFV011	W-1 PRS 1 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-911
XA911BFV021	W-1 PRS 2 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-911
XA911BFV031	W-1 PRS 3 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-911
XA911KGV010	W-1 PRS 1 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-911
XA911KGV020	W-1 PRS 2 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-911
XA911KGV030	W-1 PRS 3 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-911
XA911PRS001	W-1 PRS 1 VFD Fault	DI	Alarm	Normal										DPU 50-911
XA911PRS002A	W-1 PRS 2 VFD VFD Fault	DI	Alarm	Normal										DPU 50-911
XA911PRS003	W-1 PRS 3 VFD Fault	DI	Alarm	Normal										DPU 50-911
ZSC911BFV011	W-1 PRS 1 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-911

Point Name	IO English Description	IO Type	Set (1)	Reset (0)	BOTBAR	TOPBAR	Units	Characteristic	Alarm Priority	Alarm	AlarmC	Trip	TripC	HW Address
PN	ED		ST	RS	BW	TW	EU	KR	AP					DPU Number
ZSC911BFV021	W-1 PRS 2 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-911
ZSC911BFV031	W-1 PRS 3 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-911
ZSC911KGV010	W-1 PRS 1 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-911
ZSC911KGV020	W-1 PRS 2 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-911
ZSC911KGV030	W-1 PRS 3 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-911
ZSC911PRS001	W-1 PRS 1 Seal Water Open/Close	DI	Closed	Not Closed										DPU 50-911
ZSC911PRS002	W-1 PRS 2 Seal Water Open/Close	DI	Closed	Not Closed										DPU 50-911
ZSC911PRS003	W-1 PRS 3 Seal Water Open/Close	DI	Closed	Not Closed										DPU 50-911
ZSO911BFV011	W-1 PRS 1 Inlet Valve Open	DI	Open	Not Open										DPU 50-911
ZSO911BFV021	W-1 PRS 2 Inlet Valve Open	DI	Open	Not Open										DPU 50-911
ZSO911BFV031	W-1 PRS 3 Inlet Valve Open	DI	Open	Not Open										DPU 50-911
ZSO911KGV010	W-1 PRS 1 Inlet Valve Open	DI	Open	Not Open										DPU 50-911
ZSO911KGV020	W-1 PRS 2 Inlet Valve Open	DI	Open	Not Open										DPU 50-911
ZSO911KGV030	W-1 PRS 3 Inlet Valve Open	DI	Open	Not Open										DPU 50-911
ZSO911PRS001	W-1 PRS 1 Seal Water Open/Close	DI	Open	Not Open										DPU 50-911
ZSO911PRS002	W-1 PRS 2 Seal Water Open/Close	DI	Open	Not Open										DPU 50-911
ZSO911PRS003	W-1 PRS 3Seal Water Open/Close	DI	Open	Not Open										DPU 50-911
HS*A911PRS001	W-1 PRS 1 Start/Stop	DO	Start	Stop										DPU 50-911
HS*A911PRS002	W-1 PRS 2 Start/Stop	DO	Start	Stop										DPU 50-911
HS*A911PRS003	W-1 PRS 3 Start/Stop	DO	Start	Stop										DPU 50-911
HV*A911BFV011	W-1 PRS 1 Outlet Valve Open/Close	DO	Open	No										DPU 50-911
HV*A911BFV021	W-1 PRS 2 Outlet Valve Open/Close	DO	Open	No										DPU 50-911
HV*A911BFV031	W-1 PRS 3 Outlet Valve Open/Close	DO	Open	No										DPU 50-911
HV*A911KGV010	W-1 PRS 1 Outlet Valve Open/Close	DO	Open	No										DPU 50-911
HV*A911KGV020	W-1 PRS 2 Outlet Valve Open/Close	DO	Open	No										DPU 50-911
HV*A911KGV030	W-1 PRS 3 Outlet Valve Open/Close	DO	Open	No										DPU 50-911
HV*A911PRS001	W-1 PRS 1 Seal Water Open/Close	DO	Open	No										DPU 50-911
HV*A911PRS002	W-1 PRS 2 Seal Water Open/Close	DO	Open	No										DPU 50-911
HV*A911PRS003	W-1 PRS 3 Seal Water Open/Close	DO	Open	No										DPU 50-911
F912PRS000	PS W-2 Disch. Flow	AI			0	13	MGD							RIO 50-912
L912PRS000	PS W-2 Wetwell Level	AI			0	8	Ft							RIO 50-912
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HS*E912BFV031	W-2 PRS 3 Outlet Valve Valve In Remote	DI	Remote	Local										RIO 50-912

Point Name	IO English Description	IO Type	Set (1)	Reset (0)	BOTBAR	TOPBAR	Units	Characteristic	Alarm Priority	Alarm	AlarmC	Trip	TripC	HW Address
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HS*E912KGV030	W-2 PRS 3 Outlet Valve Valve In Remote	DI	Remote	Local										RIO 50-912
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HS*A912PRS003	W-2 PRS 3 Start/Stop	DO	Start	Stop										RIO 50-912
HV*A912BFV011	W-2 PRS 1 Outlet Valve Open/Close	DO	Open	No										RIO 50-912

Point Name	IO English Description	IO Type	Set (1)	Reset (0)	BOTBAR	TOPBAR	Units	Characteristic	Alarm Priority	Alarm	AlarmC	Trip	TripC	HW Address
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HV*A912BFV031	W-2 PRS 3 Outlet Valve Open/Close	DO	Open	No										RIO 50-912
HV*A912KGV010	W-2 PRS 1 Outlet Valve Open/Close	DO	Open	No										RIO 50-912
HV*A912KGV020	W-2 PRS 2 Outlet Valve Open/Close	DO	Open	No										RIO 50-912
HV*A912KGV030	W-2 PRS 3 Outlet Valve Open/Close	DO	Open	No										RIO 50-912
HV*A912PRS001	W-2 PRS 1 Seal Water Open/Close	DO	Open	No										RIO 50-912
HV*A912PRS002	W-2 PRS 2 Seal Water Open/Close	DO	Open	No										RIO 50-912
HV*A912PRS003	W-2 PRS 3 Seal Water Open/Close	DO	Open	No										RIO 50-912
F921PRS000	PS E-1 Disch. Flow	AI			0	13	MGD							DPU 50-921
L921PRS000	PS E-1 Wetwell Level	AI			0	8	Ft							DPU 50-921
P921PRS001	PS E-1 Disch. Pres.	AI			0	150	PSIG							DPU 50-921
ST921PRS001	E-1 PRS 1 VFD Speed	AI			0	100	PCNT							DPU 50-921
ST921PRS002	E-1 PRS 2 VFD Speed	AI			0	100	PCNT							DPU 50-921
ST921PRS003	E-1 PRS 3 VFD Speed	AI			0	100	PCNT							DPU 50-921
SC921PRS001	E-1 PRS 1 VFD Speed Contr	AO			0	100	PCNT							DPU 50-921
SC921PRS002	E-1 PRS 2 VFD Speed Contr	AO			0	100	PCNT							DPU 50-921
SC921PRS003	E-1 PRS 3 VFD Speed Contr	AO			0	100	PCNT							DPU 50-921
FSL921PRS001	E-1 PRS 1 Seal Water Low Flow	DI	Low	Not Low										DPU 50-921
FSL921PRS002	E-1 PRS 2 Seal Water Low Flow	DI	Low	Not Low										DPU 50-921
FSL921PRS003	E-1 PRS 3 Seal Water Low Flow	DI	Low	Not Low										DPU 50-921
HS*E921BFV011	E-1 PRS 1 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-921
HS*E921BFV021	E-1 PRS 2 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-921
HS*E921BFV031	E-1 PRS 3 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-921
HS*E921KGV010	E-1 PRS 1 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-921
HS*E921KGV020	E-1 PRS 2 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-921
HS*E921KGV030	E-1 PRS 3 Outlet Valve Valve In Remote	DI	Remote	Local										DPU 50-921
HS*E921PRS001	E-1 PRS 1 In Remote	DI	Remote	Local										DPU 50-921
HS*E921PRS002	E-1 PRS 2 In Remote	DI	Remote	Local										DPU 50-921
HS*E921PRS003	E-1 PRS 3 In Remote	DI	Remote	Local										DPU 50-921
HS*F921PRS001	E-1 PRS 1 Emerg. Stop	DI	E-stopped	Normal										DPU 50-921
HS*F921PRS002	E-1 PRS 2 Emerg. Stop	DI	E-stopped	Normal										DPU 50-921
HS*F921PRS003	E-1 PRS 3 Emerg. Stop	DI	E-stopped	Normal										DPU 50-921
L921TRS001	PS E-1 Wetwell Level Hi	DI	High	Not High										DPU 50-921
MS*A921PRS001	E-1 PRS 1 Run	DI	Running	Off										DPU 50-921
MS*A921PRS002	E-1 PRS 2 Run	DI	Running	Off										DPU 50-921
MS*A921PRS003	E-1 PRS 3 Run	DI	Running	Off										DPU 50-921
TSH921PRS001A	E-1 PRS 1 Hi Motor Temp.	DI	High	Not High										DPU 50-921
TSH921PRS001B	E-1 PRS 1 Hi Pump Temp.	DI	High	Not High										DPU 50-921
TSH921PRS002A	E-1 PRS 2 Hi Motor Temp.	DI	High	Not High										DPU 50-921
TSH921PRS002B	E-1 PRS 2 Hi Pump Temp.	DI	High	Not High										DPU 50-921
TSH921PRS003	E-1 PRS 3 Hi Motor Temp.	DI	High	Not High										DPU 50-921
TSH921PRS003B	E-1 PRS 3 Hi Pump Temp.	DI	High	Not High										DPU 50-921
XA921BFV011	E-1 PRS 1 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-921
XA921BFV021	E-1 PRS 2 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-921

Point Name	IO English Description	IO Type	Set (1)	Reset (0)	BOTBAR	TOPBAR	Units	Characteristic	Alarm Priority	Alarm	AlarmC	Trip	TripC	HW Address
PN	ED		ST	RS	BW	TW	EU	KR	AP					DPU Number
XA921BFV031	E-1 PRS 3 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-921
XA921KGV010	E-1 PRS 1 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-921
XA921KGV020	E-1 PRS 2 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-921
XA921KGV030	E-1 PRS 3 Outlet Valve Fault	DI	Alarm	Normal										DPU 50-921
XA921PRS001	E-1 PRS 1 VFD Fault	DI	Alarm	Normal										DPU 50-921
XA921PRS002A	E-1 PRS 2 VFD VFD Fault	DI	Alarm	Normal										DPU 50-921
XA921PRS003	E-1 PRS 3 VFD Fault	DI	Alarm	Normal										DPU 50-921
ZSC921BFV011	E-1 PRS 1 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-921
ZSC921BFV021	E-1 PRS 2 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-921
ZSC921BFV031	E-1 PRS 3 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-921
ZSC921KGV010	E-1 PRS 1 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-921
ZSC921KGV020	E-1 PRS 2 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-921
ZSC921KGV030	E-1 PRS 3 Inlet Valve Closed	DI	Closed	Not Closed										DPU 50-921
ZSO921BFV011	E-1 PRS 1 Inlet Valve Open	DI	Open	Not Open										DPU 50-921
ZSO921BFV021	E-1 PRS 2 Inlet Valve Open	DI	Open	Not Open										DPU 50-921
ZSO921BFV031	E-1 PRS 3 Inlet Valve Open	DI	Open	Not Open										DPU 50-921
ZSO921KGV010	E-1 PRS 1 Inlet Valve Open	DI	Open	Not Open										DPU 50-921
ZSO921KGV020	E-1 PRS 2 Inlet Valve Open	DI	Open	Not Open										DPU 50-921
ZSO921KGV030	E-1 PRS 3 Inlet Valve Open	DI	Open	Not Open										DPU 50-921
HS*A921PRS001	E-1 PRS 1 Start/Stop	DO	Start	Stop										DPU 50-921
HS*A921PRS002	E-1 PRS 2 Start/Stop	DO	Start	Stop										DPU 50-921
HS*A921PRS003	E-1 PRS 3 Start/Stop	DO	Start	Stop										DPU 50-921
HV*A921BFV011	E-1 PRS 1 Outlet Valve Open/Close	DO	Open	No										DPU 50-921
HV*A921BFV021	E-1 PRS 2 Outlet Valve Open/Close	DO	Open	No										DPU 50-921
HV*A921BFV031	E-1 PRS 3 Outlet Valve Open/Close	DO	Open	No										DPU 50-921
HV*A921KGV010	E-1 PRS 1 Outlet Valve Open/Close	DO	Open	No										DPU 50-921
HV*A921KGV020	E-1 PRS 2 Outlet Valve Open/Close	DO	Open	No										DPU 50-921
HV*A921KGV030	E-1 PRS 3 Outlet Valve Open/Close	DO	Open	No										DPU 50-921
HV*A921PRS001	E-1 PRS 1 Seal Water Open/Close	DO	Open	No										DPU 50-921
HV*A921PRS002	E-1 PRS 2 Seal Water Open/Close	DO	Open	No										DPU 50-921
HV*A921PRS003	E-1 PRS 3 Seal Water Open/Close	DO	Open	No										DPU 50-921
F922PRS000	PS E-2 Disch. Flow	AI			0	13	MGD							RIO 50-922
JT922MCC035A	BUS-A Peak KW Demand	AI			0	700	KVA							RIO 50-922
JT922MCC035B	BUS-B Peak KW Demand	AI			0	700	KVA							RIO 50-922
L922PRS000	PS E-2 Wetwell Level	AI			0	8	Ft							RIO 50-922
P922PRS001	PS E-2 Disch. Pres.	AI			0	150	PSIG							RIO 50-922
ST922PRS001	E-2 PRS 1 VFD Speed	AI			0	100	PCNT							RIO 50-922
ST922PRS002	E-2 PRS 2 VFD Speed	AI			0	100	PCNT							RIO 50-922
ST922PRS003	E-2 PRS 3 VFD Speed	AI			0	100	PCNT							RIO 50-922
SC922PRS001	E-2 PRS 1 VFD Speed Contr	AO			0	100	PCNT							RIO 50-922
SC922PRS002	E-2 PRS 2 VFD Speed Contr	AO			0	100	PCNT							RIO 50-922
SC922PRS003	E-2 PRS 3 VFD Speed Contr	AO			0	100	PCNT							RIO 50-922
FSL922PRS001	E-2 PRS 1 Seal Water Low Flow	DI	Low	Not Low										RIO 50-922
FSL922PRS002	E-2 PRS 2 Seal Water Low Flow	DI	Low	Not Low										RIO 50-922

Point Name	IO English Description	IO Type	Set (1)	Reset (0)	BOTBAR	TOPBAR	Units	Characteristic	Alarm Priority	Alarm	AlarmC	Trip	TripC	HW Address
PN	ED		ST	RS	BW	TW	EU	KR	AP					DPU Number
FSL922PRS003	E-2 PRS 3 Seal Water Low Flow	DI	Low	Not Low										RIO 50-922
HS*E922BFV011	E-1 PRS 1 Outlet Valve Valve In Remote	DI	Remote	Local										RIO 50-922
HS*E922BFV021	E-1 PRS 2 Outlet Valve Valve In Remote	DI	Remote	Local										RIO 50-922
HS*E922BFV031	E-1 PRS 3 Outlet Valve Valve In Remote	DI	Remote	Local										RIO 50-922
HS*E922KGV010	E-2 PRS 1 Outlet Valve Valve In Remote	DI	Remote	Local										RIO 50-922
HS*E922KGV020	E-2 PRS 2 Outlet Valve Valve In Remote	DI	Remote	Local										RIO 50-922
HS*E922KGV030	E-2 PRS 3 Outlet Valve Valve In Remote	DI	Remote	Local										RIO 50-922
HS*E922PRS001	E-2 PRS 1 In Remote	DI	Remote	Local										RIO 50-922
HS*E922PRS002	E-2 PRS 2 In Remote	DI	Remote	Local										RIO 50-922
HS*E922PRS003	E-2 PRS 3 In Remote	DI	Remote	Local										RIO 50-922
HS*F922PRS001	E-2 PRS 1 Emerg. Stop	DI	E-stopped	Normal										RIO 50-922
HS*F922PRS002	E-2 PRS 2 Emerg. Stop	DI	E-stopped	Normal										RIO 50-922
HS*F922PRS003	E-2 PRS 3 Emerg. Stop	DI	E-stopped	Normal										RIO 50-922
L922TRS001	PS E-2 Wetwell Level Hi	DI	High	Not High										RIO 50-922
MS*A922PRS001	E-2 PRS 1 Run	DI	Running	Off										RIO 50-922
MS*A922PRS002	E-2 PRS 2 Run	DI	Running	Off										RIO 50-922
MS*A922PRS003	E-2 PRS 3 Run	DI	Running	Off										RIO 50-922
TSH912PRS001A	E-2 PRS 1 Hi Motor Temp.	DI	High	Not High										RIO 50-922
TSH922PRS001B	E-2 PRS 1 Hi Pump Temp.	DI	High	Not High										RIO 50-922
TSH922PRS002A	E-2 PRS 2 Hi Motor Temp.	DI	High	Not High										RIO 50-922
TSH922PRS002B	E-2 PRS 2 Hi Pump Temp.	DI	High	Not High										RIO 50-922
TSH922PRS003	E-2 PRS 3 Hi Motor Temp.	DI	High	Not High										RIO 50-922
TSH922PRS003B	E-2 PRS 3 Hi Pump Temp.	DI	High	Not High										RIO 50-922
XA922BFV011	E-1 PRS 1 Outlet Valve Fault	DI	Alarm	Normal										RIO 50-922
XA922BFV021	E-1 PRS 2 Outlet Valve Fault	DI	Alarm	Normal										RIO 50-922
XA922BFV031	E-1 PRS 3 Outlet Valve Fault	DI	Alarm	Normal										RIO 50-922
XA922KGV010	E-2 PRS 1 Outlet Valve Fault	DI	Alarm	Normal										RIO 50-922
XA922KGV020	E-2 PRS 2 Outlet Valve Fault	DI	Alarm	Normal										RIO 50-922
XA922KGV030	E-2 PRS 3 Outlet Valve Fault	DI	Alarm	Normal										RIO 50-922
XA922PRS001	E-2 PRS 1 VFD Fault	DI	Alarm	Normal										RIO 50-922
XA922PRS002A	E-2 PRS 2 VFD VFD Fault	DI	Alarm	Normal										RIO 50-922
XA922PRS003	E-2 PRS 3 VFD Fault	DI	Alarm	Normal										RIO 50-922
ZSC922BFV011	E-1 PRS 1 Inlet Valve Closed	DI	Closed	Not Closed										RIO 50-922
ZSC922BFV021	E-1 PRS 2 Inlet Valve Closed	DI	Closed	Not Closed										RIO 50-922
ZSC922BFV031	E-1 PRS 3 Inlet Valve Closed	DI	Closed	Not Closed										RIO 50-922
ZSC922KGV010	E-2 PRS 1 Inlet Valve Closed	DI	Closed	Not Closed										RIO 50-922
ZSC922KGV020	E-2 PRS 2 Inlet Valve Closed	DI	Closed	Not Closed										RIO 50-922
ZSC922KGV030	E-2 PRS 3 Inlet Valve Closed	DI	Closed	Not Closed										RIO 50-922
ZSO922BFV011	E-1 PRS 1 Inlet Valve Open	DI	Open	Not Open										RIO 50-922
ZSO922BFV021	E-1 PRS 2 Inlet Valve Open	DI	Open	Not Open										RIO 50-922
ZSO922BFV031	E-1 PRS 3 Inlet Valve Open	DI	Open	Not Open										RIO 50-922
ZSO922KGV010	E-2 PRS 1 Inlet Valve Open	DI	Open	Not Open										RIO 50-922
ZSO922KGV020	E-2 PRS 2 Inlet Valve Open	DI	Open	Not Open										RIO 50-922
ZSO922KGV030	E-2 PRS 3 Inlet Valve Open	DI	Open	Not Open										RIO 50-922

Point Name	IO English Description	IO Type	Set (1)	Reset (0)	BOTBAR	TOPBAR	Units	Characteristic	Alarm Priority	Alarm	AlarmC	Trip	TripC	HW Address
PN	ED		ST	RS	BW	TW	EU	KR	AP					DPU Number
HS*A922PRS001	E-2 PRS 1 Start/Stop	DO	Start	Stop										RIO 50-922
HS*A922PRS002	E-2 PRS 2 Start/Stop	DO	Start	Stop										RIO 50-922
HS*A922PRS003	E-2 PRS 3 Start/Stop	DO	Start	Stop										RIO 50-922
HV*A922BFV011	E-1 PRS 1 Outlet Valve Open/Close	DO	Open	No										RIO 50-922
HV*A922BFV021	E-1 PRS 2 Outlet Valve Open/Close	DO	Open	No										RIO 50-922
HV*A922BFV031	E-1 PRS 3 Outlet Valve Open/Close	DO	Open	No										RIO 50-922
HV*A922KGV010	E-2 PRS 1 Outlet Valve Open/Close	DO	Open	No										RIO 50-922
HV*A922KGV020	E-2 PRS 2 Outlet Valve Open/Close	DO	Open	No										RIO 50-922
HV*A922KGV030	E-2 PRS 3 Outlet Valve Open/Close	DO	Open	No										RIO 50-922
HV*A922PRS001	E-2 PRS 1 Seal Water Open/Close	DO	Open	No										RIO 50-922
HV*A922PRS002	E-2 PRS 2 Seal Water Open/Close	DO	Open	No										RIO 50-922
HV*A922PRS003	E-2 PRS 3 Seal Water Open/Close	DO	Open	No										RIO 50-922
PAH921MAU001	E-1 MAU001-921 High Filter	DI	Alarm	Normal										DPU 50-921
PAH922MAU001	E-2 MAU001-922 High Filter	DI	Alarm	Normal										RIO 50-922
TAH912MAU001	W-2 Electrical Room High Temp	DI	High	Not High										RIO 50-912
TAH921MAU001	E-1 Electrical Room High Temp	DI	High	Not High										DPU 50-921
TAH922MAU001	E-2 Electrical Room High Temp	DI	High	Not High										RIO 50-922
TAL912MAU001	W-2 Electrical Room Low Temp	DI	Low	Not Low										RIO 50-912
TAL921MAU001A	E-1 Central Pipe Gallery Low Temp	DI	Low	Not Low										DPU 50-921
TAL921MAU001B	E-1 Electrical Room Low Temp	DI	Low	Not Low										DPU 50-921
TAL922MAU001A	E-2 Central Pipe Gallery Low Temp	DI	Low	Not Low										RIO 50-922
TAL922MAU001B	E-2 Electrical Room Low Temp	DI	Low	Not Low										RIO 50-922
XA912EF001A	W-2 EF001-912 Vent Fail	DI	Alarm	Normal										RIO 50-912
XA921MAU001A	E-1 MAU001-921 Vent Fail	DI	Alarm	Normal										DPU 50-921
XA921MAU001B	E-1 MAU001-921 Heater Fail	DI	Alarm	Normal										DPU 50-921
XA922MAU001A	E-2 MAU001-922 Vent Fail	DI	Alarm	Normal										RIO 50-922
XA922MAU001B	E-2 MAU001-922 Heater Fai	DI	Alarm	Normal										RIO 50-922
XA911FACP	FACP Emergency Vent Shutdown	DO	Alarm	Normal										DPU 50-911
XA912FACP	FACP Emergency Vent Shutdown	DO	Alarm	Normal										RIO 50-912
XA921FACP	FACP Emergency Vent Shutdown	DO	Alarm	Normal										DPU 50-921
XA922FACP	FACP Emergency Vent Shutdown	DO	Alarm	Normal										RIO 50-922
JT911MCC032A	W-1 BUS-A Peak KW Demand	AI			0	700	KVA							DPU 50-911
JT911MCC032B	W-1 BUS-B Peak KW Demand	AI			0	700	KVA							DPU 50-911
JT912MCC034A	W-2 BUS-A Peak KW Demand	AI			0	700	KVA							RIO 50-912
JT912MCC034B	W-2 BUS-B Peak KW Demand	AI			0	700	KVA							RIO 50-912
JT921MCC033A	E-1 BUS-A Peak KW Demand	AI			0	700	KVA							DPU 50-921
JT921MCC033B	E-1 BUS-B Peak KW Demand	AI			0	700	KVA							DPU 50-921
PAH911MAU001	W-1 MAU001-911 High Filter	DI	Alarm	Normal										DPU 50-911
TAH911MAU001	W-1 Electrical Room High Temp	DI	High	Not High										DPU 50-911
TAL911MAU001A	W-1 Central Pipe Gallery Low Temp	DI	Low	Not Low										DPU 50-911
TAL911MAU001B	W-1 Electrical Room Low Temp	DI	Low	Not Low										DPU 50-911
XA911EF001A	W-1 EF001-827 Vent Fail	DI	Alarm	Normal										DPU 50-911
XA911EF001B	W-1 EF001-837 Vent Fail	DI	Alarm	Normal										DPU 50-911
XA911EF002A	W-1 EF002-827 Vent Fail	DI	Alarm	Normal										DPU 50-911

Point Name	IO English Description	IO Type	Set (1)	Reset (0)	BOTBAR	TOPBAR	Units	Characteristic	Alarm Priority	Alarm	AlarmC	Trip	TripC	HW Address
PN	ED		ST	RS	BW	TW	EU	KR	AP					DPU Number
XA911EF002B	W-1 EF002-837 Vent Fail	DI	Alarm	Normal										DPU 50-911
XA911MAU001A	W-1 MAU001-911 Vent Fail	DI	Alarm	Normal										DPU 50-911
XA911MAU001B	W-1 MAU001-911 Heater Fail	DI	Alarm	Normal										DPU 50-911
YA827EF001A	EF001-827 Duct Smoke Alarm	DI	Alarm	Normal										RIO 50-922
YA827EF001B	EF001-827 Duct Smoke Trbl.	DI	Alarm	Normal										RIO 50-922
YA837EF001A	EF001-837 Duct Smoke Alarm	DI	Alarm	Normal										RIO 50-912
YA837EF001B	EF001-837 Duct Smoke Trbl.	DI	Alarm	Normal										RIO 50-912
YA911EF001A	EF001-911 Duct Smoke Alarm	DI	Alarm	Normal										DPU 50-911
YA911EF001B	EF001-911 Duct Smoke Trbl.	DI	Alarm	Normal										DPU 50-911
YA912EF001A	EF001-912 Duct Smoke Alarm	DI	Alarm	Normal										RIO 50-912
YA912EF001B	EF001-912 Duct Smoke Trbl.	DI	Alarm	Normal										RIO 50-912
YA921EF001A	EF001-921 Duct Smoke Alarm	DI	Alarm	Normal										RIO 50-921
YA921EF001B	EF001-921 Duct Smoke Trbl.	DI	Alarm	Normal										RIO 50-921
YA922EF001A	EF001-922 Duct Smoke Alarm	DI	Alarm	Normal										RIO 50-922
YA922EF001B	EF001-922 Duct Smoke Trbl.	DI	Alarm	Normal										RIO 50-922
ZSCMCC032A	BUS-A MCB Breaker Closed	DI	Closed	Not Closed										DPU 50-911
ZSCMCC032B	BUS-B MCB Breaker Closed	DI	Closed	Not Closed										DPU 50-911
ZSCMCC032C	TCB Breaker Closed	DI	Closed	Not Closed										DPU 50-911
ZSCMCC033A	BUS-A MCB Breaker Closed	DI	Closed	Not Closed										DPU 50-921
ZSCMCC033B	BUS-B MCB Breaker Closed	DI	Closed	Not Closed										DPU 50-921
ZSCMCC033C	TCB Breaker Closed	DI	Closed	Not Closed										DPU 50-921
ZSCMCC034A	BUS-A MCB Breaker Closed	DI	Closed	Not Closed										RIO 50-912
ZSCMCC034B	BUS-B MCB Breaker Closed	DI	Closed	Not Closed										RIO 50-912
ZSCMCC034C	TCB Breaker Closed	DI	Closed	Not Closed										RIO 50-912
ZSCMCC035A	BUS-A MCB Breaker Closed	DI	Closed	Not Closed										RIO 50-922
ZSCMCC035B	BUS-B MCB Breaker Closed	DI	Closed	Not Closed										RIO 50-922
ZSCMCC035C	TCB Breaker Closed	DI	Closed	Not Closed										RIO 50-922

Location Description	Device Description	Manufacturer	Model No.	Power Supply	2 Wire/4 Wire	Process Connection	Eng. Unit	Range	Setpoint	EU Scale Low	EU Scale High	Signal Type	Remarks
Pump Station W-1	Discharge Flow Transmitter	Rosemount	3051DP	24 VDC	2 Wire	1/4-18 NPT	MGD	0-13	N/A	0	13	4 - 20 mADC	Furnish with 316L SST Isolating Diaphragm
Pump No.1	Low Seal Water Rotameters	Brooks Instruments.		N/A	N/A	0.75" male NPT	GPM	0-1	N/A	0	1		
Pump No.1	Low Seal Water Flow Switch	Fluid Components, Inc.	FLT93B Thermal Dispersion	120 VAC	N/A	0.75" male NPT	FT/S	0.01-0.5	0.5	0	0.5	DPDT	
Pump No.2	Low Seal Water Rotameters	Brooks Instruments.		N/A	N/A	0.75" male NPT	GPM	0-1	N/A	0	1		
Pump No.2	Low Seal Water Flow Switch	Fluid Components, Inc.	FLT93B Thermal Dispersion	120 VAC	N/A	0.75" male NPT	N/A	0.01-0.5	0.5	0	0.5	DPDT	
Pump No.3	Low Seal Water Rotameters	Brooks Instruments.		N/A	N/A	0.75" male NPT	GPM	0-1	N/A	0	1		
Pump No.3	Low Seal Water Flow Switch	Fluid Components, Inc.	FLT93B Thermal Dispersion	120 VAC	N/A	0.75" male NPT	N/A	0.01-0.5	0.5	0	0.5	DPDT	
Wet Well	Level Transmitter	Endress+Hauser	Prosonic S FMU90	120 VAC	4 Wire	3/4" NPT	ft/%	0-8/0-100	N/A	0	8/100	4 - 20 mADC	See Mechanical Drawings for setpoints
Wet Well	Level Transmitter	Endress+Hauser	Prosonic S FMU90	120 VAC	4 Wire	3/4" NPT	ft/%	0-8/0-100	N/A	0	8/100	4 - 20 mADC	See Mechanical Drawings for setpoints
W-1 Wet Well	Level Switch	Endress+Hauser	Liquicap FTI 51/52	120 VAC	N/A	0.75" male NPT	N/A	N/A	N/A	N/A	N/A	DPDT	Integral Electronics, See Mechanical Drawings for setpoint
Pump Station W-1	Discharge Pressure Transmitter	Emerson	3051	24 VDC	2 Wire		PSIG	0-150	N/A	0	150	4 - 20 mADC	Furnish with Diaphragm Seal
Pump No.1	Inlet Press Gauge	Ametek/US Gauge	SOLFRUNT 1980	N/A	N/A	1/2-14 ANPT	PSIG	0-30	N/A	0	30		Furnish with Diaphragm Seal
Pump No.1	Seal Water Press Gauge	Ametek/US Gauge	Series P-500	N/A	N/A	1/4-18 NPT	PSIG	0-15	N/A	0	15		
Pump No.2	Inlet Press Gauge	Ametek/US Gauge	SOLFRUNT 1980	N/A	N/A	1/2-14 ANPT	PSIG	0-30	N/A	0	30		Furnish with Diaphragm Seal
Pump No.2	Seal Water Press Gauge	Ametek/US Gauge	Series P-500	N/A	N/A	1/4-18 NPT	PSIG	0-15	N/A	0	15		
Pump No.3	Inlet Press Gauge	Ametek/US Gauge	SOLFRUNT 1980	N/A	N/A	1/2-14 NPT	PSIG	0-30	N/A	0	30		Furnish with Diaphragm Seal
Pump No.3	Seal Water Press Gauge	Ametek/US Gauge	Series P-500	N/A	N/A	1/4-18 NPT	PSIG	0-15	N/A	0	15		
Pump Station W-2	Discharge Flow Transmitter	Rosemount	3051DP	24 VDC	2 Wire	1/4-18 NPT	MGD	0-13	N/A	0	13	4 - 20 mADC	Furnish with 316L SST Isolating Diaphragm
Pump No.1	Low Seal Water Rotameters	Brooks Instruments.		N/A	N/A	0.75" male NPT	GPM	0-1	N/A	0	1		
Pump No.1	Low Seal Water Flow Switch	Fluid Components, Inc.	FLT93B Thermal Dispersion	120 VAC	N/A	0.75" male NPT	N/A	0.01-0.5	0.5	0	0.5	DPDT	
Pump No.2	Low Seal Water Rotameters	Brooks Instruments.		N/A	N/A	0.75" male NPT	GPM	0-1	N/A	0	1		
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Wet Well	Level Transmitter	Endress+Hauser	Prosonic S FMU90	120 VAC	4 Wire	3/4" NPT	ft/%	0-8/0-100	N/A	0	8/100	4 - 20 mADC	See Mechanical Drawings for setpoints
W-2 Wet Well	Level Switch	Endress+Hauser	Liquicap FTI 51/52	120 VAC	N/A	0.75" male NPT	N/A	N/A	N/A	N/A	N/A	DPDT	Integral Electronics, See Mechanical Drawings for setpoint
E-1 Wet Well	Level Switch	Endress+Hauser	Liquicap FTI 51/52	120 VAC	N/A	0.75" male NPT	N/A	N/A	N/A	N/A	N/A	DPDT	Integral Electronics, See Mechanical Drawings for setpoint
Pump Station W-2	Discharge Pressure Transmitter	Emerson	3051	24 VDC	2 Wire		PSIG	0-150	N/A	0	150	4 - 20 mADC	Furnish with Diaphragm Seal
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CONTRACTS 1728 G, E, H, P
RAS PIPING and PUMP REPLACEMENT
PRE-BID MEETING AGENDA

THURSDAY JUNE 11, 2020 @ 10:00 AM
VIDEO CONFERENCE CALL

JOHN FINDLEY – ALCOSAN PROJECT MANAGER
DAN PETROWSKI – CONSTRUCTION MANAGER
Daniel.Petrowski@mbakerintl.com

1. INTRODUCTION

a. Opening comments from Construction Manager
b. All attendees shall acknowledge attendance by email.
c. Introductions
d. Encourage a target goal of WBE/MBE participation. (10% to 25% of contract value)
e. *Contractor shall adhere to and strictly enforce among its employees the COVID-19 pandemic regulations issued by the Governor, CDC, ACHD, etc. to keep the workplace safe.*
f. Scope of Work & Construction Sequencing Presentation by HDR (Engineer)
g. QUESTIONS

BID DOCUMENTS

2. Legal Notice

a. Bid security 10% of bid price by certified check or bid bond. (2.19)
b. All bids to be submitted to ALCOSAN Engineering Department clerks (2nd floor of the O&M Building) on or before bid opening date and time. If the bid package is sent to ALCOSAN by land courier (UPS, FedEx, etc.), allow enough time for delivery to the clerks.
c. Bid opening on **WEDNESDAY JULY 8th, 2020** at **11:00 AM** sharp!
d. Anticipation of a recommendation for the **July 23rd, 2020** ALCOSAN Board meeting.
e. All questions about contract documents shall be submitted to Dan Petrowski by email to Daniel.Petrowski@mbakerintl.com. Any questions by phone or in-person are considered informal and without legal or binding effect on the contract or to the Owner.
f. The last day for questions is **5:00 PM June 29th, 2020** Responses will be distributed as addenda, as soon as possible, as deemed applicable.
g. Pre-bid meeting is not mandatory for bidders.
h. QUESTIONS

3. Bidding Documents [Article One]

a. Bid Form - fill in
    i. Addenda acknowledgement (2.16)
    ii. BASE BID SUMMARY 1728G = Lump Sum (Item #1) + Total of Extended Amount for Unit Price (Item #2) (pp. 1-2G, 1-3G)

iii. BASE BID 1728E, H, P = Item #1 Lump Sum Work (p.1-2E, H, P)
iv. All bids submitted with all bid forms complete and signed by authorized representative of the Company.
v. Only the bid forms need to be submitted (Article 1 → pages 1-1G through 1-23G ; 1-1E,H,P through 1-21E,H,P.
vi. Include in each Bid the Solicitation and Commitment Statement MBE and WBE pages 1 of 4 through 4 of 4). Include Certificate of M/WBE Participation. (2.25)
vii. Contractor Qualification Statement Items 5 & 6. Follow directions carefully.(2.24)

b. Provide a contact for your company in the space designated for receipt of any communications necessary for the bid evaluation.
c. No Alternates with Bids
d. Bid Bond - Certified check or Bid Bond.
e. Non-collusion Affidavit
f. Certificate of Compliance with Steel Products Procurement Act (3.77)
g. Certificate of Safety Procedures Compliance
h. Don't need to submit the entire Volume I with Bid
i. QUESTIONS

4. <u>Information for Bidders [Article Two]</u>

a. Carefully review Bid Documents and location and conditions of Job site. (2.02, 2.13)
b. Submission of Bids (2.04); Sealed Bid to be submitted to ALCOSAN Engineering Department (2nd floor of the O&M Building) on or before bid opening date and late bids (anything received after July 8th, 2020 **11:00 AM**) will be treated as "non-responsive" and returned to the Bidder unopened
c. Contract execution typically requires 4 weeks to process paperwork (including bonds and certificates of insurance). Anticipate a Notice to Proceed to be issued in late-August 2020
d. Reference Information concerning the existing facilities and the Job Site will, upon request, be made available to prospective Bidders (2.12) No guarantee on their accuracy.
e. Bidders to Investigate (2.13); Bidders may coordinate additional site visits through the CM Resident Engineer Paul Pennington at 412-260-8083 0r Paul.Pennington@mbakerintl.com.
f. Alterations of Bids and Documents (2.11 & 2.22)
g. Tax Exemptions (2.18) (3.21)
h. Project Labor Agreement and Letter of Assent. Sign and include in Bid. (2.33) Subs later.
i. Owner to provide 3D model of the project area to facilitate sequencing & preparing bids. (2.34)
j. QUESTIONS

5. <u>Contract Provisions [Article Three]</u>

a. Rights and Duties of the Contractor (3.5 – 3.7; 3.27)
b. Subcontractors (3.18)

c. Owner shall issue to Contractor exemption certificate(s). See Exhibit D (3.21)
d. Rights and Duties of the Contractor (3.22-3.26)
e. RFI's, Change Orders, FI's, Pay Apps, Submittals, etc eBuilder (3.30-3.34, 3.36)
f. Retainage: 10% to start. Reduced to 5% at 50% completion and possibly less in the latter stages of a job. (3.35, Act 317)
g. Bonds: Performance Bond and Labor and Material Payment Bond to be provided with the executed Contract Agreement in the amount (100%) of the Contract Sum. Also, Maintenance Bond (100% of Contract sum) required upon final acceptance of the completed work. (3.55)
h. Compliance with Health, Safety, and Environmental Laws requires a project-specific written safety program, tailored specifically for the work on this Contract to be submitted to the Construction Manager and reviewed by ALCOSAN Safety Department prior to performing any work on-site. (3.72).
i. Working hours/Holidays: Normally for an 8-hour period between 7:00 AM to 5:00 PM, Monday through Friday. Work performed after hours, during ALCOSAN holidays and weekends shall be overseen by the Construction Manager, at the sole expense of the Contractor. (3.74) (01040)
j. Pennsylvania Prevailing Wage Rates (3.75); Minimum wage rates as set forth by the PA Prevailing Wage Act. **(Article Seven)**
k. Compliance to the Buy American (3.76)
l. EXHIBIT A, B, C
m. QUESTIONS

6. Contract Agreement [Article Four]

a. Contract Milestones: Substantial completion 690 Calendar Days from NTP.
b. Liquidated Damages ($2,000/day for SC)
c. QUESTIONS

7. Bonds, Certificates and Statements [Article Five]

a. Contractor's Certificate of Satisfaction (At completion of contract)
b. QUESTIONS

8. Prevailing Minimum Wage Pre-Determination [Article Seven]

a. Sales Tax Exemption Certificate
b. Prevailing Wage Project Rates' Tables/Certified Payrolls
c. QUESTIONS

9. Project Specifications – Division One [Article Six)]

a. Summary of Work (01 11 00)
    i. Scope of Work by prime contracts (1.2)
    ii. Owner Furnished Equipment (1.7)
    iii. Project Personnel & Responsibilities (1.14)
b. Job Conditions (01 11 20)

i. Coordination and Project Conditions (1.3)
ii. Working Hours (3.1)

c. Measurement and Payment (L.S.) (01 22 00)
i. Application for Payment (1.6)
ii. Partial Payment for Materials & Equipment (1.08 & 1.09)
iii. Progress Payment to Contractor by ALCOSAN within 60 days of Board Approval

d. Summary of Multiple Contracts (01 30 00)
i. Project coordinator among Primes (3.7) – 1728G Contractor (1.3 & 1.4)
ii. Other contractors (3.8)

e. Multiple Contract Construction Sequencing (01 31 16)
i. See 1.1E & 3.1 in particular

f. Construction Progress Schedule (01 32 16)
i. Project Schedule Requirements during project
ii. P6/Project Scheduler Qualifications (1.4/1.11)
iii. Contractors (Input); CM (Prep & Updating)

g. Submittals (01 33 00, 01 33 04, 01 78 23)
i. Engineer's Review Action (1.7)
ii. Coordination Drawings – 1728G (1.11)
iii. O&M Manuals & Data (01 78 23)

h. Project MIS – (eBuilder) (01 33 16)
i. Overview (ALCOSAN); Training (Contractor) (1.7B)

i. Construction Facilities, Temporary Controls & Utilities (01 50 00)

j. Maintenance of Plant Operations (MOPO) (01 52 00)
i. Constraints, Sequencing, Responsibilities

k. Division One Specifications to Coordinate with Div. 02 thru 48
i. Equipment – Basic Requirements (01 61 03)
ii. Opening and Penetrations (01 73 20)
iii. Cutting and Patching (01 73 29)

l. Commissioning & Close Out (01 71 16, 01 75 00, 01 78 36, 01 78 39; 3.37-3.40)

10. <u>Contract Drawings</u>

a. 259 Sheets

11. **<u>Open Discussion /Questions / Virtual Site Tour</u>**

a. QUESTIONS

♦ ♦ ♦ ♦ ♦ END OF AGENDA ♦ ♦ ♦ ♦ ♦

Contracts 1728 G, E, P, H

RAS Piping and Pump Replacement

PRE-BID MEETING MINUTES

MEETING DATE: **THURSDAY, June 11, 2020** **10:00 AM**

LOCATION: WebEx Meeting

ITEM	TOPIC

1. The Meeting was conducted through a 'WebEx Meeting' by Dan Petrowski (Construction Manager). See attached Agenda. This meeting was recorded to assist the CM in preparation of these meeting minutes and will not be distributed nor will it become a part of the contract documents. As attendees cannot physically sign in they were asked to acknowledge attendance by email so that an attendees list can be assembled.

2. HDR is the Final Design Consultant (FDC) and Mr. James Beninati (HDR) gave a power point presentation on the Scope of the Contract Work and the Maintenance of Plant Operations (MOPO). A pdf copy of the presentation is available upon request.

3. Ray Meyer (ALCOSAN) explained ALCOSAN MBE/WBE goal of 10% - 25% participation in Contractor contracts. He recommended that Contractors not aim for the minimum percentage. Bidders were reminded to submit a completed Solicitation and Commitment Statement with their bids. Failure to do so is grounds for bids to be considered non-responsive and be rejected.

4. The last day for Bidder questions will be **5:00 PM June 29th, 2020**. Send questions to Daniel Petrowski at Daniel.Petrowski@mbakerintl.com. Any questions by phone or in person are considered informal and without legal or binding effect on the contract or to ALCOSAN.

5. Requirements of the Legal Notice were reviewed by the CM. Bids are due to be submitted to Angela Allen on the second floor of the O&M Building no later than **11:00 a.m**. **Wednesday July 8th, 2020.** Bid opening will be immediately afterward. Bids received after this time will be considered non-responsive and returned unopened. The Bid Opening will be held either in the ALCOSAN O&M Building or virtually on-line, to be determined later by addendum. Anticipated approval of award by the ALCOSAN Board of Directors is expected on **July 23rd, 2020** with anticipated issue of Notice to Proceed to the lowest responsive, responsible bidder in late August 2020.

6. Requirements of the Bidding Documents (Article One) were reviewed by the CM. There are no alternate bids. Only the Bid Forms need to be submitted (Article 1 → pages 1-1 through 1-23 (G) or 1-21 (E, P, H) and Solicitation and Commitment Statement pages 1 of 4 through 4 of 4), not the entire book. Providing a primary contact for each Bidding company is required for receipt of any communications necessary for the bid evaluation. Acknowledge all addenda received and made part of the bid proposal (2.16).

7. BASE BID SUMMARY 1728G = Lump Sum (Item #1) + Total of Extended Amount for Unit Price (Item #2) (pp. 1-2G, 1-3G). BASE BID 1728E, H, P = Item #1 Lump Sum Work (p.1-2E, H, P). All bids must be submitted with all bid forms complete and signed by authorized representative of the Company.

8. Regarding Article Two 'Information for Bidders' - Bidders may coordinate additional site visits through Paul Pennington (RE) at 412-260-8083 or Paul.Pennington@mbakerintl.com . Bidders are encouraged to carefully review the Bid Documents and location/conditions of Job site.

9. Project Labor Agreement and Letter of Assent. Sign and include in Bid.

10. Owner has provided a 3D model of the project area in the Bid Documents to facilitate sequencing and preparing bids.

11. Bidders were encouraged to closely review the Contract Provisions in Article Three of the Bid Documents for Rights and Duties of the Contractor (3.22-3.26), Retainage (3.35), Bonds (3.55) Working Hours/Holidays (3.74), PA Prevailing Wages (3.75) and Buy American (3.76) to name a few important clauses.

12. Substantial Completion milestone is required to be 690 calendar days from Notice to Proceed with Liquidated Damages of $2,000/day beyond that period.

13. During the HDR 3D presentation the importance of following Section 01 52 00 'Maintenance of Plant Operations' during construction was stressed.

14. A 'virtual' tour of the work site was conducted at the end of the meeting.

15. Questions asked during the meeting:

- *Question*: Who is responsible for obtaining the building permit?

  Response: Each individual prime contractor is responsible for obtaining their building permit from the City of Pittsburgh

- *Question*: What equipment/materials does ALCOSAN provide for the project?

  Response: That can be found in Section 01 11 00 (1.7) of the Specifications.

- *Question:* Clarification was requested for contract requirements regarding RAS Pump Seal Water Systems in specification in 43 21 00 (2.3E)

  Response: HDR's intention was that supply and installation of RAS pump seal water panels for the RAS projects falls under the General Contractor (not Plumbing), because the seal water is non-potable process water. In terms of differentiation between the projects:
  - The RAS project covers purchase of all 15 RAS pumps for E-1, E-2, W-1, W-2, and W-3.
  - The RAS project covers installation of the 12 pumps associated with E-1, E-2, W-1, and W-2 as well as supply and installation of their 12 seal water panels.
  - The North End Plant Expansion (Contract 1723) project covers installation of the W-3 RAS pumps, as well as supply and installation of their three seal water panels.
  - Contractor should schedule receipt of the W-3 RAS pumps to be as late as practical to minimize storage time prior to installation at W-3.

16. An Attendees list could not be put together because of the poor response to CM request to attendees to acknowledge their attendance by email. The following is a list of email addresses used to send invitations for the Pre-Bid Meeting. Some attended, some did not. This is provided for information only.

nichols@kokosing.biz; kimberly.kennedy@alcosan.org; Douglas.Jackson@alcosan.org; Daniel Lockard <Daniel.Lockard@alcosan.org>; John Findley <John.Findley@alcosan.org>; Cody Edgell <cody.edgell@alcosan.org>; Jeff.Agyros@alcosan.org; Raymond Meyer <Raymond.Meyer@alcosan.org>; Suzanne Thomas <suzanne.thomas@alcosan.org>; Welle, Meredith <Meredith.Welle@hdrinc.com>; Beninati, James <James.Beninati@hdrinc.com>; Riley, Sean <Sean.Riley@hdrinc.com>; jflack@brwncald.com; scottm@chapmancorporation.com; ericmoreland@elcontech.com; Paul Hartley <phartley@jbfayco.com>; Lisa Stover <lstover@jbfayco.com>; Shreffler, Lance <lances@keller-na.com>; Casey Ericson <casey@kappe-inc.com>; jleach@lonepineconstruction.com; buildings@mascaroconstruction.com; jkern@meleinc.com; marke@mosites.com; robm@mosites.com; Brad.Lomago@pjdick.com; jrennie@tcco.com; Joe Bonazza <Joe.Bonazza@totalequipment.com>; sylvestern@valtronics.com; Edwards, Dan <dedwards@walshgroup.com>; Al Chlystek <al@wheelsmechanical.com>; mw@alleghenycityelectric.com; Chuck Berner <cberner@bronderts.com>; fjc@canovaelectric.com; mail@graf-vlachy.com; Susan Nolder <susan@guysmech.com>; justin@hoffmanelectric.com; amccoubrey@kirbyelectricinc.com; brian.landowski@lanco-electric.com; scguess@sargentelectric.com; acappelli@tpelectric.net; Hogg, Mike <mhogg@wellingtonpower.com>; info@ajdemor.com; info@climatech.com; rwb@bryantmechanical.com; ashelley@controlledclimatesystems.com; Bill@dgmechanical.com; hmcafoose@de-cal.com; eber@eberhvac.com; khertzog@gregori-inc.com; info@hranec.com; info@mckamish.com; apier@scaliseindustries.com; info@ruthrauffsauer.com; info@powellmechanical.com; mjanusey@shilohind.com; jdavis@ssmi.biz; info@tudi.com; rcortazzo@wgtomko.com; blugaila@waynecrouse.com; righteletric@rightelectric.com; office@controlledclimatesystems.com; jason@dgmechanical.com; Garygerst@eastwestmfg.com; renobros@renobrosinc.com; cedkins@ruthrauffsauer.com; jclark@scaliseindustries.com; Hunt, Jim <JHunt@trumbull.com>; akish@wgtomko.com; kbeardsley@ssmi.com; Andrew Gagne <Andrew.Gagne@Elcontech.com>; Robash, Craig <crobash@wellingtonpower.com>; Legg, Scott - Xylem Scott.Legg@Xyleminc.com; Keith Caldwell <Kcaldwell@tpelectric.net>; Rwb@bryanmechanical.com; rightelectric@rightelectric.com; Chris Schweiger <cschweiger@mascaroconstruction.com>; Mitch Stahl <mstahl@tpelectric.net>; Neil Menzies <neilm@McKamish.com>; Morgan Pattison <morganp@McKamish.com>; d.kelly@multivista.com; colin <colin@powellmechanical.com>; Tom Crawford <tmc@kokosing.biz>; Candace Coston <Candace.Coston@alcosan.org>; Lorenzo Sciulli <lorenzos@mosites.com>; John Jordan <jjj@McKamish.com>; McLane, Shiela <smclane@meleinc.com>; Mike Gagne <mikegagne@elcontech.com>; Hunter Lund <hlund@kirbyelectricinc.com>; Chad Crespy (ccrespy@bronderts.com); David Rich (drich@bronderts.com); kbeardsley@ssmi.biz; jeff.argyros@alcosan.com; Rwb@bryan-mechanical.com; jeffery.argyros@alcosan.com; Jeff Argyros <Jeff.Argyros@alcosan.org>; Jeffrey Mascaro <jmm@mascaroconstruction.com>; Zottola, Frank <fzottola@indexc.com>; Byers, Janey <janey@chapmancorporation.com>; Jason Myers <jmyers@gregori-inc.com>; Kohne,Bill <b_kohne@chapmancorporation.com>; McFarland, Dan <danm@chapmancorporation.com>; Dan Paulovich <dpaulovich@waynecrouse.com>; Shah Haque <shah.haque@alcosan.org>; Nadine Lee nlee@mascaroconstruction.com; scottm@chapmancorporation.com; Luann.Guzzetti@renobrosinc.com; lisa.demor@ajdemor.com;

These meeting minutes have been prepared by Dan Petrowski and are ALCOSAN's interpretation of the discussions which took place. These meeting minutes will stand as the record of the meeting and will be incorporated by Addendum to the 1728 G, E. P, H Contracts.

Daniel T. Petrowski

Daniel T. Petrowski – CM Project Manager

Date June 12, 2020

John Findley

John Findley, ALCOSAN Project Manager

Date June 15, 2020

Attachment: 1728 Pre-Bid Agenda