Indian River County Purchasing Division
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ADDENDUM NO. 2

Issue Date:	June 26, 2020
Project Name:	Hobart RO WTP Chemical Tank Replacement
Bid Number:	2020044
Bid Opening Date:	**June 30, 2020**

This addendum is being released to clarify the due date.

The cover sheet for Addendum 1 listed an incorrect bid opening date.

The due date for bids has not changed and remains June 30, 2020.

Hobart ROWTP Bulk Chemical Tank Replacement

Bid No. 2020044

A non-mandatory Pre-Bid Conference was held on June 11th, at Indian River County Utilities Hobart RO Water Treatment Plant, 7751 58th Avenue, Vero Beach, FL 32960. The following were in attendance (attached sign-in sheet).

NAME	COMPANY	PHONE & FAX	ADDRESS	EMAIL
Steve Flannery	TLC Diversified	941-722-0621	2719 17th St. E., Palmetto, FL 34221	bids@tlcdiv.com
Steve Stanton	US Water Services	239-209-6120	4939 Cross Bayou Blvd., New Port Richie, FL	sstanton@uswatercorp.net
Christopher Karch	Aerex	772-448-5800	3405 Industrial 27 St., Fort Pierce, FL 34946	ckarch@aerexglobal.com
Geoff Schmidt	Lawrence Lee Construction	561-578-7715	50 NE Dixie Highway, A6, Stuart, FL 34994	gs@lawrenceleeconstruction.com
Matthew Liner	Linear Solutions	772-240-2935	2723 NW FL Ave, Stuart, FL 34994	info@linearsolutionsconstruction.com
Shane Mulvey	Miami Filter	772-466-1449	7384 Commercial Circle, Fort Pierce, FL 34951	shane@miamifilter.com
Lincoln Iroos	Summit Construction	772-794-2099	2837 Flight Safety Drive, Vero Beach, FL 32960	lincoln@summitcm.net
Daniel Myers	Bearing Point Construction	941-932-6512	10315 Technology Terrace, Melbourne FL	Daniel@bplfl.com
John Earman	EE&G	772-473-8554	4451 Enterprise Court	jearman@eeandg.com
Mike Wyatt	IRCU	772-581-7684	7751 58th Ave, Vero Beach, FL 32960	mwyatt@ircgov.com
Terry Southard	IRCU	772-226-3404	4350 41st Street Vero Beach, FL 32960	terrysouthard@ircgov.com
Arjuna Weragoda	IRCU	772-226-1821	1801 27th Street Building A Vero Beach, FL 32960	aweragoda@ircgov.com
Nick Black	Kimley-Horn and Associates, Inc.	561 840 0844	1920 Wekiva Way, Suite #200, West Palm Beach FL 33401	nick.black@kimley-horn.com

Questions regarding the contract documents were submitted to the County's purchasing department via e-mail and asked during the pre-bid meeting. Answers to those questions are as follows:

Question #1: Is there any wind/seismic design criteria?

Response: No seismic design criteria required. Installation of the tanks shall comply with Florida Building Code, 2017. In addition to the ASME calculations, Contractor shall include in their bid, costs incurred to provide signed and sealed drawings from tank fabricator that show tank complies with requirements of the Florida Building Code, 2017.

Question #2: The equipment has an internal lining system. Is there any corrosion allowance to be considered?
Response: Please read specifications, there is no internal lining, but rather a coating system external and internal to tank. No corrosion allowance provided.

Question #3: Please advise what voltage is available to feed the heat tracing equipment to be installed.
Response: 120V.

Question #4: Please advise what the thickness of the insultation is to be provided on the tank and piping (if different).
Response: 1-inch thick insulation required on all piping to be insulated. Provide 3-inch thickness of specified insulation on caustic storage tank. Alternate insulation thickness will be allowed if recommended by specified manufacturer.

Question #5: Please advise what ambient temperature ranges are anticipated and what internal fluid temperature ranges are required for this heat tracing system to maintain.
Response: Tank is located outside, the contractor may review historical weather reports to understand the ambient temperature ranges expected at the Hobart WTP site in Indian River County, Florida. Internal fluid temperature ranges shall be 80 – 90 degrees F.

Question #6: Drawing MC-2 and note MC-2.5, existing secondary containment to be protected throughout construction. Contractor shall repair all secondary containment area coatings impacted by demolition and construction activities. Drawings MC-3 and MC-4 show a containment with coatings missing and delaminating, we feel this should be a total recoat system, touch-up is not an option.
Response: IRCU had containment areas coated after these photos were taken.

Questions #7: Drawing MC-7 and Note MC-7.5, existing secondary containment to be protected throughout construction, Contractor shall repair all secondary containment area coatings impacted by demolition and construction activities. Drawings MC-8 photos show a containment with NO coatings, we feel this should be a total recoat system.
Response: IRCU had containment areas coated after these photos were taken.

Question #8: None of the coatings are suitable for the chemical used, please provide a suitable coating system for the sulfuric acid, Zinc ortho, and caustic secondary containments.
Response: The coating contractor IRCU used has provided a coating schedule for the containment areas. The schedule is as follows:

- Prime Coat: Tnemec Series 201 – Epoxoprime 4.0 - 6.0 D.F.T.
- Intermediate Coat: Tnemec Series 282 – Tnemic -Glaze 8.0 – 10.0 D.F.T.
- Finish Coat : Tnemec Series 282 – Tnemic Glaze 8.0 - 10.0 D.F.T.

Touching up impacted areas should comply with the recommendations of Tnemec.

Question #9: What is engineer probable cost of construction or the Owner's budget?
Response: Engineer's Opinion of Probable Construction Costs is approximately $412,000.00.

Question #10: Is there a specification section for the tank and piping heat tracing and insulation?
Response: Yes, specification section 11507-2.2.

Question #11: Will a building permit be required as part of this project?
Response: No, the proposed tank replacement is considered maintenance.

Question #12: Would it be acceptable to apply heat trace cables to the tank and insulate at the fabricator's facility prior to delivering to site?
Response: Yes, this will be acceptable, but Contractor must coordinate with owner/engineer of record prior to applying insulation. A site visit to fabricator's facility or pictures of tank must be provided and approved by Owner/Engineer prior to applying specified insulation.

Question #13: Details 7A and 7B require 2" FL 316 SS ball valves. No specification is included for this valve. Please confirm this valve is SS and if so, please provide specification.
Response: Fill valves for both tanks shall be Alloy 20 (body, ball and stem) with Teflon seats and seals.

Question #14: Please confirm that Details 7A and 7B will allow a threaded male camlock connection to the piping.
Response: Confirmed.

Question #15: Detail 7A notes a require 2" true union PVDF ball valve but it appears to have been drawn as flange. Please confirm the end connections for this valve.
Response: Flanged connection for block and bleed connection.

Question #16: Please confirm if an electrical contractor will be required for this project of if the GC can make the few connections required.
Response: An electrical subcontractor is not required. This does not alleviate the bidder from including in their bid the necessary funds to provide a complete and fully functional system.

Question #17: Please advise the require capacity of the temporary caustic storage tank.
Response: Contractor shall provide 1,000 gallons, minimum, of usable caustic storage during construction. Contractor shall coordinate start of work and draining of existing tank with owner. It is assumed that no more than 2 weeks of temporary storage will be required and the Owner will furnish deliveries of caustic during temporary storage.

Question #18: The clearance at the caustic tank site is 112" from the top of the wall to the bottom of the beam above. The specified tank diameter is 96", which only leaves 16" for top mounted nozzles, saddle supports, possible insulation and heat tracing, lifting eyes and rigging. Please advise if other tank configurations are acceptable if volume is maintained?
Response: No other configurations or volumes are acceptable, the existing tank is same size and configuration. Contractor may also utilize the north side of containment area to slide tank into containment

area. Contractor is permitted to remove hurricane accordion shutters to facilitate tank placement but shall re-install shutters upon completion of tank construction at no additional cost to the Owner.

Question #19: Please confirm secondary containment coatings are acceptable for the acid and caustic areas should coating repairs be necessary.
Response: See response to question #8.

Question #20: Specification 11504 calls for viton and EPDM gaskets. Please confirm our interpretation that viton gaskets are required for flanges on carrier pipe only and EPDM is acceptable for O.F. and elsewhere in acid system.
Response: EPDM not acceptable for acid system, gaskets shall be viton as specified. EPDM gaskets specified for caustic system.

Question #21: Note MC-5.7 requires 316SS hardware for the Acid System, however Specification 11504; Part 2.9.B.5 requires Hastelloy hardware at all flanged CPVC flanges in the Acid System. Please advise which is acceptable.
Response: The note refers to miscellaneous metals – piping supports, anchorage, etc. Flange hardware shall be as specified.

Question #22: Drawing MC-5 Plan Shows one 2" secondary contained pipe is to be constructed from the bulk tank to the Acid Feed Pump Bldg. The demo plan on MC-2 shows an Existing Acid Feed pipe entering the building with no work required. Detail 2/MC-6 indicates that two 2" x 1" reducers are required for each of 2 pumps. Please explain further a) the desired connections desired for the one new 2" acid feed line to the two existing pumps, and b) what is to become of the one existing acid feed line showing on MC-2 that requires no work?
Response: Incorrect, the note on MC-2 call for existing pipe to be demolished. Detail 2/MC-6 displays 2" reducing to 1" and reducing after 1" tee to connect to existing flex tubing.

Question #23: Note MC-9.7 requires 316SS hardware for the Caustic System, however Specification 11507; Part 2.7.B.5 requires Hastelloy hardware at all flanged CPVC flanges in the Caustic System. Please advise which is acceptable.
Response: See response to question #21.

Question #24: Drawing MC-9 requires a 2" sch 80 CPVC True Union Ball Valve at the pump connection and a 2" FL x FL sch 80 CPVC Diaphragm Valve at the tank connection. Both are drawn the same and a Diaphragm Valve spec is not included in the Caustic Equipment Spec 11507. Please confirm which valves are desired at these locations.
Response: Incorrect, drawing calls for a CPVC ball valve and Vanstone flange at connection to pump. As noted in plans, diaphragm valve required at tank. No callouts are made for true union or threaded connections on wetted parts of caustic system and none will be accepted.

Question #25: Drawing MC-9 indicates that a 2" FL x FL sch 80 CPVC Diaphragm Valve is required at the tank drain. Please provide a specification for this valve or is this to be a True Union Ball Valve?
Response: No true union or threaded connections for caustic system, please read notes on plans and specifications. Diaphragm valve shall be Type 14 CPVC diaphragm valves by Asahi or approved equal. Diaphragm valve shall have CPVC body, PVC bonnet and EPDM diaphragm.

Question #26: Drawings call for swing check valve and specifications call for flange insert check valve on sulfuric acid overflow piping. Which is required?
Response: Check valve on overflow piping shall be flange insert check valve as specified in 11504-2.7.

Question #27: Please advise if the "Affirmative Steps" identified on Phage 5 of 34 of the ITB apply to this project as a "federal" contract.
Response: Affirmative steps not applicable for this project.

Question #28: In my opinion, BARE Carbon Steel is the best solution for storing concentrated Sulfuric Acid, BUT we go to ½" thick bottom and shell, buying corrosion allowance. The normal thicknesses, in a tank of the size you're requesting would probably calculate at no more than ¼" thick and with a 1/8" Corrosion Allowance, you would settle at 3/8" thick. We go to ½" thick, with NO OPEN VENT to atmosphere, and NO OPEN OVERFLOW to atmosphere, allowing the desiccant drier to do it's job. Breathe dry air. Additionally, we use Sch 80 pipe for our flanged nozzles, not Sch. 40, like other manufacturer's, AND we strongly urge an enlarged FILL LINE with a PTFE Dip Tube feeding the concentrated Sulfuric Acid through the PTFE material, not contacting the steel pipe "neck", if you will. This would be our recommendation. If you insist on the ID coating, we will decline to bid on the Sulfuric Acid tank.
Response: There is a desiccant on the tank vent and there is a drop pipe and check valve on the tank overflow, please read specifications and project plans. Engineer of record denies use of a thicker tank in lieu of internal coating as specified.

Question #29: Again, in my opinion and experience over the past 38 years, I have a BARE Carbon Steel tank in service here in Chicago, since 1988, and it looks the same today as it did in 1990! The inside of the tank is shiny. Sodium Hydroxide tends to "shine" the ID of the tank. We would tend to decline to bid, if the ID coating is required.
Response: There is a desiccant on the tank vent and drop pipe on tank overflow. Humidity in Florida much different than Chicago. Engineer of record denies use of a thicker tank in lieu of internal coating as specified.

Attachments: Sign-in sheet