

**ADDENDUM NO. 1**

**LANDFILL TEMPERATURE MONITORING SYSTEM  
INSTALLATION PROJECT**

**BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY  
BRISTOL, VIRGINIA**

**September 13, 2022**

Prospective Bidders are hereby advised of the following revisions to the Bid Documents for the subject Project:

1. Item 3.1 of Section 00 41 13 Bid Form has been modified to include additional Alternate Bid Items.
2. Item 3.1 of Section 01 22 00 Measurement and Payment has been modified to include additional Alternate Bid Items.

This Addendum must be identified in Item No. 5.3 of Section 00 41 13 Bid Form.

There is no change to the deadline for receiving sealed Bids, as stated in Section 00 11 10 Invitation for Bids and Item No. 5 in Section 00 21 10 Instructions to Bidders.

While not constituting a revision to the Bid Documents for the subject Project, please note that a Response to Bidders Questions No. 1 is available from the City and/or SCS Engineers upon request and is being distributed to participants in the Pre-Bid Meeting and other Potential Bidders.



**SECTION 00 41 13**  
**BID FORM**  
**LANDFILL TEMPERATURE MONITORING SYSTEM**  
**INSTALLATION PROJECT**  
**BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY**  
**Engineer's Project No. 02218208.12**

## **1.0 OWNER AND BIDDER**

### **1.1**

This Bid is submitted to: City of Bristol, Purchasing Department

### **1.2**

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

## **2.0 ATTACHMENTS TO THIS BID**

The following documents are submitted with and made a condition of this Bid:

- List of Proposed Subcontractors;
- List of Proposed Suppliers;
- Evidence of authority to do business in the Commonwealth of Virginia; or a written covenant to obtain such authority within the time for acceptance of Bids;
- Contractor's license number as evidence of Virginia Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids; and,
- Required Bidder Qualification Statement with supporting data.

## **3.0 BASIS OF BID—UNIT PRICES**

### **3.1 UNIT PRICE BIDS**

A. Unit Price

#	Description	Estimated Quantity	Unit	Unit Price	Subtotal
<b>Base Bid Items</b>					
1	Mobilization/Demobilization	1	Lump Sum	\$	\$
2	4-inch Dia. Borehole Drilling (less than or equal to 100 ft deep)	900	FT	\$	\$
3	4-inch Dia. Borehole Drilling (greater than 100 ft deep)	1,100	FT	\$	\$
4	Belowgrade Temperature Probe Construction	2,000	FT	\$	\$
5	Temperature Probe Termination Apparatus	9	EA	\$	\$
6	Temperature Measurement Instrumentation	9	EA	\$	\$
7	Specialized Drill Rig Equipment Surcharge for Elevated Temperatures & Pressures	1	Lump Sum	\$	\$

B. Total Bid Price

Total Base Bid Price (Items #1 through #7)	\$
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C. Alternate Bid Items – Unit Price

#	Description	Estimated Quantity	Unit	Unit Price	Subtotal
<b>Alternate Bid Items</b>					
8	Owner-Directed Stand-By Time for Sonic Rig w/Crew	1	Day	\$	\$
9	Daily Drilling Rate for Sonic Rig w/Crew	1	Day	\$	\$
10	Belowgrade Temperature Probe Construction Using Owner-Supplied Probe Casing Pipe	2,000	FT	\$	\$
11	Installation of Owner-Supplied Temperature Measurement Instrumentation	9	EA	\$	\$

## 4.0 TIME OF COMPLETION

### 4.1

Bidder agrees that the Work will be substantially complete within the durations associated with the Milestone Dates outlined below, as measured after the date when the Contract Times commence to run, and will be completed and ready for final payment within the durations associated with the Milestone Dates outlined below, as measured after the date when the Contract Times commence to run.

Milestone Schedule Governing Contract Times		
#	Description	Times
1	Temperature Probe Casing Pipe Delivered to Site	Unspecified <sup>1</sup>
2	Commence Borehole Drilling	w/in 3 Calendar Days of Achieving # 1
3	Complete Borehole Drilling	w/in 50 Calendar Days of Achieving #2
4	Digital Temperature Cable Delivered to Site	Unspecified <sup>1</sup>
5	Commence DTC Installation	w/in 3 Calendar Days of Achieving #4
6	Complete DTC Installation (Substantial Completion)	w/in 10 Calendar Days of Achieving #5
7	Final Completion	w/in 10 Calendar Days of Achieving #6

Note:

<sup>1</sup> Contractor shall submit documentation from Pipe Material Supplier and DTC Material Supplier to Owner presenting basis of procurement lead time.

### 4.2

Bidder accepts the provisions of the Agreement as to liquidated damages.

## 5.0 BIDDER’S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

### 5.1 BID ACCEPTANCE PERIOD

This Bid will remain subject to acceptance for 30 calendar days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner. At the end of the 30 calendar days, the bid/proposal may be withdrawn at the written request of the bidder/proposer. If the bid/proposal is not withdrawn at that time, it remains in effect until an award is made or the solicitation is cancelled

### 5.2 INSTRUCTIONS TO BIDDERS

Bidder accepts all of the terms and conditions of the Instructions to Bidders.

**5.3 RECEIPT OF ADDENDA**

Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

**6.0 BIDDER’S REPRESENTATIONS AND CERTIFICATIONS**

**6.1 BIDDER’S REPRESENTATIONS**

In submitting this Bid, Bidder represents the following:

- A. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
- B. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder’s (Contractor’s) safety precautions and programs.
- E. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- F. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- G. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

- H. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- I. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.
- J. The Bid/Proposal price shall be an all-inclusive price to deliver the specified goods and/or services FOB Destination to the address specified per the specifications. Invoices must be itemized and will be paid at the unit price in the Bid. The City will not accept or pay for additional line items such as freight, shipping and handling, delivery, downtime, equipment, lost time due to inclement weather or any other charges additional to the unit prices quoted in the Bid/Proposal.
- K. By submitting their bids/proposals, all bidders/proposers certify and warrant that the price offered for FOB destination includes only the actual freight rate costs at the lowest and best rate and is based upon the actual weight of the goods to be shipped. Except as otherwise specified herein, standard commercial packaging, packing and shipping containers shall be used. All shipping containers shall be legibly marked or labeled on the outside with purchase order number, commodity description, and quantity.
- L. The bid price shall be for complete delivery of equipment, ready for use by the City of Bristol Virginia, and shall include all applicable freight and installation charges; extra charges will not be allowed.

## 6.2 BIDDER'S CERTIFICATIONS

The Bidder certifies the following:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding.
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 6.2.D:
  - 1. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
  - 2. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.

3. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
4. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

Bidder:

\_\_\_\_\_  
*(typed or printed name of organization)*

By:

\_\_\_\_\_  
*(individual's signature)*

Name:

\_\_\_\_\_  
*(typed or printed)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Date:

\_\_\_\_\_  
*(typed or printed)*

*If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.*

Attest:

\_\_\_\_\_  
*(individual's signature)*

Name:

\_\_\_\_\_  
*(typed or printed)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Date:

\_\_\_\_\_  
*(typed or printed)*

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_

Bidder's Contact:

Name:

\_\_\_\_\_  
*(typed or printed)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Phone:

\_\_\_\_\_

Email:

\_\_\_\_\_

Address:

\_\_\_\_\_  
\_\_\_\_\_

Bidder's Contractor License No.: (if applicable)

\_\_\_\_\_

**END OF SECTION 00 41 13**

## SECTION 01 22 00

### MEASUREMENT AND PAYMENT

#### PART 1 – GENERAL

##### 1.1 DESCRIPTION

- A. The CONTRACTOR shall receive and accept the compensation provided in the Contract as full payment for furnishing all labor, equipment, and materials and for performing all construction/operations necessary to complete the Work as described in the Contract, and in full payment for all losses or damages incurred during the Work, for any discrepancies between actual and estimated quantities, or from any unanticipated difficulties which may arise during the Work until final acceptance by the OWNER.
- B. The prices included in the Bid Form shall include all costs for labor, equipment, materials, taxes, freight, permits, handling and tests required to perform the Work as shown on the Contract Documents.
- C. The CONTRACTOR shall field verify all quantities and dimensions shown on the Plans or contained in the Contract Specifications including the Bid Form.

#### PART 2 – PRODUCTS (Not Used)

#### PART 3 – EXECUTION

##### 3.1 MEASUREMENT AND PAYMENT – GENERAL

- A. Item No. 1: Mobilization/Demobilization
  - 1. Measurement. The Work required for this item will not be measured for payment.
  - 2. Payment. Payment for this item will be at the Bid Item No. 1 lump sum price, and shall constitute full compensation for all material, labor, equipment, and work incidental thereto, necessary to complete this item in accordance with the Contract Documents. Payment shall cover all Work as per Section 01 11 00. This includes, but is not limited to, movement of personnel, equipment, supplies and incidentals to the project site; obtaining all permits, insurance, and bonds; and any other pre-construction expense necessary for the start of the Work. No price adjustments will be made for this item due to changes in the Work. Demobilization includes removal from the site of all materials, resources, equipment, temporary support facilities, utilities, and all remaining construction debris at the completion of the project and includes release of liens and other incidentals as specified as requirements of project closeout. A partial payment of 50 percent of the Bid Item No. 1 lump sum price may be made once mobilization is completed. However, the remainder of the Bid Item No. 1 lump sum price shall not be paid until demobilization is completed at project closeout. The maximum amount allowed to be paid for mobilization/demobilization is 10 percent of the total bid price.

- B. Item No. 2: 4-inch Diameter Borehole Drilling (Less than or equal to 100 feet Deep)
1. Measurement. Borehole drilling will be measured on a vertical linear foot basis from the existing ground surface to the bottom of the probe bore as measured in the field by the ENGINEER.
  2. Payment. Payment for this item will be at the contract unit price per vertical foot drilled. Payment will include all drilling, boring, transport of waste materials, and shall constitute full compensation for all material, labor, equipment, and work incidental thereto, necessary to complete this item in accordance with the Contract Documents.
- C. Item No. 3: 4-inch Diameter Borehole Drilling (Greater than 100 feet Deep)
1. Measurement. Borehole drilling will be measured on a vertical linear foot basis from the existing ground surface to the bottom of the probe bore as measured in the field by the ENGINEER.
  2. Payment. Payment for this item will be at the contract unit price per vertical foot drilled incrementally beyond the initial 100 feet of depth. Payment will include all drilling, boring, transport of waste materials, and shall constitute full compensation for all material, labor, equipment, and work incidental thereto, necessary to complete this item in accordance with the Contract Documents.
- D. Item No. 4: Belowgrade Temperature Probe Construction
1. Measurement. Temperature probes will be measured on an installed vertical linear foot basis from existing ground surface to the bottom of the probe pipe as measured in the field by the ENGINEER.
  2. Payment. Payment for this item will be at the contract unit price per foot installed. Payment will include all installation of stone, sand, soil, bentonite, backfilling, health and safety requirements, probe piping, connections, and shall constitute full compensation for all material, labor, equipment, and work incidental thereto, necessary to complete this item in accordance with the Contract Documents.
- E. Item No. 5: Temperature Probe Termination Apparatus
1. Measurement. Temperature probe termination apparatus will be installed by the CONTRACTOR and verified and counted in the field by the ENGINEER.
  2. Payment. Payment for this item will be at the contract unit price for each temperature probe termination apparatus installed. Payment will include installation of all affiliated components, such as probe protective steel casing, bollards, concrete pad, probe cap and fittings, and other parts, incidental thereto, necessary to complete this item in accordance with the Contract Documents.

- F. Item No. 6: Temperature Measurement Instrumentation
1. Measurement. The temperature measurement instrumentation for each probe will be installed by the CONTRACTOR and verified and counted by the ENGINEER.
  2. Payment. Payment for this item will be at the contract unit price for each temperature measurement instrumentation installed in a temperature probe. Payment will include installation of the custom thermistor temperature sensors (digital temperature cable) and activities, incidental thereto, necessary to complete this item in accordance with the Contract Documents.
- G. Item No. 7: Specialized Drill Rig Equipment Surcharge for Elevated Temperatures & Pressures
1. Measurement. The Work required for this item will not be measured for payment.
  2. Payment. Payment for this item will be at the Bid Item No. 7 lump sum price, and shall constitute full compensation for all material, labor, equipment, apparatus, parts, and work incidental thereto, necessary to supply and utilize specialized tooling and/or other drill rig components to enable performance and functionality within landfill subsurface environment in which elevated temperatures, pressures, and fluids (liquids and/or gases) are present. No price adjustments will be made for this item due to changes in the Work.
- H. Alternate Bid Item No. 8: Owner-Directed Stand-By Time for Sonic Rig & Crew
1. Measurement. The number of full work days that the CONTRACTOR is instructed by OWNER to cease performance of the Work shall be counted and recorded by the ENGINEER.
  2. Payment. Payment for this item will be at the contract unit price for each full work day that the CONTRACTOR is instructed by OWNER to cease or delay performance of the Work due to unanticipated landfill subsurface conditions or other reasons.
- I. Alternate Bid Item No. 9: Daily Drilling Rate for Sonic Rig & Crew
1. Measurement. The number of days that the OWNER chooses to compensate CONTRACTOR for borehole drilling on a daily basis shall be counted and recorded by the ENGINEER.
  2. Payment. Payment for this item will be at the contract unit price for each full work day of borehole drilling that the OWNER chooses to compensate CONTRACTOR for borehole drilling on a daily basis due to unanticipated landfill subsurface conditions or other reasons.
- J. Alternate Bid Item No. 10: Belowgrade Temperature Probe Construction Using Owner-Supplied Probe Casing Pipe
1. Measurement. Temperature probes will be measured on an installed vertical linear foot basis from existing ground surface to the bottom of the probe pipe as measured in the field by the ENGINEER.

2. Payment. Payment for this item will be at the contract unit price per foot installed. Payment will include all installation of stone, sand, soil, bentonite, backfilling, health and safety requirements, OWNER-supplied probe piping, connections, and shall constitute full compensation for all material, labor, equipment, and work incidental thereto, necessary to complete this item in accordance with the Contract Documents.
- K. Alternate Bid Item No. 11: Installation of Owner-Supplied Temperature Measurement Instrumentation
1. Measurement. The temperature measurement instrumentation for each probe will be installed by the CONTRACTOR and verified and counted by the ENGINEER.
  2. Payment. Payment for this item will be at the contract unit price for each temperature measurement instrumentation installed in a temperature probe. Payment will include installation of the OWNER-supplied custom thermistor temperature sensors (digital temperature cable) and activities, incidental thereto, necessary to complete this item in accordance with the Contract Documents.

**END OF SECTION 01 22 00**

**RESPONSE TO BIDDERS QUESTIONS NO. 1**

**LANDFILL TEMPERATURE MONITORING SYSTEM  
INSTALLATION PROJECT**

**BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY  
BRISTOL, VIRGINIA**

**September 13, 2022**

Following is a list of questions pertaining to the subject project that have been submitted by Bidders during the non-mandatory pre-bid meeting, which was conducted virtually on September 7, 2022. Questions are in bold type with the Engineer's response following each question in italics.

- 1. Please describe access to the proposed temperature probe locations. Will grading will be required at landfill to provide adequate access for drill rig?**

*The landfill surface has cover soil. There is a gravel access road extending from the entrance of the Quarry Landfill along the center top deck area; however, the gravel road does not extend to the borehole locations. All borehole locations are accessible to drill rig without extensive earthwork. Contractor is responsible for localized grading at borehole location to form drilling pad as necessary to level drill rig. Skid-steer loaders should be sufficient.*

- 2. What is the procedure for abatement of odors emitting from uncapped boreholes at the conclusion of each working day? Can open boreholes be capped overnight since most borings will likely require more than 1 day to drill and complete?**

*Contractor needs to verify boreholes are capped so as to: 1) prevent gasses or liquids emitting into the atmosphere (i.e., no free venting); and, 2) no safety concerns arise for personnel or equipment. Refer to Section 33 24 10 Item 3.2.E regarding provisions when a borehole cannot be completed by the end of the working day.*

- 3. When preparing Bidders' cost estimate, should we assume that we will be encountering hot liquids or vapors coming out from the boreholes, or should we assume that there will not be any leachate under pressure (geysers) emitting from boreholes?**

*The Owner and Engineer cannot guarantee or warranty that liquids under pressure will not be encountered during drilling. It is plausible these conditions may be present, and so Contractor should anticipate the need to mitigate liquids under pressure. In Fall 2021, when 21 boreholes for LFG wells were drilled approximately 120 feet deep, they did not exhibit systematic conditions of leachate under pressure forming geysers or at artesian conditions; however, once the system was in operation, they did encounter one or two instances in select wells which exhibited significant leachate pressures for a short duration.*

- 4. Is the language in Section 00 21 10 Item 9 addressing the Performance Bond intended to signify that the Contractor will not be responsible for installing the boreholes to the design depths if extreme temperatures or pressures, or excessive liquids, are encountered?**



*Based on the full spectrum of temperature measurement data collected from existing landfill gas wells in the Quarry Landfill during the past 18 months or so, there is some evidence that slightly elevated temperatures, say generally between 145 to 170 degrees F, as measured at the wellhead, may be periodically prevalent in select portions of the subsurface waste mass. However, these wells are not installed to the full depth of the waste profile (approximately 250 feet in the deepest areas), so the exact subsurface temperatures and pressures likely to be encountered at all depths and all locations are uncertain. The OWNER considers installation of the temperature probes to the maximum depth possible to be necessary; thus, the installation of the probes will not be terminated exclusively due to elevated temperatures. However, the intent of the subject language is to recognize the potential that drilling of a particular borehole may need to be terminated at shallower depth than indicated on the drawings if drilling equipment is being subjected to excessive detrimental heat, or if excessive detrimental hydrostatic pressures and the presence of hot liquids and gases cannot be mitigated adequately to enable continued drilling. The language is intended to address the degree of potentially unreasonable risk attributed to uncertainty of subsurface conditions. Based on SCS' characterization of the Quarry Landfill to-date, at this time it does not appear to be manifesting the degree of extreme conditions associated with heat and pressures that have been present at a small subset of other elevated temperature landfills elsewhere in the US that that have imposed exponential levels of effort to install subsurface borings.*

**5. What are the acceptable work site days and site work hours, and specifically the potential for working on weekends?**

*The site is accessible for the Contractor Monday through Friday between 6:30 a.m. and 4:00 p.m. The Owner is amenable to allowing the Contractor to work later than 4:00 p.m. on weekdays, as well as working on Saturday and Sunday, provided permission is obtained from the Owner in advance.*

**6. What is the size of the staging area to store equipment and are the areas secure?**

*There are approximately 6 to 8 acres of flat areas where equipment or stockpiles of aggregate or pipe can be stored within the Quarry Landfill limits. There are also other secure areas outside of the Quarry Landfill available to the Contractor.*

**7. The Bid Form and Drawings specify 4-inch-diameter boreholes. Are 6-inch-diameter boreholes acceptable to the City?**

*The intent on the Bid Form was to require a minimum 4-inch-diameter borehole. Recognizing that a larger borehole would require a need for greater aggregate backfill quantities, and would produce more tailings and cuttings, a 6-inch-diameter borehole is acceptable to the Owner and Engineer.*