

TOWN OF GLASTONBURY

INVITATION TO BID

<u>BID #</u>	<u>ITEM</u>	<u>DATE & TIME REQUIRED</u>
GL-2013-16	Well Water Treatment At Winter Hill	December 21, 2012 @ 11:00 a.m.

The Town of Glastonbury is seeking bids for work required to install a 25 gpm well water treatment system at Winter Hill Farm, 80 Bailey Road, Glastonbury, CT 06033.

Bid forms may be obtained at the Office of the Purchasing Agent, Town Hall, 2155 Main Street, Glastonbury, Connecticut 06033 (second level) or on the Town's website at www.glastonbury-ct.gov.

A pre-bid meeting and site walk through will be held at the site December 13, 2013 at 1:00 p.m. As this will be the only time the site will be available, all interested bidders are encouraged to attend.

The Town reserves the right to waive informalities or reject any part of, or the entire bid, when said action is deemed to be in the best interest of the Town. All Sealed Bids must be submitted to the Office of the Purchasing Agent no later than the time and date indicated. All bids will be publicly opened and read.

Mary F. Visone
Purchasing Agent

**Well Water Treatment System
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1. Sealed bids (one original and one copy) on the attached Bid Forms will be received at the Office of the Purchasing Agent, Town Hall, 2155 Main Street, Glastonbury, Connecticut, 06033 (second level). At the designated time of opening, they will be publicly opened, read, recorded and placed on file.
2. Whenever it is deemed to be in the best interest of the Town, the Town Manager, Purchasing Agent or designated representative shall waive informalities in any and all bids. The right is reserved to reject any bid, or any part of any bid, when such action is deemed to be in the best interest of the Town of Glastonbury.
3. Bidders shall submit a Bid on a lump sum basis for the Base Bid and include costs for yearly maintenance for the line items specified. The basis of award will be based upon the sum of the Base Bid and yearly service line items accepted by the Town. The Town reserves the right to award or not award yearly maintenance line items. The Town further reserves the right to contract independently of this bid for the yearly maintenance of the system.
4. Bids will be carefully evaluated as to conformance with stated specifications.
5. The envelope enclosing your bid should be clearly marked by bid number, time of bid opening, and date.
6. Specifications must be submitted complete in every detail and, when requested, samples shall be provided. If a bid involves any exception from stated specifications, they must be clearly noted as exceptions, underlined, and attached to the bid.
7. The Bid Documents contain the provisions required for the requested item. Information obtained from an officer, agent, or employee of the Town or any other person shall not affect the risks or obligations assumed by the Bidder or relieve him/her from fulfilling any of the conditions of the bid.
8. Each Bidder is held responsible for the examination and/or to have acquainted themselves with any conditions at the job site which would affect their work before submitting a bid. Failure to meet these criteria shall not relieve the Bidder of the responsibility of completing the bid without extra cost to the Town of Glastonbury.
9. Any bid may be withdrawn prior to the above-scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and the date specified shall not be considered. No Bidder may withdraw a bid within sixty (60) days after the actual date of the opening thereof. Should there be reasons why a bid cannot be awarded within the specified period, the time may be extended by mutual agreement between the Town and the Bidder.
10. The Bidder agrees and warrants that in the submission of this sealed Bid, they will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religion, national origin, sex, or physical disability including, but not limited to blindness, unless it is shown by such Bidder that such disability prevents performance of that which must be done to successfully fulfill the terms of this sealed Bid or in any manner which is prohibited by the laws of the United States or the State of Connecticut: and further agrees to provide the Human Relations Commission with such information requested by the Commission concerning the employment practices and procedures of the Bidder. An Affirmative Action Statement will be required by the successful Bidder.
11. Bidder agrees to comply with all of the latest Federal and State Safety Standards and Regulations and certifies that all work required in this bid will conform to and comply with said standards and

- regulations. Bidder further agrees to indemnify and hold harmless the Town for all damages assessed against the Town as a result of Bidder's failure to comply with said standards and/or regulations.
12. All correspondence regarding any purchase made by the Town of Glastonbury shall reference the Town's purchase order number. Each shipping container shall clearly indicate both Town purchase order number and item number.
 13. Bidder is required to review the Town of Glastonbury Code of Ethics adopted July 8, 2003 and effective August 1, 2003. Bidder shall acknowledge that they have reviewed the document in the area provided on the bid/proposal response page (BP). The selected Bidder will also be required to complete and sign an Acknowledgement Form prior to award. The Code of Ethics and the Consultant Acknowledgement Form can be accessed at the Town of Glastonbury website at www.glastonbury-ct.gov. Upon entering the website click on **General Information**, then **Bids and Quotes** which will bring you to the links for the Code of Ethics and the Consultant Acknowledgement Form. If the Bidder does not have access to the internet, a copy of these documents can be obtained through the Purchasing Department at the address listed within this bid/proposal.
 14. Any bidder, in order to be considered, shall be engaged primarily in the business of installing and servicing well water treatment systems with a minimum of five (5) years experience and have a valid contractor's license in the State of Connecticut. Each Bidder shall submit a list of similar projects completed within the last three years. Please provide project name and contact information for project coordinator (name, title, address, phone number). Please also provide contract value.
 15. **Non-Resident Contractors:**

The Town is required to report names of non-resident (out-of-State) contractors to the State of Connecticut, Department of Revenue Services (DRS) to ensure that Employment Taxes and other applicable taxes are being paid by Contractors. Upon award, all non-resident contractors must furnish a five percent (5%) sales tax guarantee bond (State Form AU-766) or a cash bond for five percent (5%) of the total contract price (State Form AU-72) to DRS even though this project is exempt from most sales and use taxes.

See State Notice to Non-Resident Contractors SN 2005 (12). If the above bond is not provided, the Town is required to withhold five percent (5%) from the contractor's payments and forward it to the State DRS.

The Contractor must promptly furnish to the Town a copy of the Certificate of Compliance issued by the State DRS.
 16. Bidder shall include on a sheet(s) attached to its proposal a complete disclosure of all past and pending mediation, arbitration and litigation cases that the bidder or its principals (regardless of their place of employment) have been involved in for the most recent five years. Please include a statement of the issues in dispute and their resolution. Acceptability of Bidder based upon this disclosure shall lie solely with the Town.
 17. Bidder or its principals, regardless of their place of employment, shall not have been convicted of, nor entered any plea of guilty, or nolo contendere, or otherwise have been found civilly liable or criminally responsible for any criminal offense or civil action. Bidder shall not be in violation of any State or local ethics standards or other offenses arising out of the submission of bids or proposals, or performance of work on public works projects or contracts.

18. Municipal construction projects are exempt from Federal Excise Taxes, as well as, State of Connecticut Sales, Use and Service Taxes and should not be include in the Bidder's proposal.
19. After award of Contract, Owner will require the Contractor's schedule of Values, which shall be submitted at the preconstruction meeting. The Schedule of Values must accurately reflect job costs and include a complete breakdown of material and labor costs.
20. For technical questions regarding this Bid, please contact David Sacchitella, Buildings Superintendent, at (860) 652-7706. For administrative questions regarding this Bid, please contact Mary F. Visone, Purchasing Agent at (860) 652-7589. The request must be received at least three (3) business days prior to the advertised response deadline. All questions, answers, and/or addenda, as applicable, will be posted on the Town's website at www.glastonbury-ct.gov (Upon entering the website click on Bids & RFPs). It is the respondent's responsibility to check the website for addenda prior to submission of any proposal.
21. The Town of Glastonbury is an Affirmative Action/Equal Opportunity Employer. Minority / Women /Disadvantaged Business Enterprises are encouraged to bid.

Failure to comply with general rules may result in disqualification of the Bidder.

INSURANCE

The Bidder shall, at its own expense and cost, obtain and keep in force during the entire duration of the Project or Work the following insurance coverage covering the Bidder and all of its agents, employees and sub-contractors and other providers of services and shall name the Town and the Board of Education its employees and agents as an Additional Insured on a primary and non-contributory basis to the Bidders Commercial General Liability and Automobile Liability policies. These requirements shall be clearly stated in the remarks section on the Bidders Certificate of Insurance. Insurance shall be written with insurance carriers approved in the State of Connecticut and with a minimum Best's Rating of A-. In addition, all carriers are subject to approval by the Town. Minimum Limits and requirements are stated below:

1) Worker's Compensation Insurance:

- Statutory Coverage
- Employer's Liability
- \$100,000 each accident/\$500,000 disease-policy limit/\$100,000 disease each employee

2) Commercial General Liability:

- Including Premises & Operations, Products and Completed Operations, Personal and Advertising Injury, Contractual Liability and Independent Contractors.
- Limits of Liability for Bodily Injury and Property Damage
Each Occurrence \$1,000,000
Aggregate \$2,000,000 (The Aggregate Limit shall apply separately to each job.)
- A Waiver of Subrogation shall be provided

3) Automobile Insurance:

- Including all owned, hired, borrowed and non-owned vehicles
- Limit of Liability for Bodily Injury and Property Damage:
Per Accident \$1,000,000

The Bidder shall direct its Insurer to provide a Certificate of Insurance to the Town before any work is performed. The Contractor shall be responsible to notify the Town 30 days in advance with written notice of cancellation or non-renewal. The Certificate shall evidence all required coverage including the Additional Insured on the General Liability and Auto Liability policies and Waiver of Subrogation on the General Liability policy. The Bidder shall provide the Town copies of any such insurance policies upon request.

INDEMNIFICATION

To the fullest extent permitted by law, the Bidder shall indemnify and hold harmless the Town and its consultants, agents, and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, attorneys and other professionals and court and arbitration costs) to the extent arising out of or resulting from the performance of the Bidder's work, provided that such claim, damage, loss or expense is caused in whole or in part by any negligent act or omission by the Bidder, or breach of its obligations herein or by any person or organization directly or indirectly employed or engaged by the Bidder to perform or furnish either of the services, or anyone for whose acts the Bidder may be liable.

SECTION 22 31 11

WATER TREATMENT

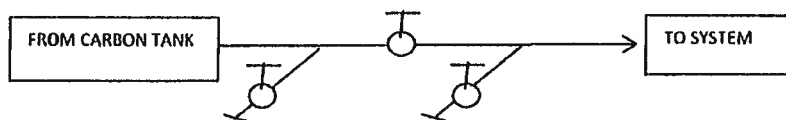
PART 1 - GENERAL

1.1 DESCRIPTION:

Provide chlorine injection, retention tanks and carbon filter, pressure type, water treatment equipment complete with piping services, electrical services, controls, accessories and auxiliary equipment. See Section 3.6 for SYSTEM DIAGRAM.

1.2 RELATED WORK:

- A. This specification is for the complete installation of a water treatment system which would include, but not be limited to, the items in 1.1 above. Also, it is understood that this specification details the equipment required and therefore this equipment shall be installed in its entirety in accordance with manufacturer instructions and best trade practices, including all required electrical power and control wiring.
- B. The Contractor shall discharge the backwash from the system into a drywell galley type system that will be furnished and installed by others.
- C. When complete system has been installed and tested a final water sample will be drawn and parameters analyzed for future use. If parameters are out of spec then additional techniques/equipment will be employed to bring the water into proper specifications. Install as drawn below, a 1 1/2 inch 'T' will be placed after the carbon tank. A valve inline with this feed to the building, between the two 'T' as well as valves placed on the outlet of each of these two 'T'.



1.3 SUBMITTALS:

- A. Submit in accordance with Town requirements, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Manufacturer's Literature and Data:
 - 1. System tank construction, coatings and linings.

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2. Tank distribution system design.
 3. Main operating valve.
 4. Control system and flow meter.
 5. Adsorptive carbon.
 6. Injection system.
 7. Accessories including pressure gages and test kit.
 8. Performance data including normal and maximum flow and pressure drop. Certification that required performance will be achieved.
 9. Piping.
 10. System maintenance and testing requirements including frequency of tests and operating tolerances.
- C. Complete detailed layout, setting, arrangement, and installation drawings including electrical/pneumatic controls. Drawings shall also show all parts of the apparatus including relative positions, dimensions, and sizes and general arrangement of connecting piping.
- D. Completed System Readiness Checklist provided by the mfg and completed by the contractor, signed by a qualified technician and dated on the date of completion, in accordance with the requirements of mfg, Town and best trade practices.

1.4 PROJECT CONDITIONS:

A. Influent Water Analysis:

Total Hardness:	45 ppm
Iron, Fe:	12 ppm
Manganese, Mn:	0.32 ppm
Sodium, Na:	8.4 ppm
Sulfate, SO4:	26 ppm
Turbidity, NTU	22
Color:	38
PH:	6.9

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Odor: faint (3 hydrogen sulfide)

B. Design Parameters:

Normal System Flow and Pressure Drop: 12 gpm @ 5 psi

Maximum System Flow and Pressure Drop: 25 gpm @ 15 psi

Backwash/Rinse Flow: 25 gpm

Backwash Volume: 500 gallons nominal

Daily Water Usage: 4000 gallons per day

Daily Hours of Water Demand: 24 (max flow possible for 8)

Operating Temperature Range: 40 - 120 degrees F

Operating Pressure Range (System): 45 to 75

(pressure drop of approx 5 to 15 psig)

Electrical Requirements: Dedicated 120 v, 60 Hz, 1 phase receptacle.

1.5 APPLICABLE PUBLICATIONS:

A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.

B. American Society of Mechanical Engineers (ASME):

B16.1-1998Cast Iron Pipe Flanges and Flanged Fittings

B16.3 - 2006.....Malleable-Iron Threaded Fittings Classes 150 and 300

B40.100 - 2005Pressure Gages and Gage Attachments

Boiler and Pressure Vessel Code, Section VIII, Pressure Vessels, 2007

C. ASTM International (ASTM):

A53/A53M - 07Pipe, Steel, Black and Hot-Dipped, Zinc-Coated
Welded and Seamless

D2665-04ae2.....Poly (Vinyl Chloride) (PVC) Plastic Drain,
Waste, and Vent Piping and Fittings.

D. American Water Works Association (AWWA):

Consulting Engineering Services
Project # 2012246

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- B300 - 10Hypochlorites
- B301 - 10Liquid Chlorine
- C651 - 05.....Disinfecting Water Mains

E. National Electrical Manufacturers Association (NEMA):

- ICS-6-1993(R2006).....Industrial Control and Systems: Enclosures

PART 2 - PRODUCTS

2.1 CARBON TREATMENT SYSTEM:

- A. Provide Carbon system for polishing the water to be Culligan HE DF-21 or approved equal. Tank to be 16 inches x 53 inches with a 1.5 inch diameter water connection. Electrical to be 120 volt standard receptacle use. Contact Culligan, John Kennedy at 845-561-3728.
- B. Vertical, down flow, pressure type with automatic controls to operate on chlorine injection cycle. Designed for 100 psi working pressure. All materials exposed to water shall be considered as generally safe by the Food and Drug Administration (FDA).
- C. Performance Requirements:
 - 1. Continuous flow of safe treated water to industry standard with influent water conditions and flows listed in Part 1.
 - 2. Carbon material shall not wash out of apparatus during any system run regardless of rate of flow.
 - 3. Turbidity and color of treated water shall not increase above that of raw water.
 - 4. Dirty or turbid water shall not occur during any run, regardless of changes in demand rate.
 - 5. Strainer system, gravel bed, and carbon material shall not become fouled, either by turbidity in the raw water, or by dirt, rust or scale from pipe to the extent to render backwash ineffective.
 - 6. Regeneration shall be accomplished within a period of 30 minutes and occur not more than twice per week. Regeneration period shall be that part of cycle of operation from the time unit has delivered its capacity until it is ready to be delivering treated water again, including all backwashing and rinsing completed.

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- D. Treatment Tanks - Culligan HE DF-21 system or approved equal.
- E. Distribution System: Culligan HE DF-21 system or approved equal
- F. Carbon Material: 615 pounds of formulated carbon media for the removal of chlorine odor, taste and residuals.
- G. System Controls: Culligan HE DF-21 system or approved equal with the following options included
 - 1. The controller shall be completely automatic and shall sequence all steps of regeneration and return the treatment to a service or stand-by mode. Selectable time or flow meter initiated regeneration. Electrical to be 120 volt standard receptacle use.
 - 2. Computer-based field-programmable controller with selectable flow meter based and time clock based operating cycles. Self-diagnostic and capable of emitting an audible error signal and displaying error-specific messages.
 - 3. Operating conditions shall be continuously monitored and display shall show time of day, volume remaining before next regeneration, number of regenerations in last 14 days, number of days since last regeneration, instantaneous flow rate, resettable totalized flow since the last regeneration, time of next regeneration, and identify the cycle that is in progress.
 - 4. Flow shall be regulated to operate between 30 and 100 psi supply pressure, to prevent noise and hydraulic shock.
 - 5. Flow meter to be installed with manufacturer's recommended straight pipe before and after the meter.
 - 6. Main operating valve shall be a fully automatic multiport diaphragm type.
- H. Sampling Cocks: Provide for inlet and outlet water. All sample taps to be terminated with a smooth non threaded outlet.

2.2 WATER STORAGE RETENTION TANKS

- A. Provide three contact/retention tanks to be Flexcon FLU 120 or approved equal, 120 gallon fiberglass resin, 24 inches x 72 inches high, 83 pounds and 1 1/4 inch diameter inlet/outlet fittings. Tanks are used to increase the chlorine residual/effect by allowing greater time for chemical contact and mixing.

B. Contact Culligan - John Kennedy at 845-561-3728.

2.3 CHLORINE INJECTION APPARATUS

A. Provide one injection pump system with piping and controls to be Pulsatron E Plus Series or approved equal:

Flow to be 40 gpd, at 200 psi, provide with following options
4-20mA with stop function,
external pacing with stop function,
Auto-Off-Manual selection switch with indicator lights,
panel mounted fuse.

B. Installation to include:

Tank, Calibration Column, Pulsation Dampeners, Pressure Relief Valve, Pressure Gauge, and all other mfg required parts to make a complete functioning and controllable system with required electrical and control wiring. Electrical to be 120 volt standard receptacle use.

C. Contact Culligan - John Kennedy at 845-561-3728.

2.4 EXTERNAL TREATMENT PIPING:

A. Pipe: ASTM A53, galvanized, Schedule 40.

B. Fittings: carbon steel, ASME B16.3, or stainless steel, ASME B16.1, class 125.

C. Flanges: ASME B16.1, Class 125.

D. Threaded Joints: Shall be made with ends reamed out. Apply bituminous base lubricant or fluorocarbon resin tape to male threads only.

2.3 CHLORINE PIPING:

Polyvinyl chloride (PVC), ASTM D2665, Schedule 80 with solvent welded joints.

2.4 VALVES

Ball: Carbon steel or Stainless steel body to fit fluid use, stainless steel trim, reinforced Teflon seat and seal, full port, threaded ends. Use heavy duty PVC or approved equivalent for corrosive fluids.

2.5 PRESSURE GAGES

ASME B40.100, Grade A, 1% accuracy, 110 mm (4-1/2 inches) diameter, all metal case, bottom connected. White dials, black hands, graduated from 0

to 700 kPa (0 to 100 psi) and identity labeled. Provide gages with gage cocks at treatment hard water inlet and water outlet to show pressure drop through treatment.

2.6 WATER TESTING EQUIPMENT:

- A. Furnish water testing equipment in a portable cabinet kit to include:
30 test strips for iron; 30 test strips for alkalinity/pH/hardness; 30 test strips for hlorine/nitrate/nitrite; 30 reagent tablets for the iron test; 30 test vials; 30 pipettes

PART 3 - EXECUTION

3.1 REQUIRED TECHNICAL SERVICES:

Provide services of a qualified manufacturer's representative to check complete installation for conformance to manufacturer's recommendation, put system into service, make all adjustments required for full conformance to design and specified requirements, and perform all demonstrations and tests.

3.2 FLUSHING AND DISINFECTING:

- A. Flush and disinfect new water lines and treatment system interiors in accordance with AWWA C651.
- B. Material:
1. Liquid chlorine: AWWA B301.

3.3 STARTUP AND TESTING:

- A. Operating: Tests shall be run in presence of Owner and Engineer. It will not be permitted, for testing purposes, to add to or subtract from carbon material used in apparatus.
- B. Procedure:
1. Regenerate system to demonstrate operation of multiport valve.
 2. Operate each treatment system at constant maximum required capacity for ten minutes after treated water is produced. When necessary, waste treated water to sewer to maintain above flow rate.
 3. In order that color and turbidity of treated water may be under continuous observation during test, water sampling cock shall remain open and the stream of treated water run through a rubber hose

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discharging at the bottom of a wide mouth 1 gallon clear glass container, set against a white background.

4. Demonstrate all features of the control system including diagnostics and flow and cycle indications.

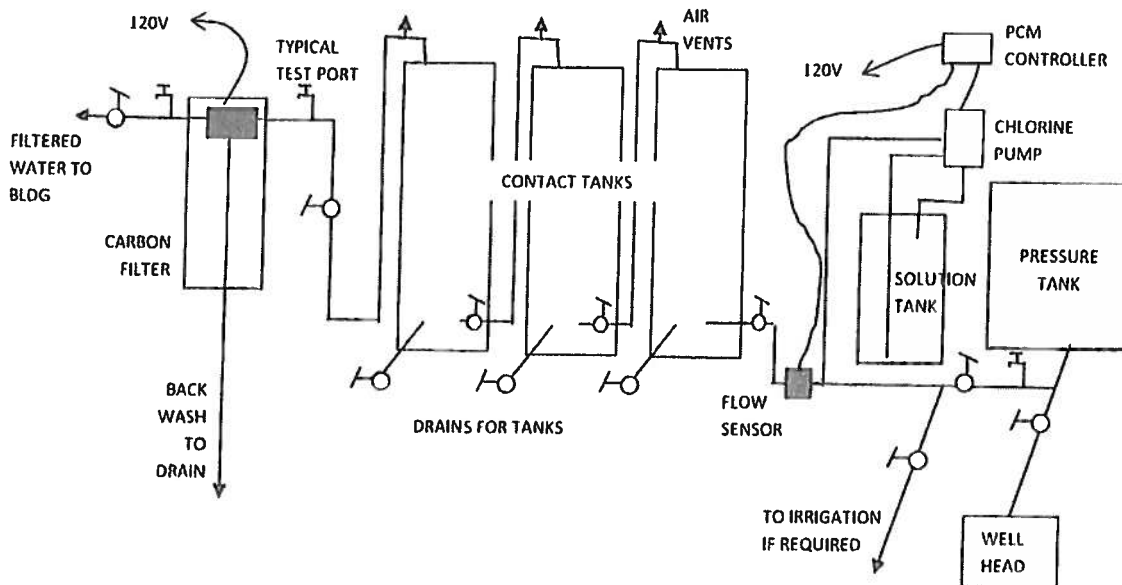
3.4 START-UP

- A. Provide documentation in accordance with Town requirements for all inspection, startup, and contractor testing required also as required by the manufacturer.
- B. Components provided under this section of the specification will be tested as part of a larger system.

3.5 DEMONSTRATION AND TRAINING

- A. Provide services of manufacturer's technical representative for four hours to instruct Personnel in operation and maintenance of units.

3.6 SYSTEM DIAGRAM



All sample taps (test ports) to be terminated with a smooth non threaded outlet.

**Water Treatment System
BID PROPOSAL**

BID #GL-2013-16

Proposal of _____
(hereinafter called "Bidder"), organized and existing under the laws of the State of _____
_____, doing business as _____
_____.

To the Town of Glastonbury (hereinafter called "Town").

In compliance with your Invitation to Bid, the Bidder hereby proposes to furnish and/or services as per Bid Number GL-2013-16 in strict accordance with the Bid Documents, within the time set forth therein, and at the prices stated below.

By submission of this bid, the Bidder certifies, and in the case of a joint bid each party thereto certifies as to their own organization that this bid has been arrived at independently without consultation, communication, or agreement as to any matter relating to this bid with any other Bidder or with any competitor.

The Bidder acknowledges receipt of the following Addendum:

Addendum #1 _____

Addendum #2 _____

Addendum #3 _____

It is the responsibility of the bidder to check the Town's website for any Addendum before submitting the bid.

TOTAL BID AMOUNT:

Furnish and install Well Water as specified in the Plans and Specifications for Bid GL-2013-16 \$ _____

WRITTEN BID AMOUNT: \$ _____

YEARLY MAINTENANCE:

Cost to service and maintain system including all labor and materials:

System acceptance to 6/30/2013	\$ _____
7/1/2013 through 6/30/2014	\$ _____
7/1/2014 through 6/30/15	\$ _____

Other Items Required with Submission of Bid Proposal

The following bid checklist describes items required for inclusion with the above-referenced bid proposal package. It is provided for the convenience of the bidders and, therefore, should not be assumed to be a complete list.

- N/A Bid Bond (10% of total bid amount).
- List of similar projects completed within last three (3) years. A minimum of five (5) are required.
- Acknowledgement of Addendums in Bid Proposal (as applicable).
- Acknowledgement of Code of Ethics in Bid Proposal.
- Sealed bids, one original and one copy.
- Disclosure of past and pending mediation, arbitration and litigation cases that the Bidder or its principals have been involved in for the most recent five years (if applicable).
- Copy of Bidder's Contractor's License (State of Connecticut).

It is the responsibility of the Respondent to clearly mark the outside of the bid envelope with the Bid Number, Date and Time of Bid Opening, and it also THE RESPONSIBILITY OF THE BIDDER TO CHECK THE TOWN'S WEBSITE BEFORE SUBMITTING BID FOR ADDENDUMS POSTED PRIOR TO BID OPENING.

CODE OF ETHICS

I/We have reviewed a copy of the Town of Glastonbury's Code of Ethics and agree to submit a Consultant Acknowledgement Form if I/We are selected. Yes _____ No _____*

*Bidder is advised that effective August 1, 2003, the Town of Glastonbury cannot consider any bid or proposal where the Bidder has not agreed to the above statement.

Respectfully submitted:

Type or Print Name of Individual

Doing Business as (Trade Name)

Signature of Individual

Street Address

Title

City, State, Zip Code

Date

Telephone Number/Fax Number

E-Mail Address

SS# or TIN#

(Seal – If bid is by a Corporation)

Attest

