



Embassy of the United States of America

American Embassy La Paz
July 21, 2016

To: Prospective Quoters

Subject: Request for Quotations number SBL40016Q0010

Enclosed is a Request for Quotations (RFQ) for providing Garden Irrigation System Renovation at the U.S. Embassy – La Paz. If you would like to submit a quotation, please send us the quote to the following address: GutierrezAC@state.gov by Friday August 12, 2016 at noon 12:00.

Prior to submitting a quote, contractors must visit the sites to familiarize themselves with the full nature and extent of the work which may be done, and to determine existing conditions.

The site visit will be held on Thursday, August 4, 2016 at 9:00 a.m. at 2780 Arce Avenue, La Paz.

Offerors interested in attendance should contact Ana Cristina Gutierrez at GutierrezAC@state.gov by Tuesday August 2, 2016 with the full name of the person attending the site visit and ID number, so they can gain access to the premises.

The U.S. Government intends to award a purchase order to the responsible company submitting an acceptable offer at the lowest price. We intend to award it based on initial quotations, without holding discussions, although we may hold discussions with companies in the competitive range if there is a need to do so.

Sincerely,


David Simpkins
Contracting Officer

Enclosure: RFQ SBL40016Q0010

COB UNDERGROUND IRRIGATION GARDEN SYSTEM RENOVATION

US EMBASSY LA PAZ BOLIVIA

1. General

The US embassy building irrigation garden system requires be updating and changing completely since this system has reached its end of life cycle. In the last years, this system has required more maintenance since many water leaks has been detected.

2. Scope of work

The awarded contractor shall provide, hand labor, all materials and equipment, tools, to perform the following:

- Complete removal of the old system, includes: sprinklers, all pipes, valves, valves housings, and all electrical wiring system.
- Provision and installation of plastic PVC pipe for the whole new water system net, including main lines, branches and lines to sprinklers.
- Provision and installation of control solenoid plastic valves plus their respective box valves.
- Provision and installation of pop-up sprinklers for the whole system.
- Provision and installation of the whole electric system.
- Provision and installation of required flush valves, pressure valves and backflow preventer valves.
- Provision and installation of Timer/Controller for the whole system stations/zones.
- Redo all affected garden areas as a result of this work.
- Redo affected walkways and car ways as a result of this work.
- Provide professionally designed drawings prior to start construction. Design drawings shall be clearly readable, show specifications, scales, improvements, location of water source, location of pipes, controllers, valves, boxes, flow rates per zone, sprinklers, isolation valves, etc.

3. Description of the system

This will be a combined underground system equipped with pop-up sprinklers and an underground drip irrigation system for shrubs and independent plants. This system shall be capable to irrigate lawns, shrubs and trees in a garden of an average area of 4000m².

This system comprehends the following: one main pipe made of PVC tube of 2", capable of manages till 8m³/h of water that feeds water to all stations or zones. This main pipe is fed from the pumps room and the control valve where this pipe starts is located in the North Patio Garden. Thea available pressure in this valve is 80 PSI. Control stations that provide water to specific areas of the garden. Each station will have one 1-1/2" plastic solenoid valve controlled from the system Timer/Controller. Each station/zone will feed to their specific sprinklers to water the assigned portion of the garden. System will be equipped with a rain sensor and humidity sensors to limit watering when necessary.

4. Materials and equipment

4.1 Piping and fittings

4.1.1 Use rigid, unplasticized polyvinylchloride (PVC) with integral belled end suitable for solvent welding. Use class 160, SDR-26, rated at 160PSI PVC pipe or schedule 40 conforming ASTM 1785.

4.1.2 Use Schedule 40, Type 1, PVC solvent weld fittings conforming to ASTM 2466&1784 for PVC pipe. Use primer and solvent cement approved by pipe manufacturer.

4.1.3 Use PVC sch80 pipe and fittings where it is required by the design.

4.2 Control Valves

4.2.1 The electric remote control valve shall be a normally closed 24 VAC 50/60 Hz (cycles/second) solenoid actuated globe in-line design. The valve pressure rating shall not be less than 150 PSI (10, 35) Bar.

4.2.2 Valves can be Rain Bird model 150PEB or Hunter brands or other brand of demonstrated similar or higher quality.

4.2.3 Connection to valves shall be made through schedule 80 PVC male adapters to the inlet and outlet.

4.2.4 Valves shall be marked with the number of zone they are controlling.

4.3 Valves Boxes

4.3.1 Valve boxes shall be used as durable, rigid enclosures for valves or other irrigation system components requiring subsurface protection for installation or maintenance. The valve box shall be made of structural foam HDPE resin that is resistant to UV light, weather, moisture, and chemical action of soils.

4.3.2 The standard rectangular body shall have knock-outs molded into the sides that can be readily removed. The knock-outs shall remain an integral part of the body unless removed to run pipes or wires through the valve box.

4.3.3 Boxes can be Rain Bird VB-STD model or a similar model from Hunter.

4.4 Sprinkler Heads

4.4.1 The sprinkler head for lawns shall be the rotor type. The part and reversing full circle sprinkler shall be a single stream, water-lubricated, gear-drive type capable of covering a 17ft radius at 55 pounds per square inch with a discharge rate of 0.85 gallons per minute (GPM). The sprinkler shall have adjustable arc coverage of 40 to 360 degrees. The sprinkler shall have a ½" (FNPT) bottom inlet.

4.4.2 The sprinkler shall have interchangeable Rain Curtain nozzles for superior close in watering. The angle of trajectory of the nozzle bore shall be no more than 25 degrees and no less than 10 degrees.

4.4.3 The stainless steel adjusting screw shall be capable of reducing the radius up to 35%.

4.4.4 Rotor heads can be Rain bird model 5004 or other of similar or greater quality.

4.4.5 All sprinklers heads will have a 50% overlap head to head.

4.5 Drip Irrigation

4.5.1 System will have a Rain Bird Automatic Filter Kit to consist of a commercial grade, 150 psi pressure rated Y-filter with the proven Rain Bird PESB "scrubber" valve for reliable, long-term automatic filtration or approved equal.

4.5.2 Xeri-Bug Multi-outlet Emission devices will be used to deliver irrigation to individual plants.

4.5.3 Inline Pressure Regulators will be used to ensure operating pressure.

4.5.3 An air relief valve kit is vital for sub-surface installations. It allows air to escape the pipeline to prevent water hammer or blockage and also air to enter the lines at shutdown to prevent suction of dirt into the system.

4.5.4 Pressure-compensating modules and Xeri-Bug Emitters will be installed to irrigate shrubs.

4.5.5 Distribution, Black Strip, and drip tubing will be staked as needed, using appropriate stakes. Drip systems are the only approved use for tubing. Tubing should be kept to a minimum to lessen the future repairs of the system.

4.5.6 Emission devices will be adjusted to deliver proper flow rates and eliminate over watering.

4.6 Controller

The controller shall have all capabilities and features similar as the Rain Bird controller model ESP-LXME. International model 230V/50 Hz with connectivity features.

4.7 Control Wires

4.7.1 14 gauge AWG UF or PE wire suitable for irrigation use will be used for control wires between the control timer and the electric control valves.

4.7.2 Proper connections will be made using direct barrel splices.

5. Execution

5.1 Verify construction site conditions and note irregularities affecting work. Report irregularities. Commencement of work implies acceptance of existing site conditions.

5.2 Excavate and install pipes at minimum cover indicated in drawings or specifications. Excavate trenches at appropriate width for connections and fittings. Minimum distance from top of pipe to finish grade 12" for non-traffic areas. From 18" to 24" in vehicular traffic areas.

5.3 Backfill only after buried lines have been reviewed, tested and approved. Excavated material is generally satisfactory for backfill. Use backfill free from rubbish, vegetable matter, and stones larger than 1" in maximum diameter. Use backfill free of sharp objects next to pipe. Remove material not suitable for backfill. Dress backfilled areas to original grade.

5.4 Contact COR for trench depth adjustments where utilities conflict with irrigation trenching and pipe work.

5.5 For pipes installation, in general, comply with requirements of Uniform Plumbing Code.

5.5 Keep pipes free from dirt and debris. Cut pipe ends square, debur and clean as recommended by manufacturer. Keep pipe ends capped; remove when necessary to continue assembly.

5.6 Use appropriate primer and solvent cement. Join pipe in manner recommended by pipe and fittings manufacturers and in accordance with accepted industry. Cure for thirty minutes before handling and 24hours before pressurizing.

5.7 For PVC threaded connections use only factory formed threads. Field cut threads are not allowed. Use fitting manufacturer's recommended sealant material.

5.8 Flush mainline pipe before installing Control Zone kit assembly.

5.8 Install one station or zone control valve in each box. Locate where drawings shown. Locate boxes at least 12" from, and align with, nearby walls or edges of paved areas. Group boxes where practical. Allow at least 12" between boxes. Box size shall allow enough clearance for proper operation and maintenance.

5.9 Swing Joints will be made of Marlex street 90 degree elbow fitting and PVC SCH 80 nipples.

Swing Joints shall be sized according to the sprinkler head inlet.

5.10 Flush circuit lines with a full head of water and install heads. Install lawn heads at manufacturer's recommended heights.

5.11 Any placement changes made during the installation will be approved or requested by the COR of this Project. The installer will make adjustments, if requested.

5.13 Mainlines upstream of zone valves will be checked for leaks. Fill completely the installed pipeline slowly and expel the air. Allow the pipe to sit full of water for 24 hours to dissolve remaining trapped air. Check the charged line for any leakage. The solvent-welded pipe will have no leaks. The COR can require the contractor to perform a test using a metering pump, elevate the water pressure to the maximum static supply pressure expected and hold there for a period of 2 hours. No leakage shall be allowed.

6. Guarantee/Warranty and Replacement

6.1 The purpose of guarantee/warranty is to ensure the embassy receives prime quality materials and installed in a thorough and careful manner.

6.2 Contractor is responsible for providing guarantee/warranty for all provided materials, and workmanship against defects for a period of one year from formal written acceptance from the embassy. Repair damage to embassy property caused by defective items. Make repairs within seven days of notification from the embassy.

6.3 Contractor is fully responsible for the quality of this project. The embassy has the right to reject a poor quality work and ask for the repetition of the work in case is necessary.

7. Timeline-Schedule

7.1 Contractor shall be allowed to work from 8:00 to 18:00 from Monday to Friday and from 8:00 to 18:00 on weekends to finish up this project in six weeks.

7.2 A detailed schedule for the duration of the project should have to be submitted within 7 days after award of contract. Schedule should be approved by COR before start any work.

8. Site Visit

8.1 Prior to submitting a bid, contractors must visit the sites to familiarize themselves with the full nature and extent of the work which may be done, and to determine existing conditions. No additional cost allowance in behalf of the Contractor will be allowed because of difficulty encountered with existing conditions.

9. Point of Contacts

David Simpkins, Facilities Manager, 2168132/67007387, simpkinsDD@state.gov

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Ana Cristina Gutierrez, Contract Specialist, 2168303/76510002, gutierrezac@state.gov

End of Scope of Work