CITY OF LYNWOOD

Request for Proposals (RFP) for

Specification for Correlator-Based Leak Detection Study

Date: November 16, 2011

Department: Public Works

Project Name: Specification for Correlator-Based Leak Detection Study

Proposal Due Date: December 8, 2011    Time: 5:00 P.m.

Proposals must be submitted to the:

City of Lynwood
City Clerk’s Office
11330 Bullis Road
Lynwood, CA 90262

Proposal Information – Format:

Proposals will be received by the City of Lynwood, hereinafter called the “City,” at the office of the City Clerk, 11330 Bullis Road, Lynwood, CA 90262, until Thursday, December 22, 2011.

Each Proposal must be submitted in a sealed envelope, addressed to the City at the above referenced address. Each sealed envelope containing a Proposal must be plainly marked on the outside as “Specification for Correlator-Based Leak Detection Study”

Proposer’s name, address and his/her license number, if applicable. If forwarded by mail, the sealed envelope containing the Proposal must be enclosed in another envelope addressed to the City of Lynwood, c/o City Clerk, 11330 Bullis Road, Lynwood, CA 90262.

Salary tabulation sheets containing actual cost and overhead costs are to be submitted in a separate sealed envelope clearly marked “Cost Proposal” at the time of submission of the proposal.
Copies of the Request for Proposals may be obtained in the Department of Public Works of the City of Lynwood, 11330 Bullis Road, Lynwood, CA 90262. Questions regarding the Request For Proposals should be directed to Mr. Jose Molina at (310) 603-0220, Ext. 800.

The Proposal shall include, as a minimum:

A. A statement that this RFP shall be incorporated in its entirety as part of the Consultant’s quote.

B. A statement that this RFP and the Consultant’s proposal will jointly become the Scope for Professional Consultant Services for this project. A purchase order will be issued upon acceptance of the quote.

C. A statement that the services to be provided, and fees therein, will be in accordance with the City’s RFP except as otherwise specified in the Consultant’s quote under the heading “Exceptions to the City’s Request for Proposals.”

D. A single and separate section with the heading “Exceptions to the City’s Request for Proposals” containing a complete and detailed description of all of the exceptions to the provisions and conditions of this RFP upon which the Consultant’s proposal is contingent and which shall take precedent over this RFP.

E. A statement of Qualifications applicable to this project including the names, qualifications and proposed duties for the Consultant’s staff to be assigned to this project; a listing of recent similar projects completed including the names, titles, addresses, and telephone numbers of the appropriate persons which the City can contact.

F. A statement that all charges for services will be a “Not-To-Exceed” fee, as submitted with and made part of said Consultant’s quote.

G. A copy of the Consultant’s hourly rate schedule and a written statement that said hourly rate schedule is part of the Consultant’s quote for use in invoicing for progress payments and for extra work incurred that is not part of this RFP.

H. A written statement by the Consultant that all federal laws and regulations shall be adhered to notwithstanding any state or local laws and regulations. In case of conflict between federal, state, or local laws or regulations, the strictest shall be adhered to.

I. A written statement by the Consultant shall allow all authorized federal, state, county, and the City of Lynwood officials access to place of work, books, documents, papers, fiscal, payroll materials, and other relevant
J. A written statement by the Consultant shall allow all authorized federal, state, county, and the City of Lynwood officials access to place of work, books, documents, papers, fiscal, payroll materials, and other relevant contract records pertinent to this project. All relevant records shall be retained for at least three years.

K. A written statement that the Consultant will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.

L. A written statement that the Consultant shall comply with the California Labor Code. Pursuant to said regulations entitled: Federal Labor Standards provisions; Federal Prevailing Wage Decision; and State of California Prevailing Wage Rates, respectively.

M. The Consultant must complete the application process for a City of Lynwood Business License/Temporary Sales Permit. The annual cost for a business license is $90.00, which must be paid at time of awarding contract.

N. A description of Consultant’s approach to the work and a complete analysis of staff hours required of each individual to be assigned to the project. The estimated hours shall identify each task to be done.

O. A proposed schedule of work. The proposed work schedule shall show a total time of no more than Sixty (60) days from the City’s “Notice to Proceed” to completion of all work including plans, specifications and estimate, ready for bidding. Any exception to this schedule must be submitted with a written explanation detailing any request for time extension. NOTE: It is anticipated that the City’s “Notice to Proceed” will be issued on or about January 9, 2012.

Water System History

The City of Lynwood was founded in the early 1800’s by Don Antonio Lugo. The Lugo Family later deeded the land which was eventually developed and opened as a suburban home site in 1913. To sustain the development of the land, the City’s water system began to take shape. The City was later incorporated in 1921, and the City began to drill wells for groundwater production. Well No. 5, drilled in 1932, has remained in operation to this day. As the City continued to grow as a residential and industrial community, the City realized the need to supplement its water sources and began to receive imported water in 1940. The City is located in the Central Basin Municipal Water District (CBMWD) which is a member agency of the Metropolitan Water District (MWD). MWD was originally founded in 1928 to build the Colorado River
Aqueduct to supplement the water supplies of the original founding members. In 1972, MWD augmented its supplies to include delivers from the State Water Project via the California Aqueduct. Today the City continues to receive imported water on an as-needed basis.

City Water Service Area

The City of Lynwood is approximately 4.7 square miles in size and its water system serves about 90 percent of the land within City limits. The Park Water Company provides water service to the remaining 10% in the southeast section of the City. Land use within the service area is principally composed of single family residences, business and some institutional and industrial areas. Since the area is in a built-out condition, additional growth result from re-development of existing lots.

Water System

The City’s Public Works Department manages the City’s infrastructure and natural resources, including the City’s Public Water Utility. The Public Water Utility consists of efforts from various Public Works sections: Water Utility Division, CIP Division, and Engineering Division. The Water Utility Division is responsible for providing high quality drinking water through the operation and maintenance of water production, distribution treatment, and storage facilities.

Water Supply & Operations

The City of Lynwood has five active groundwater wells (Well Nos. 5, 8, 9, 11, and 19) located throughout the City for groundwater production. The wells range in capacity from 550 to 2,000 gallons per minute (gpm) with a total pumping capacity of 5,650 gpm. The City is also scheduled to complete equipping of its Well No. 22 (capacity of 2,500 gpm) later this year.

The City also receives imported water from its connection to CBMWD with a 12 CFS connection capacity of 5,376 gpm. Although the City previously used its imported connection to supplement its groundwater supply, the City has recently decided to use imported water only on an as-needed basis. Over the past five years, groundwater has accounted for the majority of the City water supply, providing about 90% for the City’s total water supply.

Distribution System

The City distributes its water to approximately 9,000 service customers through a 90 mile network of distribution mains with pipelines sizes ranging from 2-inches to 16-inches. The water system consists of one (1) pressure zone that provides sufficient water pressure to customers. The City also maintains a booster pump station consisting of 3 pumps that can deliver up to 3,600 gpm.

A project information meeting will be held on December 1, 2011 at 10:00 A.m. at the Department of Public Works, 11750 South Alameda, Lynwood, CA 90262.
Scope Of Work
For
Correlator-Based Leak Detection Study

I. General

City of Lynwood is requesting a proposal from Contractor for surveying and pinpointing water leaks using the latest procedures, methods and leak detection technology. The Contractor shall include the following equipment as a minimum: A sonic leak detection sound amplification instrument in conjunction with a transducer capable of 1.5 VG (volts per "G") or greater sensitivity minimum output for survey (this equipment must be tested on a regular basis for sensitivity output). Contractor must use and have on job site during all phases of this project, various sophisticated equipment including ground microphones, computer based correlator(s), etc. for leak pinpointing. They also must have with each mobile unit, pipe tracing and box locating equipment. The equipment is to be operated by trained experienced professionals. 

The Contracting Company (including technicians) must have a minimum of five (5) years experience in this field and with the equipment as outlined herein. Furthermore, the technicians should have an annual audio gram (hearing test) to be certain that all detectable leak sounds are addressed. A detailed report of leak locations, estimated GPM loss and area covered is to be supplied daily. A Final Report shall include: a summary of the project, survey review, with observations noted, sheets with data on each individual leak with a drawing of its location and a conclusion.

II. Specifics

A. The first step in this survey will be to review the distribution maps of the system for familiarization of the pipe network and available appurtenances (valves, services, hydrants, etc.) to be used for contact points.

B. As the leak survey progresses, the Contractor shall determine the distance that even quiet leak sounds travel in various pipe materials, pipe sizes and pressure zones in each area of the system. This is to be done by slightly turning on fire hydrants, hose bibs, etc., creating a simulated quiet leak sound. Appurtenances in that area are then to be checked with a sound amplification instrument to see how far the simulated leak sound travels, thus determining how often the Contractor will make contact with appurtenances in a given section of the water distribution system.

C. The Contractor shall then conduct a comprehensive survey by making physical contact with all available main line appurtenances (valves, hydrants, etc.) and selected customer services. The Contractor shall use a sonic leak detection sound amplification instrument designed for this purpose with a transducer rated at a minimum sensitivity of 1.5 VG (volt per "G") or greater. (When surveying PVC pipe lines, the consultant shall make contact with all available appurtenances.)

D. Contact is then to be made with pipe appurtenances at intervals no greater than 350 feet where contact points are available and accessible, or at pre-determined
distances as noted in Paragraph B (whichever distance is less). This allows for even quiet leaks to be located.

E. When normal contact points are not available or can not be created within a reasonable distance as described in Paragraph D, Contractor shall use a sonic ground listening device making physical ground contact at intervals no greater than 6 feet directly over the pipe. Sonic ground listening instruments are to be used only when ground cover is pavement, cement or similar hard surface. If excessive ambient noise precludes the effectiveness of the ground listening device in an area during daytime hours, Contractor shall schedule this portion of the survey for nighttime hours. All nighttime work shall be approved by the City.

F. When ground cover is not a hard surface, probe rods shall be used at 10 feet intervals when normal contact points are not available (as described in Paragraph D). A sound amplification instrument with 1.5 VG (volts per "G") or greater transducer minimum output is to be used on probe rods. Probe rods will be driven into the ground to a minimum of 6" directly over the pipe when ground conditions allow.

G. All indications of leaks found during survey are to be verified a second time, after which the leak shall be pinpointed with a computer based leak sound correlator when possible. Pinpointing leak locations through interpretation of sound intensity, either by ear, decibel metering, or other like methods, is not to be used when contact points are available for use with correlator.

H. The equipment used shall not normally require valves to be operated during surveying and pinpointing. However, on occasion, services or valve may be operated to eliminate service draw noises or to change velocity noise. If required, any appurtenance operation will be performed by City personnel only.

I. The correlator equipment used should have the capability of prompting the operator to input the variables when different pipe sizes and/or pipe materials are encountered in the same span to be investigated. The correlator shall have the capability of correlating up to at least four various pipe sizes and types at one time in a given span.
J. The Contractor shall furnish the City with a daily copy of the leak reports for any leaks that are pinpointed, as well as a Final Report within Fifteen (15) working days from end of the project. The Final Report is to include:

1. **Summary** showing individually recorded time for correlating, surveying and other time spent on the project. This summary also shall include footage covered, approximate GPD loss, types of leaks found, quantity of leaks found and remarks recommending improvements that may be made to our distribution system.

2. **Survey Review** explaining the procedures and methods used during this study.

3. **Leak Reports** with detailed drawing showing each leak location that is pinpointed, the type of leak found, approximate time spent pinpointing, an estimate on the GPM lost, a leak classification to organize facilitation of repairs and computer justification when applicable. (This same leak report shall be supplied daily to the Division when leaks are found.)

K. Whenever the City repairs any leaks detected by Contractor prior to completion of the Leak Detection Study, Contractor shall re-survey that section of the system, to be sure no very quiet leaks are missed due to an overpowering noisy leak sound.

L. The Contractor shall furnish trained field technicians, leak detection instruments, equipment and tools to complete the survey and leak pinpointing.

M. The Contractor shall perform their best effort to pinpoint all existing leaks.
Bid Schedule

Leak Detection Study

Bidder is requested to complete the following Schedule of Values, i.e., a breakdown of the total bid price, which may serve as a basis for payment requests. However, selection of the lowest bidder will be made on the basis of the Total Bid Price.

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**TOTAL BID PRICE:**$________________________

Price in figures

Price in Words

The Total Bid Price shall include all cost of labor, materials, equipment, tools, transportation, supervision, all appurtenance work, and all other services required to discharge all duties and obligations necessary and required to perform and complete the Study in accordance with all the provisions of the Contract Documents.
IT IS UNDERSTOOD THAT THE FOREGOING QUANTITIES ARE APPROXIMATE ONLY AND ARE SOLELY FOR THE PURPOSE OF FACILITATING COMPARISON BETWEEN BIDS. IT IS FURTHER UNDERSTOOD THAT THE CONTRACTOR’S COMPENSATION WILL BE COMPUTED UPON THE UNIT BASIS OF THE ACTUAL QUANTITIES USED IN THE COMPLETED WORK WHETHER THEY BE MORE THAN OR LESS THAN THOSE ESTIMATED ABOVE.

BY: ___________________________________________________________  

Signature

______________________________________________________________

Printed Name

Representing ____________________________________________________________
### PIPELINE  SUMMARY OF THE CITY DISTRIBUTION SYSTEM TO BE SURVEYED

IN LINEAL FEET

For Information Only

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