

TO: James L. App, City Manager
FROM: Doug Monn, Public Works Director
SUBJECT: Award Design Services – Water Line Upgrades
DATE: March 4, 2008

NEEDS: For the City Council to consider awarding design services to upgrade water lines between Oak and Spring Streets.

- FACTS:**
1. The City's 2007 Water Master Plan identifies the need to upsize small diameter pipes to reduce fireflow deficiencies.
 2. Currently, the water line in Oak Street between 30th and 32nd is four inches in diameter. In accordance with the Water Master Plan the line must be increased to eight-inches in diameter line to provide required fire flow demands.
 3. The existing water lines in 30th Street between Oak and Spring are two inches and four inches respectively, and must be upsized to an eight-inch diameter line to meet fire flow demands.

**ANALYSIS &
CONCLUSION:**

The 2007 Water Master Plan identified areas of the City's water distribution system that are unable to satisfy fireflow demands. On the west side of the City much of the infrastructure is in excess of 50 years old, undersized and does not provide adequate flows for fire fighting.

Inadequate fire flows impact life safety and may result in property loss. The Water Master Plan identifies areas of concern and recommends replacement of existing infrastructure with properly sized water lines thereby improving health and safety by increasing fire flow delivery. To address this issue a Request for Proposal was issued to approximately 15 to 20 firms for design services associated with replacement of the lines identified above. Seven firms responded.

Cannon Associates	\$ 28,200
Penfield & Smith	32,750
RRM	34,650
Wallace Group	37,085
EDA	39,900
Boyle	41,580
NCE	44,130

Staff reviewed the proposals by the design firms and has determined the proposal from Cannon Associates to be complete and meet the City's needs. Therefore, staff recommends a contract be awarded to Cannon Associates in an amount not to exceed \$28,200 for completion of the design for the water line upgrades.

**POLICY
REFERENCE:**

Adopted Capital Improvements Budget and 2007 Water Master Plan

**FISCAL
IMPACT:**

A budget of \$400,000 has been adopted for this project under Budget No. 600.910.5452.437.

- OPTIONS:**
- a.** Direct the City Manager to engage the services of Cannon Associates to prepare Plans and Specifications to upsize the existing waterlines in 30th Street and Oak Street for a not-to-exceed fee of \$28,200.
 - b.** Amend, modify, or reject the above option.

Prepared by:
Ditas Esperanza, P.E., Capital Projects Engineer

- Attachments (2)
- 1) Scope of Work
 - 2) Resolution

January 11, 2008

Ms. Ditas Esperanza
City of Paso Robles
1000 Spring Street
Paso Robles, CA 93446

**PROJECT: UPGRADE WATER LINES, WEST MAIN ZONE
CITY OF PASO ROBLES, CA**

Dear Ditas:

Thank you for the opportunity to provide engineering and survey services for implementation of this important water line upgrade project. Our understanding of the project is based on the RFP, the 2007 Potable Water Distribution System Master Plan, and subsequent discussions with you. As shown in the Master Plan, these water line upgrades are considered Priority 1 and are necessary to meet fire-flow deficiencies and strengthen the “backbone” distribution system. Additional benefits include improving system pressures, replacing aging infrastructure, and improving water circulation overall.

As detailed in the RFP, the project consists of upsizing water mains within 30th and Oak Streets to a minimum of 8-inch diameter and connecting these new lines into existing backbone infrastructure in Vine and Spring Streets. Existing fire hydrants and water service laterals will be connected to these new mains as part of the upgrade process.

PROJECT APPROACH

Our approach to successful completion of this project consists of providing professional services in four progressive phases: Preliminary Engineering, Construction Documents, Bid Support, and Construction Engineering Support. The phases have been carefully sequenced to provide an efficient schedule while still remaining realistic and achievable. We are open to revising this schedule depending on the City’s goals and objectives for this project. As a starting point for discussion, we enclosed a preliminary Project Schedule which shows the entire Work Program taking approximately 6 months to complete.

Phase I, Preliminary Engineering, includes fundamental project research and data collection necessary to assist in determining the preferred water line construction method (i.e. remove, replace, or parallel.) This phase also includes topographic surveying, utility research, and preliminary engineering. Phase I culminates with the submittal of a Preliminary Design Report to the City of Paso Robles. As shown on the enclosed Project Schedule, the tasks in this phase will take approximately 6 weeks to complete.

Phase II, Construction Documents, includes the preparation and submittal of a “Review Submittal” of the Construction Documents, a Review progress meeting, and preparation of “Final” construction plans, specifications, and cost estimates. This phase results in the submittal of a “Review” set of plans and culminates with the delivery of a finalized Construction Documents package to the City for construction purposes. As shown on the enclosed Project Schedule, the tasks in this phase will take approximately 5 weeks to complete.

Phase III, Bid Support, includes providing assistance to the City during the bidding phase in the way of responding to requests for information and preparing and distributing addenda. This phase occurs after the project is advertised and before award of the construction contract. As shown on the enclosed Project Schedule, we have assumed the bidding phase will take approximately 4 weeks to complete – a typical duration for a public works project of this nature – and another 4 weeks for selecting, awarding, and issuing a notice to proceed on the contract.

Phase IV, Construction Engineering Support, includes a pre-construction job walk, construction staking, review of contract submittals, responding to RFIs and requests for changes, reviewing progress and change order payment requests, attending project meetings, construction observation and record drawings. This phase culminates with the delivery of finalized Record Drawings on permanent reproducible drawing medium (Mylar film). As shown on the enclosed Project Schedule, the tasks in this phase will take approximately 8 weeks to complete – including approximately 4 weeks of construction time.

SCOPE OF WORK

Descriptions of our proposed involvement, specifically included and excluded services, and proposed deliverables are summarized below within each corresponding project task.

PHASE I – PRELIMINARY ENGINEERING

Task 1 - Project Kickoff Meeting

We will orchestrate and attend a Project Kickoff Meeting with appropriate personnel from the City. This meeting agenda will focus on project understanding, team involvement, project constraints, and the anticipation of design development impediments. This meeting will also include a project introduction, review of background information and project scope, and defining the project schedule. This meeting represents a key opportunity for representatives from the City to steer the consultant team and further clarify critical elements of the project scope.

Task 2 - Topographic Survey, Record Data Boundary, and Utility Research

The total length of the proposed water line upgrades is approximately 1,500 feet and begins at Vine and 30th, traverses along 30th to Spring, then continues along Oak Street to 32nd. To facilitate the vertical and horizontal layout of the new water mains, we will conduct a topographic survey of the alignment in sufficient detail to prepare the plans. We will also determine the street right-of-way in the project area.

We will prepare a topographic survey showing the following information within the project area. Final deliverables will include scaled plot and electronic file in AutoCAD 2008.

- Elevations and coordinates based on City of Paso Robles published GPS station coordinates and published vertical benchmark datum.
- Right-of-way information based on record data.
- Spot elevations at approximate 50 feet intervals on centerline and gutter lip of flow line.
- Contours represented with 5 foot index and 1 foot intermediate.
- Location and rim elevations of all water valves, meter boxes, and fire hydrants.
- Location and rim elevations of all sewer manholes and cleanouts.
- Location and flow line elevations of all storm drain manholes and inlets.
- Location of all miscellaneous utilities marked by above ground structures or USA markings.
- Limits of the project area (which will be right-of-way sidelines and 75' beyond intersections.)

We will coordinate with the public and private utility providers with existing facilities within the proposed alignment and obtain record drawings and as-built information. Potential utility conflicts and/or relocation requirements will be identified and evaluated as needed to minimize unexpected design modifications or construction delays. We will compile and review the documents for inclusion into the preliminary design and design tasks defined below.

Task 3 - Geotechnical Evaluation

We will retain the services of a geotechnical engineer to prepare a soils evaluation report for the project. The report will include recommendations for thrust blocks, pipe bedding and backfill requirements, and suitability of existing soils for use in subsequent trench backfill. Other important information gathered will be depth to groundwater (if applicable) and thickness of existing pavement. This evaluation will provide valuable information for prospective contractors bidding the construction phase of the project.

Task 4 - Preliminary Design Report

With the topographic survey, record data boundary information, and geotechnical evaluation from the previous tasks, we will prepare a preliminary design report evaluating the alternatives of removing and replacing or installing a parallel line. We will verify the recommended pipe size and alignment as presented in the Master Plan, discuss the basis for our recommendation, and provide a recommended alternative. We will submit a draft of the Preliminary Design Report and will attend one meeting with the City to review and discuss the results. We will then incorporate the City's comments and finalize the report prior to proceeding with subsequent tasks.

PHASE II – CONSTRUCTION DOCUMENTS*Task 5 - 90% Construction Plans*

Based on the findings and results of the previous tasks, we will prepare a Design Plans Package for submittal. This submittal package will contain the necessary plan and profile drawings and details to connect the existing backbone mains in Vine and Spring Streets with the upgraded mains in 30th and Oak Streets. We will submit a “Review Submittal” Design Plans Package at a design and detail level approximately equal to 90 percent of the anticipated final construction documents for your review and comment. The Design Plans Package will consist of four drawing sheets (24” x 36”), including: a Title Sheet with Notes and Legend, two Plan and Profile sheets, and a Detail Sheet.

Technical Specifications and a Preliminary Cost Estimate based on the 90 percent Design Plans will be included in the package. We will attend one meeting with the City staff to review and discuss the design submittal.

Task 6 - Final Construction Documents

Based on the finalized project design issues resolved during the preceding tasks, we will prepare and submit a Final Construction Documents Bid package. This submittal package will contain complete Construction Plans on permanent drawing medium (Mylar film) and an Opinion of Probable Construction Costs. The plans will incorporate review comments of the 90 percent Design Plans package, and provide construction level designs and technical specifications sufficient for final project approvals. Bid documents will be prepared in the City’s standard format, including contract documents and technical specifications. Electronic copies of all drawing files of the Final Construction Documents will be submitted to the City.

PHASE III – BID SUPPORT*Task 7 - Bid Phase Support Services*

We will respond to up to four requests for information and prepare and distribute up to two addenda. We will examine bids at the request of the City and make a recommendation regarding award of the contract.

PHASE IV – CONSTRUCTION ENGINEERING SUPPORT*Task 8 - Construction Engineering*

We will provide construction engineering support services as defined below.

- Attend pre-construction job walk at the project site (1 included);
- Provide Construction Staking for the installation of the pipeline. We will set line and grade stakes at 25 foot intervals along the pipeline and at all valves, angle points and points of connection;
- Review Contract Submittals (4 included);
- Respond to RFI’s (1 included);
- Respond to Requests for Change (1 included);

- Review Progress Pays and Change Orders (2 included);
- Attend Project Progress Meetings (2 included); and
- Prepare Record Drawings.

Task 9 - Construction Observation Services

We will provide construction observation services specific to the construction of the water line upgrades. We estimate the major portion of construction to take approximately 2 weeks to complete. It is our understanding that we will have the following responsibilities:

- Provide an observer at the project site primarily during critical work items to act as an on-site representative of the City to ensure that the project work is in general compliance with the project plans and specifications. (3 hours per day for two weeks including travel time)
Implement observation guidelines for monitoring the quality of the Contractor's work, conduct field observation, and prepare documentation of construction tasks.
- Obtain delivery slips and tickets for materials delivered to the jobsite to use when checking payment requests.

The construction observer will not be responsible for site safety, including but not limited to OSHA and traffic control requirements as well as safety inspection, evaluation or supervision. Project work direction and acceptance will be the responsibility of the City.

We will provide the City a summary report of the work activities on a weekly basis. The summary report will be based upon the daily work activity logs prepared by the designated construction observer and will contain color-prints of photos taken during the period.

ASSUMPTIONS & EXCLUSIONS

The City will provide copies of applicable documents related to existing utilities along the pipeline alignment, including record drawings from previous projects in the area, and water, sewer, and storm drain atlases.

Services that may accompany a project of this type are excluded from this Scope of Work at this time; these services include the following and may be added to our Scope of Work on a time and materials basis:

- Underground utility relocation designs and utility potholing;
- Project meetings (other than those described in the Scope of Work), local agency liaison, application and permit processing and tracking, and permit fees;
- Archeological, botanical, biological, and landscaping services;
- Traffic control plans (these shall be the responsibility of the City's contractor);
- Geotechnical/Soils testing and backfill observation during construction;
- Implementation of the project SWPPP during construction (this shall be the responsibility of the City's contractor);

Additional work will be billed on a time and materials basis or as an addendum to this proposal with prior written authorization from the City.

FEES

Fees are based on hourly rates and do not include agency checking and recording fees, or title company fees, or permit fees. All project meetings other than the meetings stated above will be billed on a time and materials basis.

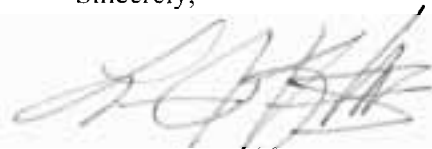
Phase I: Preliminary Engineering	\$8,000
Phase II: Construction Documents	\$10,500
Phase III: Bid Support	\$700
Phase IV: Construction Engineering Support	<u>\$9,000</u>
FIXED FEE:	\$28,200

ACCEPTANCE AND TERMS:

Appendix A details the terms for work; however, we are familiar with the standard City contract, and will work with you to resolve any comments we may have in a separate document to form the agreement. Cannon Associates bills monthly for work in progress and payment is due within 10 calendar days of receipt of the bill. Overdue amounts will be surcharged at 18 percent per annum or 1.5 percent monthly.

If this meets with your approval, please return the signed Acceptance of Proposal. This will serve as our notice to proceed. The fees quoted in this proposal are valid for 60 days from this date. If you have any questions, please give me a call.

Sincerely,



Larry P. Kraemer, PE
Senior Civil Engineer
C 44813

RESOLUTION NO. 08-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES
AWARDING THE CONTRACT FOR DESIGN SERVICES
FOR WATER LINE UPGRADES IN 30TH STREET AND OAK STREET

WHEREAS, the City's 2007 Water Master Plan identifies the need to upsize small diameter pipes to reduce fireflow deficiencies; and

WHEREAS, the water line in Oak Street between 30th and 32nd is four inches in diameter, and in accordance with the Water Master Plan, must be upsized to an eight-inch diameter line to provide required fire flow demands; and

WHEREAS, the existing water lines in 30th Street between Oak and Spring are two inches and four inches respectively, and must be upsized to an eight-inch diameter line to meet fire flow demands; and

WHEREAS, the City issued a Request for Proposal for design services associated with replacement of the lines identified above; and

WHEREAS, City staff reviewed the proposals of the seven firms which submitted proposals, and has determined that the proposal from Cannon Associates, in the amount of \$28,200, is complete and meets the City's needs; and

WHEREAS, a budget of \$400,000 has been adopted for this project under Budget No. 600.910.5452.437.

THEREFORE, BE IT RESOLVED AS FOLLOWS:

SECTION 1. The City Council does hereby award a contract to Cannon Associates, in an amount not to exceed \$28,200, for design services to upsize water lines in 30th Street and Oak Street, and authorizes the City Manager to execute the contract.

PASSED AND ADOPTED by the City Council of the City of Paso Robles this 4th day of March 2008 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

Frank R. Mecham, Mayor

ATTEST:

Deborah D. Robinson, Deputy City Clerk