



Introduction

The Request for Proposals (RFP) categorizes the required engineering services under the following three tasks:

Task 1: Preliminary Engineering

Task 2: Environmental Documentation

Task 3: Project Design and Contract Document Preparation

Scope of Services

Our proposed scope of services is as follows:

Task 1 – Preliminary Engineering

Kickoff Meeting

Psomas will schedule and conduct a kickoff meeting at the City office, which will be attended by representatives from the City and appropriate members of the consultant team. Prior to the meeting, we will request copies of relevant City records (including the documents listed in the RFP and records showing existing City water and sewer facilities and easements). After the meeting, we would conduct a field trip with City staff to confirm the locations where the proposed pipelines would begin and end. We would also discuss the location of existing water services that will have to be relocated after existing water lines are decommissioned.

Agenda items will include project team member introductions (including a description of roles and responsibilities), delineation of lines and methods of communication, important project safety issues, and a review of the project scope and schedule for project services. We will discuss each of the existing water system deficiencies and the proposed solutions presented in the request for Proposals (RFP). We will also discuss the plan and schedule for design and construction and City construction drawing requirements (AutoCAD layer format, border sheet.)

Background Information

Psomas will review the documents provided by the City and other information obtained from other utilities operating in project vicinity. We will also conduct additional site visits with City staff to locate existing City water mains and sewers, water services and sewer laterals, and other appurtenances in the field.

Evaluate Alignment Alternatives

Psomas will develop and evaluate pipeline improvement alternatives for correcting each of the water system deficiencies based on:

- Cost effectiveness;
- Construction difficulty;



- Need for additional right-of way (or easements); and
- Other relevant factors.

The City hydraulic model will be used evaluate the alternatives and predict how each will effect overall system operations. If necessary, we will perform fire hydrant flow tests to verify hydraulic model results. The pipeline alternatives will be compared using a matrix to determine the most cost-effective alternatives. The results will be presented in a draft technical memorandum.

Design Review Meeting No. 1

After considering the compiled information, we will select preliminary alignments for the relocated water lines and obtain City concurrence. The results from our analysis will be presented to City staff at Design Review Meeting 1 at City Hall.

Deliverables

- ▶ Agendas and minutes for Kickoff and Design Review Meeting 1
- ▶ Draft and final technical memorandums presenting results from analysis of pipeline alternatives

Task 2 – Environmental Documentation

EN2 will provide the following services:

A. Task 1 – Field Service and Cultural Resource Records Search

A field visit to perform a preliminary assessment of the site to identify any potentially significant environmental issues prior to preparing the Categorical Exception (CE). This initial step will allow us to identify potential constraints and recommend ways to avoid potential impacts, allowing the City to move forward with a CE.

Cultural Resources Records Search. Perform a Phase I Cultural Resources investigation for the project in compliance with the State Historic Resources Commission and the Office of Historic Preservation (SHPO) and CEQA. A records search for archaeological resources at the North Central Information Center (NCIC) will be requested and EN2 will coordinate with NCIC on the results. The records search will identify any areas previously surveyed for cultural resources within the area of potential effect (APE), but no field survey is anticipated.

Reconnaissance-Level Resource Evaluation. The field visit will involve walking the site to evaluate any impact issues that could require a CEQA Initial Study and additional analysis. Photographs will be taken for project documentation. The field evaluation is expected to require a minimal effort since much of the work will take place on developed land.



B. Task 2 – CEQA CE Preparation

Prepare Project Description. Prepare a brief Project Description adequate to address potential environmental impacts, which will be based on information provided by the City and Psomas. The Project Description will be reviewed and approved by the City and Psomas prior to work beginning on the anticipated CE since the Project Description serves as the basis for the CEQA determination.

C. Prepare Administrative Draft CE Notice of Exemption

Prepare Administrative Draft CE and supporting information for the CEQA document. The Project Description and CE checklist will be used by the City as the administrative record to backup the CE filing.

Deliverables

- ▶ One copy of the draft Project Description for review/comment
- ▶ One copy of the Administrative Draft CE for review/comment

D. Participate in Meeting with City and Engineer

EN2 will make staff available for one meeting with the City and engineer to discuss any environmental questions regarding the project.

E. Prepare Final CE Notice of Exemption

Following a review by the City, EN2 will finalize the CE and supporting information along with the Notice of Exemption for the City to file.

Deliverables

- ▶ One copy of the Final CE and Notice of Exemption

Assumptions

The above scope is based on the assumption that:

- ▶ A Notice of Exemption will be sufficient to satisfy CEQA requirements.
- ▶ No environmental regulatory permits or other filings will be required.
- ▶ A Phase I Cultural Resources Evaluation (without a field survey) will be sufficient to address cultural resources.
- ▶ No cultural resource issues will be encountered.
- ▶ No undeveloped land will be disturbed; therefore, there would be no impacts to any sensitive biological resources potentially occurring near the project.
- ▶ The City will file the CE.



Task 3 – Project Design and Contract Document Preparation

Topographic Survey

A topographic survey will be performed over the sections of streets where the future waterline is proposed. Because of tree cover and vegetation, Psomas will deploy surveyors on the ground to collect pertinent data and topographic features at the specific areas requiring surveys. Psomas survey crews use the highly accurate Trimble S6 electronic total station for traversing and data collection. Features to be included are visible, surface planimetrics of improvements including buildings, striping, driveways, walks, curbs, walls, fences, signs, poles, and trees with over 6-inch trunk diameter that fall within the mapping limit. The mapping will be produced at a scale of 1" = 20' with a 1-foot contour interval. Several of the street segments are geographically separated. Psomas will keep all the surveys on the same horizontal and vertical datum. One of the segments requiring new waterline lies within the Sacramento Street right-of-way. This portion of Sacramento Street is also Highway 49 and is under the jurisdiction of the California Department of Transportation (Caltrans). Consequently, an encroachment permit must be obtained prior to commencing field operations. This can be time consuming. At Psomas, we maintain encroachment permits in many Caltrans districts (including this one). This allows us to start work immediately after the new pipeline alignments are approved by the City. The boundary of the streets will be represented by assessors level schematic mapping.

The survey would exclude setting boundary monuments; boundary surveying; construction staking; and anything not specifically included in the scope of services and deliverables above.

Deliverables

- ▶ Topographic mapping at a scale of 1"=20' with a 1-foot contour interval in conformance with National Mapping Standards. The mapping will be prepared in AutoCAD r2009.dwg format.
- ▶ An ASCII file of the survey control set and measured for the project
- ▶ A CD-ROM containing the ASCII file, AutoCAD/LDD r2009.dwg file, and photographs taken of selected features of the site

Prepare Plans (50 Percent)

Psomas will prepare detailed plans and specifications for the new waterlines using AutoCAD and the City layer format. The plan scale will be 1 inch = 40 feet. The 50 percent plans will show the alignment for the waterlines. We anticipate that the plans will consist of nine (9) drawings. All specifications will be prepared in the nationally recognized Construction Specification Institute (CSI) format and, where applicable, current EID standard details and specifications, and Caltrans special provisions for construction projects.



A preliminary list of plans is provided below:

Sheet No.	Title
1	Title Sheet
2	Abbreviations, General Notes and Symbols
3	Standard Details 1
4	Details/Sections
5	Plan/Profile – Waterline
6	Plan/Profile – Waterline
7	Plan/Profile – Waterline
8	Plan/Profile – Waterline
9	Traffic Control Handling Plan

The plans will show the location of each water service that will have to be relocated from a decommissioned pipeline to one of the new pipelines. The specifications will note the construction sequence that will have to be implemented by the Contractor to minimize disruptions in water service to City customers.

The plans will include a traffic handling plan to show how traffic is to be routed on Highway 49 (Sacramento Street) and maintained within the limits of the project during construction. The traffic handling plan will be prepared using Caltrans guidelines listed in the most current Plans Preparation Manual and Part 6 of the California Manual on Uniform Traffic Control Devices for Streets and Highways. The traffic handling plan will identify a traffic control zone, which will consist of four areas: the advance warning area, the transition area, the activity area, and the termination area. If necessary, tapers will be used to shift traffic from its normal path. This will be accomplished through the use of channelizing devices and/or temporary pavement markings. Traffic control devices will be placed in order to regulate, warn and guide traffic. It has been assumed that short-term lane closures are allowed by Caltrans and approved lane closure charts will be provided. Temporary roadways or pavement and/or long-term lane closures are not required.

Deliverables

- ▶ Two half-size sets of 50 percent plans

Design Review Meeting No. 2

The meeting will be held at the City Hall. The purpose of the meeting will be to review the 50 percent plans. The draft agenda for the meeting will be submitted to the City for review at least three (3) days before the meeting.

Prepare 90 Percent PS&E

Psomas will address comments from Design Review Meeting No. 2 in the plans and specifications and prepare the 90 percent plans and specifications



and a refined construction cost estimate. At 90 percent, these documents will be essentially complete, including details and schedules. The specifications will require that the Contractor prepare a traffic control plan for construction activities occurring outside of the Caltrans Highway 49 right-of-way. The remaining tasks will be to perform our internal quality control review and address City comments.

Deliverables

- ▶ Two half-size sets and one full-size set of 90 percent plans and two sets of 90 percent specifications
- ▶ A 90 percent construction cost estimate

Design Review Meeting No. 3

The meeting will be held at the City office. The purpose of Design Review Meeting No. 3 will be to review the 90 percent plans and specifications and cost estimate. All comments on both documents will be reviewed, discussed and a consensus established to finalize the documents. A draft agenda for the meeting will be submitted to the City for review at least three (3) days before the meeting.

Provide Final PS&E to the City

After Psomas receives City comments regarding the 90 percent review set of plans and specifications and cost estimate, we will prepare the final bid documents. The plans will be stamped and signed velum, capable of being printed by the City. Plans will be 24 inches by 36 inches in size. In addition, one loose copy of the contract specifications will be provided to the City to print for bidding.

Deliverables

- ▶ One full size Mylar original (signed and stamped) and one half-size paper copy of the final plans and one unbound set of the final specifications
- ▶ A final construction cost estimate

Caltrans Encroachment Permit

The Psomas team will assist the City by preparing an encroachment application for City submittal to Caltrans to obtain approval of construction in Highway 49 right-of-way. This will include preparation of the Permit Environmental Evaluation Report. Psomas will attend one coordination meeting with Caltrans to answer any questions or discuss any comments on the encroachment permit application. It is assumed that the encroachment permit application would be revised and resubmitted once to Caltrans. A draft copy of the application will be submitted to City staff for review and comment. City comments will be incorporated in the final application submitted to the City. Project services do not include subsequent longitudinal encroachment permit application if required by Caltrans.



Deliverables

- ▶ One draft and final copy of the Caltrans Encroachment Permit application

Additional Services

In addition to the services described above, the consultant team could also provide the following services:

- Special studies required to obtain environmental approvals
- Bid and construction phase engineering services
- Assistance to the City in obtaining Caltrans approval of longitudinal encroachment permit for construction of a new waterline in Sacramento Street.

Hours by Task

As required, Table 3.1, on the following page, shows proposed hours of involvement by task for each classification of individual.

Table 3.1 Estimated Level of Effort Hours - Pardi/Big Cut/Sacramento Street Area Waterline Replacement Project

Task		KEY PERSONNEL HOURS					Psomas Hrs. By Task	
		Project Director	Project Manager	Technical QA/QC	Project Engineer	Drafter		Clerical
Task 1 - Preliminary Engineering								
1	Kickoff Meeting	2	4				2	8
2	Compile and Review Background Information		4		8			12
3	Evaluate Alignment Alternatives		4		8			12
4	Prepare Draft Technical Memorandum	4	8		24	8	4	48
5	Design Review Meeting 1	2	4					6
6	Prepare Final Technical Memorandum	2	4	2	8		4	20
Anticipated Hours Task 1		10	28	2	48	8	10	106
Task 2 - Environmental Documentation								
1	Prepare Categorical Exemption/Notice of Exemption	2	2				2	6
Anticipated Hours Task 2		2	2	0	0	0	2	6
Task 3 - Project Design and Contract Document Preparation								
1	Topographic Survey							0
2	Prepare 50 Percent Plans and Estimate	4	12		24	80	8	128
3	Design Review Meeting No. 2	2	4				2	8
4	Prepare 90 Percent PS&E	8	28	2	24	72	32	166
5	Design Review Meeting No. 3	2	4				2	8
6	Prepare Final PS&E	4	12	2	16	24	16	74
7	Prepare Caltrans Encroachment Permit Application	4	28			12		44
Anticipated Hours Task 3		24	88	4	64	188	60	428
Total Hours		36	118	6	112	196	72	540



Project Schedule

We have prepared a preliminary schedule for engineering services (see following page) showing when the services will be performed. This schedule is based on the assumptions that the City will issue a professional services agreement notice to proceed in December 2010. Timing is critical on this project since the City's project funding requirements include a deadline of June 30, 2011 for completion of the PS&E.

We anticipate routine review meetings throughout the project duration to assure a timely decision-making process. The schedule takes the required tasks and adds estimated timelines to illustrate sequencing and opportunities for City input.

**CITY OF PLACERVILLE
PARDI/BIG CUT/SACRAMENTO STREET AREA WATERLINE REPLACEMENT PROJECT**



Project: Project Schedule
Date: Mon 11/22/10

Task Progress Summary External Tasks Deadline
 Split Milestone Project Summary External Milestone