

RESOLUTION NO. 5175

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOLEDAD
APPROVING TASK ORDER NO. 40 IN THE AMOUNT OF \$130,455 FOR
ENGINEERING SERVICES FOR THE DESIGN OF AND BID PREPERATION FOR A
WATER TREATMENT FACILITY FOR THE REMOVAL OF IRON, MANGANESE
AND HYDROGEN SULFIDE FROM WELL #9 WITH HARRIS & ASSOCIATES**

WHEREAS, the water from Well #9 has aesthetic issues and the use of this well has been restricted by the State of California due to the aesthetic issues with the water; and

WHEREAS, a safe and adequate water supply, especially during peak summer usage is very important to the City, and Well #9 needs to be returned to service, producing safe and adequate water; and

WHEREAS, the Council retained Harris and Associates to provide on-call engineering services; and

WHEREAS, Harris & Associates has submitted Task Order No. 40 for engineering design for wellhead treatment design and bid preparation services to be completed for Well #9; and

WHEREAS, staff recommends that the City Council approve Task Order #40 as set forth in Exhibit A (Harris Task Order) for a fee not to exceed \$130,455.

NOW THEREFORE, BE IT HEREBY RESOLVED, by the City Council of the City of Soledad that Task Order #40 from Harris & Associates in the amount of \$130,455, a copy of which is attached hereto as Exhibit A and by reference incorporated herein, is hereby approved and the City Manager is hereby authorized and directed to execute the same on behalf of the City of Soledad.

PASSED AND ADOPTED by the City Council of the City of Soledad at a regular meeting duly held on the 4th day of May, 2016, by the following vote:

AYES, and in favor thereof, Councilmembers: Christopher K. Bourke, Richard J. Perez, Mayor Pro Tem Alejandro Chavez, Patricia D. Stephens, and Mayor Fred J. Ledesma

NOES, Councilmembers: None

ABSTAIN, Councilmembers: None

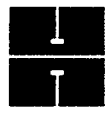
ABSENT, Councilmembers: None


FRED J. LEDESMA, Mayor

ATTEST:


ADELA P. GONZALEZ, City Clerk





Harris & AssociatesSM

Shaping the Future, One Project at a TimeSM

April 20, 2016

Don Wilcox, Public Works Director
City of Soledad
P.O. Box 156
Soledad, CA 93960

Subject: Scope and Fee for Well 9 Treatment Design and Bid Services
Water Resources Engineering Contract - Task #40

I. PROJECT DESCRIPTION.

The City of Soledad's (City) Well No. 9 has exhibited elevated levels of manganese, iron, chloride, and TDS. Use of the well was discontinued in 2007 due to exceedance of the primary Maximum Contaminant Level (MCL) for manganese.

This project will include the preparation of a Bid Document to secure a wellhead treatment system to remove iron and manganese from the Soledad Well No. 9, design services associated with the treatment system and coordination with the selected vendor and City staff through the design process.

Harris & Associates (Harris) has obtained the services of Freitas + Freitas Engineering and Planning Consultants, Inc. to assist with the preparation of the bid and design assistance. Please refer to the attached Freitas + Freitas proposal (Exhibit A) for further project description and understanding.

In addition to the well treatment system, a backwash pump station and approximately seven hundred linear feet of forcemain piping will be required to discharge backwash water from the well treatment into the sanitary sewer system in Los Coches Dr.

II. SCOPE OF WORK

This Task Order is to provide engineering services for the Bid preparation, Bid selection and Design Phases. Harris and its subconsultants will provide the following services:

Task Description	Our Approach	Deliverables
1.1 Project Management and Monthly Progress Reports		
1.1 Project Management and Monthly Progress Reports	Harris will serve as the prime consultant and point of contact between the City, subconsultants, and other agencies. Harris will manage the design of the project. A brief progress report will accompany each monthly invoice. It will discuss budget and schedule status, issues resolved and unresolved, and “next steps.”	Monthly progress report.
2.1 Kick-off Meeting		
2.1 Kick-off Meeting	We will meet with City staff to confirm the scope of work, schedule, budget, project goals; discuss format of deliverables; and clarify responsibilities of each party.	Meeting notes with lists, as appropriate (PDF Files)
2.2 Topographic Survey		
2.2 Topographic Survey	Our sub-consultant, Monterey Bay Engineers (MBE), will perform a topographic survey of the existing surface features and utilities at the Well 9 site and along the alignment of the backwash water forcemain.	Survey information incorporated into AutoCAD file
2.3 Geotechnical Investigation		
2.3 Geotechnical Investigation	Our sub-consultant, Pacific Crest Engineers (PCE), will perform an investigation and testing of the soils at the site and prepare a geotechnical report with recommendations to support the design.	Geotechnical Report (PDF Format)
2.4 Site Visits		
2.4 Site Visits	A site visit will be performed to determine if there are any potential constraints to the proposed construction (1 site visit budgeted).	N/A
2.5 Backwash Pump Sizing and Model Selection		
2.5 Backwash Pump Sizing and Model Selection	We will model the backwash forcemain pipe system, size the required backwash pump(s), and select and specify an adequate pump manufacturer(s) and model(s).	Pump specifications incorporated into Technical Specs
2.6 Coordination for Electrical Controls		
2.6 Coordination for Electrical Controls	Coordination between the treatment system electrical controls and the backwash pump station electrical controls will be required.	N/A
2.7 Coordinate/ obtain/ review existing utility plans		
2.7 Coordinate/ obtain/ review existing utility plans	Coordination with utility companies to obtain their maps of existing utilities will be performed. The utility plans provided will be reviewed and incorporated into the design plans.	N/A



Task Description	Our Approach	Deliverables
2.8 Preliminary Design Report	Our subconsultant, Freitas + Freitas, will prepare a preliminary design report. Harris will coordinate and assist in the preparation of the report, as required, and perform a quality control review. (See Subconsultant, Freitas + Freitas Proposal, Exhibit A)	Draft and Final Reports (PDF format)
3.1 Bid Preparation	Prepare a Bid to purchase a wellhead treatment system to address the contaminants associated with Well 9. This effort includes provisions for conducting a pilot test prior to final selection.	Bid document using the City's standard front end (Word and Pdf Files)
3.2 Pre-Bid Meeting	We will attend the pre-bid meeting scheduled by the City.	
3.3 Answer Bidders Questions	We will answer questions from bidders through City staff during the advertising period. We will log questions and provide City with documented responses.	
3.4 Addenda Assistance	We will prepare any required technical or design-related addenda for distribution by the City.	
4.0 60% Submittal Package		
4.1 Kickoff Meeting	Meet with selected vendor to kickoff design	
4.2 60% Plans	We will develop and submit plans at the 60% design stage.	60% versions of all plans
4.3 60% Opinion of Probable Construction Cost	We will prepare a 60% opinion of probable construction cost.	Itemized cost opinion spreadsheet.
4.4 60% Specifications and Contract Documents	At the 60% complete stage we will prepare draft technical specifications and Contract Documents.	Draft 60% Contract Documents & Specifications
4.5 Quality Control Review	Prior to the 60% phase submittal, all plans and documents will be reviewed by Harris' Quality Control Manager.	N/A.



Task Description	Our Approach	Deliverables
5.1 60% Design Review Meeting	We will attend a review meeting with the City to address comments to the 60% design. Review comments from the City will be incorporated into the 90% design.	Meeting notes (PDF file)
5.2 Pre-final 90%Plans	We will develop and submit pre-final plans at the 90% design stage.	Pre-final versions of all plans
5.3 90% Preliminary Opinion of Probable Construction Cost	We will prepare a pre-final opinion of probable construction cost.	Itemized cost opinion spreadsheet.
5.4 90% Specifications and Contract Documents	At the 90% complete stage we will prepare draft technical specifications and Contract Documents.	Draft 90% Contract Documents & Specifications
5.5 Quality Control Review	Prior to the preliminary phase submittal, all plans and documents will be reviewed by Harris' Quality Control Manager.	N/A.
6.1 90% Design Review Meeting	We will attend a review meeting with the City to address comments to the pre-final design. Review comments from the City will be incorporated into the final design. We will also coordinate with the City by phone and email to resolve design issues to finalize plans.	Meeting notes (PDF file)
6.2 Final Submittal Plans	We will develop and submit final plans for the City to issue for bid.	Bond hardcopy, and PDF and ACAD files for plans.
6.3 Final Opinion of Probable Construction Costs	We will prepare a Final Construction Cost Estimate and bid schedule.	Electronic (Excel format) and hardcopy versions of estimate.
6.4 Final Specifications and Contract Documents	We will prepare Final Specifications and Contract Documents.	Electronic and hardcopy versions of specs.
6.5 Quality Review	Prior to the final submittal, all plans and documents will be reviewed by Harris' Quality Control Manager.	N/A



Task Description	Our Approach	Deliverables
7.1 Bid Preparation	Prepare a Bid to install the wellhead treatment and corresponding improvements associated with Well 9.	Prepare Bid Document using City's standard front end for Well 9 Treatment (Word and PDF Files)
7.2 Pre-Bid Meeting	We will attend the pre-bid meeting scheduled by the City.	
7.3 Answer Bidders Questions	We will answer questions from bidders through City staff during the advertising period. We will log questions and provide City with documented responses.	Log of questions received and answers given, for City to distribute if appropriate.
7.4 Addenda Assistance	We will prepare any required technical or design-related addenda for distribution by the City.	Addenda input for City's use in issuing any addenda.

Our level of effort (on an "hourly not-to-exceed" basis) and assumptions are shown in the attached Exhibit B. Additional efforts (i.e. additional task items unforeseen at the authorizing of this task order) will be provided under a subsequent authorization.

Please contact Frank Lopez at (831) 233-9242 with any questions on our scope or fee.

Regards,
HARRIS & ASSOCIATES, Inc.



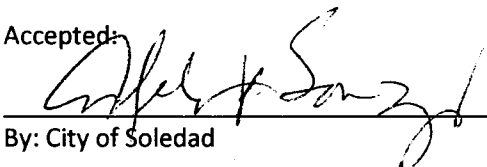
Jasmine Cuffee, PE
 Director, Engineering Services
 Manager of Civil Design

HARRIS & ASSOCIATES, Inc.



Frank S. Lopez, PE, QSD, CFM
 Project Director

Accepted:



By: City of Soledad

5-7-16
 Date

Approved 05/04/16 by CC Reso. 5175

CITY OF SOLEDAD
WELL 9 TREATMENT DESIGN

TASK, PHASE, DESCRIPTION	STAFF				TOTALS
	Project Director F Lopez HOURS	PD QA/QC J Cuffee HOURS	Project Manager K Maire HOURS	Design Engineer J Norman HOURS	
FINAL DESIGN PHASE					
1.0 PROJECT ADMINISTRATION					
1.1 Project Management and Monthly Progress Reports	40		12		
SUBTOTAL HOURS	40	0	12	0	52
SUBTOTAL DOLLARS	\$7,400	\$0	\$1,980	\$0	\$9,380
2.0 PRELIMINARY INVESTIGATION & DESIGN					
2.1 Kick-off Meeting	2	1	2	1	
2.2 Topographic Survey (See Subconsultant, MBE, Below)			2	2	
2.3 Geotech Investigation (See Subconsultant, PCE, Below)			2	2	
2.4 Site Visits (1 budgeted)	2		2	16	
2.5 Backwash Pump Sizing and Model Selection			3		
2.6 Coordination for Electrical Controls		1	2		
2.7 Coordinate/obtain/review existing utility plans			1	4	
2.8 Preliminary Design Report (See Subconsultant, Freitas)	1	2	4		
SUBTOTAL HOURS	5	4	18	25	52
SUBTOTAL DOLLARS	\$925	\$840	\$2,970	\$3,125	\$7,860
3.0 BID PERIOD SERVICES					
3.1 Bid Preparation (See Subconsultant, Freitas)	4		4		
3.2 Pre-Bid Meeting	2		2	2	
3.3 Answer Bidders Questions	4		1	2	
3.4 Addenda Assistance (Assume 1 Addendum)	2	1	1	4	
SUBTOTAL HOURS	12	1	8	8	29
SUBTOTAL DOLLARS	\$2,220	\$210	\$1,320	\$1,000	\$4,750
4.0 60% DESIGN					
4.1 Kickoff Meeting w/Vendor	2	2	2	2	
4.2 60% Plans		2	24	32	
4.3 60% Opinion of Probable Construction Cost			2	6	
4.4 60% Specifications and Contract Documents		2	16		
4.5 Quality Control Review (Internal and for Subs)	1	4	4		
SUBTOTAL HOURS	3	10	48	40	101
SUBTOTAL DOLLARS	\$555	\$2,100	\$7,920	\$5,000	\$15,575
5.0 PRE-FINAL 90% DESIGN					
5.1 65% Design Review Meeting	1		2	1	
5.2 90% Plans		2	12	24	
5.3 90% Opinion of Probable Construction Cost		1	1	3	
5.4 90% Specifications and Contract Documents		1	6	1	
5.5 Quality Control Review (Internal and for Subs)	1	4	4		
SUBTOTAL HOURS	2	8	25	29	64
SUBTOTAL DOLLARS	\$370	\$1,680	\$4,125	\$3,625	\$9,800
6.0 FINAL DOCUMENTS					
6.1 90% Design Review Meeting	1		2	1	
6.2 Final Submittal Plans		2	12	16	
6.3 Final Opinion of Probable Construction Cost		1	1	2	
6.4 Final Specifications and Contract Documents		1	4		
6.5 Quality Control Review (Internal and for Subs)	1	2	2		
SUBTOTAL HOURS	2	6	21	19	48
SUBTOTAL DOLLARS	\$370	\$1,260	\$3,465	\$2,375	\$7,470
7.0 BID PERIOD SERVICES					
7.1 Prepare Bid	4	2	8	16	
7.2 Pre-Bid Meeting	2		2	2	
7.3 Answer Bidders Questions	1		4	2	
7.4 Addenda Assistance (Assume 1 Addendum)	1	1	4	4	
SUBTOTAL HOURS	8	3	18	24	53
SUBTOTAL DOLLARS	\$1,480	\$630	\$2,970	\$3,000	\$8,080

CITY OF SOLEDAD
WELL 9 TREATMENT DESIGN

A. HARRIS DESIGN HOURS AND COST				
HOURS PER POSITION	72	32	150	145
HOURLY RATE (TYPICAL)	\$185	\$210	\$165	\$125
HARRIS (Design) SUBTOTAL COST	\$13,320	\$6,720	\$24,750	\$18,125
				\$62,915
B. SUBCONSULTANT COST - FIRM		ROLE	CODE	FEE
Freita+Freitas (See attached proposal)		Treatment System Design	Freitas	\$50,000
Pacific Crest Engineering Inc.		Geotechnical Investigation	PCE	\$6,900
Monterey Bay Engineers, Inc		Topographic Survey	MBE	\$4,500
SUBCONSULTANT TOTAL COST:				\$61,400
SUBCONSULTANT MARK-UP (10%)				\$6,140
C. TOTAL COST INCLUDING OPTIONAL SERVICES (NOT TO EXCEED):				Total : \$130,455

ASSUMPTIONS:

1 Assumed plan sheet list:

WELL 9 TREATMENT DESIGN	
Description	# Sheets
General Sheets	
Title Sheet, Sheet Index	1
Notes, Legend, and Abbreviations	1
Backwash Pump Station & Forcemain Sheets	
Pump Station Plan and Sections	2
Forcemain Pipeline Plan and Profile Sheets	2
Civil/Mechanical Detail Sheets	2
Treatment System Sheets (Prepared by MKN)	
General Notes	1
Treatment System Site Plan	1
Treatment System Site Piping Sections and Details	2
Equipment Slabs Plan, Sections, and Details	1
Miscellaneous Details	2
Electrical	2
Total Sheets:	17

- 2 Hours and fee may be renegotiated if the project is delayed by factors beyond Harris' control.
- 3 Hours for additional design iterations are not included.
- 4 Utilities will design their relocations, if any are needed.
- 5 The number of budgeted meetings is indicated on the spreadsheet.
- 6 No environmental study or permitting is included.
- 7 The City's boiler plate front end Specifications from previous design will be revised for this project, or City will provide more current version in Word.
- 8 City review comments will be presented to Harris on one consolidated set of marked up documents.
- 9 Printing of final bid documents will be by City (or Harris at cost plus markup).
- 10 It is assumed that the City will perform the following tasks: CEQA compliance, pay encroachment permit fees, obtain any required easements.
- 11 Construction Management and Inspection is not included, but could be included in a future task order if desired by the City.

Freitas + Freitas

Engineering and Planning Consultants, Inc.

Revised 4-18-16

Scope of Work Proposal
Well #9 Iron and Manganese Treatment Engineering
City of Soledad

Background Information

Soledad Well No.9 was constructed in 1993. Well construction consisted of a 16-inch diameter steel casing and stainless steel, wire-wrapped 0.065-inch slot screen at the following varying depths to 918 feet below ground surface. The total depth of the well is 928 feet. The well production until 2007 was about 1,000 gpm.

Since 2007, the well has not been pumping into the community water supply system because of groundwater quality issues. The well pump failed in 2007 (pump drive shaft broke) at a time of significant groundwater quality deterioration; however, the iron and manganese concentrations had not yet exceeded maximum contaminant levels (MCLs).

Some undocumented well rehabilitation work was apparently performed between June and August 2007, which reportedly involved use of acid and swabbing. Increased water quality problems, which included discoloration (red water), odor (hydrogen sulfide), and iron and manganese in excess of MCLs, were noted following the attempted well rehabilitation. The well was subsequently chlorinated, flushed, and tested multiple times. Recent water quality testing (late 2012 and early 2013) shows elevated iron concentrations, albeit below the MCL, and manganese concentrations consistently in excess of its MCL.

After various studies of the well and the existing screened aquifers, the City of Soledad has decided to construct treatment facilities to remove iron, manganese and hydrogen sulfides to acceptable levels below MCLs. Therefore, the City would like to design and construct treatment facilities for this well. Treatment will be by chlorination and pyrolusite or greensand filtration with backwash to the City wastewater treatment plant. It is possible that a portion of the backwash water will have to be stored and reclaimed by return pumping through the treatment system.

We propose the following engineering items of work:

1. Review previous reports and visit site. (8 hours)
2. Prepare and apply for SWRCB Division of Drinking Water Permits (24 hours)
3. Prepare Bid Package for the purchase of the treatment system equipment by the City of Soledad including provisions for pilot testing prior to final selection of equipment. (120 hours)
4. Assist City with reviewing the bids and providing a recommendation. (8 hours)
5. Assist Harris and Associates in preparing drawings, specifications and contract documents for installation of purchased equipment and other equipment to connect the selected treatment system to Well 9. (80 hours).
6. Assist City in advertising and receiving construction bids. (16 hours)

Proposed Fee

Our proposed preliminary fee for these tasks is \$50,000 shown on the next page:

3233 Valencia Ave., Suite A1, Aptos, California 95003
831-688-1168 fr8tus@aol.

Preliminary Task and Fee Breakdown	
<u>Tasks 1 - Visit Site and Review Information</u>	
8 hours Principal Engineer @ \$187.50 per hour	\$ 1,500
Subtotal Task 1	\$ 1,500
<u>Task 2 - Prepare SWRCB DDW Permit Applications</u>	
24 hours Principal Engineer @ \$187.50 per hour	\$ 4,500
500 Expenses	\$ 500
Subtotal Task 2	\$ 5,000
<u>Tasks 3 - Prepare Equipment Bid Package</u>	
120 hours Principal Engineer @ \$187.50 per hour	\$ 22,500
Subtotal Task 3	\$ 22,500
<u>Task 4 - Review Equipment Bid</u>	
8 hours Principal Engineer @ \$187.50 per hour	\$ 1,500
500 Expenses	\$ 500
Subtotal Task 4	\$ 2,000
<u>Task 5 - Assist in Installation Bid Documents</u>	
80 hours Principal Engineer @ \$187.50 per hour	\$ 15,000
500 Expenses	\$ 500
Subtotal Task 5	\$ 15,500
<u>Task 6 - Assist in Advertising and Bidding</u>	
16 hours Principal Engineer @ \$187.50 per hour	\$ 3,000
500 Expenses	\$ 500
Subtotal Task 6	\$ 3,500
Total Preliminary Proposed Fee	\$ 50,000

If you have any questions, please call me.

Thank you.

Michael J. Freitas

Michael J. Freitas
Freitas + Freitas Engineering and Planning Consultants, Inc.

