

RESOLUTION NO. 2016-14

**AUTHORIZING THE FIRST AMENDMENT TO THE PROFESSIONAL SERVICES
CONTRACT WITH THE DISTRICT ENGINEER, REFERENCED AS
CONTRACT NO. 01-1621-CIP, IN THE AMOUNT OF \$292,155,
FOR ENGINEERING SERVICES RELATED TO
THE 2017 WATER MAIN IMPROVEMENTS PROJECT**

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MID-PENINSULA WATER DISTRICT

WHEREAS, the Mid-Peninsula Water District (District) entered into a contract with the Pakpour Consulting Group on June 25, 2015 to provide District Engineer services for the planning, design, construction, management and operation of the District water system (Contract); and

WHEREAS, Section 2.C. of the Contract also includes optional services for Major Improvement Projects, defined as improvement projects or construction management services costing over \$100,000; and

WHEREAS, the Board of Directors (Board) adopted the MPWD Comprehensive System Analysis and Capital Improvement Program (CIP), FY 2016/2017 Update, and authorized the MPWD 5-Year CIP for Fiscal Years 2016/2017 through 2020/2021 at its May 26, 2016, regular meeting; and

WHEREAS, the 2017 Water Main Improvements Project includes five (5) water system improvement projects as follows: Karen Road Improvements, Mezes Avenue Improvements, Arthur Avenue Improvements, South Road Abandonment, and Folger Drive Improvements, and which are derived from the MPWD's 5-Year CIP for Fiscal Years 2016/2017 through 2020/2021; and

WHEREAS, the District proposes an Amendment to the Contract for the purpose of engaging the District Engineer to prepare plans, specifications, cost estimates and construction support of the 2017 Water Main Improvements Project.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District hereby authorizes an Amendment to the Contract with the District Engineer, referenced as

Contract No. 01-2016-CIP, for District Engineer services related to the 2017 Water Main Improvements Project.

REGULARLY passed and adopted this 22nd day of September, 2016.

AYES: *Stuebing, Vella, Zucca*

NOES: *0*

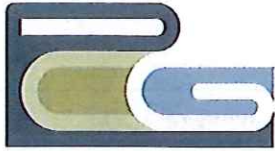
ABSTAINS: *0*

ABSENT: *Linvill, Warden*

Matthew J. Zucca
PRESIDENT

ATTEST:

Andace R. Pitzer
SECRETARY OF THE BOARD



Pakpour Consulting Group, Inc.

September 8, 2016

10012.16

Tammy Rudock
General Manager
Mid-Peninsula Water District
3 Dairy Lane
Belmont, CA 94002

**Subject: Proposal to Prepare Plans, Specifications and Cost Estimate
Karen, Mezes, Arthur, South and Folger Water Main Improvement Project**

Dear Tammy,

Pakpour Consulting Group (PCG) is pleased to provide the following proposal to prepare plans, specifications, cost estimate and construction support for the above mentioned projects as part of 2017 Water Main Improvement.

1. Karen Road is a private road located between Harbor Boulevard and O'Neill Avenue, has two parallel water mains, an 800 LF of 8" cast iron (CI) installed in 1952 and an 800 LF of 12" asbestos cement (AC) installed in 1957. The 8" CI is primarily used for hydrants and service connections. The District reported several leaks and subsequent repairs along the 8" CIP. Hydraulic analysis indicates the parallel water mains can be reduced to one 8" water main with no affects on fire flows.

This project will replace the 8" CI and 12" AC with a single 8" fusible polyvinylchloride (FPVC) eliminating the parallel water mains. The existing 12" AC will be used as a sleeve for the new 8" FPVC reducing construction impacts along Karen Road. In addition, 200 LF of 6" AC along Dairy Lane, installed in 1960, will also be replaced with 8" PVC as part of this project. (CIP# 15-73).

This project is 80% complete. At this time, PCG is coordinating with Caltrans to obtain an encroachment permit.

2. Mezes Avenue water is currently provided through a single 310 LF of 4" CI water main from Lyon Avenue. It then transitions to a 415 LF of 6" CI with dead end. Fire flows on this street are below the recommended 1,500 gpm at 20 psi recommendation due to the 4" bottleneck. In additions, the 4" CI was installed in 1960 and is more than 50 years old.

This project will replace the undersize water main with a new 8" Ductile Iron (DI), which will increase available fire flows to more than 190% of current flows. (CIP# 15-14)

3. Arthur Avenue water is provided through two dead end CI water mains: a 4" CI Zone 2 from Alameda de las Pulgas and a 6" CI Zone 3 from Coronet Boulevard. These mains which were



Installed in 1950s are incapable of providing the minimum recommended fire flows of 1,500 gpm at 20 psi.

This project will replace the undersize water mains with a new 8" DI, which will increase available fire flows to more than 280% of current flows. In addition, the Zone 2 water main will be abandoned and the Zone 3 water main extended to Alameda de las Pulgas and connected to Zone 2 with an 8" pressure reducing valve (PRV). (CIP# 15-22)

4. Folger Drive water mains are comprised of 350 LF of 10" PVC and 700 LF of 6" CI. The 10" PVC was installed in 1987 and the 6" CI in 1935, one of the oldest water mains in the District. Due to age, the District has reported several leaks on the 6" CI.

This project will replace the 6" CI water main with a new 10" DI. This project will also abandon the water main within the abandoned Forger Pump Station and replace 130 LF of 6" CI on Folger Court, which was installed in 1959, with a new 8" DI. (CIP# 15-65)

5. South Road between Notre Dame Avenue and College View Way has 1,325 LF of Parallel 4" CI and 8" PVC water mains. The 4" CI and 8" PVC were installed in 1940 and 1983 respectively. According to the District GIS all branches of the South Road including, Middle Road, Debbie Lane, Hainline Drive, Korbet Way, Vannier Drive and College View Way are connected to the 4" CI water main thereby restricting water flow and reducing fire flows to those areas. Fire flows in the immediate area, under existing conditions, are below minimum recommendations of 1,500 gpm at 20 psi.

This project will abandon the 4" CI and reconnects all the branches on this stretch of water main to the 8" PVC, which will increase the maximum available fire flows to more than 170% with an average of 57% of current flows. (CIP# 15-44)

1.0 Meetings and Field Investigation with District Staff

PCG will conduct meetings and field investigations with District staff during the design phase.

2.0 Topographic Survey & Utility Coordination

PCG along with our subconsultant, Triad Holmes & Associates, will research District, City, County and State records for "As-Built" Improvement plans, reports, studies and other data that may be pertinent to the project. Local agencies in the area that have recently completed similar projects will be contacted for input. Potholing of critical utility crossings will be done during the design phase to resolve potential conflicts.

Project Utility Notices will be sent out to all utilities and services operating in the area informing them of the project, requesting plans of their facilities, and their requirements for construction near them. Plan copies will be submitted to them for review and comment at each milestone. We will coordinate with the various utility companies to resolve potential conflicts. PCG will also coordinate with Caltrans for obtaining encroachment permits for Karen Road project.

Topography will be established and tied to horizontal and vertical control by our subconsultant, Triad Holmes. The scope of the survey work will consist of providing reference points, topographic information, establishment and listing of benchmarks and field monuments, site data control, and utility



location and invert elevations. Existing right-of-way and adjoining property information will be obtained and shown on the project base map.

3.0 80% Plans, Specifications

The 80% progress plans and preliminary technical specifications will be prepared per District standards. The design drawings will be prepared in AutoCAD 2016. The plans and specifications will be submitted for review to the District. PCG will participate fully in the review process.

4.0 100% Plans, Specifications, and Cost Estimates

The 80% plans and specifications submitted will be carried to 100% completion by adding details, additional notes, and addressing District and other agency comments. The specifications will be in Microsoft Word 2007 format and will be incorporated into the District's "boilerplate" to produce final bid documents. Bid quantities will be estimated for each item of work and a cost estimate prepared based on unit prices for each item. Unit prices will be determined based on recent bid tabulations from similar projects, job cost media such as Means, and discussions with local contractors.

5.0 Bid Documents (Final Plans, Specifications, and Cost Estimates)

Upon receiving review comments from the District, each comment will be reviewed, discussed, and addressed in writing. Appropriate modifications will be made to the plans, technical specifications, and cost estimates. The plans and specifications will be finalized for the project including all notes/details and incorporating all comments received. A construction phasing schedule will also be prepared in order to minimize the water delivery interruption.

6.0 Advertisement/Award Period

PCG will administer the Advertisement and Award process on behalf of the District and will include written responses to bidder's inquiries, preparation of contract addenda, and attendance at a pre-bid conference and site visit.

7.0 Construction Support and Record Drawings

PCG will provide construction support to the District consisting of submittal reviews and shop drawings for compliance with the contract documents. PCG will also respond to Request for Information (RFI) during the construction phase, attend progress meetings, and provide on-site inspections at the District's request.

PCG will prepare and submit Record Drawings ("As Built") based upon the Contractor's marked up plans. The Contractor's marked up plans will be reviewed by PCG concurrently with the project inspector to ensure an accurate representation of the "As Built" water mains.



Proposed Budget

TASK	DESCRIPTION	District Engineer		Project Engineer II		Project Engineer I		TOTALS	
		HR	COST	HR	COST	HR	COST	HRS	COST
			\$155		\$125		\$115		
1.0	Meetings/Field Investigation with District Staff	35	\$5,425	20	\$2,500	100	\$11,500	155	\$19,425
2.0	Utility Coordination - Permits	40	\$6,200	30	\$3,750	100	\$11,500	170	\$21,450
3.0	80% Plans	50	\$7,750	20	\$2,500	130	\$14,950	200	\$25,200
4.0	100% PS&E	30	\$4,650	20	\$2,500	160	\$18,400	210	\$25,550
5.0	Final PS&E	60	\$9,300	30	\$3,750	130	\$14,950	220	\$28,000
6.0	Advertise / Award Period	40	\$6,200	20	\$2,500	80	\$9,200	140	\$17,900
7.0	Construction Support/Record Drawing	60	\$9,300	40	\$5,000	250	\$28,750	350	\$43,050
Total Labor		315	\$48,825	180	\$22,500	950	\$109,250	1445	\$180,575

Topographic Survey	\$55,000
Potholing (estimated 15 pothole per each site)	\$75,000
CCTV (Karen Road Site)	\$5,000
5% Direct Expense Fee (Mileage, Copies, Plots, Etc.)	\$15,779

Subtract Amount Used on Karen Road Project as of August 31, 2016	(\$39,199)
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Total Project Cost	\$292,155
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The total CIP budget for Planning, Design, and Construction Support (CIP# 15-14, 15-22, 15-44, 15-65 and 15-73) is \$356,000. Packaging all five projects into one single project will save approximately \$25,000 in design and construction support cost.

Karen Road Water Main Replacement Project is 80% complete. At this time, PCG is coordinating with Caltrans to obtain an encroachment permit.

Proposed Schedule

Notice to Proceed	September 1, 2016
60% Submittal	January 20, 2017
100% Submittal	February 17, 2017
Final Submittal	April 27, 2017
Advertise Project (for 3 Weeks)	April 27, 2017
Award Project	May 25, 2017
Start Construction	July 3, 2017



We look forward to assisting the District with this project. Please do not hesitate to contact me at (925) 224-7717 should you have any questions.

Very truly yours,

Pakpour Consulting Group, Inc.



Joubin Pakpour, P.E.
Principal Engineer

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