



Chandler - Arizona  
Where Values Make The Difference

**PURCHASING ITEM  
FOR  
COUNCIL AGENDA  
Memo No. CP15-131**

1. Agenda Item Number:

26

2. Council Meeting Date:  
January 22, 2015

TO: **MAYOR & CITY COUNCIL**

3. Date Prepared: January 7, 2015

THROUGH: **CITY MANAGER**

4. Requesting Department: Municipal Utilities

5. **SUBJECT:** Project Agreement with Carollo Engineers, Inc., for Construction Management Services for Water/Wastewater Plant Control System Upgrades

6. **RECOMMENDATION:** Staff recommends City Council award a Project Agreement to Carollo Engineers, Inc., for construction management services, for the water/wastewater plant control system upgrades, pursuant to On-call Water/Wastewater Services Contract No. EN1518.101, Project No. WA1412.451, in an amount not to exceed \$209,786.

7. **BACKGROUND/DISCUSSION:** The Pecos Surface Water Treatment Plant, located at 1475 East Pecos Road, and the Airport Water Reclamation Facility, located at 905 East Queen Creek Road, utilizes a Distributed Control System consisting of components only manufactured and serviced by Invensys Systems, Inc., the parent company for Foxboro. Both facilities have processes that communicate through fiber optic cables to the plants' control systems. The existing equipment used for this communication is obsolete and will no longer be supported by Invensys Systems, Inc.

The project scope of work consists of construction management services associated with the replacement of the existing obsolete equipment, installation of the upgraded compatible equipment supported by Invensys Systems, Inc., inspections, monitoring, and project close-out assistance.

A Construction Manager at Risk Contract, Project No. WA1412.401, to Felix Construction Company, for water/wastewater plant control system upgrades, is also scheduled for this Council meeting.

8. **EVALUATION:** This project is being performed under the On-call Water/Wastewater Services Contract No. EN1518.101, to Carollo Engineers, Inc. The costs proposed for this project have been evaluated by Staff and are determined to be reasonable. The contract completion time is 360 calendar days following Notice to Proceed.

9. **FINANCIAL IMPLICATIONS:**

Cost: \$209,786  
Savings: N/A  
Long Term Costs: N/A

Fund Source:

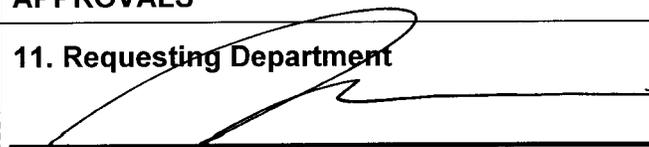
Account No.:	Fund Name:	Program Name:	CIP Funded:	Amount:
601.3820.6718.6WA210	Water Bonds	Water Treatment Plant Improvements	Yes	\$125,871.60
611.3910.6817.6VW621	Wastewater Bonds	Water Reclamation Facility Improvements	Yes	\$ 83,914.40
Total:				\$209,786.00

10. **PROPOSED MOTION:** Move City Council award a Project Agreement to Carollo Engineers, Inc., for construction management services, for the water/wastewater plant control system upgrades, pursuant to On-call Water/Wastewater Services Contract No. EN1518.101, Project No. WA1412.451, in an amount not to exceed \$209,786.

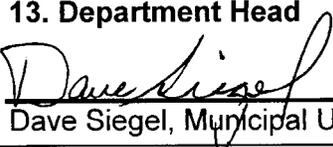
**ATTACHMENTS:** Agreement, Location Map

**APPROVALS**

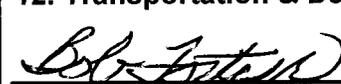
11. Requesting Department

  
John Knudson, Utilities Engineering Manager

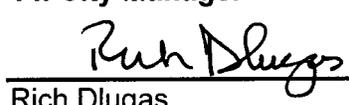
13. Department Head

  
Dave Siegel, Municipal Utilities Director

12. Transportation & Development

  
Bob Fortier, Capital Projects Manager

14. City Manager

  
Rich Dlugas

**PROJECT AGREEMENT  
PURSUANT TO ANNUAL CONTRACT NO. EN1518.101**

**PROJECT AGREEMENT NO: WA1412.451**

This PROJECT AGREEMENT is made this            day of            2015, by and between the City of Chandler, a municipal corporation (hereinafter referred to as "CITY") and Carollo Engineers, Inc. a Delaware corporation, licensed to do business in the State of Arizona (hereinafter referred to as "Annual Consultant") and is a project agreement entered into pursuant to Annual Contract No. EN1518.101.

CITY and Carollo Engineers, Inc., in consideration of the mutual covenants herein set forth, agree as follows:

**ARTICLE 1 - DESCRIPTION OF WORK:**

This project is Water Wastewater Plant Control System Upgrades, Project Number WA1412.451. The scope of work consists of construction management services for Water Waster Plant Control Upgrades, all as more particularly set forth in Exhibit A attached hereto and incorporated herein by reference.

The Annual Consultant shall not accept any change of scope, or change in contract provisions, unless issued in writing, as a contract amendment and signed by the Contract Administrator.

**ARTICLE 2 - CONTRACT PRICE:**

CITY shall pay Annual Consultant for completion of the Work in accordance with the Contract Documents a fee not to exceed Two Hundred Nine Thousand Seven Hundred Eighty Six Dollars (\$209,786) determined and payable as set forth in Annual Contract EN1518.101 and Exhibit B attached hereto and made a part hereof by reference.

**ARTICLE 3 - CONTRACT TIME:**

The contract time is Three Hundred Sixty calendar days and Annual Consultant agrees to complete all work within Three Hundred Sixty (360) calendar days of the date CITY issues a Notice to Proceed.

**ARTICLE 4 - GENERAL:**

This Project Agreement is entered into pursuant to Annual Contract No. EN1518.101 and the terms and conditions contained therein are incorporated herein by reference as if set forth in full.

IN WITNESS WHEREOF, the parties hereto have executed this Project Agreement on the day and year first written above.

This Project Agreement will be effective on this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

CITY OF CHANDLER

FOR THE ANNUAL:

\_\_\_\_\_  
DEPARTMENT HEAD/DESIGNEE      DATE:

By: David Sobeck Russell  
Title: SE. VICE PRESIDENT Executive Vice President

ADDRESS FOR NOTICE  
City of Chandler  
P.O. Box 4008, Mail Stop 407  
Chandler, AZ 85244-4008  
480-782-3307

ADDRESS FOR NOTICE  
Mr. David Sobeck  
Carollo Engineers, Inc.  
4600 E. Washington St., Ste. 500  
Phoenix, AZ 85034

APPROVED AS TO FORM:

Phone: 602-263-9500

\_\_\_\_\_  
City Attorney By: KB  
ATTEST:

\_\_\_\_\_  
City Clerk

**EXHIBIT A  
SCOPE OF WORK**

ANNUAL CONSULTANT shall provide the following services:

**TASK 100 – PROJECT MANAGEMENT AND ADMINISTRATION**

**Task 101 - Project Management - Administration**

ANNUAL CONSULTANT will perform project management and monitoring activities for the duration of the Project, including development of a Project Plan and submittal of monthly progress reports with monthly invoices.

**Task 102 – Miscellaneous Project Coordination Meetings**

In addition to regularly scheduled weekly progress meetings, ANNUAL CONSULTANT will attend miscellaneous project meetings, as necessary, with CITY and CMAR representatives during the Construction Phase to address and resolve key issues and support the CITY and CMAR as required. The anticipated number of planned miscellaneous project meetings during this phase is four (4). ANNUAL CONSULTANT will attend one (1) Start-Up and Testing Planning meeting, and will attend three (3) MOP (or MOPO) meetings, as described in Task 204.

**Task 103 – CMAR Pay Application Review**

ANNUAL CONSULTANT will review applications for payment with CMAR for compliance with the established procedure for their submission and forward those with recommendations to the CITY, noting particularly their relation to the schedule of values, work completed, and materials and equipment delivered at the site but not incorporated in the work. The anticipated effort associated with this task is four (4) hours per month for the twelve (12) month construction duration.

**TASK 200 – ENGINEERING SERVICES DURING CONSTRUCTION (ESDC)**

**Task 201 – Weekly Progress Meeting Attendance and Site Visits**

ANNUAL CONSULTANT will attend weekly CMAR progress meetings and will perform weekly site walks to review the progress of the work. CONSULTANT shall keep meeting minutes, report out status on submittals, report out status of RFI's.

**Task 202 – Requests for Information (RFIs)**

ANNUAL CONSULTANT will render interpretation and responses to RFIs, and submit written responses to the CITY accordingly. Responses will be provided within five (5) working days upon receipt by the ANNUAL CONSULTANT, or as mutually agreed to by the CITY, CMAR and ANNUAL CONSULTANT.

- **Task 203 – Design Clarifications**

ANNUAL CONSULTANT will render Design Clarifications upon request by the CITY, and submit written responses to the CITY accordingly. Responses will be provided within five (5) working days upon receipt by the ANNUAL CONSULTANT, or as mutually agreed to by the CITY, CMAR and ANNUAL CONSULTANT.

- **Task 204 – Technical Submittal Reviews**

ANNUAL CONSULTANT will review and process all related equipment and material submittals (i.e. samples, schedules, shop drawings, test results, product data, and other

data) that the CMAR is required to submit for conformance with the Contract Documents. Technical Submittal Reviews are also assumed to include the following:

- MOPO Plan Submittals: ANNUAL CONSULTANT will review CMAR's various Maintenance of Plant Operations (MOPO) plan submittals and provide written comments to CITY relative to any identified design-related impacts or conflicts. ANNUAL CONSULTANT will attend three (3) MOPO meetings, per Task 102.
- CMAR Start-up and Testing Plan Submittals: ANNUAL CONSULTANT will review CMAR's Start-Up and Testing Plan submittals for compliance with the Contract Documents, and provide written comments to CITY and CMAR relative to any identified design-related impacts or conflicts. ANNUAL CONSULTANT will attend one (1) meeting to review and discuss the Start-Up and Testing Plan submittals, per Task 102.
- Vendor O&M Manual Submittals: During the course of the Project, ANNUAL CONSULTANT will verify that the various certificates, Operations and Maintenance (O&M) manual updates, and other data required for assembly and furnished by CMAR are applicable to the items actually installed. ANNUAL CONSULTANT will check each manual submitted for completeness, for conformance to the design concept of the Project, and for conformance with the Contract Documents.

The CMAR's submittals shall be stamped appropriately to indicate results of the ANNUAL CONSULTANT's review. Such review will determine the suitability of the CMAR's proposed details for implementing the design, confirm that the technical submittals conform to the design information given in the Contract Documents, and are consistent with the design intent represented by the Contract Documents.

ANNUAL CONSULTANT will complete the review of submittals within fifteen (15) working days from ANNUAL CONSULTANT's receipt of submittal, unless otherwise mutually agreed to by the CITY, CMAR and ANNUAL CONSULTANT.

ANNUAL CONSULTANT will also be responsible for aggregating CITY submittal review comments upon receipt from the CITY Project Manager. ANNUAL CONSULTANT will review each of the CITY's comments for relevancy, will eliminate redundancy, will aggregate all reviewer comments, and in so doing, will signify concurrence with the reviewer's comments.

For the purposes of this task, the ANNUAL CONSULTANT assumes that the CMAR shall be responsible for maintaining independent submittal file copies. The ANNUAL CONSULTANT also assumes that the CMAR submittals shall be indexed and filed in accordance with the specification section number, specific equipment identified, and in general accordance with the Contract Documents.

- Task 205 – Special Inspection – Electrical/I&C

ANNUAL CONSULTANT will provide onsite Special (Electrical/I&C) Inspection on the two project sites, with responsibilities to include, but not necessarily limited to, the following:

- Underground ductbanks and cabling
- Verification that material and equipment to be installed is per specifications and approved submittals
- Equipment start-up (verification that major equipment items have proper electrical installation before being energized)
- Coordination with other disciplines to resolve conflicts
- Coordination and verification that the data communication installation work is accomplished per the Contract Documents.

ANNUAL CONSULTANT will perform a total of four (4) Special Inspections, two (2) each per project site (Pecos SWTP and Airport WRF).

- Task 206 – Substantial and Final Completion Inspection

Following written notice from the CMAR and Direction from the City, ANNUAL CONSULTANT will conduct an inspection to determine if the Project or the work associated with interim milestones is substantially complete in accordance with the Contract Documents. Once ANNUAL CONSULTANT considers the work substantially complete, the ANNUAL CONSULTANT will deliver to the CITY and the CMAR the Certificate of Substantial Completion and the punch list, the date for completion of the punch list, and recommend the division of responsibilities between the CITY and the CMAR. If the work is not substantially complete, the process shall be repeated until the work is substantially complete.

The ANNUAL CONSULTANT will, upon completion of the punch list items as notified by the CMAR and direction from the City, make final inspection to determine if the finished work has been completed to the standard required by the Contract Documents, determine whether required inspections and approvals for permit compliance have been satisfactorily completed, and CMAR has fulfilled their obligations in accordance with the Contract Documents.

- Task 207 – Construction Drawings of Record

Record Drawings: ANNUAL CONSULTANT Shall prepare Record Drawings of changes made during the construction process to the extent as shown on the CMAR's as-built red-lined drawing set. ANNUAL CONSULTANT will submit three (3) full-size copies of the Project Record Drawings (on bond) and one (1) full-size copies of the Project Record Drawings (on Mylar).

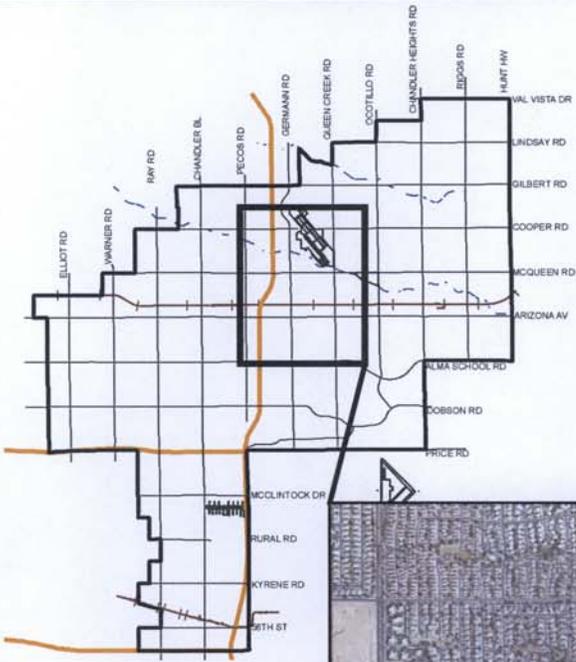
**EXHIBIT B  
FEE SCHEDULE**

TASKS	PROJECT PRINCIPAL	LEAD PROF.	PROJ. PROF.	PROF.	SENIOR TECH.	CLERICAL	TOTAL MHs
<b>Billing Rates</b>	<b>\$245.00</b>	<b>\$198.00</b>	<b>\$185.00</b>	<b>\$170,000</b>	<b>\$135.00</b>	<b>\$85.00</b>	
TASK 100 – PROJECT MANAGEMENT AND ADMINISTRATION							
101 – Project Management	4	16				4	24
102 – Miscellaneous Project Coordination Meetings	4	12	12			4	32
103 – CMAR Pay Application Review		24	24				48
TASK 200 – ENGINEERING SERVICES DURING CONSTRUCTION							
201 – Weekly Progress Meetings / Site Visits (6 manhrs ea wk)	4	144		144		8	300
202 – Requests for Information (20 qty)		8	8	16		8	40
203 – Design Clarifications (5 qty)		8	8	12	6	4	38
204 – Technical Submittal Reviews (60 qty)		30	160	260		30	480
205 – Special Inspection (E,I&C)		4	16			2	22
206 – Substantial and Final Completion Inspections		8	16			4	28
207 – Construction Drawings of Record		8	8	8	80		104
<b>Total Estimated Labor Hours</b>	<b>12</b>	<b>262</b>	<b>252</b>	<b>440</b>	<b>86</b>	<b>64</b>	<b>1,116</b>
<b>Total Estimated Labor Fee</b>	<b>\$2,940</b>	<b>\$51,876</b>	<b>\$46,620</b>	<b>\$74,800</b>	<b>\$11,610</b>	<b>\$5,440</b>	<b>\$193,286</b>
<b>Other Direct Costs<sup>(1)</sup></b>							
Miscellaneous Expenses (travel, mileage, graphics, reproduction)							\$5,000
<b>Allowances</b>							
Owners ESDC Allowance							\$10,000
Waranty Period Allowance							\$1,500
<b>TOTAL PROJECT FEE</b>							<b>\$209,786</b>

**NOTES:**

- ENGINEER will bill Direct Costs with no mark-up charges to the CITY.

# WATER/WASTEWATER PLANT CONTROL SYSTEM UPGRADES CM SERVICES PROJECT NO. WA1412.451



MEMO NO. CP15-131

