



**PURCHASING ITEM  
FOR  
COUNCIL AGENDA  
Memo No. CP15-141**

**1. Agenda Item Number:**  
**30**  
**2. Council Meeting Date:**  
December 11, 2014

**TO: MAYOR & CITY COUNCIL**

**3. Date Prepared:** November 19, 2014

**THROUGH: CITY MANAGER**

**4. Requesting Department:** Municipal Utilities

**5. SUBJECT:** Project Agreement with Wilson Engineers, LLC, for design services for the Manganaro Lift Station Improvements

**6. RECOMMENDATION:** Staff recommends City Council award a Project Agreement to Wilson Engineers, LLC, for design services for the Manganaro Lift Station Improvements, pursuant to On-call Water and Wastewater Services Contract No. EN1517.101, Project No. WW1504.201, in an amount not to exceed \$102,470.

**7. BACKGROUND/DISCUSSION:** The Manganaro Lift Station is located on the southeast corner of Ray and Price Roads. The facility has been in operation since 1998. The Manganaro Lift Station conveys wastewater flows from northwest Chandler to the wastewater treatment facilities. Staff has identified several rehabilitation items to improve the reliability of the lift station.

The project scope of work consists of design services to provide a flow meter, along with structural and piping improvements to the wet well and manholes at the Manganaro Lift Station.

**8. EVALUATION:** This project is being performed under the On-call Water and Wastewater Services Contract No. EN1517.101, to Wilson Engineers, LLC. The costs proposed for this project have been evaluated by Staff and are determined to be reasonable. The contract completion time is 180 calendar days following Notice to Proceed.

**9. FINANCIAL IMPLICATIONS:**

Cost: \$102,470  
Savings: N/A  
Long Term Costs: N/A

**Fund Source:**

<u>Account No.</u>	<u>Fund Name:</u>	<u>Program Name:</u>	<u>CIP Funded:</u>	<u>Amount:</u>
611.3910.6815.6WW196	Wastewater Bond	Collection System Facility Improvements	Yes	\$102,470

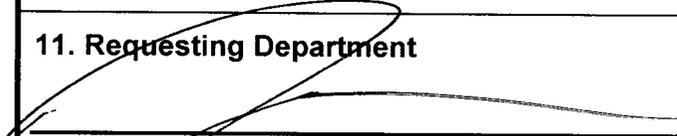
**10. PROPOSED MOTION:** Move City Council award a Project Agreement to Wilson Engineers, LLC, for design services for the Manganaro Lift Station Improvements, pursuant to On-call Water and Wastewater Services Contract No. EN1517.101, Project No. WW1504.201, in an amount not to exceed \$102,470.

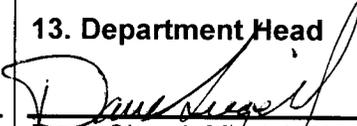
**ATTACHMENTS:** Location Map, Agreement

**APPROVALS**

**11. Requesting Department**

**13. Department Head**

  
John Knudson, Utilities Engineering Manager

  
Dave Siegel, Municipal Utilities Director

**12. Transportation & Development**

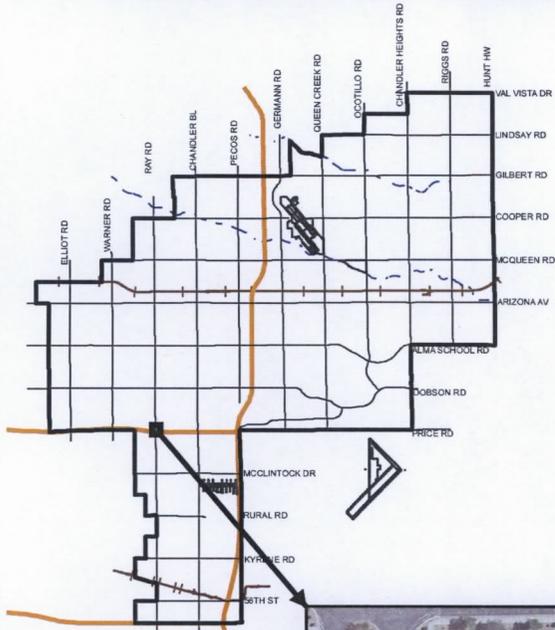
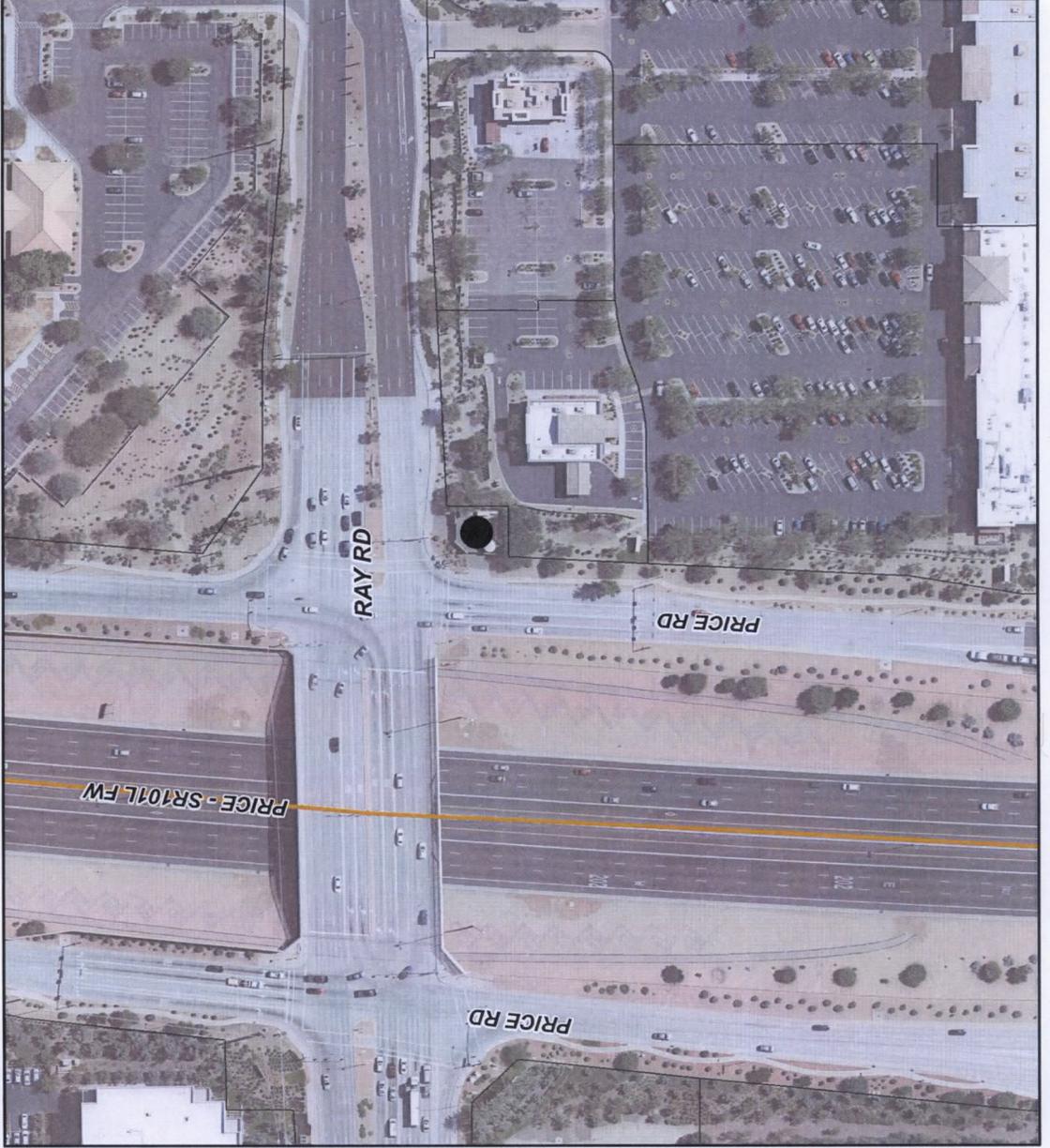
**14. City Manager**

  
Bob Fortier, Capital Projects Manager

  
Rich Dlugas



# MANGANARO LIFT STATION IMPROVEMENTS PROJECT NO. WW1504.201



MEMO NO. CP15-141

PROJECT LOCATION



**PROJECT AGREEMENT  
PURSUANT TO ANNUAL CONTRACT NO. EN1517.101**

**PROJECT AGREEMENT NO: WW1504.201**

This PROJECT AGREEMENT is made this \_\_\_\_\_ day of \_\_\_\_\_, 2014, by and between the City of Chandler, a municipal corporation (hereinafter referred to as "CITY") and Wilson Engineers, LLC, registered in the state of Arizona (hereinafter referred to as "Annual Consultant") and is a project agreement entered into pursuant to Annual Contract No. EN1517.101.

CITY and Wilson Engineers, LLC, in consideration of the mutual covenants herein set forth, agree as follows:

**ARTICLE 1 - DESCRIPTION OF WORK:**

This project is Manganaro Lift Station Improvements - Flow Meter Installation, Project Number WW1504.201. The scope of work consists of design, preparation of contract documents, permitting, and bid services, 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 One Hundred Two Thousand Four Hundred Seventy Dollars (\$102,470) determined and payable as set forth in Annual Contract EN1517.101 and Exhibit B attached hereto and made a part hereof by reference.

**ARTICLE 3 - CONTRACT TIME:**

The contract time is One Hundred Eighty calendar days and Annual Consultant agrees to complete all work within One Hundred Eighty (180) 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. EN1517.101 and the terms and conditions contained therein are incorporated herein by reference as if set forth in full.

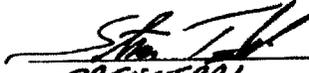
IN WITNESS WHEREOF, the parties hereto have executed this Project Agreement on the day and year first written above.

This Project Agreement will be effective on this \_\_\_\_ day of \_\_\_\_\_, 2014.

CITY OF CHANDLER

FOR THE ANNUAL:

\_\_\_\_\_  
MAYOR DATE:

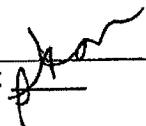
By:   
Title: PRINCIPAL

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

ADDRESS FOR NOTICE  
Mr. Steve Todd  
Wilson Engineers, LLC  
9633 S. 48<sup>th</sup> St., Ste. 290  
Phoenix, AZ 85044-5658

APPROVED AS TO FORM:

Phone: 480-893-8860

\_\_\_\_\_  
City Attorney By: 

ATTEST:

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

## **EXHIBIT A SCOPE OF WORK**

ANNUAL CONSULTANT shall provide the following services: design, preparation of contract documents, permitting, and bid services. The following facility components will be included in the design:

- Addition of a new flow meter along with isolation valves to be located within a vault and with bypass valves and piping
- Reroute existing potable water line to serve the existing Vapex unit
- Remove existing odor control piping to the old Biofilter that is no longer in service also remove the existing concrete pad for the existing odor control
- Remove all pump manifolds within the wet well and replace them with new piping, pipe supports, pump guide rails, and guide rail supports
- Identify rehabilitation/repair of the existing coating within the wet well.
- Remove and Replace the man hole just upstream of the lift station with appropriate approved insert.
- Remove and Replace the upstream manhole with appropriate approved insert and modification to the discharge line (from the lift station)
- Investigate and determine bypass pumping alternatives to repair upstream and downstream manholes. Investigate to reroute flows away from the lift station during rehabilitation work.
- Provide civil, process, electrical, instrumentation and controls detailed design drawings
- Assist in obtaining City of Chandler - Building Permit
- Assist in obtaining Maricopa County Environmental Services Department - Approval to Construct

### **TASK 1.0 DESIGN DEVELOPMENT**

**1.1 Kick-Off Meeting.** A kickoff meeting with representatives from the ANNUAL CONSULTANT and the City of Chandler will be conducted at project initiation. The following will be accomplished:

- Review the project scope and schedule
- Identify key issues affecting project development
- Request background information
- Discuss and identify work restrictions, pump station shutdown limitations and durations and bypass pump operation, and discussion of preferred mechanical, electrical, instrumentation, and control equipment.
- ANNUAL CONSULTANT to prepare and distribute meeting minutes to the attendees.

**1.2 Data Collection and Review.** Collect and review background information including:

- Existing plans for the Manganaro Lift Station, (AutoCAD drawings if available).
- Existing plans for the sewer lines, force mains upstream and downstream of the lift station.
- Existing Geotechnical Report for the site.

**1.3 Geotechnical Investigation and Report:** The ANNUAL CONSULTANT will provide, through a qualified sub-consultant, the necessary soil borings and soil investigations to analyze conditions present in the area where the proposed Project will be physically located and as required to support the design of the proposed facilities.

**1.4 Topographic Survey and Base Sheet Preparation:** Topographic survey services for pump station site shall be completed. The survey information will identify surface features; establish

survey control, and topography of the site. Survey will also provide upstream and downstream manhole inverts and top elevation.

**1.5 Utility Coordination:** The ANNUAL CONSULTANT will contact Blue Stake to obtain a list of the utilities fronting Manganaro Lift Station (i.e. Ray Road and Frontage Road) and request record drawings from those utilities.

**1.6 Structural Design:** The ANNUAL CONSULTANT will provide, through a qualified consultant, the necessary structural analysis, investigations, and design in the area where the proposed Project will be physically located and as required to support the design of the proposed facilities.

### **Task 2.0 – Basis of Design**

**2.1 Draft Basis of Design Report:** Based on the available data, site investigations, and the City's current design standards, the ANNUAL CONSULTANT shall prepare a design report for the Manganaro Lift Station that includes the preliminary facility layout, design criteria and standards for the pump station rehabilitation items and other mechanical items, preliminary construction cost estimate, identification of any additional design issues and recommendations. ANNUAL CONSULTANT shall submit six (6) hardcopies of the Design Basis Report to the City of Chandler for review and one (1) electronic PDF format on CD. A review meeting will be conducted to discuss comments on the Design Basis Report.

**2.2 Final Basis of Design Report:** Incorporate City comments on the draft report and submit three (3) hardcopies of the final design report and one (1) PDF format on CD to the City.

### **Task 3.0 – Construction Documents**

**3.1 Preparation of 60% Plans:** Prepare preliminary (60%) construction documents (plans only) for the Manganaro Lift Station. The 60% plans shall include preliminary plan sheets for the following disciplines:

- General
- Civil
- Mechanical
- Structural
- Electrical
- Instrumentation and Controls

Six (6) full size hardcopies, Two (2) half size hard copies, and one (1) PDF format on CD of the preliminary 60% plans will be submitted for review to the City's Project Manager for distribution to the Development Services Division and Municipal Utilities Department. An Engineer's Opinion of Probable Costs will be prepared based upon the 60% plans. One review meeting will be conducted to discuss any comments received from the City.

**3.2 Preparation of 90% Plans and Specifications (Agency Review Set):** Prepare preliminary (90%) construction documents including plans and specifications. The plans shall incorporate the comments received on the 60% submittal. Six (6) full size hardcopies, Two (2) half size hard copies, and one (1) PDF format on CD of the 90% plans and specifications will be submitted for review. An Engineer's Opinion of Probable Costs will be prepared based upon the 90% plans and specifications. A review meeting will be conducted with the City to review and discuss all comments received on the 90% Plans.

**3.3 Preparation of 100% Plans and Specifications:** The final 100% plans and specifications will be prepared incorporating City's and Maricopa County Environmental Services Department's (MCESD's) comments. Six (6) full size hardcopies, Two (2) half size hard copies, and one (1) PDF and one (1) CADD format on CD set of permit plans and specifications will be provided with one (1) Mylar hardcopy of the Plans cover sheet. An Engineer's Opinion of Probable Costs will be prepared based upon final plans and specifications.

#### **Task 4.0 – Permitting**

**4.1 City Development Services Permits & Approvals:** In addition to the noted Submittals above the ANNUAL CONSULTANT shall submit Two (2) hard copies of the Drainage Report at the 60% submittal stage for review. Two (2) hard copies of the revised Drainage Report at the 90% submittal stage for review. Two (2) hard copies and one (1) PDF of the final Drainage Report.

**NOTE:** City permit fees for the project will be paid directly by the City and thus are not included within this scope of services.

**4.2 MCESD ATC:** One set of the agency review plans and specifications will be submitted to the MCESD for non-expedited review to obtain the Approval to Construct (ATC). One review meeting will be conducted to discuss any comments received from the County.

**NOTE:** A \$1,500 allowance has been included based on the MCESD review fees estimated for the project. Approval of Construction (AOC) submission is not included within this scope of services.

#### **Task 5.0 – Bid Services**

**5.1 Pre-Bid Conference:** Attend the pre-bid conference to answer bidder questions pertaining to the Contract Documents.

**5.2 Questions:** Receive and respond to bidder inquires after the pre-bid conference.

**5.3 Prior Approval Review/Addenda:** Review equipment submittals presented for prior approval (according to the City's requirements) and prepare addenda required to clarify or modify the Contract Documents.

**5.4 Attend Bid Opening:** Attend the bid opening, review bids, and make recommendation for award.

#### **Allowances:**

**AL1** Allowance not to exceed \$1,500.00 for MCESD review fees estimated for the project. Approval of Construction (AOC) submission is not included within this scope of services.

**AL2** A Reimbursable Allowance not to exceed \$750.00, (Printing, mileage, etc.) to be billed at cost (no mark ups).

**AL3** Owners Allowance not to exceed \$10,000.00 for Unforeseen Conditions.

**EXHIBIT B  
FEE SCHEDULE**

<b>Task</b>	<b>Task Description</b>	<b>Fee</b>
<b>Task 1.0 - Design Development</b>		
1.1	Kick-Off Meeting	\$ 970
1.2	Data Collection and Review	\$ 560
1.3	Geotechnical Investigation	\$ 3,060
1.4	Topographic Site Survey	\$ 3,330
1.5	Utility Coordination	\$ 1,120
1.6	Structural Design	\$ 2,100
<b>Subtotal - Design Development</b>		<b>\$ 11,140</b>
<b>Task 2.0 - Basis of Design</b>		
2.1	Draft Basis of Design Report	\$ 6,120
2.2	Final Basis of Design Report	\$ 3,560
<b>Subtotal - Preliminary Design</b>		<b>\$ 9,680</b>
<b>Task 3.0 - Construction Documents</b>		
3.1	Preparation of 60% Plans	\$ 26,010
3.2	Preparation of 90% Plans (Agency Review Set)	\$ 24,020
3.5	Preparation of 100% Plans and Specifications	\$ 9,390
<b>Subtotal - Final Design</b>		<b>\$ 59,420</b>
<b>Task 4.0 - Permitting</b>		
4.1	City Development Services Permits and Approvals	\$ 1,590
4.2	MCESD ATC	\$ 1,590
<b>Subtotal - Final Design</b>		<b>\$ 3,180</b>
<b>Task 5.0 - Bid Services</b>		
5.1	Pre-Bid Conference	\$ 280
5.2	Questions / RFI Response	\$ 2,630
5.3	Equipment Prequalification Review / Issue Addenda	\$ 3,610
5.4	Attend Bid Opening	\$ 280
<b>Subtotal - Bid Services</b>		<b>\$ 6,800</b>
<b>Tasks Allowances</b>		
AL1	MCESD Review Fees - Non-expedited	\$ 1,500
AL2	Misc. Reimbursable Allowance (Printing, mileage, etc)	\$ 750
AL3	Owners Allowance Unforeseen Conditions	\$ 10,000
<b>Subtotal - Allowances</b>		<b>\$12,250</b>
<b>TOTAL FEE</b>		<b>\$ 102,470</b>