

**PROFESSIONAL SERVICES AGREEMENT**  
**STUDY AND DESIGN SERVICES**  
**PYRAMID PEAK WATER TREATMENT PLANT IMPROVEMENTS**  
City Project No. 131402

This Professional Services Agreement ("Agreement") is entered into and effective between CITY OF GLENDALE, an Arizona municipal corporation ("City") and Black & Veatch Corporation, a Delaware corporation authorized to do business in Arizona, ("Consultant") as of the 13 day of May, 2014 ("Effective Date").

**RECITALS**

- A. City intends to undertake a project for the benefit of the public and with public funds that is more fully set forth in **Exhibit A**, Project (the "Project");
- B. City desires to retain the professional services of Consultant to perform certain specific duties and produce the specific work as set forth in the attached **Exhibit B**, Project Scope of Work ("Scope");
- C. Consultant desires to provide City with professional services ("Services") consistent with best consulting or architectural practices and the standards set forth in this Agreement, in order to complete the Project; and
- D. City and Consultant desire to memorialize their agreement with this document.

**AGREEMENT**

The parties hereby agree as follows:

**1. Key Personnel; Other Consultants and Subcontractors.**

- 1.1 Professional Services. Consultant will provide all Services necessary to assure the Project is completed timely and efficiently consistent within Project requirements, including, but not limited to, working in close interaction and interfacing with City and its designated employees, and working closely with others, including other consultants or contractors, retained by City.
- 1.2 Project Team.
  - a. Project Manager.
    - (1) Consultant will designate an employee as Project Manager with sufficient training, knowledge, and experience to, in the City's opinion, complete the project and handle all aspects of the Project such that the work produced by Consultant is consistent with applicable standards as detailed in this Agreement; and
    - (2) The City must approve the designated Project Manager.
  - b. Project Team.
    - (1) The Project Manager and all other employees assigned to the Project by Consultant will comprise the "Project Team."
    - (2) Project Manager will have responsibility for and will supervise all other employees assigned to the Project by Consultant.
  - c. Discharge, Reassign, Replacement.
    - (1) Consultant acknowledges the Project Team is comprised of the same persons and roles for each as may have been identified in **Exhibit A**.
    - (2) Consultant will not discharge, reassign, replace or diminish the responsibilities of any of the employees assigned to the Project who have been approved by City without City's prior written consent unless that person leaves the employment of Consultant, in which event the substitute must first be approved in writing by City.

- (3) Consultant will change any of the members of the Project Team at the City's request if an employee's performance does not equal or exceed the level of competence that the City may reasonably expect of a person performing those duties, or if the acts or omissions of that person are detrimental to the development of the Project.

d. **Subcontractors.**

- (1) Consultant may engage specific technical contractors (each a "Subcontractor") to furnish certain service functions.
- (2) Consultant will remain fully responsible for Subcontractor's services.
- (3) Subcontractors must be approved by the City.
- (4) Consultant will certify by letter that all contracts with Subcontractors have been executed incorporating requirements and standards as set forth in this Agreement.

2. **Schedule.** The Services will be undertaken in a manner that ensures the Project is completed timely and efficiently in accordance with the Project.

3. **Consultant's Work.**

3.1 **Standard.** Consultant must perform Services in accordance with the standards of due diligence, care, and quality prevailing among consultants having substantial experience with the successful furnishing of Services for projects that are equivalent in size, scope, quality, and other criteria under the Project and identified in this Agreement.

3.2 **Licensing.** Consultant warrants that:

- a. Consultant and its Subconsultants or Subcontractors will hold all appropriate and required licenses, registrations and other approvals necessary for the lawful furnishing of Services ("Approvals"); and
- b. Neither Consultant nor any Subconsultant or Subcontractor has been debarred or otherwise legally excluded from contracting with any federal, state, or local governmental entity ("Debarment").
  - (1) City is under no obligation to ascertain or confirm the existence or issuance of any Approvals or Debarments, or to examine Consultant's contracting ability.
  - (2) Consultant must notify City immediately if any Approvals or Debarment changes during the Agreement's duration. The failure of the Consultant to notify City as required will constitute a material default under the Agreement.

3.3 **Compliance.** Services will be furnished in compliance with applicable federal, state, county and local statutes, rules, regulations, ordinances, building codes, life safety codes, and other standards and criteria designated by City.

3.4 **Coordination; Interaction.**

- a. For projects that the City believes requires the coordination of various professional services, Consultant will work in close consultation with City to proactively interact with any other professionals retained by City on the Project ("Coordinating Project Professionals").
- b. Consultant will meet to review the Project, Schedule and in-progress work with Coordinating Project Professionals and City as often and for durations as City reasonably considers necessary in order to ensure the timely work delivery and Project completion.
- c. For projects not involving Coordinating Project Professionals, Consultant will proactively interact with any other contractors when directed by City to obtain or disseminate timely information for the proper execution of the Project.

3.5 Work Product.

- a. Ownership. Upon receipt of payment for Services furnished, Consultant grants to City, and will cause its Subconsultants or Subcontractors to grant to the City, the exclusive ownership of and all copyrights, if any, to evaluations, reports, drawings, specifications, project manuals, surveys, estimates, reviews, minutes, all "architectural work" as defined in the United States Copyright Act, 17 U.S.C § 101, *et seq.*, and other intellectual work product as may be applicable ("Work Product").
  - (1) This grant is effective whether the Work Product is on paper (e.g., a "hard copy"), in electronic format, or in some other form.
  - (2) Consultant warrants, and agrees to indemnify, hold harmless and defend City for, from and against any claim that any Work Product infringes on third-party proprietary interests.
- b. Delivery. Consultant will deliver to City copies of the preliminary and completed Work Product promptly as they are prepared.
- c. City Use.
  - (1) City may reuse the Work Product at its sole discretion.
  - (2) In the event the Work Product is used for another project without further consultations with Consultant, the City agrees to indemnify and hold Consultant harmless from any claim arising out of the Work Product.
  - (3) In such case, City will also remove any seal and title block from the Work Product.

4. **Compensation for the Project.**

- 4.1 Compensation. Consultant's compensation for the Project, including those furnished by its Subconsultants or Subcontractors will not exceed \$174,960 as specifically detailed in **Exhibit D** ("Compensation").
- 4.2 Change in Scope of Project. The Compensation may be equitably adjusted if the originally contemplated Scope as outlined in the Project is significantly modified.
  - a. Adjustments to Compensation require a written amendment to this Agreement and may require City Council approval.
  - b. Additional services which are outside the Scope of the Project contained in this Agreement may not be performed by the Consultant without prior written authorization from the City.
  - c. Notwithstanding the incorporation of the Exhibits to this Agreement by reference, should any conflict arise between the provisions of this Agreement and the provisions found in the Exhibits and accompanying attachments, the provisions of this Agreement shall take priority and govern the conduct of the parties.
- 4.3 Allowances. An "Allowance" may be identified in **Exhibit D** only for work that is required by the Scope and the value of which cannot reasonably be quantified at the time of this Agreement.
  - a. As stated in Sec. 4.1 above, the Compensation must incorporate all Allowance amounts identified in **Exhibit D** and any unused allowance at the completion of the Project will remain with City.
  - b. Consultant may not add any mark-up for work identified as an Allowance and which is to be performed by a Subconsultant.
  - c. Consultant will not use any portion of an Allowance without prior written authorization from the City.

- d. Examples of Allowance items include, but are not limited to, subsurface pothole investigations, survey, geotechnical investigations, public participation, radio path studies and material testing.

4.4 Expenses. City will reimburse Consultant for certain out-of-pocket expenses necessarily incurred by Consultant in connection with this Agreement, without mark-up (the "Reimbursable Expenses"), including, but not limited to, document reproduction, materials for book preparation, postage, courier and overnight delivery costs incurred with Federal Express or similar carriers, travel and car mileage, subject to the following:

- a. Mileage, airfare, lodging and other travel expenses will be reimbursable only to the extent these would, if incurred, be reimbursed to City of Glendale personnel under its policies and procedures for business travel expense reimbursement made available to Consultant for review prior to the Agreement's execution, and which policies and procedures will be furnished to Consultant;
- b. The Reimbursable Expenses in this section are approved in advance by City in writing; and
- c. The total of all Reimbursable Expenses paid to Consultant in connection with this Agreement will not exceed the "not to exceed" amount identified for Reimbursable Services in the Compensation.

## 5. **Billings and Payment.**

### 5.1 Applications.

- a. Consultant will submit monthly invoices (each, a "Payment Application") to City's Project Manager and City will remit payments based upon the Payment Application as stated below.
- b. The period covered by each Payment Application will be one calendar month ending on the last day of the month.

### 5.2 Payment.

- a. After a full and complete Payment Application is received, City will process and remit payment within 30 days.
- b. Payment may be subject to or conditioned upon City's receipt of:
  - (1) Completed work generated by Consultant and its Subconsultants and Subcontractors; and
  - (2) Unconditional waivers and releases on final payment from all Subconsultants and Subcontractors as City may reasonably request to assure the Project will be free of claims arising from required performances under this Agreement.

### 5.3 Review and Withholding. City's Project Manager will timely review and certify Payment Applications.

- a. If the Payment Application is rejected, the Project Manager will issue a written listing of the items not approved for payment.
- b. City may withhold an amount sufficient to pay expenses that City reasonably expects to incur in correcting the deficiency or deficiencies rejected for payment.

## 6. **Termination.**

6.1 For Convenience. City may terminate this Agreement for convenience, without cause, by delivering a written termination notice stating the effective termination date, which may not be less than 15 days following the date of delivery.

- a. Consultant will be equitably compensated for Services furnished prior to receipt of the termination notice and for reasonable costs incurred.

- b. Consultant will also be similarly compensated for any approved effort expended, and approved costs incurred, that are directly associated with Project closeout and delivery of the required items to the City.

6.2 **For Cause.** City may terminate this Agreement for cause if Consultant fails to cure any breach of this Agreement within seven days after receipt of written notice specifying the breach.

- a. Consultant will not be entitled to further payment until after City has determined its damages. If City's damages resulting from the breach, as determined by City, are less than the equitable amount due but not paid Consultant for Services furnished, City will pay the amount due to Consultant, less City's damages, in accordance with the provision of Sec. 5.
- b. If City's direct damages exceed amounts otherwise due to Consultant, Consultant must pay the difference to City immediately upon demand; however, Consultant will not be subject to consequential damages more than \$1,000,000 or the amount of this Agreement, whichever is greater.

7. **Conflict.** Consultant acknowledges this Agreement is subject to A.R.S. § 38-511, which allows for cancellation of this Agreement in the event any person who is significantly involved in initiating, negotiating, securing, drafting, or creating the Agreement on City's behalf is also an employee, agent, or consultant of any other party to this Agreement.

8. **Insurance.**

8.1 **Requirements.** Consultant must obtain and maintain the following insurance ("Required Insurance"):

- a. Consultant and Subconsultants and Subcontractors. Consultant, and each Subconsultant or Subcontractor performing work or providing materials related to this Agreement must procure and maintain the insurance coverages described below (collectively referred to herein as the "Consultant's Policies"), until each Party's obligations under this Agreement are completed.
- b. **General Liability.**
  - (1) Consultant must at all times relevant hereto carry a commercial general liability policy with a combined single limit of at least \$1,000,000 per occurrence and \$2,000,000 annual aggregate limit.
  - (2) Subconsultants and Subcontractors must at all times relevant hereto carry a general commercial liability policy with a combined single limit of at least \$1,000,000 per occurrence.
  - (3) This commercial general liability insurance must include independent contractors' liability, contractual liability, broad form property coverage, XCU hazards if requested by the City, and a separation of insurance provision.
  - (4) These limits may be met through a combination of primary and excess liability coverage.
- c. **Professional Liability.** Consultant must maintain a professional errors and omissions liability policy providing a minimum limit of \$1,000,000 for each claim and a \$2,000,000 annual aggregate limit.
- d. **Auto.** A business auto policy providing a liability limit of at least \$1,000,000 per accident for Consultant and \$1,000,000 per accident for Subconsultants and Subcontractors and covering owned, non-owned and hired automobiles.
- e. **Workers' Compensation and Employer's Liability.** Consultant must also maintain a workers' compensation and employer's liability policy providing at least the minimum benefits required by Arizona law.

- f. Notice of Changes. Consultant's Policies must provide for not less than 30 days' advance written notice to City Representative of:
  - (1) Cancellation or termination of Consultant's Policies;
  - (2) Reduction of the coverage limits of any of Consultant's Policies; and
  - (3) Any other material modification of Consultant's Policies related to this Agreement.
- g. Certificates of Insurance.
  - (1) Within 10 business days after the execution of the Agreement, Consultant must deliver to City Representative certificates of insurance for each of Consultant's Policies, which will confirm the existence or issuance of Consultant's Policies in accordance with the provisions of this section, and copies of the endorsements of Consultant's Policies in accordance with the provisions of this section.
  - (2) City is and will be under no obligation either to ascertain or confirm the existence or issuance of Consultant's Policies, or to examine Consultant's Policies, or to inform Consultant, Subconsultant, or Subcontractor in the event that any coverage does not comply with the requirements of this section.
  - (3) Consultant's failure to secure and maintain Consultant's Policies and to assure Consultant's Policies as required will constitute a material default under the Agreement.
- h. Other Contractors or Vendors.
  - (1) Other contractors or vendors that may be contracted with in connection with the Project must procure and maintain insurance coverage as is appropriate to their particular contract.
  - (2) This insurance coverage must comply with the requirements set forth above for Consultant's Policies (e.g., the requirements pertaining to endorsements to name the parties as additional insured parties and certificates of insurance).
- i. Policies. Except with respect to workers' compensation and Consultant's professional liability coverages, City must be named and properly endorsed as additional insureds on all liability policies required by this section.
  - (1) The coverage extended to additional insureds must be primary and must not contribute with any insurance or self insurance policies or programs maintained by the additional insureds.
  - (2) All insurance policies obtained pursuant to this section must be with companies legally authorized to do business in the State of Arizona and reasonably acceptable to all parties.

8.2 Subconsultants and Subcontractors.

- a. Consultant must also cause its Subconsultants and Subcontractors to obtain and maintain the Required Insurance.
- b. City may consider waiving these insurance requirements for a specific Subconsultant or Subcontractor if City is satisfied the amounts required are not commercially available to the Subconsultant or Subcontractor and the insurance the Subconsultant or Subcontractor does have is appropriate for the Subconsultant or Subcontractor's work under this Agreement.
- c. Consultant and Subcontractors must provide to the City proof of the Required Insurance whenever requested.

8.3 Indemnification.

- a. To the fullest extent permitted by law, Consultant must defend, indemnify, and hold harmless City and its elected officials, officers, employees and agents (each, an "Indemnified Party," collectively, the "Indemnified Parties") for, from, and against any and all claims, demands, actions, damages, judgments, settlements, personal injury (including sickness, disease, death, and bodily harm), property damage (including loss of use), infringement, governmental action and all other losses and expenses, including attorneys' fees and litigation expenses (each, a "Demand or Expense" collectively "Demands or Expenses") asserted by a third-party (i.e. a person or entity other than City or Consultant) and that arises out of or results from the breach of this Agreement by the Consultant or the Consultant's negligent actions, errors or omissions (including any Subconsultant or Subcontractor or other person or firm employed by Consultant), whether sustained before or after completion of the Project.
- b. This indemnity and hold harmless provision applies even if a Demand or Expense is in part due to the Indemnified Party's negligence or breach of a responsibility under this Agreement, but in that event, Consultant will be liable only to the extent the Demand or Expense results from the negligence or breach of a responsibility of Consultant or of any person or entity for whom Consultant is responsible.
- c. Consultant is not required to indemnify any Indemnified Parties for, from, or against any Demand or Expense resulting from the Indemnified Party's sole negligence or other fault solely attributable to the Indemnified Party.

9. Immigration Law Compliance.

- 9.1 Consultant, and on behalf of any Subconsultant or Subcontractor, warrants, to the extent applicable under A.R.S. § 41-4401, compliance with all federal immigration laws and regulations that relate to their employees as well as compliance with A.R.S. § 23-214(A) which requires registration and participation with the E-Verify Program.
- 9.2 Any breach of warranty under this section is considered a material breach of this Agreement and is subject to penalties up to and including termination of this Agreement.
- 9.3 City retains the legal right to inspect the papers of any Consultant, Subconsultant, or Subcontractor employee who performs work under this Agreement to ensure that the Consultant, Subconsultant or any Subcontractor is compliant with the warranty under this section.
- 9.4 City may conduct random inspections, and upon request of City, Consultant will provide copies of papers and records of Consultant demonstrating continued compliance with the warranty under this section. Consultant agrees to keep papers and records available for inspection by the City during normal business hours and will cooperate with City in exercise of its statutory duties and not deny access to its business premises or applicable papers or records for the purposes of enforcement of this section.
- 9.5 Consultant agrees to incorporate into any subcontracts under this Agreement the same obligations imposed upon Consultant and expressly accrue those obligations directly to the benefit of the City. Consultant also agrees to require any Subconsultant or Subcontractor to incorporate into each of its own subcontracts under this Agreement the same obligations above and expressly accrue those obligations to the benefit of the City.
- 9.6 Consultant's warranty and obligations under this section to the City is continuing throughout the term of this Agreement or until such time as the City determines, in its sole discretion, that Arizona law has been modified in that compliance with this section is no longer a requirement.
- 9.7 The "E-Verify Program" above means the employment verification program administered by the United States Department of Homeland Security, the Social Security Administration, or any successor program.

**10. Notices.**

- 10.1 A notice, request or other communication that is required or permitted under this Agreement (each a "Notice") will be effective only if:
- a. The Notice is in writing; and
  - b. Delivered in person or by overnight courier service (delivery charges prepaid), certified or registered mail (return receipt requested).
  - c. Notice will be deemed to have been delivered to the person to whom it is addressed as of the date of receipt, if:
    - (1) Received on a business day before 5:00 p.m. at the address for Notices identified for the Party in this Agreement by U.S. Mail, hand delivery, or overnight courier service; or
    - (2) As of the next business day after receipt, if received after 5:00 p.m.
  - d. The burden of proof of the place and time of delivery is upon the Party giving the Notice.
  - e. Digitalized signatures and copies of signatures will have the same effect as original signatures.

10.2 Representatives.

- a. Consultant. Consultant's representative (the "Consultant's Representative") authorized to act on Consultant's behalf with respect to the Project, and his or her address for Notice delivery is:

Dan Meyer, P.E.  
Black & Veatch Corporation  
3133 East Camelback Road, Suite 210  
Phoenix, AZ 85016

- b. City. City's representative ("City's Representative") authorized to act on City's behalf, and his or her address for Notice delivery is:

City of Glendale  
c/o City Engineer  
Engineering Department  
5850 West Glendale Avenue  
Glendale, Arizona 85301

With required copy to:

City Manager  
City of Glendale  
5850 West Glendale Avenue  
Glendale, Arizona 85301

City Attorney  
City of Glendale  
5850 West Glendale Avenue  
Glendale, Arizona 85301

- c. Concurrent Notices.
  - (1) All notices to City's representative must be given concurrently to City Manager and City Attorney.
  - (2) A notice will not be deemed to have been received by City's representative until the time that it has also been received by the City Manager and the City Attorney.
  - (3) City may appoint one or more designees for the purpose of receiving notice by delivery of a written notice to Consultant identifying the designee(s) and their respective addresses for notices.

- d. Changes. Consultant or City may change its representative or information on Notice, by giving Notice of the change in accordance with this section at least ten days prior to the change.

**11. Financing Assignment.** City may assign this Agreement to any City-affiliated entity, including a non-profit corporation or other entity whose primary purpose is to own or manage the Project.

**12. Entire Agreement; Survival; Counterparts; Signatures.**

12.1 Integration. This Agreement contains, except as stated below, the entire agreement between City and Consultant and supersedes all prior conversations and negotiations between the parties regarding the Project or this Agreement.

- a. Neither Party has made any representations, warranties or agreements as to any matters concerning the Agreement's subject matter.
- b. Representations, statements, conditions, or warranties not contained in this Agreement will not be binding on the parties.
- c. Inconsistencies between the solicitation, any addenda attached to the solicitation, the response or any excerpts attached as **Exhibit A**, and this Agreement, will be resolved by the terms and conditions stated in this Agreement.

12.2 Interpretation.

- a. The parties fairly negotiated the Agreement's provisions to the extent they believed necessary and with the legal representation they deemed appropriate.
- b. The parties are of equal bargaining position and this Agreement must be construed equally between the parties without consideration of which of the parties may have drafted this Agreement.
- c. The Agreement will be interpreted in accordance with the laws of the State of Arizona.

12.3 Survival. Except as specifically provided otherwise in this Agreement, each warranty, representation, indemnification and hold harmless provision, insurance requirement, and every other right, remedy and responsibility of a Party, will survive completion of the Project, or the earlier termination of this Agreement.

12.4 Amendment. No amendment to this Agreement will be binding unless in writing and executed by the parties. Electronic signature blocks do not constitute execution for purposes of this Agreement. Any amendment may be subject to City Council approval.

12.5 Remedies. All rights and remedies provided in this Agreement are cumulative and the exercise of any one or more right or remedy will not affect any other rights or remedies under this Agreement or applicable law.

12.6 Severability. If any provision of this Agreement is voided or found unenforceable, that determination will not affect the validity of the other provisions, and the voided or unenforceable provision will be reformed to conform with applicable law.

12.7 Counterparts. This Agreement may be executed in counterparts, and all counterparts will together comprise one instrument.

**13. Term.** The term of this Agreement commences upon the Effective Date and continues for a three (3)-year initial period. The City may, at its option and with the approval of the Consultant, extend the term of this Agreement an additional two (2) years, renewable on an annual basis. Consultant will be notified in writing by the City of its intent to extend the Agreement period at least 30 calendar days prior to the expiration of the original or any renewal Agreement period. Price adjustments will only be reviewed during the Agreement renewal period and will be a determining factor for renewal. There are no automatic renewals of this Agreement.

14. **Dispute Resolution.** Each claim, controversy and dispute (each a "Dispute") between Consultant and City will be resolved in accordance with **Exhibit E**. The final determination will be made by the City.
15. **Exhibits.** The following exhibits, with reference to the term in which they are first referenced, are incorporated by this reference.

Exhibit A	Project
Exhibit B	Scope of Work
Exhibit C	Schedule
Exhibit D	Compensation
Exhibit E	Dispute Resolution

(Signatures appear on the following page.)

The parties enter into this Agreement effective as of the date shown above.

City of Glendale,  
an Arizona municipal corporation



By: Brenda S. Fischer  
Its: City Manager

ATTEST:



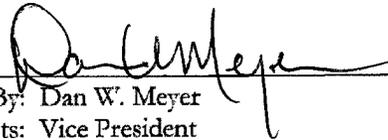
Pamela Hanna (SEAL)  
City Clerk

APPROVED AS TO FORM:



Michael D. Bailey  
City Attorney

BLACK & VEATCH CORPORATION,  
a Delaware corporation



By: Dan W. Meyer  
Its: Vice President

**EXHIBIT A**  
**Professional Services Agreement**

PROJECT

(Cover Page)

**EXHIBIT A**  
**Professional Services Agreement**  
**STUDY AND DESIGN SERVICES**  
**PYRAMID PEAK WATER TREATMENT PLANT IMPROVEMENTS**  
**PROJECT**  
**Project No. 131402**

**DESCRIPTION OF PROJECT:**

The Pyramid Peak Water Treatment Plant treats Central Arizona Project (CAP) water and has the capacity to treat a maximum 48 million gallons per day (mgd). During events when CAP source water contains high turbidity and organic materials, the city has experienced challenges in meeting treatment capacity needs and drinking water standards. In addition the City of Peoria is an equity owner of the facility, and their growth-related demand may warrant a possible 10 mgd expansion to the water treatment plant.

Phase I of the project includes water treatment plant (WTP) process and expansion planning evaluations. Phase II includes an evaluation of the facility's existing condition and systems, recommendations for improvements and planning level budgetary costs for those improvements. Phase II also includes developing submittal materials and applying for an Aquifer Protection Permit (APP) for the sludge lagoons and a condition assessment of a portion of the 60-inch finished water effluent transmission pipeline. Phase III includes design of recommended improvements. Phase IV includes construction administration services for the improvements. The Scope of Services for Phases II through IV will be finalized at a later date.

Requested services could include assisting City staff with Council presentations, public meetings, and other related public involvement activities. The City may or may not utilize the services of a Construction Manager at Risk (CMAR). This optional delivery method will be decided at a later time. The engineering firm (Consultant) will be a member of a project team that includes, but is not limited to, city staff and possibly a construction manager at risk contractor.

**EXHIBIT B**  
**Professional Services Agreement**

SCOPE OF WORK

(Cover Page)

**ENGINEERING EXHIBIT B**  
**Professional Services Agreement**  
**CITY OF GLENDALE**  
**STUDY AND DESIGN SERVICES**  
**PYRAMID PEAK WATER TREATMENT PLANT IMPROVEMENTS**  
**PROJECT**  
**Project No. 131402**

**SCOPE OF WORK**

The following information is a general description of the scope of work that the City may expect the Consultant to perform for this project. The services listed in this scope of work may include, but are not limited to, the following:

A. General project administration services may include:

- Coordinating with the City Project Team (and CMAR if selected) during the design of the project.
- Attending project meetings as necessary to maintain the project budget and schedule; chairing periodic regular meetings and any additional meetings as requested by the City; setting agendas and preparing and distributing meeting minutes. Meetings under basic services may include:
  - a) Meetings with City staff and management.
  - b) Meetings required to obtain a permit.
  - c) Meetings with oversight committees (i.e. City Management, City Council, Planning, etc.).
- Coordinating with private, public and City utilities (i.e., Information Technology Department, Water Services Department) regarding standard technology and utility issues and incorporating pertinent information in the plans.
- Submitting and retrieving all required design documents to the various required reviewing agencies.
- Preparing and maintaining a project schedule after meeting with the designated City project manager (referred to as "Project Manager") to determine appropriate submittal deadlines and to coordinate project submissions. If a CMAR is selected, the master scheduling responsibilities will transfer to the CMAR with the assistance of the Consultant.
- Assisting the City (and the CMAR) in obtaining all federal, state, county, local and utility permits and approvals required for the Project (including NPDES, Dust Control, and other permits). As the Project progresses, the Consultant shall timely furnish to the City copies of all communications between the Consultant and the respective agency or department and all approvals and permits for the Project.
- Submitting a written monthly progress report to the City and Project Team during the entire period of the project, through both design and construction. Also, the Consultant will be required to submit a monthly project schedule update and status report, as well as a quarterly project cash flow schedule for both design and construction phases. This information will be submitted to City Engineering Administration for the entire period of the project, through both design and construction.
- Project Schedule: The Consultant shall prepare a significant event calendar within fourteen (14) days of the Notice to Proceed (NTP). The initial schedule should show the original start date with initial completion date as a reference. One copy of the original overall schedule with original time line and data dates shall be submitted at the project kick-off meeting. Additionally, minimum general time frames for project milestones shall be provided. The Consultant shall update the schedule monthly to keep it current showing comparison with the Baseline/Target schedule. The updated schedule report shall be submitted with the monthly invoice.
- Invoices: The Consultant shall submit a projection of monthly project billings with the fee proposal. The projected billing will be consistent with the project tasks, the project schedule, and the fee proposal. The City will provide the format for invoices. Projected invoices, with progress and status reports will be delivered to the City's Project Manager no later than

the 25<sup>th</sup> day of the month. The invoices will be consistent with the project tasks, project schedule, fee proposal, and projected billings. The invoice will identify the contract number and include the amount of each work task and man-hour level of effort and consultant service identified in the approved fee proposal. The percent complete shall be determined the project schedule, tasks, and fee proposal per tasks. The total invoice submitted shall be less than or equal to the report that details the task percent complete with the associated cost. The invoice will show the amounts previously billed, the amount due for the current period, the project balance and the percent complete per tasks.

The Consultant shall submit one hard copy invoice to the City Project Manager, City of Glendale Engineering Department, 5850 West Glendale Avenue, Glendale, Arizona 85301.

- **Cash Flow:** The cash flow schedule will provide information to the City regarding future funds needed to complete the project. It is the responsibility of the Consultant to submit the project life cycle cash flow spreadsheet on a quarterly basis. Non-response to this requirement could delay payments to the Consultant. The Consultant will have life cycle design and construction administration responsibility for the project.

The Consultant will collect or estimate the cash flow information from all the parties involved in the project (e.g., design consultants, engineers, construction contractors, etc.) and will combine this information using the Excel four (4) page workbook provided to the Consultant by the city. The Consultant will need to obtain the cash flow information from the Contractor and coordinate this information into the overall cash flow information. The Consultant will complete the applicable four (4)-page worksheet and send it electronically to Gloria Olaya ([golaya@glendaleaz.com](mailto:golaya@glendaleaz.com)) with the Engineering Department. To request an electronic form, address requests to the above. To request by telephone, call 623-930-3630.

#### B. Study Services Include:

##### **Task Group 100 – Project Management**

- General Management and Administration

The Consultant will provide general coordination of the project with the City staff including Water Services, Engineering, Plant Operations and other departments as necessary to facilitate the project.

Consultant will develop the Phase I project schedule, and perform other administrative functions including, maintaining project data files, tracking project progress and invoicing throughout Phase I.

Phase I project management documentation consist of monthly progress reports and schedule updates. The monthly project reports will summarize the work progress, project issues, and project schedule status. Consultant will also submit quarterly cash flow schedule and quarterly updates regarding future funds needed to complete the project.

- Conduct Project Kickoff Meeting and Monthly Progress Meetings

At the project kickoff meeting Consultant will present the preliminary schedule and the initial assessment planning. The meeting will include Consultant, and City Water Services and Engineering staff and is intended to develop a common understanding of the background, issues affecting the plant's operations, Phase I evaluation project goals and objectives, lines of communication, and issues that may affect Phase I execution. The Phase I scope will be discussed along with coordination with City operations to facilitate the assessments and bench scale testing. Kickoff meeting topics will include the following:

- Confirmation of existing data and information
- Confirmation of project components
- Coordination with ongoing work by the City at the PPWTP
- Short and long term needs
- Budget constraints

For the Phase I progress meetings, the Consultant will prepare meeting documentation and conduct meetings to discuss the progress, direction and technical aspects of the project. Project documentation will consist of preparing and distributing meeting agendas and minutes. Meeting minutes will summarize key discussions, comments, decisions, and any action items

required. Four other progress project meetings are anticipated. Other Workshops are anticipated as part of the work scope tasks. Consultant will provide draft meeting minutes to the City for review and final minutes incorporating comments from the City on the draft minutes, as required.

Deliverables:

- o Project Schedule
- o Meeting Agenda and Minutes, with Action Items
- o Monthly Progress Reports and Schedule Updates
- o Document and Data Request Log
- o Action Items and Decision Log
- o Quarterly cash flow projections

**Task Group 200 – Assessment of Existing Facilities**

The following equipment and systems will be assessed relative to capacity and needs based on results from Task 300 Process Evaluations.

- A. Coagulant feed system – Assess chemical storage capacity and feed range available.
- B. Sodium hydroxide system – Assess chemical storage capacity and feed range available.
- C. Hydrofluorosilicic acid system – Assess chemical storage capacity and feed range available.
- D. On-line analytical equipment – Assess implementation requirements to install additional field on-line analytical equipment if recommended in Task 305.
- E. Sludge handling system – Assess capacity relative to requirements as determined by Task 300 evaluations.

• Review Available Documentation

The City will provide and the Consultant will review the following information:

As-Built drawings for all construction phases

Past hydraulic studies (by others)

Previous recent treatment evaluations and WTP equipment evaluations (by others)

WTP operational records including:

- o Digital (Excel or other database) raw water turbidity, settled water turbidity, filter run times, filter turbidity, filter performance data, chemical feed rates, WTP flows (past 5 years)
- o Backwash SOP, sedimentation basin SOP, sludge lagoon SOP

• Site Investigations and Evaluations

A site investigation will be completed to review those systems identified in Task Group 200 and compare actual installed conditions with as-built documents. Visual observations of the equipment and systems included in Task Group 200 will be documented using digital photography, where feasible, while maintaining WTP operations. This task is for the purpose of completing the system evaluations and does not include making modifications to the City's as-builts. It is anticipated the site investigation will require 4-6 hours on-site.

Based on results from the reviews, site investigations and Task Group 300 process evaluations, Consultant will complete equipment needs assessments. Preliminary results from the needs assessment will be presented at a regularly scheduled project progress meeting and comments from the City regarding the findings will be documented.

**Task Group 300 – Process Evaluations**

Process evaluations include the following.

- Challenging Water Quality Identification

Consultant will summarize past water quality and treatment data reviewed in Task 201 and identify potential challenging water quality ranges. The Consultant will summarize the raw water quality ranges for the upper end challenging water quality for City review, and present ranges at a progress meeting to gather input and develop consensus for the ranges.

- Unit Process Performance Objectives

For the agreed upon raw water quality ranges, production quantities and performance objectives will be developed for each of the critical unit processes responsible for reliable treatment. These challenging water quality performance objectives will include operating conditions, chemical usages, and effluent water quality from the unit processes. A two hour workshop will be held with City Engineering and Plant Operations staff to present and discuss these performance objectives to ensure that the performance objectives are realistic. The workshop will include a PowerPoint presentation summarizing suggested performance objectives. The agreed upon performance objectives will be used as the guiding criteria to define PPWTP production quantity and quality requirements during challenging raw water quality events.

- Evaluate City's Coagulant Testing Results

Ferric chloride is currently used as the primary coagulant at the PPWTP. The City is currently conducting bench scale testing evaluating aluminum sulfate as the primary coagulant, including assessing dosage requirements, settled water quality and impacts to filter run times. The Consultant will review the City's bench scale results. The Consultant will also assess impacts to the sludge handling system for the selected primary coagulant's dosage. Consultant will provide comments to the City based on the review and the sludge handling system assessment.

- Challenging Water Bench Scale Testing

Consultant will collect samples of organic colloidal laden water from near the release structure of Lower Lake Pleasant and conduct a series of jar tests using various mixes of this water and water from the PPWTP intake. The Consultant will select the water quality blends to simulate the challenging water quality ranges. For example the blends of water subjected to jar tests may include; 1) 75%/25% blend of CAP water and Lower Lake Pleasant Water, 2) 50%/50% blend, 3) 25%/75% blend, and 4) 100% Lower Lake Pleasant water. Each blend of water will be subjected to a series of jar tests to determine the optimum coagulant dose/coagulant aid dose with and without pH adjustment to produce the lowest settled water turbidity. The coagulant tested will be the one selected in Task 303. It is assumed that the bench-scale testing will not exceed more than a total of 16 sets of bench scale tests, and the City will provide treatment chemicals and allow Consultant to use the City's bench testing equipment and operator's laboratory analytical equipment for the bench scale testing. City will perform additional analytical tests if desired (TOC, THMFP, etc.) and pay for tests if outside laboratory services are required.

Based on the results of the jar testing effort described above, Consultant will have a workshop with the City in order to present the jar testing findings and gather comments from the City. The outcome of this workshop will serve as the foundation for recommended strategy guidelines for chemical pretreatment prior to filtration for challenging raw water scenarios. In addition the outcome will identify chemical usage ranges which will be used to assess the systems in Task 202.

- Instrumentation and Data Utilization to Facilitate Early Response

Consultant will review existing on-line real-time instrumentation and current data utilization practices at the WTP. Consultant will also evaluate the need for additional on-line real-time analytical devices that WTP Operators could use to identify early in the WTP process when water quality changes have occurred. The Consultant will identify and evaluate up to three different on-line real-time analytical devices and the best locations in the WTP for the on-line device sampling. These reviews will help identify if there are opportunities for improvements in the operational strategies including implementing proactive changes to the treatment regime based on changes in raw, coagulated or settled water conditions.

- Develop Standard Operating Procedures

This task will combine the outcome of the efforts described in Tasks 301 and 305 above into developing Standard Operating Procedures (SOP) for anticipated challenging raw water quality and production quantity conditions. These SOPs will include chemical dosing schemes, protocol for testing / verifying the chemical dosing scheme, raw water quality monitoring, and the utilization of available and potential treatment, monitoring and control infrastructure to handle treatment of challenging waters.

- TM 1 - Process Evaluations and Treatment Improvements Technical Memorandum

Technical Memorandum 1 will be prepared describing the bench testing completed, recommended on-line real-time monitoring and SOPs with guidelines for improved identification and assessing best treatment for challenging water treatment guidelines will be completed. It is anticipated the guidelines will be in spreadsheet and /or graphic format to allow operators easy access to the information for informed decisions. Ten hard copies of the Draft Technical Memorandum 1 will be provided to the City for review. The City will provide comments on the Technical Memorandum 1. The Consultant will incorporate comments and subsequently issue the Final Technical Memorandum 1 electronically along with ten hard copies within 10 business days after receiving all of the City's comments.

- Quagga Control Technology Evaluation and Recommendations

Consultant will review and evaluate available technologies for quagga mussel control applicable to the PPWTP. Technologies will be rated based on effectiveness, water quality impacts and benefits, ease of operation, and relative capital and O&M costs.

Consultant will prepare Technical Memorandum 2 summarizing the review, evaluation and providing recommendations for implementation. Ten copies of the Draft Technical Memorandum 2 will be provided to the City for review. The City will provide comments on the Technical Memorandum 2. The Consultant will incorporate comments and subsequently issue the Final Technical Memorandum 2 electronically along with ten hard copies within 10 business days after receiving all of the City's comments.

*Deliverables:*

- Technical Memorandum 1 Process Evaluations and Treatment Improvements
- Technical Memorandum 2 Quagga Control Technology
- Standard Operating Procedures for Challenging Raw Water Quality / Production

#### **Task Group 600 - 10 mgd WTP Expansion Planning**

- Expansion Requirements Planning

Based on the results of evaluations performed as part of the Pyramid Peak Water Treatment Plant (PPWTP) Improvements Study, the Consultant and Cities of Peoria and Glendale will meet at a 2 hour workshop and agree on the current reliable WTP treatment capacity. Following this meeting, the Consultant will develop a conceptual plan to expand the PPWTP by 10 mgd. The plan will include a site plan, and conceptual requirements for additional treatment basins, residuals handling, and additional chemical feed and storage facilities if required. It is assumed reservoir expansion is not required. Detailed hydraulic, electrical, and I&C evaluations can be included in an Allowance task. A listing of anticipated expansion facilities will be prepared along with a general site plan showing the major expansion components.

- Present Findings and Gather Comments

Consultant will conduct a two hour workshop with the Cities of Glendale and Peoria in order to present the evaluation findings and gather comments. The workshop will include a PowerPoint presentation.

- Develop Planning Level Budgetary Costs

Consultant will prepare a planning level budgetary cost estimate to AACEI Class 5 (Low: -20% to -50% and High: +30% to +100%) for the planned expansion facility.

- WTP Expansion Planning Technical Memorandum

Technical Memorandum 3 - WTP Expansion Planning will be prepared using the results from Tasks 601 through 603. Technical Memorandum 3 Expansion Planning will include a listing of anticipated expansion facilities along with a general site plan showing the major expansion components. Five copies of the Draft Technical Memorandum 3 WTP Expansion Planning will be provided for review. Consultant will incorporate comments received from the Cities of Glendale and Peoria and subsequently issue the Final Technical Memorandum 3 WTP Expansion Planning electronically along with five hard copies within 10 business days after receiving all comments.

*Task Group 600 Deliverables:*

- Technical Memorandum 3 WTP Expansion Planning

C. Design development phase may include:

- Prepare the design development documents, after the City approves the schematic design studies and construction cost estimate. These documents will consist of preliminary plans, elevations, other drawings, and specifications to fix and illustrate the size and character of the entire Project including the kinds of materials; type of structure; mechanical, electrical, computer and telecommunications systems; and such other work as may be appropriate.
- Design the Project so that the construction shall conform to applicable statutes and regulations.
- Prepare and furnish the City one perspective sketch of the concept of the completed Project. The Consultant shall select and obtain approval of the view for best depiction. The sketch shall be delivered to the City with the design development drawings and become the property of the City.
- In conjunction with the Project Manager (and the CMAR,) the Consultant shall hold a plan coordination meeting with the sub consultants to review and address coordination and integration of the plans provided by the various disciplines.
- After completion of the design development phase, the Consultant shall deliver a required amount of sets of the drawings/plans, specifications and the detailed Project cost estimates. The Consultant shall also provide this information in an electronic format. The Consultant shall present all documents to the City for review, comment, and approval. The Consultant and CMAR, if selected, shall reconcile any disagreements on the estimate to arrive at an agreed cost. If no consensus is reached, the City will make the final determination. If requested by the City, the Consultant shall present them to the City Council.
- The design development phase will be considered complete once the City has approved the submitted design drawings/plans, agrees that the construction cost estimate is within the established Project budget, and agrees that the Consultant is meeting the submittal dates for the required city documents as identified in the Schematic Design Phase schedule.

D. Construction document phase may include:

- After the City has approved the design development documents and construction cost estimate, the Consultant shall prepare final, permit-ready construction drawings, plans, and specifications.
- Preparing drawings using computer programs and formats as dictated by the City of Glendale Engineering Department. The Consultant shall make no changes, deletions, or additions to these sections without approval by the City before inclusion in the final specifications. Final bid specifications shall be prepared as dictated by the City of Glendale Engineering Department.
- During the preparation of construction documents, the Consultant shall inform the City in writing of any adjustments to previous construction cost estimates indicated by changes in scope, requirements, or market conditions.
- Complying with all applicable federal, state, and local laws and codes in effect at the time the drawings, plans and specifications are approved by the City. The Consultant shall notify the City of any code changes that will impact this Project.
- In conjunction with the Project Manager and the CMAR, if selected, the Consultant shall hold a plan coordination meeting with the sub consultants to review and address coordination and integration of the plans provided by the various disciplines.

- Upon completion of construction plans, specifications and contract documents, the Consultant shall provide a specified number of sets of all design calculations, including structural, mechanical, electrical and plumbing, and a specified number of complete sets each of construction drawings, plans specifications and contract documents for review and approval by the appropriate City agencies. If applicable the Consultant shall include shop drawings or other design calculations provided by the CMAR in the Consultants submittal sets. These documents must be sealed and signed by the appropriate responsible party.
- With the submission of the construction plans, specifications and contract documents, the Consultant shall submit a specified amount of copies of a detailed Project cost estimate that follows the Construction Specification Institute divisions. The Consultant and CMAR shall reconcile any disagreements on the estimate to arrive at an agreed cost. If no consensus is reached, the City will make the final determination
- Coordinating the building permit process and assist in filing the required documents to secure approval of all governmental authorities having jurisdiction over the design of the Project. All original filing and approval fees shall be paid by the City or reimbursed to the Consultant if paid by the Consultant. The Consultant shall ensure that the plans prepared by the utility companies have been incorporated into the final plans set.
- Incorporating all corrections received from the reviewing entities into the final bid set of contract documents. If required, the Consultant shall resubmit the revised plans to the Planning Department for approval. Additionally, if required by the Project Manager, the Consultant shall submit a revised cost estimate reflecting the modifications made for this final submittal.
- After completion of the proposed construction documents and review by City staff and the CMAR, if selected, the Consultant shall, if requested by the City, present all documents to City management or Council for approval.
- Upon approval by the Council and/or the City of complete drawings, plans, and specifications, the Consultant shall deliver to the City the final reproducible drawings and specifications. These documents shall be sealed and signed by the appropriate responsible party.
- The Construction Documents Phase will be considered complete when the City has approved the final submitted plans and specifications, agrees that the cost estimate is within the established Project budget, and agrees that the plans are permit-ready.

E. Bid phase may include:

- If requested by the City, the Consultant will provide bid document packages for various subcontractor trades in a format approved by the City.
- Attending and preparing meeting minutes for the pre-bid conference, any other related meetings, and preparing all necessary addenda related to documents originated by the Consultant.
- Responding to questions regarding the plans and specifications. Consultant shall receive, review and make recommendations regarding requests for substitutions, and incorporate these substitution requests into the addenda as required.
- The Bid Phase will be considered complete when the City has accepted the Project construction bid and final construction documents have been received on electronic media.
- If requested by the City, the Consultant will evaluate the submitted bids and provide a recommendation letter.

F. Construction Services may include: Upon acceptance of the contract award for the construction of this project, the Consultant shall provide construction administration services. The services shall include, but are not necessarily limited to, the following:

1. **Preconstruction Conference:** Conduct a preconstruction conference with the Contractor, the City and other interested parties prior to issuance of the Notice to Proceed. The Consultant will be required to notify all interested parties and affected utilities of the date and time of the preconstruction conference to be held at City Hall. In addition to conducting the meeting, the Consultant will take minutes and issue them to all attendees.
2. **Quality Acceptance:** The Consultant shall provide quality acceptance services to perform inspection and acceptance testing for all items of work required by the contract documents. The Consultant shall monitor construction for compliance with the project plans and specifications.

The Consultant shall provide an on-site representative to observe both off-site and on-site activities. The on-site representative shall be available for a minimum of 30 percent of the contract construction period. The on-site representative shall visit the project site during the course of critical construction activities, but not less than two times per week, depending on the status of work per the Contractor's construction schedule.

The Consultant shall bring any deficiencies in the work or materials to the attention of the City and Contractor. Reports of these deficiencies shall be forwarded to the City Project Manager for review. The Consultant will resolve any construction-related problems, conflicts or discrepancies, and will recommend remedial actions, but shall take no action without the prior approval of the City Project Manager.

The on-site representative shall be a full-time employee, shall have a minimum of five years experience in the architectural, engineering and/or construction profession, and shall have had prior quality acceptance experience on a project of comparable size and scope.

The qualifications of the on-site representative shall include at least one of the following requirements:

- ◆ Professional architect/engineer licensed by the State of Arizona, with two years of building construction experience acceptable to the City Engineer.
- ◆ An individual with five years of building construction experience acceptable to the City Engineer, with a Bachelor of Science Degree in Architecture, Engineering or Construction.
- ◆ An individual with seven years of building construction management experience acceptable to the City Engineer.

The Consultant shall assist the Contractor in establishing a Contractor Quality Control Program to ensure conformance to applicable specifications and plans with respect to materials, workmanship, construction, finish, and functional performance. The Quality Control Program shall be effective for control of all construction work performed under the Contract and shall establish an effective level of quality control.

The Consultant shall identify and coordinate with the Contractor all required acceptance material tests require by the City, project specifications and consistent with MAG and the UBC. The contractor shall schedule and coordinate all required tests and provide all necessary source sampling and factory acceptance tests, results and inspection information to the Consultant for review and comment. It shall be the Consultant's responsibility to provide any additional control assurance tests necessary to verify Contractor's compliance with the project plans and specifications.

3. **Construction Schedule Review:** The Consultant shall review the construction schedule with particular emphasis on assuring that reasonable time allowances have been made for the work required. The Consultant shall observe construction progress and maintain and issue a monthly construction observation report.

The Consultant will prepare a "Contractor Schedule Review" statement and submit it to the City Project Manager. All updated schedules must be reviewed and approved prior to issuance of monthly progress payments to the Contractor. The Consultant shall initiate any required correspondence necessary to assure the Contractor remains on schedule.

4. **Schedule Review and Utility Coordination:** The Consultant shall review the Contractor's schedule with particular emphasis on insuring that reasonable time allowances have been made for work required by the various utility companies, prior to approval.

The Consultant will assist in the resolution of any utility conflicts discovered. The consultant shall initiate any required correspondence to insure that the Contractor remains on schedule.

5. Coordination of Submittal Reviews: The Consultant shall review the contract documents, prepare a list of all required submittals, and provide the schedule to the Contractor. The Consultant shall maintain a submittal log and coordinate all reviews and any necessary resubmittals.
6. Shop Drawing Review: The Consultant shall review and approve all shop drawings. The Consultant will advise the Contractor before the commencement of any work requiring a shop drawing or sample submission if the submission has not been accepted by Consultant.
7. Conduct Project Meetings: The Consultant shall conduct construction project meetings, prepare an agenda and minutes of the meeting, and distribute to all attendees.
8. Special Inspections: The Consultant shall coordinate with the contractor all special installation inspections. In addition to the special inspections required by the City's Building Safety Department, the special inspections shall include roofing and structural inspections. Special inspections shall be performed during installation by a qualified professional, certified or registered by the State of Arizona.
9. Landscape Inspections: A qualified Landscape Architect shall inspect and approve plant material at the source, inspect the soil preparation and planting, inspect and test the irrigation and sprinkler system, and monitor the landscape during the plant establishment and guarantee period. The Landscape Architect will coordinate the activities required.
10. Value Engineering: Review and make recommendations on any value engineering proposals, which the Contractor may submit during the project. No value engineering proposal shall be implemented without the prior approval of the City Engineer.
11. Control Points: The Consultant will establish and furnish to the Contractor all necessary baselines and control points which will be used as datum for the work. The actual construction staking will be the Contractor's responsibility.
12. Payments: Review the Contractor's initial and updated schedule of estimated monthly payments and advise the City as to acceptability. Review and process the Contractor's monthly payment requests, and forward to the City for final approval and processing. The Consultant's review shall be for the purpose of making an independent opinion of work completed and mathematical check of the Contractor's payment request. Consultant is responsible for verifying the quantities of work which are the basis of the payment requests. The final monthly pay requests will be approved and processed by the City.
13. Requests for Information: Interpret construction contract documents and respond when requested by the City or Contractor.
14. Change Order Requests: The Consultant shall review and make recommendations on all change order requests from the Contractor. Provide documentation and administer the processing of change orders, including applications for extension of construction time. Evaluate the cost and scheduling aspects of all change orders and, where necessary, negotiate with the Contractor to obtain a fair price for the work. No change order shall be implemented without the prior approval of the City. If requested by the City, the Consultant shall prepare all necessary documents and submittals for City Council approval.
15. Materials Testing: Materials testing will be the responsibility of the contractor. However, the Consultant shall evaluate and report on tests and test analyses for materials, including concrete, pipe, soil, soil compaction, asphalt, and any other subjects that may be required by the specifications and good construction practices.
16. Substantial Completion: Upon substantial completion, inspect the construction work and prepare a punch-list of those items to be completed or corrected before final completion of the project. Submit results of the inspection to the City and the Contractor.
17. Final Inspection and Payment: The Consultant will maintain a running deficiency list during the course of the project and keep the Contractor informed as to its current status. The Consultant will conduct, with the assistance of the City, a final inspection and

prepare a final punch list, including all items remaining on the deficiency list, as well as any additional items discovered during the final inspection. Subsequent inspections should be anticipated in order to insure completion of all identified deficient items.

18. Project Closeout: The Consultant will compile a list of required final submittals, including, but not necessarily limited to: record drawings, warranty and guarantee documents, lien waivers, product manuals, maintenance and operation manuals, and any spare parts and training required to be provided by the Contractor. The Consultant shall review the project closeout documents for final approval.
  - As-Built Drawings: The Consultant shall prepare record as-built drawings of the completed work based upon markups from the Contractor's record drawings and deliver the drawings to the City upon completion of the work. The Consultant will provide one set of record drawings inked on 24"x36", 3 mil. double matte Mylar. The final record drawing Mylars will be the property of the City and shall include the sealed and signature of the architect/engineer of record.
  - Also, submit the final record drawings on computer disk in the appropriate format of ACAD (version 2002 preferred).
19. Startup Assistance: The Consultant will assist the City during startup of the facilities by answering operational questions related to the facility. The Consultant will analyze data from performance testing of equipment by the Contractor or supplier when the construction contract documents require the equipment to be tested after installation. The Consultant will submit the conclusions to the City and Contractor.
20. One-Year Warranty Inspection: The Consultant will conduct, with the assistance of the City, a one-year warranty inspection. The Consultant will prepare a punch list of deficient items discovered during the one-year inspection. The Consultant should anticipate subsequent inspections in order to insure completion of any identified deficient items discovered during the one-year inspection.

**EXHIBIT C**  
**Professional Services Agreement**

SCHEDULE

(Cover Page)

**EXHIBIT C  
STUDY AND DESIGN SERVICES  
PYRAMID PEAK WTP IMPROVEMENTS  
Phase 1 Schedule**

ID	Task Name	Duration	Start	Finish	Mar	Apr	May	Jun	Jul	Aug	Sep																				
1	Notice to Proceed	0 days	Mon 3/10/14	Mon 3/10/14	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27	5/4	5/11	5/18	5/25	6/1	6/8	6/15	6/22	6/29	7/6	7/13	7/20	7/27	8/3	8/10	8/17	8/24	8/31
2	100 Project Administration	125 days	Mon 3/10/14	Fri 8/29/14																											
3	200 Assessment of Existing Facilities	30 days	Mon 3/10/14	Fri 4/18/14																											
4	300 Process Evaluations	100 days	Mon 4/7/14	Fri 8/22/14																											
5	600 10 MGD Expansion	85 days	Mon 5/5/14	Fri 8/29/14																											

**EXHIBIT D**  
**Professional Services Agreement**

**COMPENSATION**

**METHOD AND AMOUNT OF COMPENSATION**

Compensation shall be hourly rates plus allowable reimbursable expenses

**NOT-TO-EXCEED AMOUNT**

The total amount of compensation paid to Consultant for full completion of all work required by the Project during the entire term of the Project must not exceed \$174,960.

**DETAILED PROJECT COMPENSATION**

See Attached.

**EXHIBIT D**  
**Professional Services Agreement**  
**STUDY AND DESIGN SERVICES**  
**PYRAMID PEAK WATER TREATMENT PLANT IMPROVEMENTS**  
**COMPENSATION**

**METHOD AND AMOUNT OF COMPENSATION**

Compensation shall be hourly rates plus allowable reimbursable expenses.

**NOT-TO-EXCEED AMOUNT**

The total amount of compensation paid to Black & Veatch Corporation, for full completion of all work required by the Project during the entire term of the Project must not exceed \$174,960.00.

**DETAILED PROJECT COMPENSATION**

Project Name Design and Construction Fee Schedule	
TASK	COST
<b>100 PROJECT MANAGEMENT</b>	
General Management & Administration	\$9,990
Kick-off & Monthly Progress Meetings	\$16,390
<b>200 ASSESSMENT OF EXISTING FACILITIES</b>	
Review Available Documentation	\$9,120
Site Investigations & Evaluations	\$14,260
<b>300 PROCESS EVALUATIONS</b>	
Challenging Water Quality Identification	\$12,440
Unit Process Performance Objectives	\$6,790
Evaluation of City's Coagulant Testing Results	\$3,620
Challenging Water Bench Scale Testing	\$14,340
Instrumentation and Data Utilization to Facilitate Early Response	\$15,610
Develop Standard Operating Procedures	\$14,510
Process Evaluations & Treatment Improvement Tech Memo (TM 1)	\$15,600
Quagga Control Technology Evaluation & Recommendations (TM 2)	\$12,030
<b>400 10 MGD WTP EXPANSION</b>	
Expansion Requirements Planning	\$12,880
Findings Presentation	\$2,520
Develop Planning Level Budgetary Costs	\$9,240
WTP Expansion Planning Technical Memorandum (TM 3)	\$4,720
Consultant's Reimbursable Expenses	\$900
<b>TOTAL PROJECT COST:</b>	<b>\$174,960</b>

**EXHIBIT E**  
**Professional Services Agreement**

DISPUTE RESOLUTION

**1. Disputes.**

- 1.1 Commitment. The parties commit to resolving all disputes promptly, equitably, and in a good-faith, cost-effective manner.
- 1.2 Application. The provisions of this Exhibit will be used by the parties to resolve all controversies, claims, or disputes ("Dispute") arising out of or related to this Agreement-including Disputes regarding any alleged breaches of this Agreement.
- 1.3 Initiation. A party may initiate a Dispute by delivery of written notice of the Dispute, including the specifics of the Dispute, to the Representative of the other party as required in this Agreement.
- 1.4 Informal Resolution. When a Dispute notice is given, the parties will designate a member of their senior management who will be authorized to expeditiously resolve the Dispute.
- a. The parties will provide each other with reasonable access during normal business hours to any and all non-privileged records, information and data pertaining to any Dispute in order to assist in resolving the Dispute as expeditiously and cost effectively as possible;
  - b. The parties' senior managers will meet within 10 business days to discuss and attempt to resolve the Dispute promptly, equitably, and in a good faith manner, and
  - c. The Senior Managers will agree to subsequent meetings if both parties agree that further meetings are necessary to reach a resolution of the Dispute.

**2. Arbitration.**

- 2.1 Rules. If the parties are unable to resolve the Dispute by negotiation within 30 days from the Dispute notice, and unless otherwise informal discussions are extended by the mutual agreement, the Dispute will be decided by binding arbitration in accordance with Construction Industry Rules of the AAA, as amended herein. Although the arbitration will be conducted in accordance with AAA Rules, it will not be administered by the AAA, but will be heard independently.
- a. The parties will exercise best efforts to select an arbitrator within five business days after agreement for arbitration. If the parties have not agreed upon an arbitrator within this period, the parties will submit the selection of the arbitrator to one of the principals of the mediation firm of Scott & Skelly, LLC, who will then select the arbitrator. The parties will equally share the fees and costs incurred in the selection of the arbitrator.
  - b. The arbitrator selected must be an attorney with at least 15 years' experience with commercial construction legal matters in Maricopa County, Arizona, be independent, impartial, and not have engaged in any business for or adverse to either Party for at least 10 years.
- 2.2 Discovery. The extent and the time set for discovery will be as determined by the arbitrator. Each Party must, however, within 10 days of selection of an arbitrator deliver to the other Party copies of all documents in the delivering party's possession that are relevant to the dispute.

- 2.3 Hearing. The arbitration hearing will be held within 90 days of the appointment of the arbitrator. The arbitration hearing, all proceedings, and all discovery will be conducted in Glendale, Arizona unless otherwise agreed by the parties or required as a result of witness location. Telephonic hearings and other reasonable arrangements may be used to minimize costs.
- 2.4 Award. At the arbitration hearing, each Party will submit its position to the arbitrator, evidence to support that position, and the exact award sought in this matter with specificity. The arbitrator must select the award sought by one of the parties as the final judgment and may not independently alter or modify the awards sought by the parties, fashion any remedy, or make any equitable order. The arbitrator has no authority to consider or award punitive damages.
- 2.5 Final Decision. The Arbitrator's decision should be rendered within 15 days after the arbitration hearing is concluded. This decision will be final and binding on the Parties.
- 2.6 Costs. The prevailing party may enter the arbitration in any court having jurisdiction in order to convert it to a judgment. The non-prevailing party will pay all of the prevailing party's arbitration costs and expenses, including reasonable attorney's fees and costs.

3. **Services to Continue Pending Dispute.** Unless otherwise agreed to in writing, Consultant must continue to perform and maintain progress of required Services during any Dispute resolution or arbitration proceedings, and City will continue to make payment to Consultant in accordance with this Agreement.

4. **Exceptions.**

- 4.1 Third Party Claims. City and Consultant are not required to arbitrate any third-party claim, cross-claim, counter claim, or other claim or defense of a third party who is not obligated by contract to arbitrate disputes with City and Consultant.
- 4.2 Liens. City or Consultant may commence and prosecute a civil action to contest a lien or stop notice, or enforce any lien or stop notice, but only to the extent the lien or stop notice the Party seeks to enforce is enforceable under Arizona Law, including, without limitation, an action under A.R.S. § 33-420, without the necessity of initiating or exhausting the procedures of this Exhibit.
- 4.3 Governmental Actions. This Exhibit does not apply to, and must not be construed to require arbitration of, any claims, actions or other process filed or issued by City of Glendale Building Safety Department or any other agency of City acting in its governmental permitting or other regulatory capacity.