



EXHIBIT "A"



AGREEMENT FOR PROFESSIONAL SERVICES

PROJECT NAME: **WATER SYSTEM CAPITAL IMPROVEMENT PLAN- PHASE 1**

TNP PROJECT NUMBER: **KEL**

CLIENT: **City of Keller**

ADDRESS: **1100 Bear Creek Parkway
Keller, Texas 76244**

City of Keller (Client) hereby requests and authorizes Teague Nall and Perkins, Inc., (Consultant) to perform the following services:

Article I

SCOPE OF BASIC SERVICES:

Consultant shall provide survey, design, bidding, construction management and construction inspection services for the improvements associated with Phase 1 of City of Keller's Water System Capital Improvement Plan. The project involves approximately 21,040 LF of water line replacements ranging in size from 8" to 12". The purpose of the project is addressing water loss within the City of Keller's water distribution system. A graphical depiction of the approximate location and limits of the water line replacements is shown depicted on Exhibit 'A'. The following is a summary of the projects associated with this scope of services:

- Project 2 - Mount Gilead Road (West) – 2,950 LF of 8" water line
- Project 3 – Mount Gilead Road (East) – 1,090 LF of 8" water line
- Project 4 – Bourland Drive (North) – 1,090 LF of 8" water line
- Project 20 – Johnson Road – 7,230 LF of 8" and 12" water line
- Project 34 – Shady Lane – 2,660 LF of 8" water line
- Project 35 – Keller Smithfield Road (South) – 2,840 LF of 8" water line
- Project 38 – Bandit Trail – 3,180 LF of 8" water line
- Project 40 – Water Service Replacements

A detailed scope of services is included as Attachment 'A' and is made a part hereto.

Article II

COMPENSATION:

Reimbursement shall be per the Engineer's standard rate schedule which calculates labor rates using a multiplier of 3.35 times the raw labor cost for individual personnel. The raw labor cost is defined as the hourly pay rate for non-exempt staff and the annual salary of exempt staff converted to an hourly rate by dividing annual salary by 2080 hours per year. The raw labor rate does not include any fringe benefit costs, overtime premium pay or incentive pay. Overtime premium pay, which by law TNP is required to pay to non-exempt staff for hours worked above 40 hours per week, will not be billed to the Client. Crew rates for survey and SUE services are set rates that include equipment, vehicles, and supplies (where applicable) and are not determined using the raw labor multiplier described above. Compensation to be on a basis of the following:

1. **BASIC SERVICES:** The Client agrees to pay the Consultant as follows:
 - a. Services associated with Tasks 1, 2 and 3 (preparing the construction plans and documents for the water line improvements) shall be performed on a time and expense basis with a not-to-exceed

budget of **\$259,800 (Two Hundred Fifty-Nine Thousand Eight Hundred Dollars)**. This budget is an estimate for the services anticipated but the actual cost for these services may be a lesser or higher amount. However, it is understood that the stated budget amount shall not be exceeded without written authorization from the Client. Reimbursement shall be per the Consultant's standard rate schedule (Attachment 'B').

- b. Services associated with Task 4 (Construction Management) shall be performed on a time and expense basis with a not-to-exceed budget of **\$78,100 (Seventy-Eight Thousand One Hundred Dollars)**. This budget is an estimate for the services anticipated but the actual cost for these services may be a lesser or higher amount. However, it is understood that the stated budget amount shall not be exceeded without written authorization from the Client. Reimbursement shall be per the Consultant's standard rate schedule (Attachment 'B').
- c. Services associated with Task 5 (Construction Inspection) shall be performed on a time and expense basis with a not-to-exceed budget of **\$155,800 (One Hundred Fifty-Five Thousand Eight Hundred Dollars)**. This budget is an estimate for the services anticipated but the actual cost for these services may be a lesser or higher amount. However, it is understood that the stated budget amount shall not be exceeded without written authorization from the Client. Reimbursement shall be per the Consultant's standard rate schedule (Attachment 'B').
- d. Direct expenses associated with this project include printing, plotting, reproduction, postage, courier service, photos and binding charges. The project budget for direct expenses shall be **\$6,100 (Six Thousand One Hundred Dollars)**. Reimbursement shall be per the Consultant's standard rate schedule (Attachment 'B').

2. **SPECIAL SERVICES:** The Client agrees to pay the Consultant as follows:

- a. Services associated with Task 6 (Survey Services) shall be performed on a time and expense basis with a not-to-exceed budget of **\$140,000 (One Hundred Forty Thousand Dollars)**. This budget is an estimate for the services anticipated but the actual cost for these services may be a lesser or higher amount. However, it is understood that the stated budget amount shall not be exceeded without written authorization from the Client. Reimbursement shall be per the Consultant's standard rate schedule (Attachment 'B').
- b. Services associated with Task 7 (Subsurface Utility Engineering) shall be performed on a time and expense basis with a not-to-exceed budget of **\$132,200 (One Hundred Thirty-Two Thousand Two Hundred Dollars)**. This budget is an estimate for the services anticipated but the actual cost for these services may be a lesser or higher amount. However, it is understood that the stated budget amount shall not be exceeded without written authorization from the Client. Reimbursement shall be per the Consultant's standard rate schedule (Attachment 'B').
- c. Services associated with Task 8 (Geotechnical Investigations) shall be performed on a time and expense basis with a not-to-exceed budget of **\$14,900 (Fourteen Thousand Nine Hundred Dollars)**. This budget is an estimate for the services anticipated but the actual cost for these services may be a lesser or higher amount. However, it is understood that the stated budget amount shall not be exceeded without written authorization from the Client. Reimbursement shall be per the Consultant's standard rate schedule (Attachment 'B').
- d. Services associated with Task 9 (Materials Testing) shall be performed on a time and expense basis with a not-to-exceed budget of **\$17,000 (Seventeen Thousand Dollars)**. This budget is an estimate for the services anticipated but the actual cost for these services may be a lesser or higher amount. However, it is understood that the stated budget amount shall not be exceeded without written authorization from the Client. Reimbursement shall be per the Consultant's standard rate schedule (Attachment 'B').

3. **ADDITIONAL SERVICES:** The Client agrees to pay the Consultant as follows:

- a. Services associated with Task 10 (Added CIP Development Tasks) shall be performed on a time and expense basis with a not-to-exceed budget of **\$31,100 (Thirty-One Thousand One Hundred Dollars)**. This budget is an estimate for the services anticipated but the actual cost for these services may be a lesser or higher amount. However, it is understood that the stated budget amount shall not be exceeded without written authorization from the Client. Reimbursement shall be per the Consultant's standard rate schedule (Attachment 'B').
- b. Services incidental to the project but not within the scope of the Basic Services or the Special Services may be added by the City to the Consultant's responsibilities. These services shall be performed on a time and expense basis. The established budget for these services shall be **\$25,000 (Twenty-Five Thousand Dollars)**. No Additional Services shall be performed without the City's written authorization. Reimbursement shall be per the Consultant's standard rate schedule (Attachment 'B').

PAYMENT TERMS: Client shall be billed monthly for services rendered and pay upon receipt of invoice. Delays of transmitting payments to Consultant more than 30 days from invoice date may result in cessation of services until payment is received.

Article III

SCHEDULE: The proposed services shall begin within 5 working days of authorization to proceed. A conceptual project scheduled is included as Attachment 'C'.

It is understood and mutually agreed that the objective of all involved in this project is to produce and provide quality and complete information and deliverables, which requires a considerable amount of coordination and cooperation, as well as adequate time for research, analysis and development. It is also understood that Consultant's ability to perform the scope of service is dependent upon timely receipt of information and data from the Client, as well as other requested materials as may be needed to complete the work. Adjustments in schedule may be required should information or data from the Client become delayed or not provided in a timely manner. It is anticipated that the life of this service agreement will be no more than **Twenty-Six (26) months** after receiving the authorization to proceed. If necessary and mutually agreed in writing by both parties, the duration of the contract can be extended.

Article IV

Key Project Personnel: The Consultant has committed key project personnel to the project as identified in Attachment 'D'. Consultant agrees to make these personnel available for the project as needed to accomplish the scope set forth herein. If a key project member becomes physically unable to perform on Client's project as a result of illness, injury, death, leave, departure from the firm, or any other reason, a qualified substitute shall be communicated to the Client for review and approval.

Article V

SUPPLEMENTAL PROVISIONS: The attached supplemental provisions are incorporated and made a part of this agreement.

Please execute and return a signed copy for our files. Receipt of an executed copy of this contract will serve as notice to proceed. No work shall commence on the project until an executed copy of this contract is received by Consultant. By signing below, the signer warrants that he or she is authorized to execute binding contracts for the Client for the services indicated.

Approved by Client:

City of Keller

By: _____
Mark Hafner

Title: City Manager

Date: _____

Accepted by Consultant:

Teague Nall and Perkins, Inc.

By: 

Scott Wilhelm, PE

Title: Principal

Date: November 10, 2017

Supplemental Provisions

1. AUTHORIZATION TO PROCEED

Signing this agreement shall be construed as authorization by CLIENT for TNP, Inc. to proceed with the work, unless otherwise provided for in this agreement.

2. LABOR COSTS

TNP, Inc.'s Labor Costs shall be the amount of salaries paid TNP, Inc.'s employees for work performed on CLIENTS Project plus a stipulated percentage of such salaries to cover all payroll-related taxes, payments, premiums, and benefits.

3. DIRECT EXPENSES

TNP, Inc.'s Direct Expenses shall be those costs incurred on or directly for the CLIENT's Project, including but not limited to necessary transportation costs including mileage at TNP, Inc.'s current rate when its, or its employee's, automobiles are used, meals and lodging, laboratory tests and analyses, computer services, word processing services, telephone, printing and binding charges. Reimbursement for these expenses shall be on the basis of actual charges when furnished by commercial sources and on the basis of usual commercial charges when furnished by TNP, Inc.

4. OUTSIDE SERVICES

When technical or professional services are furnished by an outside source, when approved by CLIENT, an additional amount shall be added to the cost of these services for TNP, Inc.'s administrative costs, as provided herein.

5. OPINION OF PROBABLE COST

In providing opinions of probable cost, the CLIENT understands that TNP, Inc. has no control over costs or the price of labor, equipment, or materials, or over the Contractor's method of pricing, and that the opinions of probable cost provided to CLIENT are to be made on the basis of the design professional's qualifications and experience. TNP, Inc. makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual costs.

6. PROFESSIONAL STANDARDS

TNP, Inc. shall be responsible, to the level of competency presently maintained by other practicing professional engineers in the same type of work in the State of Texas, for the professional and technical soundness, accuracy, and adequacy of all design, drawings, specifications, and other work and materials furnished under this Authorization. TNP, Inc. makes no other warranty, expressed or implied.

7. TERMINATION

Either CLIENT or TNP, Inc. may terminate this authorization by giving 10 days written notice to the other party. In such event CLIENT shall forthwith pay TNP, Inc. in full for all work previously authorized and performed prior to effective date of termination. If no notice of termination is given, relationships and obligations created by this Authorization shall be terminated upon completion of all applicable requirements of this Authorization.

8. MEDIATION

In an effort to resolve any conflicts that arise during the design or construction of the project or following the completion of the project, the CLIENT and the ENGINEER agree that all disputes between them arising out of or relating to this Agreement shall be submitted to nonbonding mediation unless the parties mutually agree otherwise.

The CLIENT and the ENGINEER further agree to include a similar mediation provision in all agreements with independent contractors and consultants retained for the project and to require all independent contractors and consultants retained also to include a similar mediation provision in all agreements with subcontractors, subconsultants, suppliers or fabricators so retained, thereby providing for mediation as the primary method for dispute resolution between the parties to those agreements.

9. LEGAL EXPENSES

In the event legal action is brought by CLIENT or TNP, Inc. against the other to enforce any of the obligations hereunder or arising out of any dispute concerning the terms and conditions hereby created, the losing party shall pay the prevailing party such reasonable amounts for fees, costs and expenses as may be set by the court.

10. PAYMENT TO TNP, INC.

Monthly invoices will be issued by TNP, Inc. for all work performed under the terms of this agreement. Invoices are due and payable on receipt. If payment is not received within 30 days of invoice date, all work on CLIENT's project shall cease and all work products and documents shall be withheld until payment is received by TNP. Time shall be added to the project schedule for any work stoppages resulting from CLIENT's failure to render payment within 30 days of invoice date. Interest at the rate of 1½% per month will be charged on all past-due amounts, unless not permitted by law, in which case, interest will be charged at the highest amount permitted by law.

11. ADDITIONAL SERVICES

Services not specified as Basic Services in Scope and Attachment 'A' will be provided by TNP, Inc. as Additional Services when required. The CLIENT agrees upon execution of this contract that no additional authorization is required. Additional services will be paid for by CLIENT as indicated in Article II, Compensation.

12. SALES TAX

In accordance with the State Sales Tax Codes, certain surveying services are taxable. Applicable sales tax is not included in the fee set forth and will be added on and collected when required by state law. Sales tax at the applicable rate will be indicated on invoice statements.

13. SURVEYING SERVICES

In accordance with the Professional Land Surveying Practices Act of 1989, the CLIENT is informed that any complaints about surveying services may be forwarded to the Texas Board of Professional Land Surveying, 12100 Park 35 Circle, Building A, Suite 156, MC-230, Austin, Texas 78753, (512) 239-5263.

14. LANDSCAPE ARCHITECT SERVICES

The Texas Board of Architectural Examiners has jurisdiction over complaints regarding the professional practices of persons registered as landscape architects in Texas. The CLIENT is informed that any complaints about landscape architecture services be forwarded to the Texas Board of Architectural Examiners, Hobby Building: 333 Guadalupe, Suite 2-350, Austin, Texas 78701, Telephone (512) 305-9000, Fax (512) 305-8900.

15 INVALIDITY CLAUSE

In case any one or more of the provisions contained in this Agreement shall be held illegal, the enforceability of the remaining provisions contained herein shall not be impaired thereby.

16. PROJECT SITE SAFETY

TNP, Inc. has no duty or responsibility for project site safety.

17. CONSTRUCTION MEANS AND METHODS AND JOBSITE SAFETY

Means and methods of construction and jobsite safety are the sole responsibility of the contractor.

ATTACHMENT 'A'
SCOPE OF SERVICES
DESIGN AND CONSTRUCTION SERVICES FOR
WATER SYSTEM CAPITAL IMPROVEMENT PLAN- PHASE 1
CITY OF KELLER

The scope set forth herein defines the work to be performed by the ENGINEER in completing the project. Both the CITY and ENGINEER have attempted to clearly define the work to be performed and address the needs of the Project.

WORK TO BE PERFORMED

The purpose of the project is addressing water loss within the City of Keller's water distribution system. The project involves the investigation, survey, design, bidding, construction management and construction inspection of approximately 21,040 LF of water line replacements ranging in size from 8" to 12". A graphical depiction of the approximate location and limits of the water line replacements is shown depicted on Exhibit 'A'. The following is a summary of the projects associated with this scope of services. The project numbers correspond to the Project designations from the Water System CIP Report prepared by TNP for the City of Keller in 2017.

Project 2 - Mount Gilead Road (West) – 2,950 LF of 8" water line
Project 3 – Mount Gilead Road (East) – 1,090 LF of 8" water line
Project 4 – Bourland Drive (North) – 1,090 LF of 8" water line
Project 20 – Johnson Road – 7,230 LF of 8" and 12" water line
Project 34 – Shady Lane – 2,660 LF of 8" water line
Project 35 – Keller Smithfield Road (South) – 2,840 LF of 8" water line
Project 38 – Bandit Trail – 3,180 LF of 8" water line
Project 39 – N. Main Street – 1,350 LF of 8" water line *
Project 40 – Water Service Replacements

* Design has been performed by another consultant.

The following tasks have been identified for inclusion in this scope of services:

- Task 1. Preliminary Design
- Task 2. Final Design
- Task 3. Bid Phase Services
- Task 4. Construction Management Services
- Task 5. Construction Inspection Services
- Task 6. Survey Services
- Task 7. Subsurface Utility Engineering
- Task 8. Geotechnical Investigations
- Task 9. Materials Testing
- Task 10. Added CIP Development Tasks

TASK 1. PRELIMINARY DESIGN (60% Plans)

Preliminary plans shall be submitted to CITY per the approved Project Schedule.

ENGINEER will develop the preliminary design of the infrastructure as follows.

ENGINEER shall manage the project and,

1.1. Managing the Team

- Lead, manage and direct design team activities
- Ensure quality control is practiced in performance of the work
- Communicate internally among team members
- Task and allocate team resources

1.2. Communications and Reporting

- Attend a pre-design project kickoff meeting with CITY staff to confirm and clarify scope, understand CITY objectives, and ensure economical and functional designs that meet CITY requirements
- Conduct review meetings with the CITY at the end of each design phase.
- Conduct site visits on an as-needed basis for investigations and coordination during the design process.
- Prepare and submit monthly progress reports in the format requested by the CITY.
- Prepare and submit an anticipated Project Schedule. Provide schedule updates as the Project progresses through the design process.
- Coordinate with CITY, franchise utilities, property owners and other agencies and entities for the planning and design of the proposed infrastructure, and provide and obtain information needed to prepare the design.
- Personnel and Vehicle Identification: When conducting site visits to the project location, the ENGINEER or any of its sub-consultants shall carry readily available information identifying the name of the company and the company representative.

1.3. Data Collection

- In addition to data obtained from the CITY, ENGINEER will attempt to identify and research proposed improvements by others that may influence the project.
- The ENGINEER will also identify and seek to obtain data for existing conditions that may impact the project including but not limited to; agencies (AT&T, TxDOT, gas companies, etc.), and property ownership as available from the Tax Assessor's office.
- The ENGINEER shall visit the project site to confirm the existing conditions and elements that may influence the design.

1.4. Water Modeling

- ENGINEER assumes that no water modeling will be associated with this scope of services. Efforts related to performing any water modeling shall be considered an additional service.

1.5. Route Study

- ENGINEER assumes that conceptual routes/limits identified in the Water System CIP Report will serve as the basis for the general alignments and limits of the proposed water line improvements.
- The routes and limits will be refined and adjusted as additional information is collected via the design survey and investigations.
- A formal route study is not part of this scope of services.

1.6. Development of Preliminary Design Drawings and Specifications shall include the following:

- Cover Sheet
- Project Control Sheet with benchmarks and control points.
- General Notes Sheet
- Overall project property sheet(s) with property owner information.
- Overall project water layout sheets. The water layout sheet shall identify the proposed water line improvements, existing water and sewer lines in the vicinity.
- Water Plan and Profile sheets including, but may not be limited to, the following:
 - Proposed water line alignment
 - Pipe size(s)
 - Valves
 - Appurtenances
 - Service connections
 - Pavement repair limits
 - Easement and ROW limits
 - Property ownership information
 - Existing utilities
 - Temporary water lines
 - Coordinates on all P.C.'s, P.T.'s, P.I.'s, valves, mainline fittings, etc., in the same coordinate system as the Control Points
- In general, proposed water lines less than 12" diameter will not be profiled. However, where deemed appropriate, profiles will be provided to help clarify the vertical alignment and relationship to existing utilities and features.
- Water lines 12" and larger will be profiled.

- The ENGINEER shall make provisions for reconnecting all identifiable water service lines which will be impacted by the proposed main, including replacement of existing service lines within City right-of-way or utility easement.
- The ENGINEER will prepare special details for the water line installation and/or replacement that are not already included CITY's standard details. These may include connection details between various parts of the project, tunneling details, boring and jacking details, relocations, details unique to the construction of the project, trenchless details, and special reconnections.

1.7. Constructability Review

- Prior to the 60% review meeting with the CITY, the ENGINEER shall schedule and attend a project site visit with the CITY to walk the project. The ENGINEER shall summarize the CITY's comments from the field visit and submit this information to the CITY in writing.

1.8. Utility Clearance

- The ENGINEER will consult with the applicable CITY's departments and other public utilities, private utilities and government agencies in an attempt to determine the approximate location of above and underground utilities, and other facilities (current and future) that may have an impact or influence on the project. Based on the information obtained, the ENGINEER will design the proposed facilities in a manner that avoids or minimizes conflicts with existing utilities, and where known and possible, consider potential future utilities in designs. Should it become necessary to adjust an existing utility, this work shall be performed by the owner of the utility or it can be added to this scope of services as an Additional Service.
- The ENGINEER will contact utility companies and/or 1-800-DIG-TESS to request locates of all utilities within the project limits. Any locates that are marked by others will be incorporated into the design survey and reflected on the plans.
- ENGINEER shall attend a utility coordination meeting with the CITY and impacted franchise utility companies to review the project and the proposed timing. Plans shall be provided to the franchise utility companies for their use in identifying impacts and coordinating adjustments.
- Subsurface Utility Engineering (SUE) services have been included in this scope of services. Please refer to Task 7.

1.9. Traffic Control and Phasing

- Traffic Control shall be the responsibility of the Contractor.
- Where deemed appropriate, the plans shall contain notes and requirements for the Contractor directing to how the project shall be phased and how traffic flow shall be accommodated.
- Any overall Project phasing relating to the progression of the various projects within this scope of work shall be provided on the General Notes sheet.

1.10. Storm Water Pollution Prevention Plan

- The SWPPP shall be the responsibility of the Contractor.

ASSUMPTIONS

- It is assumed that the design services will span up to a maximum of twelve (12) months (Does NOT include construction).
- It is assumed that all projects associated with this engineering services agreement shall be designed and reviewed concurrently, regardless of how the projects are packaged and bid.
- Meetings: one kickoff meeting, one utility coordination meeting, one submittal meeting, site visits and design coordination meetings on an as-needed basis.
- ENGINEER shall not proceed with Final Design activities without obtaining the CITY's approval of the Preliminary Design Plans.

DELIVERABLES

- A. Meeting minutes with action items
- B. Monthly invoices
- C. Monthly progress reports
- D. Project schedule with updates
- E. 4 copies of the Preliminary Design plans will be provided to the City for review.
- F. Permit Applications/correspondence (e.g. TxDOT, franchise utilities, gas companies, etc.)
- G. Franchise utility coordination drawings
- H. Preliminary Opinion of Probable Cost
- I. Names and addresses of residents and businesses that may be affected by the Project.
- J. Summary of the proposed technical specifications for the Project.

TASK 2. FINAL DESIGN (90%) AND FINAL CONSTRUCTION DOCUMENTS (100%)

Upon approval of the Preliminary plans, ENGINEER will prepare construction plans as follows:

2.1. Development of Final Design Drawings and Specifications shall include the following:

- The final plans shall include completed versions of all plan sheets associated with the preliminary plan submittal plus the CITY's standard details and any other plan sheets that were identified during the review of the preliminary plans or the development of the final plans.
- Conduct site visits on an as-needed basis for investigations and coordination during the design process.
- Proposal, technical specifications and documents not covered by the CITY's standard specifications and contract documents.
- Final plans and specifications shall be submitted to CITY per the approved Project Schedule. Copies of the CITY's preliminary plans comments shall be provided with the submittal.
- Following a 90% construction plan review meeting with the CITY, the ENGINEER shall submit Construction Documents (100%) to the CITY per the approved Project Schedule. Each plan sheet shall be stamped, dated, and signed by the ENGINEER licensed in State of Texas. The specification book shall contain updated proposal pages and all necessary technical specifications as well as copies of all necessary permits and approvals for construction of the project (e.g. TxDOT utility permit, utility crossing permits, easements, etc.)
- The ENGINEER shall submit a final opinion of probable construction cost with both the 90% and 100% design packages.
- Coordinate with the CITY to develop a best-value based competitive sealed proposal selection criteria and format for bidding the Project in accordance with Texas Local Government Code Chapter 2269. Criteria to be used in the selection process can include, but is not limited to:
 - Price
 - Contractor's experience
 - Contractor's performance on similar work
 - Contractor's safety record
 - Contractor's personnel
 - Contractor's financial capacity

ASSUMPTIONS

- Project will be divided into two (2) or three (3) bid packages to increase the number of local contractors who are eligible to bid on the work.

- It is assumed that all projects associated with this engineering services agreement shall be designed and reviewed concurrently, regardless of how the projects are packaged and bid.

DELIVERABLES

- A. 4 copies of the 90% design plans and specifications.
- B. 4 copies of the 100% construction plans and specifications.
- C. 90% and 100% final opinion of probable construction cost including summaries of bid items and quantities.
- D. Three (3) sets of bid document for the CITY's use during the bidding process.

TASK 3. BID PHASE SERVICES

ENGINEER will provide the following services during the Project's bidding and award phase.

3.1. Bid Support

- Assist the CITY in preparing advertisements for up to three (3) construction projects comprising the nine (9) projects associated with Phase 1.
- Upload the bidding documents to a web-based distribution system such as Civcast or BidSync.
- Assist the CITY in preparing an agenda and conducting a pre-bid conference(s).
- Assist the CITY in addressing bidder questions and preparing and distributing any addenda.
- Assist in the bid openings and tabulation of bids.
- Assist the CITY in evaluating the best value criteria and determining the qualifications of prospective contractors and their teams. Provide a letter of recommendation to the City for award of each construction project associated with Phase.
- Assist the CITY in coordinating with the selected Contractor(s) to compile the necessary bonds and insurance to prepare the contract documents for execution by the CITY and the Contractor(s).
- Incorporate all addenda into the contract documents and issue conformed sets of plans and specifications for use as the issued for construction documents.

ASSUMPTIONS

- The CITY is responsible for the cost of advertising the project.
- The ENGINEER will assemble the conformed contract documents and specifications for construction.

- The ENGINEER will facilitate the distribution of plans through a web-based plan distribution system such as Civcast or BidSync.
- The bid opening will take place at the City offices. ENGINEER will be present to assist with the opening and reading of the bids.

DELIVERABLES

- A. Addenda
- B. Bid tabulations and best value analysis
- C. Recommendation of award
- D. Up to 8 sets of Conformed plans and specifications for each construction project

TASK 4. CONSTRUCTION MANAGEMENT SERVICES

ENGINEER will provide construction management services for the project as follows.

4.1 Construction Support

- In performing services, ENGINEER will endeavor to protect the CITY against defects and deficiencies in the work of Contractor. ENGINEER will report any observed deficiencies to the CITY. ENGINEER shall not be responsible for the means, methods, techniques, sequences, or procedures of construction selected by the Contractor, or the safety precautions and programs incident to the work of the Contractor
- Assemble the executed contracts with the conformed plans for distribution at the pre-construction meeting.
- The ENGINEER shall prepare a pre-construction meeting agenda and conduct the pre-construction meeting in conjunction with the CITY. ENGINEER shall prepare and distribute meeting minutes.
- Maintain a document control process/system for the purpose of tracking and processing the Contractor's submittals, RFI's, change orders, etc., and provide for filing and retrieval of Project documentation, including daily construction reports and tracking corrections to defective work.
- Establish and monitor quality assurance. Notify the CITY of non-conforming work observed by the ENGINEER or identified by the Project inspector(s). Promptly recommend action to initiate corrective procedures for defective work, and coordinate special materials tests and performance tests needed to obtain a quality PROJECT.
- Provide interpretations and clarifications of contract documents, prepare change orders, and make recommendations as to the acceptability of the work.
- Review the Contractor's monthly pay requests and make recommendations to the CITY regarding acceptance and recommendation for payment.
- Make monthly site visits, generally before or after the monthly construction progress meeting. Observe the progress and the quality of work, and attempt to determine if the work is proceeding in accordance with the construction Contract Documents. The ENGINEER will document any field notes.
- In addition to the monthly construction progress meetings, participate in up to four (4) additional meetings with the CITY and/or Contractor for the purpose of coordination or to address construction related issues.
- Prepare and lead monthly construction progress meetings at a location to be determined by the CITY. The ENGINEER shall prepare the meeting agenda and will prepare and distribute meeting minutes.
- Review samples, catalog data, schedules, shop drawings and modification requests. Produce monthly reports to be distributed at the construction progress meeting indicating the status of all submittals, RFI's and change orders in the review process.

- Review quality related documents provided by the Contractor such as laboratory tests, equipment tests, or-equal submittals and other data and documentation associated with the Project.
- Assist the CITY in processing contract modifications (e.g. change orders) and in the negotiating with Contractor to determine the cost and time impacts of these changes.
- The ENGINEER shall attend the “Final” project walk through and prepare the final punch list. ENGINEER shall coordinate with the construction inspector and CITY to confirm that the punch list items have been addressed before issuing any substantial or final completion letters to the CITY.
- The ENGINEER shall prepare Record Drawings using information provided by the CITY and the Contractor. Record drawings shall consist of a full size (22”x34”) blackline copy and a PDF version on CD or flash drive. ENGINEER shall also provide the CITY with AutoCAD files for the Project, if requested.
- Upon completion of Project, prepare and issue a Letter of Recommendation of Project Acceptance to the CITY that also identifies the start of the Project’s warranty period.

ASSUMPTIONS

- The length of construction is anticipated to be a period of twelve (12) months.

DELIVERABLES

- A. Meeting agenda and minutes
- B. Change orders and field changes
- C. Progress payment recommendation letters
- D. Final punch list
- E. Record drawings
- F. Recommendation of acceptance letter

TASK 5. CONSTRUCTION INSPECTION SERVICES

ENGINEER will provide construction inspection services for the project as follows.

- Assign qualified staff to provide inspection of the work.
- Document work progress in daily work reports.
 - Measure and record pay items placed each day
 - Document all project activity inclusive of weather conditions, work items in progress and their locations, and any significant project issues.
- Review Contractor's traffic control set-up for each work site
- Meet with/attend utility meetings to facilitate coordination of contract work with existing utilities within the ROW.
- Facilitate the resolution of any issues arising with the abutting property owners.
- Coordinate Material Testing with the Project's material testing firm.
 - Receive and review test reports
 - Coordinate additional testing where deemed necessary
- Inspect water line placement
 - Ensure construction plans are followed
 - Ensure specified materials are provided
 - Ensure pavement is saw cut to acceptable lines, backfill is placed at specified density and pavement is repaired in accordance with plan details
- Obtain horizontal and vertical data on facility inclusive of bends and valves for use in preparing as-built plans.
- Provide response to requests for information from Contractor.
- Review and verify the Contractor's progress report each month prior to processing the Contractor's pay request.
- Assist in the coordination and negotiation for any needs for Field Changes or Change Orders.
- Help the City resolve any Contractor disputes relative to the work.
- Serve as a liaison between the public and City and/or Contractor.
- Participate in the substantial completion walk-thru and prepare a final punch list prior to acceptance of the Project.
- Advise the City of the status of Contractor's progress on punch list.
- Witness pressure testing and sampling of the water lines.

ASSUMPTIONS

- The length of construction is anticipated to be a period of twelve (12) months.

DELIVERABLES:

- A. Copies of Daily Work reports
- B. Copies of material testing reports
- C. Support documentation for RFI's, change orders and field changes
- D. As-built plans

TASK 6. SURVEY SERVICES

ENGINEER will provide surveying services for the project as follows.

6.1. Design Survey

- ENGINEER will perform field surveys to collect horizontal and vertical elevations and other information needed by ENGINEER in design and preparation of plans for the project. Information gathered during the survey shall include topographic data, elevations of sanitary and adjacent storm sewers, rim/invert elevations, location of buried utilities (where marked), structures, trees (measure caliper, identify overall canopy, and species of trees), and other features relevant to the final plan sheets
- Visible utilities such as power poles, manholes and valves will be located and underground markings tied. Texas 811 will be notified in an effort to enhance the amount of visible utility information.
- The approximate ROW lines from the boundary analysis will be incorporated into the design survey.
- The minimum survey information to be provided on the plans shall include the following:
 - A Project Control Sheet, showing Control Points, used or set while gathering data. Generally, on a scale of not less than 1:400:
 - Coordinates on all P.C.'s, P.T.'s, P.I.'s, Manholes, Valves, etc., in the same coordinate system, as the Control.
 - Approximately nine (9) bench marks and thirty-six (36) horizontal control points.
 - Bearings given on all proposed centerlines, or baselines.
 - Station equations when appropriate
- Prepare a topographic drawing in digital format (AutoCAD) showing 1-foot contours and the items listed above.

6.2. Right-of-Way and Easements

- It is anticipated that a majority of the survey associated with this project can be accomplished from within public right-of-way or existing public easements. Where determined necessary, the ENGINEER will work with the CITY and coordinate with property owners to obtain right of entry for the survey activities. Should it become necessary to enter a fenced backyard, the ENGINEER shall contact the CITY and coordinate the appropriate Right of Entry process.
- Perform property research and obtain deeds for the properties adjacent to the proposed alignments.
- Prepare a deed sketch to confirm the approximate limits of existing ROW and/or easements, and determine where additional easements may be required.

- Preparation of easement and/or ROW documents shall be considered an Additional Service. The CITY shall be responsible for creating the easement agreement and negotiating the acquisition with the property owner. If requested, the ENGINEER shall provide the CITY with an Additional Services proposal for performing the easement/ROW negotiation and acquisition process.

6.3. Construction Staking Services

- ENGINEER shall provide the Contractor with an AutoCAD file that includes the alignments as well as the Project's control point and benchmark information.
- It is assumed that the Contractor will be responsible for performing the construction staking for the Project. If requested, the ENGINEER shall provide the CITY with an Additional Services proposal for performing the construction staking.

ASSUMPTIONS

- A comprehensive tree survey is not part of the scope of services.
- Construction staking to be performed by the Contractor.
- It is assumed that no additional easements or ROW will be required.
- Easement and/or ROW negotiations to be performed by the City.

DELIVERABLES

- A. Deed sketch
- B. AutoCAD file containing the project layout with dimensions and coordinate list.

TASK 7. SUBSURFACE UTILITY ENGINEERING (SUE)

ENGINEER will provide SUE services for the project as follows.

7.1. SUE Services

- Research and coordination (Level C and D SUE) for the purpose of identifying the utilities that are within or adjacent to the project limits is included with Task 1 (Preliminary Design).
- Based on information collected during the preparation of the Project's Water System Capital Improvements Plan, the ENGINEER anticipates there are approximately 51,900 LF of existing underground utilities adjacent to the alignments of the proposed water lines. The ENGINEER anticipates that the proposed water line alignments will involve 35 crossings of existing utilities. These amounts represent the anticipated total amounts of Level B (toning) and Level A (test hole) that will be associated with the Project.
- SUE work will be performed in compliance with CI/ASCE 38-02, "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data".
- Flagging and markings from the Level B efforts will be field surveyed and transferred to the project base map to aid in the design.
- Each test hole will be field surveyed and transferred to the project base map to aid in the design. Vertical information from the test hole will be plotted in the design profiles to facilitate the determination of the vertical alignments of the Project's proposed water lines and other subsurface elements.
- The results of the Project's SUE efforts will be incorporated into the Project's base map and be reflected in the plan sheets as applicable. Separate sealed SUE drawings will also be prepared and included in the Project's construction documents.

ASSUMPTIONS

- The Project will involve approximately 51,900 LF of Level B designating and approximately 35 Level A test holes.

DELIVERABLES

- A. SUE drawings
- B. AutoCAD file containing the results of the SUE investigations.

TASK 8. GEOTECHNICAL INVESTIGATIONS

ENGINEER will provide geotechnical services for the project as follows.

8.1. Geologic Conditions

- ENGINEER will work with its geotechnical sub-consultant and the City to provide a preliminary geological assessment of existing subsurface conditions within the general limits of the Project. This assessment will be based on the sub-consultant's experience in the area as well as other record information available to the sub-consultant.
- Based on the results of the preliminary assessment, ENGINEER shall coordinate with the CITY to determine locations where geological investigations (i.e. soil bores) are recommended for the Project. It is anticipated that two (2) soil bores will be performed within the limits of each of the following project locations associated with this Project:
 - Project 2 – Mount Gilead Road (West)
 - Project 3 – Mount Gilead Road (East)
 - Project 4 - Bourland Drive (North)
 - Project 20 – Johnson Road
 - Project 34 – Shady Lane
 - Project 35 – Keller Smithfield Road (South)
 - Project 38 - Bandit Trail
- All bores shall extend to a minimum of 10' below existing grade.
- The bore locations will be incorporated into the design base map and reflected on the plans.
- Field and laboratory analysis will be made for the purpose of determining soil conditions and for making recommendations for excavation, trench stability, backfill and earthwork recommendations and stabilization. The following tests will be performed:
 - Moisture content and soil identification
 - Percent passing the #200 sieve
 - Liquid and plastic limit determinations
 - Unconfined compression tests on soil
 - Unit weight determinations
- Bore logs and a summary report shall be prepared. The report will address the following:
 - General soil and ground-water conditions
 - Earthwork recommendations
 - Recommendations for boring operations

ASSUMPTIONS

- No geotechnical is needed for Project 39 (N. Main Street).
- The geotechnical report will not include pavement recommendations.

DELIVERABLES

- A. Geotechnical report with bore logs

TASK 9. MATERIALS TESTING

ENGINEER will provide material testing services for the project as follows.

- A representative of the ENGINEER's material testing sub-consultant will be present at the pre-construction meeting.
- Review testing results from the Contractor's testing firm.
- Coordinate with the Project Inspector to make periodic site visits to observe the Contractor's testing firm and verify that testing is being performed in accordance with the Project's plans and specifications.
- Where requested by the City or Project Inspector, perform sampling and laboratory testing of existing subgrade, trench backfill, and stabilized pavement subgrade materials.
- Where requested by the City or Project Inspector, perform in-place moisture/density testing of existing subgrade, utility trench backfill, and stabilized pavement subgrade materials.
- Where requested by the City or Project Inspector, perform laboratory determination of maximum theoretical specific gravity of base and surface courses for HMA pavement and perform in-place density monitoring by nuclear methods.
- Where requested by the City or Project Inspector, perform on-site placement observation and testing of cast-in-place concrete to include slump, temperature, entrained air content, and the molding of test cylinders. Perform laboratory curing and testing of cylinders.
- Provide and distribute test results as directed by the City or the Project Inspector.
- When requested by the City or Project Inspector, attend and participate in on-site or off-site meetings to help clarify testing procedures or construction issues related to materials testing.

ASSUMPTIONS

- Contractor is responsible for pressure testing water lines and coordinating with the City for the purpose of pulling water testing samples.

DELIVERABLES

- A. Testing results
- B. Observation reports

TASK 10. ADDED CIP DEVELOPMENT TASKS

The following items were completed by Consultant under Agreement No. 17-07, SWIFT Water System Improvements CIP Development for the preparation of the Water System CIP Report but were added without additional compensation which is now provided for in this Agreement:

10.1. Update Engineering Feasibility Report (EFR)

- Coordinate with the CITY and the ENGINEER's sub-consultant (Moriarty and Associates) to revise the 2016 EFR to reflect the revised project locations/limits and to clarify the project elements to be paid for with the SWIFT loan.
- Process the revision through the Texas Water Development Board (TWDB) and obtain their approval of the revisions.

10.2 Added work effort to the following activities defined in Attachment A, Scope of Services, Agreement No. 17-07, which exceeded the intended original estimated budget:

- Utility Research (Task 2).
- Methodology for project priority (Task 5).
- Information gaps (Tasks 7 & 8).
- Direct expenses associated with the added work.

ADDITIONAL SERVICES NOT INCLUDED IN THE SCOPE OF SERVICES

CITY and ENGINEER agree that the following services are beyond the Scope of Services described in the tasks above. However, ENGINEER can provide these services, if needed, upon the CITY's written request. Any additional amounts paid to the ENGINEER as a result of any material change to the Scope of the Project shall be agreed upon in writing by both parties before the services are performed. These additional services include the following:

- Preparation of roadway reconstruction plans.
- Preparation of easement and/or ROW documents.
- Negotiation of easements or property acquisition including temporary right-of-entries.
- Geotechnical services beyond those listed in the scope of services.
- Subsurface Utility Engineering (SUE) services beyond those listed in the scope of services.
- Preparation of detailed traffic control or phasing plans.
- Services related to development of the CITY's project financing and/or budget.
- Services related to disputes over pre-qualification, bid protests, bid rejection and re-bidding of the contract for construction.
- Construction management and inspection services beyond those listed in the scope of services.
- Performance of materials testing or specialty testing services beyond those listed in the scope of services.
- Services necessary due to the default of the Contractor.
- Services related to damages caused by fire, flood, earthquake or other acts of God.
- Services related to warranty claims, enforcement and inspection after final completion.
- Services related to Survey Construction Staking beyond those listed in the scope of services.
- Services to support, prepare, document, bring, defend, or assist in litigation undertaken or defended by the CITY.
- Public outreach support and public meeting attendance.
- Performance of miscellaneous and supplemental services related to the project as requested by the CITY.

ATTACHMENT 'B'
TEAGUE NALL AND PERKINS, INC.

Standard Rate Schedule for Time and Expense Contracts
Effective January 1, 2017 to December 31, 2018*

Engineering /Landscape Architecture/ROW	From	-	To	
Principal	\$200	-	\$240	Per Hour
Team Leader	\$170	-	\$220	Per Hour
Senior Project Manager	\$160	-	\$220	Per Hour
Project Manager	\$120	-	\$175	Per Hour
Senior Engineer	\$180	-	\$225	Per Hour
Project Engineer	\$95	-	\$160	Per Hour
Engineer III/IV	\$105	-	\$140	Per Hour
Engineer I/II	\$ 90	-	\$110	Per Hour
Landscape Architect / Planner	\$110	-	\$200	Per Hour
Landscape Designer	\$80	-	\$110	Per Hour
Senior Designer	\$105	-	\$150	Per Hour
Designer	\$100	-	\$130	Per Hour
Senior CAD Technician	\$90	-	\$120	Per Hour
CAD Technician	\$70	-	\$110	Per Hour
IT Consultant	\$100	-	\$170	Per Hour
Clerical	\$50	-	\$90	Per Hour
Construction Inspector II	\$75	-	\$100	Per Hour
Construction Inspector III	\$90	-	\$110	Per Hour
Senior Construction Inspector	\$100	-	\$125	Per Hour
ROW Manager	\$100	-	\$140	Per Hour
Senior ROW Agent	\$90	-	\$130	Per Hour
ROW Agent	\$80	-	\$115	Per Hour
Relocation Agent	\$100	-	\$130	Per Hour
Senior Utility Coordinator	\$90	-	\$135	Per Hour
Utility Coordinator	\$80	-	\$125	Per Hour
Intern	\$40	-	\$60	Per Hour
Surveying				
Survey Manager	\$150	-	\$220	Per Hour
Registered Professional Land Surveyor (RPLS)	\$130	-	\$180	Per Hour
Field Coordinator	\$90	-	\$110	Per Hour
S.I.T. or Senior Survey Technician	\$70	-	\$110	Per Hour
Survey Technician	\$65	-	\$100	Per Hour
1-Person Field Crew w/Equipment**	\$125			Per Hour
2-Person Field Crew w/Equipment**	\$150			Per Hour
3-Person Field Crew w/Equipment**	\$170			Per Hour
4-Person Field Crew w/Equipment**	\$190			Per Hour
Flagger	\$40			Per Hour
Abstractor (Property Deed Research)	\$85			Per Hour

ATTACHMENT 'B'
TEAGUE NALL AND PERKINS, INC.

Standard Rate Schedule for Time and Expense Contracts
Effective January 1, 2017 to December 31, 2018*

Subsurface Utility Engineering (SUE)

SUE Project Manager	\$185 Per Hour
SUE Engineer	\$160 Per Hour
Sr. Utility Location Specialist	\$100 Per Hour
Utility Location Specialist	\$ 85 Per Hour
1-Person Designator Crew w/Equipment***	\$120 Per Hour
2-Person Designator Crew w/Equipment***	\$145 Per Hour
2-Person Vac Excavator Crew w/Equip for Exposing Utility Only	\$250 Per Hour (4 hr. min.)
2-Person Vac Excavator Crew w/Equip for complete QL-A w-S/S Sheet ****	\$450 Per Hour (4 hr. min.)
Core Drill (equipment only)	\$750 Per Day

All subcontracted and outsourced services shall be billed at rates comparable to TNP's billing rates above or cost times a multiplier of 1.10.

** Rates shown are for calendar year 2017 and are subject to change in subsequent years.*

*** Survey equipment may include truck, ATV, Robotic Total Station, GPS Units and Digital Level.*

**** Includes crew labor, vehicle costs, and field supplies.*

***** Rate applies to Quality Level A (QL-A) test holes on utilities that were designated by TNP as QL-B.*

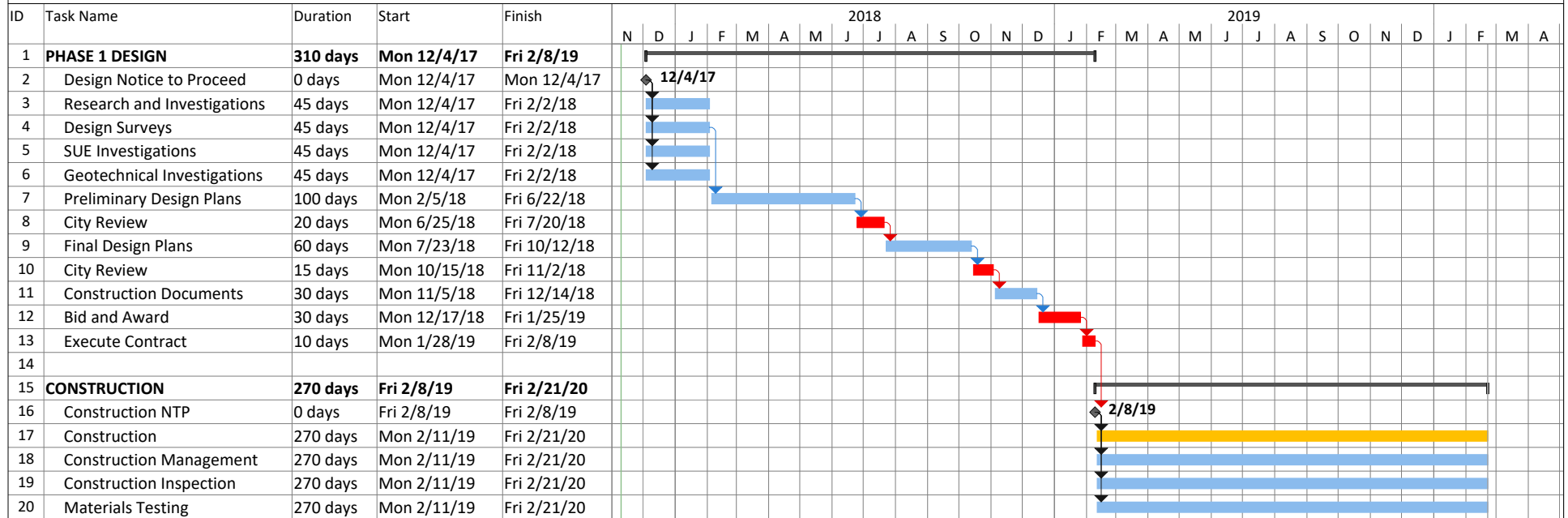
Direct Expenses

Photocopies:	\$0.154/sf	letter, legal and 11" x 17" size bond paper, B&W
	\$0.7701/sf	letter, legal and 11" x 17" bond paper, color
Prints:	\$0.154/sf	letter, legal and 11" x 17" bond paper, B&W
	\$0.7701/sf	letter, legal and 11" x 17" bond paper, color
Plots:	\$0.154/sf	letter, legal and 11" x 17" bond paper, B&W
	\$0.7701/sf	letter, legal and 11" x 17" bond paper, color
	\$0.50/sf	22" x 34" and larger bond paper or vellum, B&W
	\$1.00/sf	22" x 34" and larger mylar or acetate, B&W
Mileage	\$0.535/mile	
Plans on CD	\$20/each	



ATTACHMENT 'C'
CONCEPTUAL PROJECT SCHEDULE
for

WATER SYSTEM CAPITAL IMPROVEMENT PLAN - PHASE 1



Client: City of Keller
Revised: November 10, 2017

Consultant Task City/Joint Task Contractor Task

All durations are in working days.

Attachment 'D' Key Project Personnel

