

EXHIBIT "B"



SCOPE OF WORK

FOR

Valley Street Well Water System Improvements

HYDROGEOLOGY AND ENGINEERING DESIGN SERVICES

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DESIGN SCOPE FOR**Valley Street Well Water System Improvements****1. INTRODUCTION**

This scope of work is for professional engineering and hydrogeologic services for preliminary engineering, final design, and associated services for the construction of water system improvements related to rehabilitation of Valley Street Well (the Site). The existing well will be rehabilitated, including removal and replacement of the well liner materials. The City anticipates including a second well in the design package, located on property southwest of the Valley Street Well, following completion of a well video and an aquifer pumping test. Engineering design for the well(s) will include a new pump, surface completion, and upgraded electric service.

Design will also include water system improvements to connect these two wells to the City of Burnet (City) public water system (PWS #TX0270001), including approximately 1,500 linear feet of water line along Valley Street, up to a tie-in point at Boundary Street, a pump station, chlorination system, and a steel ground storage tank (assumed to be 300,000 gallons). The pump station and chlorination system are expected to reside within a small enclosure or building. The Engineering Services will be for the design and issuance of construction plans and specifications which will be set forth in a single package (Project Manual). Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this scope of work to design the following facilities:

- Well equipping with pump and constant or variable speed (with VFDs) motor for two wells.
- Well site improvements including pad, security fencing, and electrical improvement.
- Local control of wells based on tank level.
- Pre-packaged booster pump station within a building, with separate room for disinfection.
- Approximately 1,000 linear feet of waterline.
- Services for Texas Commission on Environmental Quality (TCEQ) permitting and coordination with survey and geotechnical subconsultants are included, as discussed below.

2. BACKGROUND

The City of Burnet issued a Request for Quotes (RFQ) to assess the hydrogeologic condition of the Valley Street Well and provide engineering assistance to connect this water source to the PWS. DBS&A was selected as the most responsive submitter and has been performing initial hydrogeologic services for the City. The initial aquifer pumping test was performed on the Valley Street Well in February 2024, and showed that the well was capable of a sustainable pumping rate on the order of 1,000 gallons per minute (gpm). Total flow for the proposed water system facilities will be dependent on an additional pumping test to be performed on the City well located southwest of the Valley Street Well.

The overall purpose of the scope is for the consulting engineer (Consultant, Engineer, or firm) to provide the City consulting services for the City's project. Components of the work are expected to include: (i) Survey Control Plan; (ii) Site Plan and Waterline Plan & Profile Drawings; (iii) Tank Details; (iv) Booster Pump Station Plan and Elevation; (v) Building Plan and Elevation; and (vi) Electrical and Controls ((i) through (vi) together, the Engineering Services). DBS&A has included budget for engineering design, bidding, and construction observation, as discussed in the scope of work below. Architectural services are not included in this scope, but can be added for an additional fee.

3. HYDROGEOLOGIC SERVICES

The consulting hydrogeologist shall not commence work on this project until given written permission by the City via a Notice to Proceed (NTP). The City shall not be obligated to compensate hydrogeologist for any work done prior to the issuance of the NTP. Construction management services for rehabilitation of the Valley Street Well are included in the Engineering Fee. Adjustments to the cost provided shall be according to the Schedule of Values on Exhibit “B”.

3.1 Valley Street Well Rehabilitation

Casing materials for the Valley Street Well have separated at a depth of approximately 40 feet below ground surface (bgs). DBS&A recommends that the liner be removed and replaced with similar diameter well materials to maximize the size of the new pump that will be installed in the well. The lower section of the liner may be more difficult to retrieve than the upper 40 feet, and may require specialized tooling, equipment, and expertise. Observation of drilling subcontractor activities will be essential. Following liner removal and bailing sediment, the well will be video-logged in preparation for new liner materials. Sections of the liner that can safely be removed will be replaced with corrosive-resistant well materials. DBS&A will prepare an engineering drawing and technical specifications suitable for a drilling subcontractor to bid on well rehabilitation activities. Using City front end document templates, DBS&A will prepare and issue bid documents for advertising on the newspaper and online to bid rooms, including attendance at a pre-bid meeting (if applicable), preparation of requests for information (RFIs) and bid addenda, and evaluation of bids. DBS&A will also provide construction management services to document removal of the existing liner and replacement with new materials, and other services as outlined in the Construction Administration section. In the Fee provided in Section 7, DBS&A has assumed a total of 6 days will be required for well rehabilitation activities. Activities to rehabilitate the well may affect design and are recommended early in the project schedule.

3.2 Aquifer Test

A pumping test is required for the second well proposed for connection to the Valley Street Well water system improvements. The scope of work for the pumping test is detailed in the letter to the Central Texas Groundwater Conservation District dated January 29, 2024, which documented the Valley Street Well pumping test. It will include a 10-hour step test followed by a 12-hour constant rate test. The test pump will be capable of flow rates from 100 to 500 gpm, and the pumping test vendor will provide a transducer, flow meter, and water level meter (e-line). Vendor will also provide a power source (generator) to power the pump. DBS&A will coordinate with the City to determine an optimal location to discharge water extracted for the aquifer test. DBS&A assumes that the City will prepare the well for the pump test, including providing suitable access to the well site, removing any existing pump equipment, and disconnecting any existing electric service. DBS&A will assist with coordinating with the vendor but assumes that the City will contract directly with the well vendor for performance of the pumping test. DBS&A will be on-site for the beginning and end of the aquifer test, will analyze the pumping test results, and will summarize findings in a technical memorandum submitted to the City during the preliminary engineering phase.

4. ENGINEERING DESIGN

The consulting engineer shall not commence work on this project until given written permission by the City via a Notice to Proceed (NTP). The City shall not be obligated to compensate engineer for any work done prior to the issuance of the NTP. Construction management services are not included in the Engineering Fee, and shall be paid per Schedule of Values on Exhibit “B”, unless negotiated in a separate proposal.

4.1 Survey

The City will hire a surveyor (hereinafter “The Surveyor”) to provide survey for design of this project. The topographic survey is expected to include approximately 7.5 acres situated in the B. B. Castleberry Survey No. 2, Abstract No. 187, in Burnet County, Texas, including right-of-way (ROW) along Valley Street adjacent to the two wells and terminating at Boundary Street. At the time of this proposal, the final location of proposed facilities is not known, so Engineer will confirm that location with the City prior to Surveyor mobilization. Surveyor will provide both a Boundary Retracement Survey and a Topographic Design Survey. DBS&A will coordinate as necessary to discuss requirements in the engineering design that need to be captured by the survey. The design survey will be provided to DBS&A in AutoCAD format for use with engineering design documents, in addition to any other document formats required by the City. The design survey will be provided in both grid and ground coordinates, using a local State Plane coordinate system. A budgetary amount of \$25,000 has been include in the Fee in Section 7 to cover cost of the required design survey.

4.2 Geotechnical Engineering

The City will employ the services of a geotechnical engineering subconsultant to perform field borings and laboratory services and prepare a geotechnical report with recommendations to inform the structural design of the project, including the tank foundation and the building or enclosure for the pump station and chlorination system. The Engineer will coordinate with the City on the scope for geotechnical engineering and directly with the Geotechnical Subconsultant if the City so allows. The geotechnical report will be included in the bid documents for use by prospective bidders in preparing their bids. A budgetary estimate of \$20,000 is shown in the Engineering Fee provided in Section 7 for budgeting purposes; however, DBS&A assumes the City will contract these services directly. The actual scope of work for the geotechnical investigation will be finalized based on the size of the water storage tank and the final location for the proposed water system improvements.

4.3 Preliminary Design

DBS&A will prepare preliminary design for this project and submit to the City for review in the form of a Basis of Design Report. Preliminary design shall be considered a 30% design. The design survey collected under Task 3.2 will be used as base mapping for the construction drawings. This task includes:

1. Prepare project design schedule.
2. Conduct and attend a project kick-off meeting, including preparation and distribution of the meeting agenda and meeting minutes, to discuss the Project work plan including scope, schedule, and coordination.
3. DBS&A will make one site visit for the purpose of familiarizing the design team with the project area and to collect information on how the new wells will operate within the existing water system. DBS&A will collect information, as available from the City, on water demands and water system configuration to determine the design capacity and criteria for the infrastructure to be designed, including the elevation of the hydraulic grade line to which the proposed booster pump station will pump.
4. Prepare preliminary site plans for City review and comment, showing tank, building, fencing, ingress and egress and connections to existing piping.
5. Identify major components that require design. During this phase, Engineer will establish preferred style of pump; preferred manufacturer for pumps, valves, and other equipment; desired pump control; building features, etc. We have assumed for the purposes of this proposal that the building will be temperature-controlled CMU block construction, that the booster pump station will be controlled by a local pressure switch, and that the well will fill the tank based on water level in the tank.
6. Prepare preliminary piping alignments and submit to City for review and discussion.

Engineer has allocated up to twelve (12) hours for meetings (including travel time) with the City, or in representing the City, that are included in the Engineering Services. In the event that this amount of time is exceeded, additional meetings may be billed on an agreed-upon basis.

4.4 Final Design

The Engineer will refine design criteria and recommendations developed during preliminary engineering as necessary to develop final drawings and specifications for this project. The drawings and specifications will define the scope, extent, and character of the work to be performed and furnished by a Contractor. The Engineer will furnish 50%, and 90% drawings and specifications for review by the City and will prepare one final signed and sealed set of bid documents incorporating all comments. The Engineer will conduct meetings with the City to review 50% and 90% deliverables, and the design documents will be revised in accordance with comments and instructions from the City, as appropriate.

Engineer will incorporate the City's drafting standards to the civil design for this project. Engineer shall inform and obtain permission from the City for any deviation to the drafting standards.

The City will assign a project identification number (PID) to this project. The PID should be referenced on all correspondence and invoices pertaining to this project. This number shall also be indicated on the cover page and each subsequent page of the drawings. The City will assign a PID and notify the Engineer of it along with the NTP.

DBS&A will use the topographic survey information provided by the City in pdf and AutoCAD format as base mapping for design. The City will also provide any readily available information required to perform this Scope of Services for on-site and off-site conditions including, but not limited to: above and below ground utilities; easements; property lines; ROW, subdivision layouts, roadways, vegetation, soils/geotechnical information, hydrology/drainage information, etc. Should any additional site survey information be necessary, the City will be responsible for providing this to the Engineer.

The Design Development drawings will be prepared at an approximate 50% level of completion of Construction Documents, and a table of contents for Technical Specifications will be prepared. The 50% design submittal shall include the following:

1. Coordinate schematic design with the City.
2. The Engineer is to assume that all utilities will be made available at the project boundary.
3. Coordinate schedule with the City.
4. Coordinate with the City in the development of a Conceptual Plan in order to identify potential engineering related issues, access issues, or construction phasing issues.
5. Provide the City an updated design and bid schedule.
6. Revise the preliminary construction budget based on the Conceptual Plan.
7. Based upon the survey and additional information provided by the City, the Engineer will prepare an existing condition base map(s) for use in Concept Design, Design Development and Final Construction Documents.
8. Conduct and attend scheduled project meetings with the City's Project Manager. Meetings will be held at monthly intervals or at City's request to report project progress and review project deliverables. Prepare and distribute the meeting agendas and minutes to City's designated individuals in electronic format. It is anticipated that a total of up to 3 meetings will be required.
9. Establish a process and instrumentation diagram (P&ID) for the proposed water system facilities, including any major equipment components, such as booster pumps, well pumps, and the water storage tank.

10. Prepare a draft of the waterline plan and profile drawing(s) showing horizontal alignment in plan view and existing ground in profile view.
11. Improvements to the existing roadway or roadway surface are not included in this design.

The 90% design submittal will include all drawing sheets that comprise the final design. Plan and profile sheets will be updated to show pipe profile, fitting, valves and other appurtenances. Technical specifications will be prepared defining product and installation requirements. No front-end contract documents are included; we assume the City will provide front end documents. DBS&A will prepare an itemized Bid Form and will bid the project, including organize and attend a pre-bid meeting (if applicable), preparation of requests for information (RFIs) and bid addenda, and evaluation of bids.

Engineering scope of services for Final Design shall include the following:

1. Provide engineering design, specifications, estimate and quantities take off for construction of the project.
2. Prepare site grading plan in accordance with the schematic plan. Engineer will analyze provided plan and adjust fit topography and other items not considered during schematic design.
3. Prepare general construction notes, construction details, and other design related information.
4. Due to size of the proposed facilities and proximity to the flood plain, Engineer has assumed that water quality (NPS) and water quantity (retention/detention) features are not required for the project. Consequently, design of water quality and quantity features are excluded from the Engineering Services.
5. Electrical design could include updating the electric service for each of the two proposed water supply wells, and a new electric service for the high service pump station. The final scope of work for electrical design will be confirmed following completion of the aquifer pumping test and Basis of Design Report included in this scope of work, and electrical design will commence following approval of the 50% design submittal. A budgetary amount of \$35,000 has been included to cover electrical design and basic controls, and DBS&A intends to hire a subcontractor for completion of electrical design documents. This includes the three scope items mentioned in this paragraph.
6. Detailed Supervisory Control and Data Acquisition (SCADA) devices and/or programming may require additional fee, depending on the level of effort and coordination with the existing City SCADA vendor. The Electrical Engineer can provide these services, or if required, DBS&A can research and provide a reputable local vendor to coordinate SCADA for the project.

The Engineering Design Services shall be considered complete upon delivery of the construction plans and specifications (the deliverables) to the City. Bid and Construction Administration services are described below. These services can be highly dependent on the level of effort requested from the City. However, DBS&A has included budgetary amounts for both that are believed to be a reasonable estimate to assist with and observe construction of the water facilities included in this scope of work. Services will include submittal review, coordination with bidders or the selected contractor, and up to 15 days of on-site construction observation. Additional details are included in Sections 5 through 7.

If during the scope of the work something unexpected arises that was not accounted for in the preliminary design phase as addressed in the original scope of services, City and Engineer shall negotiate an addendum to the Engineering contract prior to beginning any additional work.

Services NOT specifically included in this scope of work are:

1. Third party survey, architectural, and geotechnical engineering services.
2. Coordination with FEMA and US Army Corps of Engineers.
3. Special Structural designs including large box culverts and bridges.
4. Environmental, biological, historical, and/or archaeological site evaluation services/reports, etc.

5. Utility analysis, permitting (except as noted above), any and all other engineering analysis and/or design not provided for directly herein, either expressed or implied.

Regulatory Notification: Following completion of Final Design (100%), Engineer shall submit revision of the Public Water System (PWS) to the Texas Commission on Environmental Quality (TCEQ) Plan and Technical Review Section (PTRS) on behalf of the City, or assist the City in doing so, per the City's direction. DBS&A has included budget to respond to TCEQ comments, if required. If exception requests or other unreasonable TCEQ requests are required, DBS&A will discuss with the City options for the additional permitting work to achieve a cost-effective solution.

City Responsibility during Design Process

Arrange meetings with Engineer as needed, and provide all pertinent available data as requested. Make staff available to meet and provide available utility historical background information. Meet with the Engineer at City offices to review design deliverables. Provide timely review of design documents and provide review comments.

5. BIDDING ASSISTANCE

Following 90% review, the Engineer will furnish final design and specification documents to city for review and approval. The Engineer shall also review bid documents and comments prepared by the City along with project specifications. The drawings along with the specifications will indicate the scope, extent, and character of the work to be performed and furnished by a Contractor. The Engineer shall incorporate the City of Burnet Standard Specifications (specs) to the extent practical. For items not included in the specs, The Engineer shall incorporate other special standard engineering specifications in the design. The Engineer will also prepare bid documents using forms and format example given by the City.

The Engineer will create/revise the opinion of probable construction cost for the project and advise the City promptly and in writing of any adjustments to construction cost known to the Engineer. Each deliverable will receive an internal quality assurance and quality control review prior to submittal to the City.

The Engineer will respond to bidder questions through the City, and issue addenda as appropriate to clarify the bidding documents, including requests for information (RFIs) and potential revisions to the engineering design documents.

The Engineer will attend one (1) pre-bid meeting with City representatives and the potential bidders. The City is responsible for coordinating and managing the meeting.

The Engineer will prepare the construction contracts and documents for the contractor and City of Burnet to sign. Engineer will review the contract documents on behalf of the City and recommend any changes and confirm with the City their Validity. Engineer will advertise for bids for the work, organize pre-bid conference, bid opening, and award contract to the bidder that provides the best overall value to the City.

City Responsibility during Bidding Process

Add to website and social media as practical, receive, and review bid documents. Provide final, written comments for all revisions requested to the Final Construction Documents and the Engineer will provide a response to the comments.

6. CONSTRUCTION ADMINISTRATION

The Engineer shall assist the City during construction. These services will be highly dependent on the actual construction schedule implemented by the Contractor. For budgetary purposes, DBS&A has included a total of 15 days of construction observation that will focus on critical elements of construction, such as pump installation, tank construction, burial of water line conveyance, and startup and testing. DBS&A will discuss anticipated days for the Engineer's representative to be on-site after reviewing the construction schedule with the City.

6.1 Construction Assistance

The Engineer will consult with the City and act as the City's representative as provided herein. The Engineer will prepare and print up to 1 full and 3 half-sized sets of conformed construction documents. The Engineer will respond to all requests for information (RFI) or other inquiries arising during the construction regarding the design documents. Engineer shall prepare any necessary drawings for recommend change orders and work change directives to the City, as appropriate resulting from needed design clarifications.

Reports, if handwritten, shall be written legibly; typed reports are preferred. Information reported shall reflect to the best of the Engineer's or sub-consultant's knowledge, information and belief, the following: trades at work, approximate manpower, temperature/weather conditions, variations from Contract Documents, defective work, percentage of contract time used compared with percentage of completion of construction, contract completion date, and other meaningful information. Reports for periods when no Work is in progress shall state "No Work in Progress."

Upon receipt from the Contractor of details of deviations from Contract Documents, which have been determined by the Engineer to be comprehensive and generally accurate, Engineer shall produce within thirty (30) days record documents for the City's use. The Engineer cannot and does not warrant the accuracy of the information provided by the Contractor.

6.2 Warranty Period Assistance

Under Basic Services, the Engineer shall assist and represent the City through the one-year warranty period on matters involving malfunctions or deficiencies of the Work. The Engineer shall communicate with and assist the Contractor as necessary to correct all deficiencies in a timely manner and to reduce inconvenience to the City during this period. The Engineer agrees to require its sub-consultants (if any) to provide their assistance as necessary during the warranty period.

All warranty period assistance shall be paid per Exhibit "B."

The scope of assistance referenced in this Section shall include, but not be limited to, the following: (1) Notifying the Contractor of deficiencies or failures in labor and materials and requesting corrective action; (2) Preparing correspondence and other written data as necessary to document, clarify, and resolve discrepancies; and (3) Meeting with the Contractor at the Project site or other local places when requested by the City.

The Engineer shall accomplish an on-site review of the Work accompanied by its sub-consultants, if applicable, approximately one month before the one-year anniversary of the date of Substantial Completion. As a result of this on-site review, he shall prepare a list of items needing correction and request the Contractor to resolve them. After reviewing the Contractor's corrective actions and determining that deficiencies have been corrected, the Engineer shall so notify the City in writing. This notification by the Engineer does not release the Contractor from its responsibilities set forth in the Contract Documents and

shall not be construed as an implied or express warranty or representation by the Engineer, that the deficiencies have been corrected or that there are no other deficiencies on the Project.

Additional time for warranty period services shall be considered Additional Services in accordance with the Agreement.

City Responsibility during Construction Process

Attend pre-construction conference, construction progress meetings, and walk-through inspection of the work; provide clarifications regarding existing features and work as necessary; operate existing utilities as required to assist Contractor's work; process applications for payment and change orders as needed; provide construction materials testing for the work; and provide on-site inspection of the construction work.

7. HYDROGEOLOGY AND ENGINEERING FEE

The Engineer shall provide hydrogeologic services, preliminary engineering, final design, bidding assistance, and/or construction administration services described above for a time and materials fee of **\$197,000**. The following table itemizes the estimated fees for each project task. Where indicated, Engineer assumes that City will contract directly with certain subconsultants. The engineer shall not proceed to the next project phase until a written request is made by the City to the Engineer.

Task	Fee
Phase 1: Hydrogeologic Services	
TCEQ Preliminary Coordination	included
Well Rehabilitation Design and Bidding	\$ 12,000
Well Rehabilitation Construction Observation	\$ 10,000
Pumping Test Observation and Analysis	\$ 9,000
<i>Subtotal</i>	<i>\$ 31,000</i>
Surveying and Geotech	
Surveying (contract with City)	\$ 25,000
Plat for ROW Acquisition	\$ -
Geotech (contract with City)	\$ 20,000
<i>Subtotal</i>	<i>\$ 45,000</i>
Phase 2: Engineering Design	
Preliminary Engineering Design	\$ 15,000
TCEQ Permitting	included
Final Engineering Design	\$ 55,000
Structural Design	\$ 16,000
Electrical Design	\$ 35,000
<i>Subtotal</i>	<i>\$ 121,000</i>
Phase 3: Bid and Construction Assistance	
Bidding	\$ 12,000
Construction Administration	\$ 33,000
<i>Subtotal</i>	<i>\$ 45,000</i>
Total DBS&A Contract	\$ 197,000
Total Hydrogeology and Engineering Cost	\$ 242,000

After the Notice to Proceed design is issued, this project shall have an 8-month project duration, which includes 2 months for well rehabilitation and aquifer testing, and 6 months for design. When the City is

ready to implement the Project Manual, DBS&A assumes that 2 months will be required for the bidding process and another 6 months to construct the project.

Proposed hydrogeologic services for well rehabilitation and aquifer testing, as detailed above, will require the services of a licensed drilling, well installation, and pump contractor. These costs could be itemized and paid by the City separately or bid together as one package. The costs are summarized here for budgeting purposes only and should not be considered a final estimate to complete a future scope of work. Design documents will need to be compiled for subcontractors to bid the work.

Subcontractor Task	Fee
Hydrogeologic Services	
Valley Street Well Liner Removal	\$ 25,000
Valley Street Well Liner Replacement	\$ 125,000
Pumping Test	\$ 25,000
Total Subcontractor Cost	\$ 175,000

Items not included in this work but are available from the Engineer at an hourly rate are:

1. Services related to construction materials testing.
2. Coordination with nearby property owners and/or public.
3. Survey, construction staking, off site utility and streetlight, environmental studies, traffic control plan, and aerial survey.