

**Alliance Regional Water Authority
Technical Committee**

REGULAR MEETING



ALLIANCE WATER

COMMITTEE MEMBER PACKETS

Wednesday, April 8th, 2020 at 3:00 P.M.

Conference Call Number: 1-903-405-2572
Code: 120 771 382#

REGULAR MEETING
Alliance Regional Water Authority Technical Committee

COMMITTEE MEMBER PACKETS

Wednesday, April 8th, 2020 at 3:00 P.M.
Conference Call Number: 1-903-405-2572; Code: 120 771 382#

In accordance with Governor Abbott's Executive Order, declaration of the COVID-19 public health threat, and action to temporarily suspend certain provisions of the Texas Open Meetings Act, a quorum of Alliance Regional Water Authority's (the Authority's) Technical Committee will hold a meeting by telephonic conference call at 3:00 PM, Wednesday, April 8, 2020. The public may participate in this meeting by calling the following number and code:

Conference Call Number: 1-903-405-2572
Code: 120 771 382#

Members of the public wishing to make public comment during the meeting must register by emailing info@alliancewater.org prior to 3:00 p.m. on April 8, 2020. This meeting will be recorded and the audio recording will be available on the Authority's website after the meeting. A copy of the agenda packet will be available on the Authority's website at the time of the meeting. Additional information can be obtained by calling Graham Moore at (512) 294-3214.

A. CALL TO ORDER

B. ROLL CALL

C. PUBLIC COMMENT PERIOD (Note: Each person wishing to speak must submit a completed Public Comment Form to the Executive Director or his/her designee before the public comment period begins.)

D. CONSENT AGENDA

D.1 Consider approval of minutes of the Special Technical Committee Meeting held March 11, 2020. ~ *Graham Moore, P.E., Executive Director*

E. PRESENTATIONS TO THE COMMITTEE

E.1 None.

F. ITEMS FOR COMMITTEE ACTION OR DISCUSSION/DIRECTION

F.1 Update and possible direction to Staff regarding the Authority's Phase 1A projects. ~ *Jason Biemer, Project Coordinator*

F.2 Update and possible direction to Staff regarding the Authority's Phase 1B program. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*

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- F.3 Discussion and possible recommendation to the Board to approve a work order with BGE, Inc. for Final Design and Procurement Services for the Authority's Phase 1B Segment C project. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- F.4 Update and possible direction to Staff regarding bids received for the Phase 1B Well Construction project. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- F.5 Update on status of groundwater management in project target area, and Gonzales County Underground Water Conservation District, Plum Creek Conservation District, Groundwater Management Area 13, Region L Planning Group, Guadalupe-Blanco River Authority, Hays County and CAPCOG activities. ~ *Graham Moore, P.E., Executive Director*

- G. EXECUTIVE DIRECTOR REPORT - Update on future meeting dates, locations, consultant invoices paid, approved changed orders, status of Authority procurements, Executive Director activities and other operational activities where no action is required. ~ *Graham Moore, P.E., Executive Director*

- H. COMMITTEE MEMBER ITEMS OR FUTURE AGENDA ITEMS – Possible acknowledgement by Committee Members of future area events and/or requests for item(s) to be placed on a future agenda where no action is required.

- I. EXECUTIVE SESSION
 - I.1 *Executive Session pursuant to the Government Code, Section 551.071 (Consultation with Attorney) and/or Section 551.072 (Real Property Deliberations) regarding:*
 - A. *Water supply partnership options*
 - B. *Groundwater leases*
 - C. *Acquisition of real property for water supply project purposes*

 - I.2 Action from Executive Session on the following matters:
 - A. *Water supply partnership options*
 - B. *Groundwater leases*
 - C. *Acquisition of real property for water supply project purposes*

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J. ADJOURNMENT

NOTE: *The Technical Committee may meet in Executive Session to consider any item listed on this agenda if a matter is raised that is appropriate for Executive Session discussion. An announcement will be made of the basis for the Executive Session discussion. The Technical Committee may also publicly discuss any item listed on the agenda for Executive Session.*

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A. CALL TO ORDER

No Backup Information for this Item.

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B. ROLL CALL

<u>NAME</u>	<u>PRESENT</u>
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Kenneth Williams

James Earp

Tom Taggart

Humberto Ramos

Brian Lillibridge

Mike Taylor

<u>NON-VOTING MEMBERS</u>	<u>PRESENT</u>
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Mayor George Haehn

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C. PUBLIC COMMENT PERIOD

Each person wishing to speak must submit a completed Public Comment Form to the Executive Director or his/her designee before the public comment period begins.

Comments are limited to 3-minutes per agenda item and three minutes total for all non-agenda topics. If using a translator, comments are limited to six minutes per agenda item and six minutes total for non-agenda topics.

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D. CONSENT AGENDA

Item D.1 is presented as part of the consent agenda.

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D.1 Consider approval of minutes of the Regular Technical Committee Meeting held March 11th, 2020. ~ *Graham Moore, P.E., Executive Director*

Attachment(s)

- 2020 03 11 Technical Committee Meeting Minutes

Technical Committee decision needed:

- Approval of minutes.



ALLIANCE WATER

Alliance Regional Water Authority

TECHNICAL COMMITTEE MEETING

MINUTES

Wednesday, March 11, 2020

The following represents the actions taken by the Technical Committee of the Alliance Regional Water Authority (Alliance Water) in the order they occurred during the meeting. The Technical Committee convened in a meeting on Wednesday, March 11, 2020 at the Kyle Public Works Facility, 520 E. RR 150, Kyle, Texas.

A. CALL TO ORDER.

The Alliance Water Technical Committee Meeting was called to order at 3:02 p.m. by Mr. Earp.

B. ROLL CALL.

- **Present: Williams, Earp, Taggart, Ramos, and Taylor.**
- **Absent: Lillibridge and Haehn.**

C. PUBLIC COMMENT PERIOD

- **None.**

D. CONSENT AGENDA

D.1 Consider approval of minutes of the Regular Technical Committee Meeting held February 12, 2020.

- **Motion to adopt the consent agenda as presented was made by Mr. Ramos, seconded by Mr. Taylor and approved on a 5-0 vote.**

E. PRESENTATIONS TO THE COMMITTEE

E.1 None.

F. ITEMS FOR COMMITTEE ACTION OR DISCUSSION/DIRECTION

- F.1 Update and possible direction to Staff regarding the Authority's Phase 1A projects.
- **Mr. Biemer provided an update on the projects. He noted that final start-up of the pump station is expected to occur at the end of March. Have a few challenges to sort out, but in general it is all coming together.**
 - **Mr. Taylor asked if the training made Jason comfortable with the SCADA system and programming.**
 - **Mr. Biemer confirmed that he is comfortable after the training.**
 - **No Action.**
- F.2 Update and possible direction to Staff regarding the Authority's Phase 1B program.
- **Mr. Moore provided an update on the GVEC public meeting on the routing of the primary power routes to the sub-station.**
 - **Mr. Ryan Sowa with Kimley-Horn went through the presentation in the packet summarizing Kimley-Horn's recent activities.**
 - **Mr. Taggart inquired if the alignment is confirmed through the area that had shown some potential hazardous materials concerns.**
 - **Mr. Moore responded that the reports show the route as confirmed and the additional hazardous material field work is ongoing. We currently do not expect to change the route.**
 - **No Action.**
- F.3 Discussion and possible recommendation to the Board to approve a work order with Walker Partners, LLC for Final Design and Procurement Services for the Authority's Phase 1B Segment E project.
- **Motion to recommend to the Board to approve a work order with Walker Partners, LLC. for Final Design and Procurement Services for the Authority's Phase 1B Segment E project was made by Mr. Ramos, seconded by Mr. Taylor and approved on a 5-0 vote.**
- F.4 Discussion and possible direction to Staff regarding the preliminary Commissioning Plan for the Phase 1B projects.
- **Mr. Nathan Cobbler with Kimley-Horn went through the preliminary Commissioning Plan presentation.**
 - **Mr. Taylor asked who is coordinating the flushing discharge water.**
 - **Mr. Cobbler responded that the program is reviewing at a high level, but the ultimate responsibility will be with the design engineers.**
 - **No Action.**

- F.5 Discussion and possible direction to Staff regarding the preliminary findings of the Solar Field Production System Estimate for the Authority's property at the Phase 1B Water Treatment Plant.
- **Mr. Nathan Cobbler with Kimley-Horn went through the preliminary findings of the Solar Field Production System Estimate.**
 - **Mr. Taggart noted that the typical life of panels is approximately 20 years and they degrade at an average rate of 2% per year.**
 - **The Committee requested a more detailed analysis in order to evaluate the potential payback of solar panels.**
 - **No Action.**
- F.6 Update, discussion and possible direction to Staff regarding the Authority's submission of an Abridged Application to the Texas Water Development Board for additional SWIFT Funding.
- **No update and no action.**
- F.7 Update on status of groundwater management in project target area, and Gonzales County Underground Water Conservation District, Plum Creek Conservation District, Groundwater Management Area 13, Region L Planning Group, Guadalupe-Blanco River Authority, Hays County and CAPCOG activities.
- **Mr. Moore provided an update on the various topics.**
 - **No Action.**

G. EXECUTIVE DIRECTOR REPORT

- **Update, no action.**

H. COMMITTEE MEMBER ITEMS OR FUTURE AGENDA ITEMS

- **Mr. Taggart notified everyone that the San Marcos Chief Financial Officer, Heather Hurlbert is taking a new position with the City of Corpus Christi, as of March 20th.**

I. EXECUTIVE SESSION

- I.1 The Technical Committee recessed into Executive Session at 4:22 p.m. pursuant of the Government Code, Section 551.071, to seek the General Counsel's advice regarding matters involving attorney-client privilege, and/or Section 551.072 to discuss water supply project partnership options. The Technical Committee reconvened from Executive Session at 4:44 p.m.

- I.2 Action from Executive Session on the following matters:
- A. Water supply partnership options
 - B. Groundwater leases
 - C. Acquisition of real property for water supply project purposes
 - **No Action.**

J. ADJOURNMENT

- **Meeting was adjourned at 4:45 p.m. by Mr. Earp.**

APPROVED: _____, 2020

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- F.1** Update and possible direction to Staff regarding the Authority's Phase 1A projects.
~ *Jason Biemer, Project Coordinator*
-

Background/Information

Below are brief updates on the Phase 1A projects.

Segment B Pipeline:

- Stormwater protection systems installed in current construction areas.
- Currently on time and on budget.
- Over 5,930 feet of pipe laid down as of 4/3/2020.

Pump Station:

- Spare parts have been received by staff.
- Contractor continues to work with subcontractors and consultants to work through concerns related to secured SCADA access system.
- Buda delivery site is idle of any further development or testing until such time as the pipeline is completed.
- Preparing for bacteriological testing on tank currently.
- Current final completion is scheduled for April 17, 2020.
- Final and substantial dates may slide out as the coordination effort continues with various vendors and in relation to the COVID-19 pandemic.

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Technical Committee Decisions Needed:

- None.

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- F.2** Update and possible direction to Staff regarding the Authority's Phase 1B program.
~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
-

Ryan Sowa with Kimley-Horn will update the Committee on their recent activities associated with the Phase 1B program.

Attachment(s)

- Phase 1B Program Update – April 8, 2020
- Kimley-Horn Monthly Summary of Activities for March 2020

Technical Committee Decisions Needed:

- None.



Phase 1B Program Update

Technical Committee Meeting
April 8, 2020

Kimley»Horn

Agenda

Ongoing Progress

Segment C – Final Design/Procurement Contract (BGE)



Kimley»Horn

Ongoing Progress

COVID-19 Update

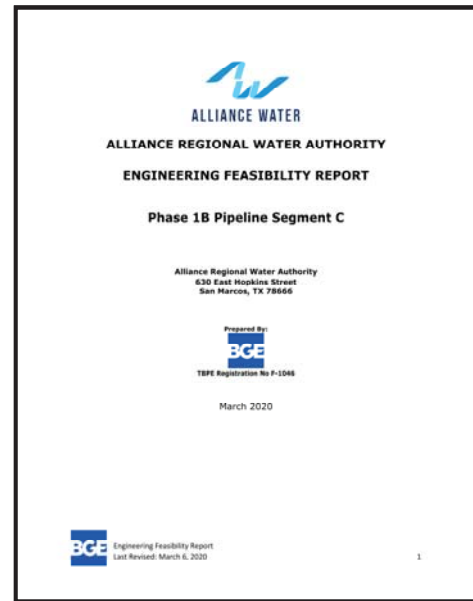
- Consulting Services
- Land Acquisition Process / Landowner Coordination
- Legal Process

Consultant Contracting Update

- Pipeline Segment C
 - Final Design Phase Contract (April)

Design Milestone Review

- Pipeline Segment C
 - Draft Engineering Feasibility Report (March)
- Pipeline Segment E
 - Draft Engineering Feasibility Report (April)

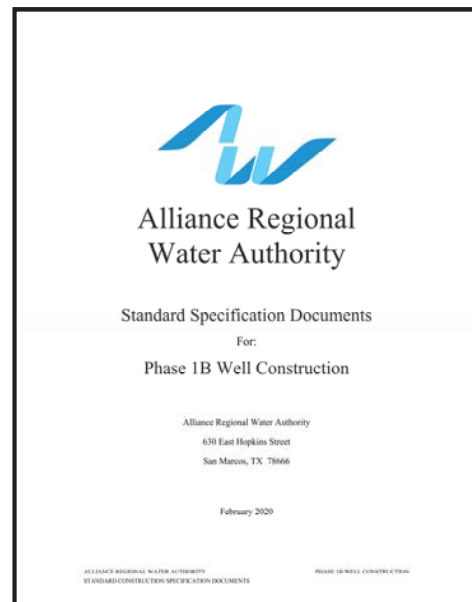


Kimley»Horn

Ongoing Progress

Texas Water Development Board Update

- EFR's Recently Approved
 - Water Treatment Plant
- EFR's Under Review
 - Booster Pump Station
- EFR's to be Submitted
 - Raw Water Infrastructure
- Release of Funds No. 6 Being Prepared
 - Booster Pump Station – Property Acquisition
 - Water Treatment Plant – Final Design Contract



Kimley»Horn

Pipeline Route Analyses & Rights of Entry

Pipeline Segment	Number of Right-of-Entry Requests	Right-of-Entry Received or Access Granted (No. of Parcels)	Right-of-Entry Received or Access Granted (%)	Alignment Confirmed (%)
A	38	38	100%	100%
B	46	46	100%	98%
D	69	69	100%	100%
C	90	84	93%	34%
E	32	32	100%	88%
Wellfield	20	15	75%	0%
Total	295	284		



Kimley»Horn

Pipeline Easement Acquisition Status

Pipeline Segment	Number of Parcels	Appraisals Prepared	Initial Offer Letter Delivered	Purchase Agreement Signed / Easement Closed
A	38	37	37	9
B	46	20	20	1
D	69	6	6	3
C	90	0	0	0
E	32	0	0	0
Wellfield	20	0	0	0
Total	295	63	63	13



Kimley»Horn



Questions?



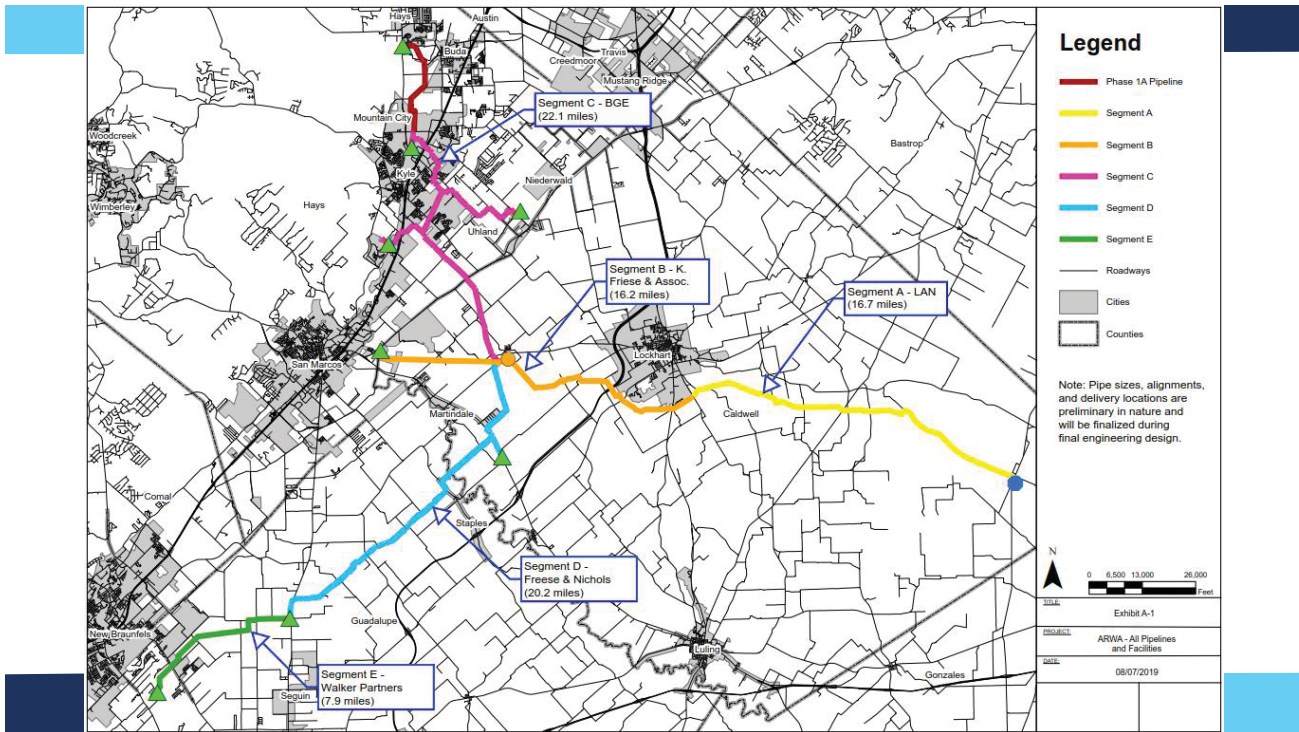
Kimley»Horn



Consulting Services



Kimley»Horn



Phase 1B Transmission Pipeline Design Services

Final Design Phase Pipeline Proposal status update

- Segment A and B approved at the August meeting
- Segment D approved at the November meeting
- Segment E approved at the March meeting
- Segment C on the April agenda

Scope through final design phase, to include:

- 60%, 90%, and 100% Design
- Procurement
- Geotechnical, SUE, and Survey Services
- Does not include Construction Phase Services

Phase 1B Transmission Pipeline Design Services

Supplemental Services:

- Additional Survey, SUE, and Geotechnical Services
- General Engineering Design
- Eminent Domain Support (Up to 10% of Parcels Assumed)
- Additional Meetings



Kimley»Horn

Phase 1B Transmission Pipeline Design Services

Project	Selected Consultant	Basic Services	Supplemental Services	Total Proposal
A	LAN, Inc.	\$ 1,903,077.00	\$ 232,949.00	\$ 2,136,026.00
B	K Friese + Assoc.	\$ 1,830,994.00	\$ 421,051.00	\$ 2,252,045.00
D	Freese & Nichols	\$ 1,999,464.00	\$ 251,427.00	\$ 2,250,891.00
C	BGE	\$ 2,688,310.00	\$ 402,029.00	\$ 3,090,339.00
E	Walker Partners	\$ 1,190,421.00	\$ 376,066.00	\$ 1,566,487.00



Kimley»Horn

Phase 1B Transmission Pipeline Design Services

Project	Anticipated Construction Cost (Draft Engineering Feasibility Report)	Anticipated Engineering Basic Services Fee through Construction (7%-8%)*		Preliminary + Final Design Engineering Services (Basic Services)*	Preliminary + Final Design Engineering Fee as a % of Total Construction Cost
A	\$ 44,000,000.00	\$ 3,080,000.00	\$ 3,520,000.00	\$ 1,997,649.00	4.5%
B	\$ 43,400,000.00	\$ 3,038,000.00	\$ 3,472,000.00	\$ 1,795,055.00	4.1%
D	\$ 50,200,000.00	\$ 3,514,000.00	\$ 4,016,000.00	\$ 2,039,279.00	4.1%
C	\$ 61,000,000.00	\$ 4,270,000.00	\$ 4,880,000.00	\$ 2,678,466.00	4.4%
E	\$ 29,000,000.00	\$ 2,030,000.00	\$ 2,320,000.00	\$ 1,330,388.00	4.6%

*Does not include survey, geotechnical, environmental, subsurface utility engineering (potholing)



Kimley»Horn

Questions?



Kimley»Horn

April 3, 2020

Project Monthly Summary

March 2020 Tasks Performed:

- Task 2 – Stakeholder Coordination
 - Coordination and/or meetings with entities including: Caldwell County, Guadalupe County, Bluebonnet Electric Coop, TxDOT, TCEQ, and TWDB.
 - Continued weekly task coordination with Alliance Water.
 - Prepared and presented Technical Committee Meeting Update.
 - Prepared and presented Board Meeting Update.
 - Prepared and presented Project Advisory Committee Meeting Update.
 - Prepared for and held Monthly Status Meeting with Alliance Water.
 - Prepared for and attended GVEC Coordination Meeting with ARWA and GBRA.
- Task 3 – Budgeting
 - Finalized Program Quarterly Update for the Technical Committee and Board Meetings.
 - Continued updates to Budget Workbook to include monthly tracking of actual costs for ARWA review.
- Task 4 – Schedule
 - Finalized Program Quarterly Update for the for the Technical Committee and Board Meetings.
 - Coordinated with Program team to integrate each monthly project schedule update into overall Program schedule.
- Task 6 – Data Management
 - Ongoing maintenance of Microsoft SharePoint Online program.
 - Continued updating of web-based GIS for right-of-entry process and alignment changes.
- Task 7 – Environmental Management
 - Coordinated with Environmental Consultant to develop proposal for additional hazmat studies for Segments B and D.
 - Continued coordination with the Program Environmental Consultant regarding additional hazmat studies for Segment A.
 - Performed coordination between Program Environmental Consultant and Land Acquisition Consultant to clarify environmental field work to be done on properties as part of right-of-entry process.
 - Monthly progress meeting and ongoing coordination with Program Environmental Consultant.

Alliance Water – Phase 1B Infrastructure – Owner’s Representative

- Continued coordination between Program Environmental Consultant and Design Engineers.
- Reviewed Program Environmental invoices, schedule, and risk log.

- Task 8 – Land Acquisition Management
 - Coordinated the appraisal process for Segments A, B, and D parcels.
 - Coordinated with Program Survey Consultant, Program Environmental Consultant, and Land Acquisition team to address questions that arise as part of the field work coordination process.
 - Performed weekly QC of parcel files in SharePoint, provided comments to Land Acquisition team.
 - Weekly coordination meeting with land agents to discuss status of rights-of-entry and to provide Program clarification on any questions/requests that have come from landowners.
 - Reviewed Program Land Acquisition team, Program Appraiser, and Program Survey invoices.
 - Continued field work coordination to notify landowners of upcoming field work by consultants.

- Task 9 – Texas Water Development Board Management
 - Submitted the Booster Pump Station EFR to the TWDB for review.
 - Began preparations for the next reimbursement funding release.
 - Continue coordination with TWDB Staff to track all EFRs, environmental reports, and bid documents currently under review.

- Task 10 – Design Standards
 - Began compiling and addressing comments from the Manufacturer review of the Pipeline Construction Standards.
 - Revised the Security Standards given feedback from the PAC and Design Consultants.
 - Finalized Draft Fiber Standards for review by the PAC and Design Consultants.

- Task 11 – Engineering Design Management
 - Pipelines:
 - Segment A
 - Continued coordination with Design Consultant for final design.
 - Segment B
 - Continued coordination with Design Consultant to finalize EFR.
 - Continued coordination with Design Consultant for final design.
 - Segment C

Alliance Water – Phase 1B Infrastructure – Owner’s Representative

- Began review of Draft 30% Engineering Feasibility Report prepared by the Design Consultant.
 - Continued coordination and review of scope and fee for final design phase.
 - Continued coordination with Design Consultant regarding ongoing field work and pipeline alignment considerations as part of right-of-entry process and EFR development.
- Segment D
 - Continued coordination with Design Consultant for final design.
- Segment E
 - Finalized coordination and review of scope and fee for final design phase.
 - Continued coordination with Design Consultant regarding ongoing field work as part of right-of-entry process and EFR development.
- Wellfield:
 - Continued coordination regarding procurement of the construction contract for Wells 6-9.
 - Coordinated with the Design Consultant to answer contractor questions and issue Addendum No. 1.
 - Prepared for and attended Pre-Proposal Meeting.
- Raw Water Infrastructure:
 - Backcheck reviewed the 30% Engineering Feasibility Report.
 - Continued coordination with Design Consultant for 30% design development.
- Water Treatment Plant:
 - Coordinated with the Design Consultant to finalize draft value engineering cost analysis.
 - Continued coordination with Design Consultant for final design.
- Booster Pump Station:
 - Coordinated with the Design Consultant to finalize and submit the 30% Engineering Feasibility Report to the TWDB.
 - Coordinated with Design Consultant for final design and value engineering cost analysis.
- Inline Elevated Storage Tanks:
 - Continued coordination with Design Consultant for 30% design development.
 - Coordination with Environmental Consultant to perform desktop environmental analyses of potential tank sites.
- Other:
 - Monthly progress meetings with all Design Consultants (pipelines, water treatment plant, raw water infrastructure, wellfield, booster pump station).
 - Review invoices, schedules, and risk logs for consultants.

Alliance Water – Phase 1B Infrastructure – Owner’s Representative

- Task 13 – Electrical Power Planning
 - Prepared for and attending GVEC Coordination meeting concerning service to the water treatment plant and wellfield.
 - Continued coordinated with ARWA concerning emergency power needs and service options for the water treatment plant and wellfield.
 - Continued coordination with GVEC regarding electric service to the WTP and wellfield.

- Task 14 – Permit Coordination/Tracking
 - Continued Permit coordination with Pipeline Consultants.
 - Continued coordination with Caldwell County concerning variance request for the Site Development Permit.
 - Continued General Coordination with TxDOT.
 - Continued General Coordination with GVEC and BBEC.
 - On-going Permit Tracking Log Updates.

- Task 16 – Other Services
 - Commissioning Planning
 - Continued evaluating the commissioning of the Phase 1B infrastructure and finalized presentation.
 - Continued evaluating the commissioning of the Phase 1B infrastructure and finalized presentation for Technical Committee.
 - Prepared a presentation summarizing the solar feasibility memorandum findings and presented to the Technical Committee
 - Prepared and submitted to ARWA a COVID-19 Impact Assessment Memorandum.

April 2020 Projection:

- Task 2 – Stakeholder Coordination
 - Coordination and/or meetings with entities including: Caldwell County, Guadalupe County, GVEC, Bluebonnet Electric Coop, TxDOT, TCEQ, and TWDB.
 - Continue weekly task coordination with Alliance Water.
 - Prepare and present Project Advisory Committee Meeting Update.
 - Prepare and present Technical Committee Meeting Update.
 - Prepare and present Board Meeting Update.
 - Prepare for and hold Monthly Status Meeting with Alliance Water.

- Task 3 – Budgeting
 - Continue updates to Budget Workbook to include monthly tracking of actual costs for ARWA review.
 - Begin development of projected Operation and Maintenance costs.

Alliance Water – Phase 1B Infrastructure – Owner’s Representative

- Task 4 – Schedule
 - Coordinate with Program team to integrate each project schedule into overall Program schedule.

- Task 6 – Data Management
 - Develop and incorporate Construction Phase Folders on the Microsoft SharePoint Online Program.
 - Integrate executed easement documents and surveyed Benchmarks/Control Points within online GIS Web Map.
 - Ongoing maintenance of Microsoft SharePoint Online program.
 - Continued updating of web-based GIS for right-of-entry process and alignment changes.

- Task 7 – Environmental Management
 - Continued coordination with the Program Environmental Consultant regarding additional hazmat studies for Segment A.
 - Review of draft Segment A Phase II Environmental Report prepared by the Program Environmental Consultant.
 - Perform coordination between Program Environmental Consultant and Land Acquisition Consultant to clarify environmental field work to be done on properties as part of right-of-entry process.
 - Monthly progress meeting and ongoing coordination with Program Environmental Consultant.
 - Continue coordination between Program Environmental Consultant and Design Engineers.
 - Review Program Environmental invoices, schedule, and risk log.

- Task 8 – Land Acquisition Management
 - Coordinate the appraisal process for Segment A and Segment B parcels.
 - Coordinate with Program Survey Consultant, Program Environmental Consultant, and Land Acquisition team to address questions that arise as part of the field work coordination process.
 - Perform weekly QC of parcel files in SharePoint, provide comments to Land Acquisition team.
 - Weekly coordination meeting with land agents to discuss status of rights-of-entry and to provide Program clarification on any questions/requests that have come from landowners.
 - Review Program Land Acquisition team, Program Appraiser, and Program Survey invoices.
 - Continue field work coordination to notify landowners of upcoming field work by consultants.

- Task 9 – Texas Water Development Board Management
 - Submit the Raw Water Infrastructure EFR to the TWDB for review.

Alliance Water – Phase 1B Infrastructure – Owner’s Representative

- Continue preparations for reimbursement funding release.
- Continue coordination with TWDB Staff to track all EFRs, environmental reports, and bid documents currently under review.

- Task 10 – Design Standards
 - Compile and address comments from the Manufacturer review of the Pipeline Construction Standards. Meet with Manufacturers to discuss the comments received.
 - Revise the Cathodic Protection Program Standards given feedback from the PAC and Design Consultants.
 - Revise the Security Standards given feedback from the PAC and Design Consultants.
 - Revise the Fiber Standards given feedback from the PAC and Design Consultants.

- Task 11 – Engineering Design Management
 - Pipelines:
 - Segment A
 - Continue coordination with Design Consultant for final design.
 - Segment B
 - Continue coordination with Design Consultant to finalize EFR.
 - Continue coordination with Design Consultant regarding for final design.
 - Segment C
 - Finalize and backcheck the 30% Engineering Feasibility Report prepared by the Design Consultant.
 - Finalize coordination and review of scope and fee for final design phase.
 - Continue coordination with Design Consultant regarding ongoing field work and pipeline alignment considerations as part of right-of-entry process and EFR development.
 - Segment D
 - Continue coordination with Design Consultant for final design.
 - Segment E
 - Begin review of Draft 30% Engineering Feasibility Report prepared by the Design Consultant.
 - Continue coordination with Design Consultant regarding ongoing field work as part of right-of-entry process and EFR development.
 - Wellfield:
 - Continue coordination regarding procurement of the construction contract for Wells 6-9.
 - Prepare for and attend Bid Opening Meeting.

Alliance Water – Phase 1B Infrastructure – Owner’s Representative

- Raw Water Infrastructure:
 - Finalize the Final 30% Engineering Feasibility Report and submit the 30% Design Report to the TWDB.
 - Continue coordination with Design Consultant for 30% design development.
- Water Treatment Plant:
 - Coordination with the Design Consultant to finalize value engineering cost analysis.
 - Coordination with Design Consultant for final design.
- Booster Pump Station:
 - Coordination with Design Consultant for final design.
- Inline Elevated Storage Tanks:
 - Coordination with Design Consultant for 30% design development.
- Other:
 - Monthly progress meetings with all Design Consultants (pipelines, water treatment plant, raw water infrastructure, wellfield).
 - Review invoices, schedules, and risk logs for consultants

- Task 13 - Electrical Power Planning
 - Continue coordination with ARWA concerning emergency power needs and service options for the water treatment plant and wellfield.
 - Continue coordination with GVEC regarding electric service to the WTP and wellfield.

- Task 14 - Permit Coordination/Tracking
 - Continue Permit coordination with Pipeline consultants
 - Continue Coordination with Caldwell County for variance request for the Site Development Permit.
 - Coordinate with Hays County concerning the Site Development Permit.
 - General Coordination with TxDOT.
 - Coordinate with Hays County TxDOT office concerning roadway crossings.
 - General Coordination with GVEC and BBEC.
 - Permit Tracking Log Updates.

- Task 16 - Other Services
 -
 - Commissioning Planning
 - Continue evaluating the commissioning of the Phase 1B infrastructure.
 - Finalize and submit the City of San Marcos Watershed Protection Plan for the Booster Pump Station Plat.

Scope Elements Added/Removed:

COVID-19 Potential Impacts Analysis, Coordination and Memorandum development.

Outstanding Issues/Concerns:

None at this time.

REGULAR MEETING
Alliance Regional Water Authority Technical Committee

COMMITTEE MEMBER PACKETS

Wednesday, April 8th, 2020 at 3:00 P.M.

Conference Call Number: 1-903-405-2572; Code: 120 771 382#

- F.3** Discussion and possible recommendation to the Board to approve a work order with BGE, Inc. for Final Design and Procurement Services for the Authority's Phase 1B Segment C project. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
-

Background/Information

Alliance Water entered into a Work Order in May 2018 with BGE, Inc. to provide preliminary engineering services for the Phase 1B Segment C project. The preliminary design is almost complete and in order to maintain progress, Staff has negotiated a scope and fee with BGE to provide final design and procurement services for the Segment C project. Construction phase services will be negotiated at a later date and will be authorized via a separate work order.

Below are some of the key facts regarding the Phase 1B Segment E proposal:

Firm: BGE, Inc.

Fee: \$3,090,339

Work Order Type: Lump Sum

Anticipated Duration: 15 months

Project Manager: Ron Mick, P.E.

Key Subconsultants: HVJ Associates (Geotechnical), Chapman Engineering (Cathodic Design), Rios Group (SUE), & Unintech Consulting Engineers (Survey)

Staff is requesting that the Committee recommend Board approval of a Work Order with a fee for the basic services of \$2,688,310 and a fee for supplemental effort in an amount not-to-exceed \$402,029 for a total fee of \$3,090,339. The Executive Director will be given the discretion to authorize the supplemental effort if needed.

Attachment(s)

- Proposal for Design and Procurement for Phase 1B Segment C Project dated March 26, 2020.

Executive Director Recommendation(s)

- The Executive Director recommends approval of the work order with BGE, Inc.

REGULAR MEETING
Alliance Regional Water Authority Technical Committee

COMMITTEE MEMBER PACKETS

Wednesday, April 8th, 2020 at 3:00 P.M.

Conference Call Number: 1-903-405-2572; Code: 120 771 382#

Technical Committee Decision Needed:

- Possible recommendation to the Board to approve a work order with BGE, Inc. for Design and Procurement Phase Services for the Authority's Phase 1B Segment C project.



March 26, 2020

Mr. Sean Mason, P.E.
Segment C Project Manager
2600 Via Fortuna, Bldg. 1, Suite 300
Austin, TX 78746

Re: Final Design Scope of Work – Rev. 2
Alliance Regional Water Authority Pipeline Segment C

BGE, Inc. (BGE) is pleased to present this proposal for engineering services related to the final design of the Alliance Regional Water Authority Phase 1B Pipeline Segment C.

Attached herein, please find:

- A. Scope of Services
- B. Fee Budget Estimate
- C. Subconsultant Proposals

We appreciate the opportunity to provide our services to the authority. We look forward to discussing this proposal with you at your convenience.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Ron Mick'.

Ron Mick, P.E.
Senior Project Manager
BGE, Inc.

Attachment A

Alliance Regional Water Authority – Phase 1B Final Design Segment C Pipeline Scope of Work

Pipeline Segment C includes approximately 119,000 linear feet (LF) of new 42-inch, 36-inch, 24-inch, and 16-inch water transmission main (WTM) that will interconnect the Phase 1B Booster Pump Station near Maxwell to the Phase 1B program delivery points at San Marcos #2, Kyle, and County Line Special Utility District (CLSUD). BGE has completed preliminary engineering phase; which includes a pipeline alignment alternatives evaluation, an Engineering Feasibility Report, and 30% plans for the proposed pipeline. Based on the findings of the preliminary phase, the following scope of work for final design phase is proposed.

Scope of Work

1. Project Management
 - 1.1. Prepare Monthly Summary Reports/Invoicing as identified in the ARWA Phase 1B Program Management Plan
 - 1.2. Schedule Development and monthly updates
 - 1.2.1. Schedule shall be in Microsoft Project format
 - 1.3. Risk Register development and monthly updates
 - 1.3.1. Risk Register shall be in Microsoft Excel format
 - 1.4. Meetings
 - 1.4.1. Conduct Progress Meetings with Owner’s Representative (18 meetings)
 - 1.4.2. Conduct half-day coordination workshops (2 workshops)
 - 1.4.3. Prepare and distribute meeting notes
 - 1.4.4. Quality Control Audit (1 workshop)
2. Review of Final Pipeline Construction Standards
 - 2.1. Review and provide comments on Updates to Pipeline Construction Standards prepared by Owner’s Representative
 - 2.2. Meetings
 - 2.2.1. Attend one half-day workshop to discuss comments on Final Pipeline Construction Standards
 - 2.3. Deliverables
 - 2.3.1. Develop comment list on Updates to Pipeline Construction Standards in Adobe PDF format
3. Environmental Coordination
 - 3.1. Review Final Environmental Document for applicable project and develop Construction Documents based on findings.
 - 3.2. Incorporate recommendations from Environmental into Contract Documents
 - 3.3. Meetings

- 3.3.1. Conduct coordination meeting with Environmental Consultant to discuss the Final Environmental Report and incorporation of recommended items into contract documents for applicable project
 - 3.3.2. Prepare and distribute meeting notes
4. Land Acquisition Coordination
- 4.1. Provide Program with right-of-entry needs for final design phase
 - 4.2. Easement Development
 - 4.2.1. Review and comment on draft and final easement exhibits to verify that the exhibit reflects the intent of the design.
 - 4.2.2. Update Parcel Data Forms and easement exhibits, including environmental findings
 - 4.3. Meetings
 - 4.3.1. Coordination with Land Acquisition team to address easement items
 - 4.3.1.1. Respond to Land Acquisition team and/or property owner questions regarding easement (Assume 80% of easements)
 - 4.3.1.2. Respond to property owner requests within properties and incorporate minor alignment adjustments within a parcel that do not require additional field studies (when practical). (Assume 20% of easements)
5. Entity/Agency Coordination
- 5.1. Develop and submit applicable permit applications
 - 5.1.1. Texas Department of Transportation (TXDOT). 4 crossing locations: SH 142, SH-21, IH-35 (2 locations).
 - 5.1.1.1. Permit preparation will be conducted during the 60% Design Phase milestone
 - 5.1.1.2. Submittal of permit during 60% Design Phase milestone (submittal provided to Owner's Representative)
 - 5.1.1.3. Address comments and re-submit permit during the 90% Design Phase milestone (through Owner's Representative) (Assume 1 round of formal comments)
 - 5.1.2. Union Pacific Railroad. 3 crossing locations: Caldwell County, west of IH35 and adjacent to Kohler's Crossing.
 - 5.1.2.1. Permit preparation during 60% Design Phase milestone
 - 5.1.2.2. Submittal of permit during 60% Design Phase milestone
 - 5.1.2.3. Address Comments and Resubmit Permit during 90% Design Phase milestone (Assume 1 round of formal comments)
 - 5.1.3. Caldwell County. 3 County Road Crossings: Valley Way Drive, FM 1966, and Farmers Road
 - 5.1.3.1. Permit preparation during 60% Design Phase milestone
 - 5.1.3.2. Submittal of permit during 60% Design Phase milestone (submittal provided to Owner's Representative)
 - 5.1.3.3. Address comments and resubmit permit during the 90% Design Phase milestone (through Owner's Representative, Assume 1 round of formal comments)
 - 5.1.4. Hays County roadway crossings. 12 roadway crossings: FM 158, FM 150, Bunton Lane, Bunton Creek Rd, Dacy Ln, Post Rd, Aztec Village Dr, Bunton Ln, Bunton Ln, Cotton Gin Rd, Plum Creek Rd, High Rd.
 - 5.1.4.1. Permit preparation during 60% Design Phase milestone

- 5.1.4.2. Submittal of permit during 60% Design Phase milestone
- 5.1.4.3. Address comments and r permit during 90% Design Phase milestone (Assume 1 round of formal comments)
- 5.1.5. Hays County Development Permit. A development permit will be required for the project, and a separate permit may be required for each parcel within Hays County. The Project Includes 74 Parcels in Hays County. Basic services includes a single development permit within Hays County for the total project. Supplemental services includes additional task if the county requires 74 individual permits.
 - 5.1.5.1. Permit preparation during 60% Design Phase milestone
 - 5.1.5.2. Submittal of permit during 60% Design Phase milestone
 - 5.1.5.3. Address comments and resubmit permit during 90% Design Phase milestone (Assume 1 round of formal comments)
- 5.1.6. Meetings (Conduct coordination meetings with each entity/agency as required). Assume 10 total meetings.
- 5.2. Texas Commission on Environmental Quality (TCEQ) Exceptions and Variance Development and Coordination. Provide exhibits, calculations, and technical support data for each exception request to Owner’s Representative for use in obtaining TCEQ acceptance. Three variances are anticipated and are listed below. It is assumed that the Owner will manage and conduct all correspondence with TCEQ personnel in relation to said variances.
 - 5.2.1. Minimum Pressure Variance - TCEQ 290.44 (d)
 - 5.2.2. Stream Crossing Exception – TCEQ 290.44 (f) (2)
 - 5.2.3. Sampling Frequency Variance - TCEQ 290.44 (f) (3)
- 6. Public and Private Utility Coordination
 - 6.1. Provide Quality Service Level A SUE services to identify the location and depth of existing utilities. Utility crossings identified include 12 Overhead Electric, 16 Gas lines, 41 communications lines, 7 wastewater mains, and 37 water mains. To fully identify and provide adequate clearance in design, 63 Level A Potholes are requested (reference TRG proposal in Attachment E.
 - 6.2. Provide Quality Service Level B SUE services to identify the horizontal location of existing utilities. Approximately 45,000 Linear feet of gas pipeline is parallel to the proposed Segment C water main alignment. To identify and provide adequate clearances in design, 10,000 linear feet of this gas main is requested to be located to Quality Service Level B. (reference TRG proposal in Attachment E.
 - 6.2.1. GIS files, record drawings, utility block maps, and other methods
 - 6.3. Coordinate with Owner’s Representative on available collected GIS data
 - 6.3.1. Coordinate with entities for additional data needs as needed.
 - 6.4. Utility Coordination
 - 6.4.1. Conduct on-going coordination with impacted utilities consisting of telephone and e-mail correspondence for review of crossings and parallel installations.
 - 6.5. Meetings
 - 6.5.1. Conduct coordination meetings with impacted utilities. Assume 15 meetings.
 - 6.5.2. Prepare and distribute meeting notes for all meetings.

7. Design Consultant Coordination

7.1. Booster Pump Station/Delivery Point Design Consultant Coordination

- 7.1.1. Coordinate with said consultant to confirm tie-in locations to the following delivery points.
 - 7.1.1.1. County Line SUD Delivery Point
 - 7.1.1.2. San Marcos # 2 Delivery Point
 - 7.1.1.3. Kyle Delivery Point
- 7.1.2. Coordinate with said consultant to confirm hydraulics, surge, pipe diameter, and pressure class.
- 7.1.3. Coordinate with consultant to confirm tie-in locations to BPS site. Task shall include coordination with the Pipeline Segment B and D consultants as needed at the BPS connection point.
- 7.1.4. Tie-in Coordination meeting with BPS Designer, and Segments B & C designers. Assume one meeting.

8. Design Survey

- 8.1.1. Horizontal and Vertical survey based on NAD 83 coordinates (State Plane Texas South Central/Feet). Topographic survey area shall include an area along the proposed Segment C pipeline length consisting of the full easement width plus 40 feet to provide contours to the edge of the easement (reference Unintech proposal in Attachment F).
 - 8.1.1.1. Survey will identify property lines, contours, benchmarks, bores, topographic features, apparent locations of existing features marked on the surface, and appurtenances such as heritage trees, fences, drainage structures, and surface features of existing utilities.
 - 8.1.1.1.1. Where drainage culverts are crossed, the survey will identify the manhole, junction box, or outfall structure immediately upstream and downstream of the water main crossing and provide flowline and pipe size information for the culvert crossing the water main.
 - 8.1.1.1.2. Where a wastewater pipeline is crossed, the survey shall identify manholes on each side of the crossing and provide flowline, pipe diameter, and material information for the pipeline.
 - 8.1.1.1.3. Where water mains or gas mains are crossed, the survey shall locate any surface features of the main within 50 feet of the easement.
 - 8.1.1.1.4. All communications manholes within 50 feet of the easement will be identified in the survey.
 - 8.1.1.1.5. Perform a tree inventory in accordance with local entities (Cities of Kyle and San Marcos have Tree Preservation Ordinances). Trees 9-inch diameter and greater will be surveyed in jurisdictions with ordinances. Trees are to be tagged using permanent marking tags and a certified arborist or forester will confirm species.
 - 8.1.1.2. Verify control points established by ARWA Owner's Representative

9. Subsurface Investigations

- 9.1. Geotechnical Investigation (reference HVJ proposal in Attachment D)

- 9.1.1. The Geotechnical investigation will consist of geotechnical borings conducted at approximately 1,400 foot spacing along the pipeline alignment to an average depth of 20 feet. Borings will be added to those taken during the preliminary phase and locations will be provided at roadway, stream, and major utility crossings. 60 total borings are estimated for this phase of work.
- 9.1.2. Soil samples will be obtained using Shelby tubes and / or split-spoon samplers. Field testing of soil samples will include pocket penetrometer in cohesive soils and standard penetration test (SPT) in cohesionless soils. Competent rock will be sampled with an NX core size and percent recovery, and Rock Quality Designation will be reported on the boring logs. All borings will be backfilled completely unless a piezometer is determined to be needed at the location (any identified necessary piezometers will be determined after the preliminary geotechnical program results are evaluated and will be included as supplemental services).
- 9.1.3. The geotechnical program will include laboratory tests to classify the soil samples and develop a thorough understanding of the subsurface conditions relevant to the design.
- 9.1.4. Specialty tests may be developed after the preliminary geotechnical testing program is completed that will be included in supplemental services.
- 9.2. Corrosion Investigation, Data Collection and Design Support (reference Chapman proposal in Attachment C).
 - 9.2.1. Provide corrosion investigation services. Tests will include:
 - 9.2.1.1. ASTM G57 Resistivities,
 - 9.2.1.2. EPA 9045C pH,
 - 9.2.1.3. SW 9056 Chlorides and Sulfates, S
 - 9.2.1.4. M 2320B Bicarbonates
 - 9.2.1.5. Wenner 4-pi testing ASTM G57 every 2,000 feet.
 - 9.2.1.6. Obtain soil sample from approximate pipeline depth every 4,000 feet
 - 9.2.1.6.1. Minimum of 1-quart soil sample

10. 60% Design Phase

10.1. Perform site visits as needed for 60% design, up to 5 site visits included.

10.2. Construction Drawings

10.2.1. Perform analyses and calculations to support the pipeline design as follows:

- 10.2.1.1. Cathodic Protection
- 10.2.1.2. Joint Restraint (for one pipe material)
- 10.2.1.3. Trenchless Engineering and Calculations (include casing and/or liner thickness)
- 10.2.1.4. Scour analysis and stream bank mitigation at major stream crossings
- 10.2.1.5. Pipeline buoyancy
- 10.2.1.6. Pipe Deflection
- 10.2.1.7. Combination Air Vacuum and Air Release Valves (size and location)
- 10.2.1.8. Blow-off Valves (size)
- 10.2.1.9. Pipeline structural design calculations

10.2.2. Develop 60% Plan Set (in accordance with the ARWA Phase 1B Program Design Standards)

- 10.2.2.1. General Sheets (Cover, Project Layout, General Notes, Quantities, etc.)
- 10.2.2.2. Overall Dimensional Control Plan

- 10.2.2.3. Survey Control sheets
 - 10.2.2.4. Contractor access sheets (including permanent access driveways, low water crossings, traffic control (if necessary)).
 - 10.2.2.5. Plan and Profile sheets. Identify scale of P&P sheets: 1"=50' H, 1"=5' V (22"x34" sheet); 1"=100' H, 1"=10'V (11"x17" sheet)
 - 10.2.2.6. Erosion Control Sheets
 - 10.2.2.7. Cathodic Protection sheets
 - 10.2.2.8. Standard Details (Provided by the Owner's Representative)
 - 10.2.2.9. Cathodic Protection Detail sheets
 - 10.2.2.10. Project Specific Details (as developed by the Design Consultant)
- 10.3. Preparation of Project Manual
- 10.3.1. Development of Table of Contents
 - 10.3.1.1. ARWA Phase 1B Program standard specifications (Provided by the Owner's Representative).
 - 10.3.1.2. Draft project specific technical specifications.
- 10.4. 60% Opinion of Probable Construction Cost (25% contingency)
- 10.5. Perform internal Quality Control review and address QC comments.
- 10.6. 60% Design Workshop
- 10.6.1. Conduct 60% Design workshop to review the 60% Design Submittal
 - 10.6.2. Prepare and distribute meeting notes
- 10.7. Address comments provided by the Owner and Owner's Representative (Assume response to 1 round of formal comments)
- 10.8. 60% Design Phase Deliverables
- 10.8.1. 60% Design Deliverables (plans and specifications)
 - 10.8.2. Draft Geotechnical Report
 - 10.8.3. Updated list of permits required for the project
 - 10.8.4. Updated Risk Register
 - 10.8.5. SUE Deliverables, Test Hole data reports.
 - 10.8.6. Updated Project Schedule
 - 10.8.7. Draft Cathodic Protection Report
 - 10.8.8. 60% Opinion of Probable Construction Cost (OPCC)
 - 10.8.9. 60% Design Letter documenting conformance to applicable AWWA and TCEQ standards, conformance to ARWA standards, and documentation of any exceptions to these standards.
 - 10.8.10. 60% QA/QC Documentation
 - 10.8.11. 60% Design Review Workshop and meeting notes
11. 90% Design Phase
- 11.1. Perform site visits as needed for 90% design, up to 5 site visits included.
 - 11.2. Construction Drawings
 - 11.2.1. Develop 90% Plan Set (in accordance with the ARWA Phase 1B Program Design Standards)
 - 11.2.1.1. Further Development of 60% Plan Set sheets

- 11.2.1.1.1. General Sheets (Cover, Project Layout, General Notes, Quantities, etc.)
- 11.2.1.1.2. Overall Dimensional Control Plan
- 11.2.1.1.3. Survey Control Sheets
- 11.2.1.1.4. Contractor Access Sheets (including permanent access driveways, low water crossings, etc)
- 11.2.1.1.5. Plan and Profile Sheets
- 11.2.1.1.6. Erosion Control Sheets
- 11.2.1.1.7. Cathodic Protection Sheets
- 11.2.1.1.8. Standard Details (Provided by the Owner's Representative_
- 11.2.1.1.9. Cathodic Protection detail sheets
- 11.2.1.1.10. Project Specific Details (as developed by the Design Consultant)
- 11.2.1.2. Traffic Control Plan
- 11.2.1.3. Tree Preservation Plan
- 11.3. Draft Project Manual – including all front end and contract specifications
- 11.4. 90% Opinions of Probable Construction Cost (15% Contingency)
- 11.5. Perform internal QC review and address QC comments
- 11.6. 90% Design Workshop
 - 11.6.1. Conduct 90% Design workshop to review the 90% Design Submittal
 - 11.6.2. Prepare and distribute meeting minutes
- 11.7. Address comments provided by Owner and Owner's Representative (Assume response to 1 round of formal comments)
- 11.8. 90% Design Phase Deliverables
 - 11.8.1. 90% Design Deliverables (plans and specifications)
 - 11.8.2. Final Geotechnical Report
 - 11.8.3. Updated Risk Register
 - 11.8.4. Updated Project Schedule
 - 11.8.5. 90% Design Letter documenting conformance to applicable AWWA and TCEQ standards, conformance to ARWA standards, and documentation of any exceptions to these standards.
 - 11.8.6. 90% Opinion of Probable Construction Cost (OPCC)
 - 11.8.7. QA/QC Documentation
 - 11.8.8. 90% Design Review Workshop and meeting notes
- 12. 100% Design Phase
 - 12.1. Perform site visits as needed for 100% design, up to 2 site visits included.
 - 12.2. Construction Drawings
 - 12.2.1. Develop 100% Plan Set (in accordance with the ARWA Phase 1B Program Design Standards)
 - 12.2.1.1. Final Development Plan Set sheets from 90% to 100% level.
 - 12.3. Final Project Manual
 - 12.3.1. Contract Documents to include language for Request for Competitive Sealed Proposals (RFCSP) (Standard language to be provided by the Owner)
 - 12.3.2. Incorporation of all applicable specifications provided by the Program and specific to the project

- 12.4. 100% Opinion of Probable Construction Cost
 - 12.5. Perform internal QC review and address QC comments
 - 12.6. 100% Design Workshop
 - 12.6.1. Conduct 100% Design workshop to review the 100% Design Submittal
 - 12.6.2. Prepare and distribute meeting notes
 - 12.7. Address comments provided by the Owner and Owner's Representative (Assume response to 1 round of formal comments)
 - 12.8. Agency Review of 100% Plan Set
 - 12.8.1. Prepare packet for submission of 100% construction documents (plans and specifications) to the following agencies
 - 12.8.1.1. TWDB
 - 12.8.1.2. TCEQ
 - 12.8.2. Address 2 rounds each of formal comments provided by TWDB and TCEQ
 - 12.9. 100% Design Phase Deliverables
 - 12.9.1. 100% Design Deliverables (plans and specifications)
 - 12.9.2. Updated Risk Register
 - 12.9.3. Updated Project Schedule
 - 12.9.4. 100% Design Letter documenting conformance to applicable AWWA and TCEQ standards conformance to ARWA standards, and documentation of any exceptions to these standards.
 - 12.9.5. 100% Opinion of Probable Construction Cost (OPCC)
 - 12.9.6. QA/QC Documentation
 - 12.9.7. 100% Design Review Workshop and meeting notes
- 13. Procurement (Request for Competitive Sealed Proposal (RFCSP))
 - 13.1. Submit Final Documents for Advertisement (assume Owner is responsible for advertisement activities)
 - 13.2. Attend Pre-Proposal Conference
 - 13.3. Prepare Addendum and Clarifications (assume 4 addenda)
 - 13.4. Attend Proposal Opening
 - 13.5. Review Contractors Proposals
 - 13.5.1. Complete bid tab calculations and identify, discuss, and rectify anomalies with Owner
 - 13.5.2. Perform Contractor References Checks for up to 3 responsive proposals.
 - 13.5.3. Confirm Contractor Experience for up to 3 proposals.
 - 13.5.4. Prepare Recommendation for Award.
 - 13.6. Prepare Conformed Contract Documents that incorporate addenda into the documents.
- 14. Supplemental Services
 - 14.1. Survey
 - 14.1.1. Verify/Reset horizontal and vertical controls points for construction purposes
 - 14.2. General Engineering Design.
 - 14.3. Land Acquisition

- 14.3.1. Coordination meetings, additional alignment evaluations, and discussions with land owners for adjustments requested by property owners that are unforeseen at the completion of preliminary engineering phase.
- 14.3.2. Attend eminent domain hearings (assume 15 incursions)
- 14.3.3. Provide support documents and exhibits for eminent domain hearings (assume 15 hearings)
- 14.4. Environmental coordination based on necessary additional environmental investigations
- 14.5. Attend Public Meetings (2 meetings)
- 14.6. Attend additional meetings in the vicinity of the project (5 meetings)
- 14.7. Additional SUE Potholes
 - 14.7.1. At the direction of the Owner, the Consultant may be requested to perform additional SUE potholes beyond those identified in this scoping document.
- 14.8. Additional Geotechnical Borings & Piezometers
 - 14.8.1. At the direction of the Owner, the Consultant may be requested to perform additional geotechnical borings beyond those identified in this scoping document, and conduct surveying as required to tie-in borings into the design documents. This task includes borings needed for trenchless crossing designs and a Geotechnical Baseline Report.
- 14.9. Supplemental Permitting - Hays County Development Permit. Acquire development permits for individual parcels within Hays County if directed by Hays County staff. Note, a single permit for development within Hays county is included in the basic services.

Exclusions

1. No environmental or cultural resource services will be provided by BGE.
2. No boundary survey or easement documents are included.
3. No Storm Water Pollution Prevention Plan development or submittal is included.
4. No real estate / easement negotiation is included.
5. No pipeline hydraulic modeling is included.
6. No drainage hydraulic/hydrologic modeling or engineering is included.

Assumptions

1. Design standards will be provided by the Owner.
2. Boundary Survey and Survey Control will be provided by the Owner.
3. All meetings will be held in the immediate vicinity of the project (Travis, Hays, or Caldwell Counties).
4. Pipeline alignments are as provided in the Engineering Feasibility Report for the project by BGE. No further alignment evaluations will be provided in this scope of work without written notice to proceed and agreed upon additional services.
5. The Owner will be the primary contact with TWDB and TCEQ, and will facilitate submittals and coordination.
6. The Owner will provide CAD standards.
7. Drainage hydraulic/hydrologic calculations and/or modeling will be provided where pipeline crosses drainage features to develop pipeline protection and scour analysis.

Compensation

BGE will be paid on a lump sum basis for work performed. BGE and its subconsultants fees are included in Attachment B to provide a basis for compensation.

Schedule

Final Design Schedule is approximately 15 months from Notice To Proceed.

Alliance Water Phase 1B Program																	Project Fee Summary		
Pipeline Segment C																	Basic Effort	\$	2,688,310
3/26/2020																	Supplemental	\$	402,029
Attachment B - Detailed Overall BGE Cost Breakdown																	Total Effort	\$	3,090,339

Task	Employee									Total Hours	Total Labor Effort	Total Expense Effort	Chapman	HVJ	TRG	Unitech	Total Sub Effort	Total Effort	Assumptions	
	Project Role	Principal	Project Manager	QA/QC	Project Engineer	Engineer in Training	CADD Designer/GIS Analyst	CADD Technician	Admin/Clerical											
Hourly Bill Rate	\$295.00	\$245.00	\$290.00	\$165.00	\$108.00	\$118.00	\$105.00	\$95.00												
Basic Services																				
Task 1 - Project Management																				
1.1	Prepare Monthly Summary Reports/Invoicing	15	144	0	178	76	0	4	30	447	\$ 80,553	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 80,553	15 Months
1.2	Schedule Development and Monthly Updates	10	45		40				30	125	\$ 23,425	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,425	
1.3	Risk Register Development and Monthly Updates	1	30		48					79	\$ 15,565	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,565	
1.4	Meetings	1	24		42	30				97	\$ 16,345	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,345	
1.4.1	Conduct Progress Meetings with Owner's Representative (18 Meetings)		24		24	24				72	\$ 12,432	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,432	
1.4.2	Conduct half-day coordination workshops (2 workshops)	2	16		16	16				50	\$ 8,878	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,878	
1.4.3	Prepare meeting notes		1		4	6				11	\$ 1,553	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,553	
1.4.4	Quality Control Audit	1	4		4			4		13	\$ 2,355	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,355	
Task 2 - Review of Pipeline Construction Standards																				
2.1	Review and provide comments on construction standards prepared by Owner's Representative	0	22	0	56	48	20	0	0	146	\$ 22,174	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,174	
2.2	Meetings		12		40	32	16			100	\$ 14,884	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,884	
2.2.1	Attend 1/2 day workshop to discuss comments on Final Pipeline Construction Standards		8		8	8				24	\$ 4,144	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,144	
2.3	Deliverables									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
2.3.1	Comments on Final Pipeline Construction Standards in Adobe PDF format		2		8	8	4			22	\$ 3,146	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,146	
Task 3 - Environmental Coordination																				
3.1	Review Final Environmental Document	2	8		24	24				58	\$ 9,102	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,102	
3.2	Incorporate recommendations into contract documents		4		24	24	24	24		100	\$ 12,884	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,884	
3.3	Meetings									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3.3.1	Conduct coordination meeting with Environmental Consultant		4		12	12				28	\$ 4,256	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,256	
3.3.2	Prepare meeting notes		1		2	4				7	\$ 1,007	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,007	
Task 4 - Land Acquisition Coordination																				
4.1	Provide ROE needs for final design	0	112	0	168	168	124	80	0	652	\$ 96,336	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 96,336	
4.2	Easement Development		12		24	24	40			100	\$ 14,212	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,212	
4.2.1	Review and comment on draft and final easement documents		8		24	24	24			80	\$ 11,344	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,344	
4.2.2	Update parcel Data Forms and easement exhibits		12		40	40	60	80		232	\$ 29,340	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 29,340	
4.3	Meetings									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
4.3.1	Coordination Meetings									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
4.3.1.1	Basic quesstion meetings (80% of easements)		40		40	40				120	\$ 20,720	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,720	
4.3.1.2	Adjustment or special easement request meetings (20% of easements)		40		40	40				120	\$ 20,720	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,720	
Task 5 - Entity/Agency Coordination																				
5.1	Develop and submit permit applications	0	66	13	190	262	165	0	0	696	\$ 99,056	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 99,056	
5.1.1	TxDOT Crossing - 4 crossings									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
5.1.1.1	Permit Prep at 60% milestone		8	3	24	24	12			71	\$ 10,798	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,798	
5.1.1.2	Permit submittal at 60% milestone		1		2	4				7	\$ 1,007	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,007	
5.1.1.3	Address comments and re-submit at 90%		1		12	12	12			37	\$ 4,937	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,937	
5.1.2	UPRR - 3 crossings									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
5.1.2.1	Permit Prep at 60% milestone		8	2	24	24	16			74	\$ 10,980	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,980	
5.1.2.2	Permit submittal at 60% milestone		1		2	4				7	\$ 1,007	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,007	
5.1.2.3	Address comments and re-submit at 90%		1		12	12	12			37	\$ 4,937	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,937	
5.1.3	Caldwell County - 3 road crossings									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
5.1.3.1	Permit Prep at 60% milestone		8	2	12	12	9			43	\$ 6,878	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,878	
5.1.3.2	Permit submittal at 60% milestone		1		2	2				5	\$ 791	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 791	
5.1.3.3	Address comments and re-submit at 90%		1		2	8	8			19	\$ 2,383	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,383	
5.1.4	Hays County - 12 road crossings									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
5.1.4.1	Permit Prep at 60% milestone		8	4	24	24	24			84	\$ 12,504	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,504	
5.1.4.2	Permit submittal at 60% milestone		1		8	16				25	\$ 3,293	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,293	
5.1.4.3	Address comments and re-submit at 90%		1		12	18	18			49	\$ 6,293	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,293	
5.1.5	Hays County Development Permits (Basic)									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
5.1.5.1	Permit Prep at 60% milestone		8	2	12	12	24			58	\$ 8,648	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,648	
5.1.5.2	Permit submittal at 60% milestone		1		2	4				7	\$ 1,007	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,007	
5.1.5.3	Address comments and re-submit at 90%		1		8	6	6			21	\$ 2,921	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,921	
5.1.6	Meetings - coordination meetings with permitting agency/s		4		8	8				20	\$ 3,164	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,164	2 meetings
5.2	TCEQ Exceptions and Variance Development/Coordination									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
5.2.1	Min Pressure Variance		4		8	24	8			44	\$ 5,836	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,836	

Alliance Water Phase 1B Program														Project Fee Summary		
Pipeline Segment C														Basic Effort	\$	2,688,310
3/26/2020														Supplemental	\$	402,029
Attachment B - Detailed Overall BGE Cost Breakdown														Total Effort	\$	3,090,339

Task	Employee	Project Role								Total Hours	Total Labor Effort	Total Expense Effort	Chapman	HVJ	TRG	Unitech	Total Sub Effort	Total Effort	Assumptions
		Principal	Project Manager	QA/QC	Project Engineer	Engineer in Training	CADD Designer/GIS Analyst	CADD Technician	Admin/Clerical										
	Hourly Bill Rate	\$295.00	\$245.00	\$290.00	\$165.00	\$108.00	\$118.00	\$105.00	\$95.00										
5.2.2	Stream Crossing Exception		4		8	24	8			44	\$ 5,836	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,836
5.2.3	Sampling Frequency Variance		4		8	24	8			44	\$ 5,836	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,836
	Task 6 - Public and Private Utility Coordination	0	100	0	181	244	40	24	0	589	\$ 87,957	\$ -	\$ -	\$ -	\$ 122,490	\$ -	\$ 122,490	\$ 210,447	
6.1	Quality Level A SUE - 63 Level A Test Holes		12		18	12		12		54	\$ 8,466	\$ -	\$ -	\$ -	\$ 110,240	\$ -	\$ 110,240	\$ 118,706	
6.2	Quality Level B SUE - 10,000 LF Lvl B		4		18	12		12		46	\$ 6,506	\$ -	\$ -	\$ -	\$ 12,250	\$ -	\$ 12,250	\$ 18,756	
6.3	Coordination with Owner's Rep		40		60	60				160	\$ 26,180	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,180	
6.4	Utility Coordination									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
6.4.1	Ongoing Coordination with utilities		24		40	70	40			174	\$ 24,760	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,760	
6.5	Meetings									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
6.5.1	Conduct Coordination meetings - 15		15		30	60				105	\$ 15,105	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,105	
6.5.2	Prepare and distribute meeting notes		5		15	30				50	\$ 6,940	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,940	
	Task 7 - Design Consultant Coordination	8	48	0	116	96	40	40	0	348	\$ 52,548	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52,548	
7.1	BPS / Delivery Point Design Consultant									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
7.1.1	Coordination to confirm tie-in locations to delivery points	8								8	\$ 2,360	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,360	
7.1.1.1	County Line SUD		12		24	20	8	8		72	\$ 10,844	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,844	
7.1.1.2	San Marcos #2		12		24	20	8	8		72	\$ 10,844	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,844	
7.1.1.3	Kyle		12		24	20	8	8		72	\$ 10,844	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,844	
										0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
7.1.2	Coordination with BPS consultant for hydraulics, surge, pipe sizing		8		32	24	8	8		80	\$ 11,616	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,616	
7.1.3	Coordinate to confirm tie-in at BPS		2		8	8	8	8		34	\$ 4,458	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,458	
7.1.4	Tie-in Coordination Meeting		2		4	4				10	\$ 1,582	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,582	
	Task 8 - Design Survey	1	24	0	44	44	0	0	0	113	\$ 18,187	\$ -	\$ -	\$ -	\$ -	\$ 302,789	\$ 302,789	\$ 320,976	
8.1	Topographic Survey	1	24		44	44				113	\$ 18,187	\$ -	\$ -	\$ -	\$ -	\$ 302,789	\$ 302,789	\$ 320,976	
	Task 9 - Subsurface Investigations	1	40	0	100	64	0	0	0	205	\$ 33,507	\$ -	\$ -	\$ 164,310	\$ -	\$ -	\$ 164,310	\$ 197,817	
9.1	Geotechnical Investigation	1	24		60	44				129	\$ 20,827	\$ -	\$ -	\$ 131,510	\$ -	\$ -	\$ 131,510	\$ 152,337	
9.2	Corrosion Investigation		16		40	20				76	\$ 12,680	\$ -	\$ -	\$ 32,800	\$ -	\$ -	\$ 32,800	\$ 45,480	
	Task 10 - 60% Design Phase	44	364	84	698	1,640	1,246	1,236	20	5,332	\$ 697,518	\$ -	\$ 22,585	\$ -	\$ -	\$ -	\$ 22,585	\$ 720,103	
10.1	Site Visits		8		40	80				128	\$ 17,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,200	
10.2	Construction Drawings									0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
10.2.1	Analyses and Calculations		80	24	100	200				404	\$ 64,660	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 64,660	
10.2.2	60% Plans	40	180							220	\$ 55,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 55,900	
10.2.2.1	General Sheets				4	48	24	24		100	\$ 11,196	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,196	
10.2.2.2	Dimension Control Plan				4	8	24	24		60	\$ 6,876	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,876	
10.2.2.3	Survey Control				12	24	16	16		68	\$ 8,140	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,140	
10.2.2.4	Contractor's Access Sheets				24	160	80	80		344	\$ 39,080	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 39,080	
10.2.2.5	Plan and Profile Sheets				200	400	600	600		1,800	\$ 210,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 210,000	
10.2.2.6	E&S Sheets				100	180	200	200		680	\$ 80,540	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 80,540	
10.2.2.7	Cathodic Protection		4		4	16	8			32	\$ 4,312	\$ -	\$ 11,293	\$ -	\$ -	\$ -	\$ 11,293	\$ 15,605	
10.2.2.8	Standard Details				4	16	8	24		52	\$ 5,852	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,852	
10.2.2.9	Cathodic Protection Details		4		4	16	8			32	\$ 4,312	\$ -	\$ 11,293	\$ -	\$ -	\$ -	\$ 11,293	\$ 15,605	
10.2.2.10	Special Details		4		24	36	80	80		224	\$ 26,668	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,668	
10.3	60% Project Manual		40		40	160			20	260	\$ 35,580	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,580	
10.4	60% OPCC		8		24	80	24	24		160	\$ 19,912	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,912	
10.5	Internal QA/QC Review & Corrections		16	60	60	120	110	100		466	\$ 67,660	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 67,660	
10.6	60% Design Workshop		4		10	16				30	\$ 4,358	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,358	
10.7	Address Owner / Owner Rep Comments - provide comment responses	4	16		44	80	64	64		272	\$ 35,272	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,272	
	Task 11 - 90% Design Phase	36	248	60	564	1,294	1,040	1,026	20	4,288	\$ 553,942	\$ -	\$ 11,293	\$ -	\$ -	\$ -	\$ 11,293	\$ 565,235	
11.1	Site Visits		8		48	80				136	\$ 18,520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,520	
11.2	Construction Drawings	24	120							144	\$ 36,480	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,480	
11.2.1.1	General Sheets				2	32	16	16		66	\$ 7,354	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,354	
11.2.1.1	Dimensional control plan				6	8	8	8		30	\$ 3,638	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,638	
11.2.1.1	Survey Control Sheets				6	8	8	8		30	\$ 3,638	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,638	
11.2.1.1	Contractor's Access Sheets				32	86	60	60		238	\$ 27,948	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 27,948	
11.2.1.1	Plan and Profile Sheets				80	180	400	400		1,060	\$ 121,840	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 121,840	
11.2.1.1	Erosion Control Sheets				32	100	160	160		452	\$ 51,760	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51,760	
11.2.1.1	Cathodic Protection Sheets		4		12	16	4			36	\$ 5,160	\$ -	\$ 5,646	\$ -	\$ -	\$ -	\$ 5,646	\$ 10,806	
11.2.1.1	Standard Details		4		12	32	8	16		72	\$ 9,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,040	

Alliance Water Phase 1B Program																		Project Fee Summary		
Pipeline Segment C																		Basic Effort	\$	2,688,310
3/26/2020																		Supplemental	\$	402,029
Attachment B - Detailed Overall BGE Cost Breakdown																		Total Effort	\$	3,090,339

Task	Employee									Total Hours	Total Labor Effort	Total Expense Effort	Chapman	HVJ	TRG	Unitech	Total Sub Effort	Total Effort	Assumptions
	Project Role	Principal	Project Manager	QA/QC	Project Engineer	Engineer in Training	CADD Designer/GIS Analyst	CADD Technician	Admin/Clerical										
	Hourly Bill Rate	\$295.00	\$245.00	\$290.00	\$165.00	\$108.00	\$118.00	\$105.00	\$95.00										
11.2.1.1	Cathodic Protection Details		4		8	16	8			36	\$ 4,972	\$ -	\$ 5,646	\$ -	\$ -	\$ -	\$ 5,646	\$ 10,618	
11.2.1.1	Project Specific Details		8		40	160	40	40		288	\$ 34,760	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34,760	
11.2.1.2	Traffic Control Plan		16		40	100	100	100		356	\$ 43,620	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 43,620	
11.2.1.3	Tree Preservation Plan				24	80	80	80		264	\$ 30,440	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,440	
11.3	90% Project Manual	8	40		100	140			20	308	\$ 45,680	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 45,680	
11.4	90% OPCC		8		24	80	24	24		160	\$ 19,912	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,912	
11.5	Internal QA/QC Review & Corrections		16	60	50	100	60	50		336	\$ 52,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52,700	
11.6	90% Design Workshop		4		8	16				28	\$ 4,028	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,028	
11.7	Address Owner / Owner Rep Comments - provide comment responses	4	16		40	60	64	64		248	\$ 32,452	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32,452	
	Task 12 - 100% Design Phase	24	108	24	308	494	336	336	20	1,650	\$ 221,500	\$ -	\$ 11,293	\$ -	\$ -	\$ -	\$ 11,293	\$ 232,793	
12.1	Site Visits		4		16	32				52	\$ 7,076	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,076	
12.2	Construction Drawings - finalize drawing package	24	40		100	140	200	200		704	\$ 93,100	\$ -	\$ 11,293	\$ -	\$ -	\$ -	\$ 11,293	\$ 104,393	
12.3	Final Project Manual		40		60	120			20	240	\$ 34,560	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34,560	
12.4	100% OPCC		8		16	30	8	8		70	\$ 9,624	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,624	
12.5	Internal QA/QC Review & Corrections		4	24	60	60	80	80		308	\$ 42,160	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,160	
12.6	100% Design Workshop		4		8	16				28	\$ 4,028	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,028	
12.7	Address Owner / Owner Rep Comments - provide comment responses		4		40	80	40	40		204	\$ 25,140	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,140	
12.8	Agency Review Packages TWDB and TCEQ		4		8	16	8	8		44	\$ 5,812	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,812	
	Task 13 - Procurement (RFCSP)	4	36	0	88	144	104	80	24	480	\$ 63,024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 63,024	
13.1	Final Documents for RFCSP Package	2	16		24	40	40	40	24	186	\$ 23,990	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,990	
13.2	Attend Pre-Proposal Conference		4		4	4				12	\$ 2,072	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,072	
13.3	Prepare Addenda and provide clarifications		8		24	40	24			96	\$ 13,072	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,072	
13.4	Attend Proposal Opening		2		2					4	\$ 820	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 820	
13.5	Review Contractor's Proposals, provide Recommendation of Award	2	4		16	24				46	\$ 6,802	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,802	
13.6	Prepare Conformed Contract Documents		2		18	36	40	40		136	\$ 16,268	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,268	
	Supplemental Services																		
	Task 14 - Supplemental Services	0	278	0	298	266	150	148	20	8	\$ 206,868	\$ -	\$ -	\$ 154,056	\$ 21,105	\$ 20,000	\$ 195,161	\$ 402,029	
14.1	Supplemental Survey		4		4					8	\$ 1,640	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ 20,000	\$ 21,640	
14.2	General Engineering Design		100		100	100	110	100		510	\$ 75,280	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,280	
14.3	Land Acquisition		80		80	88		48	20	316	\$ 49,244	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 49,244	
14.4	Environmental Coordination		40		60	60	40			200	\$ 30,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,900	
14.5	Attend Public Meetings (2)		8		8	8				24	\$ 4,144	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,144	
14.6	Additional project meetings (5)		10		10	10				30	\$ 5,180	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,180	
14.7	Additional SUE Potholes		12		12					24	\$ 4,920	\$ -	\$ -	\$ -	\$ 21,105	\$ -	\$ 21,105	\$ 26,025	
14.8	Additional Geotechnical Borings, Piezometers, and GBR		24		24					48	\$ 9,840	\$ -	\$ -	\$ 154,056	\$ -	\$ -	\$ 154,056	\$ 163,896	
14.9	Supplemental Permitting - Hays County Development Permit		24		40	40	40	40		184	\$ 25,720	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,720	
	Grand Total										\$ 2,260,419	\$ -	\$ 45,170	\$ 318,366	\$ 143,595	\$ 322,789	\$ 829,920	\$ 3,090,339	

**CP Design, Alliance Regional Water Authority Water Pipelines,
Carrizo Aquifer Well Field, Caldwell County, Texas**

Proposal Number	1717
Proposal Date	February 17, 2020
Proposal Writer	Gilbert Schutza, CP-4
Proposal Reviewer	Cal Chapman, Mike Ames
Client Contact Name	Mr. Ron Mick, P. E.
Client Company Name	BGE, Inc.
Client Contact Title	Senior Project Manager
Client Contact Street Address	101 West Louis Henna Blvd, Suite 400
Client Contact City, State, Zip Address	Austin, Texas 78728
Client Contact email address	RMick@bgeinc.com

Dear Mr. Mick:

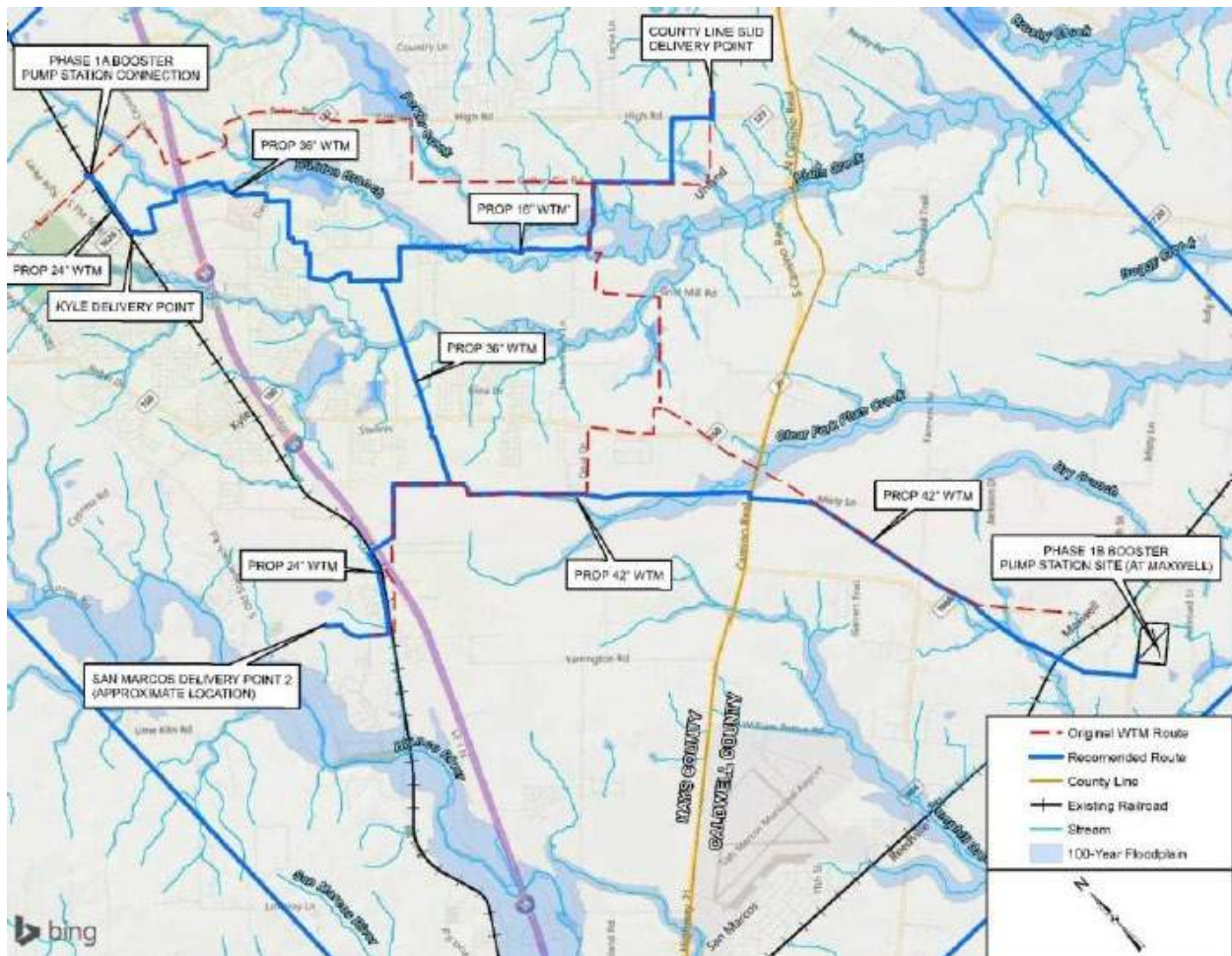
Thanks very much for your scope of work request, and the information about this Alliance Regional Water Authority project known as Segment C located east of Kyle and San Marcos, TX (Figure 1). The project described is 22-miles long and will include water transmission pipeline ranging in size from 16-inches to 42-inches in diameter.

SCOPE OF WORK PROPOSED

The Scope of Work will include the following:

1. Up to 3 meetings with BGE to coordinate design.
2. Review of program standards for Cathodic Design. Review and evaluation of soil corrosion potential testing.
3. 60% Design
 - a. Draft special specification for cathodic protection if program standard is insufficient based on corrosion potential.
 - b. 60% Design Level corrosion control/cathodic protection sheets.
 - c. Quantities and Cost Estimate for corrosion control and cathodic protection elements.
 - d. Address comments from design reviews from BGE, Program Management Team, and ARWA.
4. 90% Design
 - a. Final special specification for cathodic protection if program standard is insufficient based on corrosion potential.

- b. Final Design Level corrosion control/cathodic protection sheets.
 - c. Quantities and Cost Estimate for corrosion control and cathodic protection elements.
 - d. Address comments from design reviews from BGE, Program Management Team, and ARWA.
5. 100% Design
- a. Updated final special specification for cathodic protection if program standard is insufficient based on corrosion potential.
 - b. Updated and Sealed corrosion control/cathodic protection sheets. Address comments from agency review by TWDB and TCEQ. Provide updated drawings and specifications as needed.
 - c. Quantities and Cost Estimate for corrosion control and cathodic protection elements.
6. Deliverables:
- a. Technical memorandum documenting review of corrosion potential testing with recommendations for design.
 - b. Drawings and specifications and estimates in PDF format for each design milestone (60, 90, and 100%).



Portion of Project Area

Our proposed scope of work will select up to 10 soil borings from the sub-consultant's geotechnical investigation for soil sampling and laboratory corrosivity testing. Soil samples will be obtained from approximate pipe depth zone, and then analyzed for electrical conductivity, pH, chlorides, sulfates, sulfides, and redox potential, as a minimum. Each one-pound disturbed soil sample will be tested for saturated electrical conductivity (by US EPA Method 9050A), pH, chemical analysis for major anions and cations, ammonium and nitrates. We will use a properly accredited subcontract laboratory, with whom we have worked for more than ten years.

In addition, Chapman Engineering personnel will perform a site visit to review conditions along the alignment (estimated to take four field days). We will collect soil resistivity data between 2.5 and 20 feet of depth, and search for possible sources of stray current (with the two known foreign pipelines being obvious targets to check). We will review the laboratory soil corrosivity data, analyze the collected field data, and prepare a technical summary of these results.

Under the Scope of Work Proposed detailed above, including attendance three progress meeting to coordinate design, the estimated fee is **\$45,170.00**.

KEY STAKEHOLDERS (CLIENT AND CHAPMAN ENGINEERING)

Client Project Leader	Mr. Ron Mick, Senior Project Manager
Client Sponsor	BGE, Inc.
CE Project Manager	Bert Schutz

ADDITIONAL WORK

Chapman Engineering will not exceed the cost estimate unless an approved written change order is signed by both parties. Chapman Engineering must have BGE approval of such a change order prior to any additional costs being incurred.

Any requested changes to previously completed work or additional work requested by BGE will be charged based on the attached T&M Rate Schedule, or the rate schedule previously agreed between both parties.

PAYMENT TERMS

BGE agrees to pay Chapman Engineering invoice(s) in accordance with the existing Commercial Agreement Terms and Conditions governing Chapman Engineering’s work. If no agreement is in place, BGE will pay all invoices within thirty (30) days. Any balance left unpaid after 30 days will be subject to a finance charge of 1.5% per month, or the maximum allowed by law.

GENERAL

Any abnormal work conditions that cause delays, such as delays due to weather, delays associated with site conditions, right of way issues or unknown circumstances or project delays due to waiting on BGE or other contractors, and those delays cause Chapman Engineering personnel to standby, will be billed at T&M rates. In design phase, this is unlikely.

Client will be responsible for any local or state permits, sales taxes, and other fees which may apply.

AUTHORIZATION

Please find attached an “Acceptance” block, for you to complete to give us authorization and “notice to proceed.” Issuance of a PO is acceptance of the Terms and Conditions of this proposal.

We appreciate the opportunity to work with you on this project. If you should have any comments or require any changes in our proposed scope of services, please contact the undersigned at (830) 816-3311.

CHAPMAN ENGINEERING AUTHORIZED SIGNATURE



Gilbert "Bert" Schutza
Senior Project Manager
NACE Cathodic Protection Specialist
NACE Senior Corrosion Technologist

ACCEPTANCE

I, _____, on behalf of BGE, authorize Chapman Engineering to proceed with the work described above for the proposed Project Costs, for Proposal #1717 as detailed above, and per a schedule to be agreed between the parties.

Signature of Contracting Authority

Title

Date

Printed Name of Contracting Authority



4201 Freidrich Lane, Suite 110

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512.447.9081 Ph

512.443.3442 Fax

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February 26, 2020

Ron Mick, PE
Senior Project Manager
BGE, Inc.
7000 North Mopac, Suite 330
Austin, Texas 78731

Re: Geotechnical Engineering Report
Alignment 2, Segment C of Alliance Water's Design Phase
Owner: Alliance Regional Water Authority (ARWA)
HVJ Proposal No. AG1810011.2.2

Dear Ron:

HVJ South Central Texas – M&J Inc. (HVJ) is pleased to submit this proposal to provide engineering services for the above referenced project to BGE, Inc (Client). HVJ understands that the overall project will consist of design and construction of approximately 22 miles of water line segments using open cut methods, including two separate IH-35 trenchless crossings, northeast of San Marcos, Texas in Hays and Caldwell Counties. The invert depths of the water lines are expected to be between 5 feet and 10 feet below existing grade.

Our geotechnical investigation will include borings conducted at approximately 1,400 foot spacing along the pipeline alignment to an average depth of 20 feet. Borings will supplement those taken during the preliminary phase and locations will be provided at railroad, roadway, stream, and major utility crossings. For purposes of this proposal, the total number of borings is estimated to be 60 for this phase of work, to supplement the 24 borings originally taken.

Scope of Work

For this project, HVJ will conduct the following:

- **Subsurface Exploration:** To investigate subsurface conditions and characterize soil at the project area for the design phase, HVJ has estimated that the exploration will consist of 60 test borings to average depths of 20 feet, for total drilling footage of 1,200 feet. The borings will be completed with a truck-mounted rig, equipped with flight augers and sampling tools. Soil samples in particular will be collected using Shelby tubes and/or split-spoon samplers. Field-testing of soil samples will include pocket penetrometer readings in the cohesive soils and Standard Penetration Tests (SPT) in cohesionless soils. If bedrock is encountered, it will be continuously cored using a NX size core barrel. Field recovery and Rock Quality Designation (RQD) for samples recovered by coring will be recorded in the field. The completed boreholes will be backfilled with soil cuttings and bentonite.
- **Resistivity Testing:** HVJ shall perform Wenner 4-point resistivity tests (ASTM G57) at approximate 2,000 foot intervals along the pipeline route. Based on the pipeline length, our scope includes 41 test locations.

- **Laboratory Tests:** Laboratory index tests will be performed on select soil samples recovered from the test borings. The tests will include Atterberg limits, minus 200 sieve, moisture content, and unconfined compression tests.
- Corrosivity testing including pH, sulfates, and chlorides shall be performed upon samples recovered at approximate pipeline depth every 4,000 lineal feet, for a total of 21 locations.
- Specialty tests may be developed after the initial geotechnical testing program is completed that will be included as supplemental services.
- Specialty scope items including geotechnical baseline reports (GBR) at 60 and 90 percent design level, and a final baseline report for 100 percent design for trenchless construction methods may be requested after the initial geotechnical testing program is completed that will be included in supplemental services

Engineering Report Deliverables

Results of the field data and laboratory data will be used to develop design and construction recommendations for the proposed pipelines. A report of HVJ's study will be prepared by an engineer specializing in soil mechanics after reviewing available design, boring and laboratory data. In general, the following items will be included in the report:

- **Geotechnical Data Report Including:**
 - Description and Scope of the Project
 - Field Investigation Summary
 - Laboratory Testing Program
 - Site Vicinity Map
 - Geology Map
 - Plan of Borings
 - Boring Logs
 - Laboratory Test Results Summary
 - Subsurface Characterization
- **Geotechnical Design Report Including:**
 - Recommendations for Open-Cut Installation of the Utility Lines
 - Pipe, Bedding, and Backfill Recommendations
 - General Earthwork and Select Fill Recommendations

Assumptions

The following assumptions were made in developing the scope and fee estimate for this project:

- Our proposal includes an allowance for clearing of 4 days at \$2,000 per day. Additional clearing services will be quoted upon request.
- Boring locations will be mutually agreed upon by the Client and HVJ.
- Right of Entry Permits will be provided by the Client, if necessary.
- Traffic control and traffic control plans are not included in the scope of this proposal.
- Client shall provide HVJ with an electronic site map.

- Surveying of the boring locations will be done by others, if required.
- A Geotechnical Baseline Report (GBR) for the trenchless crossings is not included in the scope of this proposal.
- All spoils from drilling will be left onsite and will not be containerized to dispose of at a different location.

Fee

HVJ will perform the outlined scope of work on a time and material basis not to exceed amount of \$164,310.00. If the project configuration changes significantly, additional work may be required. HVJ will recommend such additional work when and if it is deemed necessary.

Insurance

Insurance certificates verifying HVJ's general liability, automobile, worker's compensation, and errors and omissions insurance coverage, listing BGE as a certificate holder, will be provided upon request.

Schedule

HVJ proposes to initiate project scheduling and coordination, immediately upon receiving notice-to-proceed. It is expected the field work will be completed approximately 3 weeks after receiving any permits and required right-of-entries. Laboratory testing, evaluation of test results, engineering analyses and report preparation will take approximately 9 weeks after completion of the fieldwork.

Sample Retainage

Soil samples will be retained in our laboratory for 30 days after submittal of the draft geotechnical report.

Invoices Invoices will be submitted at the end of each month based on the time spent on the work and items completed by the last Saturday of each month, or based on an invoice schedule provided by owner.

If this proposal meets with your approval, please sign and complete the indicated spaces below and forward a copy of the proposal to us. Thank you for this opportunity. We appreciate your business.

Sincerely,

HVJ SOUTH CENTRAL TEXAS– M&J INC.



Bryan E. Rose, PE
Senior Project Manager

Mr. Ron Mick
February 26, 2020
AG1810011.2.2

Page 4 of 5

Agreed to this _____ day of _____, 2020 _____

By: _____

Title: _____

Firm: _____

Phone No.: _____

Date to Start Work: _____

Geotechnical Investigation					
Aliance Regional Water Authority					
BGE, Inc.					
HVJ SCTx Proposal No. AG1810011.2.2					
Geotechnical Field Investigation - Drilling and Soil Sampling					
Allowance for Clearing	4	@	\$2,000.00	per day	\$8,000.00
Mobilization/Demobilization - Austin (truck mounted rig)	2	@	\$400.00	per mobilization	\$800.00
Mobilization/Demobilization - Dallas (atv track rig)	2	@	\$2,000.00	per mobilization	\$4,000.00
Driller Per Diem (atv track crew)	10	@	\$250.00	per day	\$2,500.00
Drilling & Sampling- Soils	900	@	\$22.00	per foot	\$19,800.00
Drilling & Sampling- Rock	300	@	\$30.00	per foot	\$9,000.00
Shelby Tube (Thin Wall)	270	@	\$20.00	each	\$5,400.00
Standard Penetration Tests (SPT)	90	@	\$20.00	each	\$1,800.00
Backfilling Soils	1200	@	\$7.00	per foot	\$8,400.00
Vehicle Trip	24	@	\$45.00	each	\$1,080.00
Core Box Storage	10	@	\$150.00	per month	\$1,500.00
Geophysical Crew Mobilization	1	@	\$1,600.00		\$1,600.00
Wenner 4-point Resistivity Testing at 2000-ft intervals	41	@	\$800.00		\$32,800.00
				Sub Total	\$96,680.00
Laboratory Testing - Standard					
Moisture Content	120	@	\$18.00	each	\$2,160.00
Atterberg Limits	120	@	\$65.00	each	\$7,800.00
#200 Sieve Analysis	120	@	\$45.00	each	\$5,400.00
Unconfined Compressive Strength Tests	120	@	\$50.00	each	\$6,000.00
pH, Sulfate, and Chloride Tests	21	@	\$215.00	each	\$4,515.00
				Sub Total	\$25,875.00
Geotechnical Engineering & Reporting					
Senior Engineer, PE	15	@	\$150.00	hr	\$2,250.00
QA/QC of deliverables	9	hr			
Project management and coordination	6	hr			
Project Engineer, PE	57	@	\$125.00	hr	\$7,125.00
Project management and coordination	15				
Invoice and expense review	9				
Lab assignment and bore log review	9				
Report review	15				
Report comment and finalize	9				
Staff Engineer II, EIT	374	@	\$85.00	hr	\$31,790.00
Mark borings and utility clearance	30				
Driller and permit coordination	30				
Logging in field	200				
Bore logs and lab data entry	60				
Drafting Report	40				
CAD	14				
Project Administrator	9	@	\$50.00	hr	\$450.00
Project setup and administration	9				
				Sub-Total	\$41,615.00
				TOTAL	\$164,310.39



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March 24, 2020

Ron Mick, PE
Senior Project Manager
BGE, Inc.
7000 North Mopac, Suite 330
Austin, Texas 78731

Re: Supplemental Services
Geotechnical Baseline Report(s)
Alignment 2, Segment C of Alliance Water's Design Phase
Owner: Alliance Regional Water Authority (ARWA)
HVJ Proposal No. AG1810011.2.2

Dear Ron:

HVJ South Central Texas – M&J Inc. (HVJ) is pleased to submit this proposal to provide supplemental engineering services for the above referenced project to BGE, Inc. (Client). HVJ understands that the overall project will consist of design and construction of approximately 22 miles of water line segments using open cut methods, with trenchless construction at select locations. The invert depths of the water lines are expected to be between 5 feet and 10 feet below existing grade. Pipe diameters are anticipated to range from 16 inch to 42 inch.

HVJ provided a February 26, 2020 proposal to provide a geotechnical data report and geotechnical design report for the pipeline alignment. This proposal included borings conducted at approximately 1,400 foot spacing along the pipeline alignment at various depths as outlined in Task 1.

In addition to the aforementioned proposal for design and data reports, we understand that BGE desires supplemental services to include additional field exploration, laboratory testing, and preparation of geotechnical baseline reports (GBR) at select pipeline crossings where the utility traverses critical infrastructure including highways, railroads, creeks, and surface roads. BGE has identified eight (8) primary utility crossing locations that include three (3) highway crossings, three (3) railroad crossings, and two (2) major creek crossings.

In addition to these eight (8) primary crossing locations, HVJ has identified ten (10) secondary utility crossings. While it is anticipated that these secondary crossings can be completed with boring and jacking techniques, HVJ recommends subsurface investigation at these crossings to evaluate the feasibility of this construction technique.

SCOPE OF WORK

HVJ SCTx's objectives for this project are to conduct additional subsurface exploration and laboratory testing at eight (8) primary and ten (10) secondary crossing locations, prepare a

geotechnical data report (GDR) for the pipeline crossings, and assist BGE with conceptual and final designs for the project. The scope of work anticipated to be performed by HVJ to achieve these objectives are as follows:

Task 1 – Supplemental Geotechnical Investigation

For this project, HVJ will conduct the following:

- Subsurface Exploration: To investigate subsurface conditions at the proposed pipeline crossings and characterize soil and rock for the design phase, HVJ has tabulated our proposed supplemental field exploration below.

Type	Structure	Crossings	Borings Per Crossing	Depth, ft	Subtotal, ft
Primary	Railroad	3	2	45	270
	Highway	3	2	45	270
	Creek	2	2	70	280
Secondary	Road	1	2 ¹	35	70
		9	1	35	315
Contingency Footage ³					210
TOTAL					1,415

Notes:

1. At the Hwy 205 crossing, the pipeline is nearly parallel to, and passing beneath a bridge, as such, an additional boring was recommended.
 2. Our proposed field exploration budget includes a contingency for 200 additional feet of drilling to extend borings, as needed.
 3. Contingency footage will be used when encountering anomalous conditions, for changes in alignment, or proposed depth of the line.
- The borings will be completed with a truck-mounted rig, equipped with flight augers and sampling tools. Soil samples in particular will be collected using Shelby tubes and/or split-spoon samplers. Field-testing of soil samples will include pocket penetrometer readings in the cohesive soils and Standard Penetration Tests (SPT) in cohesionless soils. If bedrock is encountered, it will be continuously cored using a NX size core barrel. Field recovery and Rock Quality Designation (RQD) for samples recovered by coring will be recorded in the field. The completed boreholes will be backfilled with soil cuttings and bentonite.
 - Laboratory Tests: Laboratory index tests will be performed on select soil and rock samples recovered from the test borings. The tests will include Atterberg limits, minus 200 sieve, moisture content, and unconfined compression tests.
 - Specialty tests may be developed after the initial geotechnical testing program is completed that will be included as supplemental services.
 - Soil samples will be retained in our laboratory for 30 days after submittal of the draft geotechnical report.

Results of the field data and laboratory data will be used to develop design and construction recommendations for the proposed pipelines. A report of HVJ’s study will be prepared by an

engineer specializing in soil mechanics after reviewing available design, boring and laboratory data. In general, the following items will be included in the report:

- Geotechnical Data Report Including:
 - Description and Scope of the Project
 - Field Investigation Summary
 - Laboratory Testing Program
 - Site Vicinity Map
 - Geology Map
 - Plan of Borings
 - Boring Logs
 - Laboratory Test Results Summary
 - Subsurface Characterization

Task 2 - Review Geotechnical Data

The single-most important item for good design and cost-effective construction is an accurate description of the existing ground conditions. Tunnel Contractors will tell you that uncertainty about ground conditions represent the highest risk and contingency item for a project. An accurate description of the ground allows for an efficient layout and effective design of the project. We propose to work closely with BGE in accomplishing this.

Task 3 - Conceptual Design of Trenchless Crossings

Personnel with HVJ will work with BGE and the BGE/ARWA to review and optimize potential routes for the pipeline. Establishing the most effective route is crucial for field investigations and design decisions during the final design stage. A technical memorandum is expected to be prepared to document the trenchless design recommendations.

Task 4 - Prepare GBR and Tunnel/Shaft Specifications

The contract documents communicate the design to the contractor. The contract documents we anticipate in producing for BGE will consist of a Geotechnical Baseline Report (GBR), tunnel and shaft specifications, and sketches to be incorporated into drawings. We anticipate assisting with the preparation of drawings (see Task 2 above) and specifications. We anticipate that these documents will be reviewed at the 60, 90 and 100 percent completion. We have anticipated that BGE will prepare all drawings. We will be happy to perform drafting of drawings if desired, utilizing AutoCAD 2020, for an additional negotiated fee. HVJ SCTx will provide initial sketches, engineering, review and quality control of content of all the tunnel and shaft drawings. Specifications will be prepared utilizing Microsoft Word. Electronic copies of all documents will be provided to BGE. We will prepare the specifications utilizing Austin Water Utilities format. BGE

will provide standard Contract and “Boiler Plate” provisions. Upon request, we will review Division 1 specifications prepared by BGE for applicability to tunnel construction. It is assumed that BGE will coordinate submittals, and do all reproduction for submittals and final Contract Documents.

Task 5 - Project Management and Quality Control

We will track the project budget on a weekly basis, prepare a schedule, update it, and monitor it on a regular basis, and fulfill our contract obligations. We will provide BGE with a monthly progress report describing the status of the project, the budget, schedule, and other relevant issues.

In addition, HVJ SCTx has a quality control program whereby we will internally review all submittals by senior personnel. An important aspect of our quality control program will be frequent communication with BGE. We will do this by a variety of means including face-to-face meetings with appropriate personnel, e-mail, faxes, and written documentation. We will keep BGE fully informed of the design process and request input as necessary continuously during the design process.

ASSUMPTIONS

The following assumptions were made in developing the scope and fee estimate for this project:

- Boring locations will be mutually agreed upon by the Client and HVJ.
- Right of Entry Permits will be provided by the Client, if necessary.
- Traffic control and traffic control plans are not included in the scope of this proposal.
- Client shall provide HVJ with an electronic site map.
- Surveying of the boring locations will be done by others, if required.
- All spoils from drilling will be left onsite and will not be containerized to dispose of at a different location.
- Clearing will not be necessary for this scope of work

SCHEDULE, FEE, AND INVOICING

HVJ proposes to initiate project scheduling and coordination, immediately upon receiving notice-to-proceed. It is expected the field work will be completed approximately 6 weeks after receiving any permits and required right-of-entries. Laboratory testing, evaluation of test results, engineering analyses and report preparation will take approximately 6 weeks after completion of the fieldwork.

HVJ will perform the outlined scope of work on a time and material basis not to exceed amount of \$156,046.00. If the project configuration changes significantly, additional work may be required. HVJ will recommend such additional work when and if it is deemed necessary.

Invoices will be submitted at the end of each month based on the time spent on the work and items completed by the last Saturday of each month, or based on an invoice schedule provided by owner.

CLOSING REMARKS

Mr. Ron Mick
March 24, 2020
AG1810011.2.2

If this proposal meets with your approval, please sign and complete the indicated spaces below and forward a copy of the proposal to us. Thank you for this opportunity. We appreciate your business.

Sincerely,

HVJ SOUTH CENTRAL TEXAS- M&J INC.



Russell Jernigan, PE, PG, PhD
Special Consultant



Jason Schwarz, PE
Vice President



Bryan E. Rose, PE
Senior Project Manager

Agreed to this _____ day of _____, 2020

By: _____

Title: _____

Firm: _____

Phone No.: _____

Date to Start Work: _____

Geotechnical Investigation					
Aliance Regional Water Authority - Supplemental GBR(s)					
BGE, Inc.					
HVJ SCTx Proposal No. AG1810011.2.2					
Geotechnical Field Investigation - Drilling and Soil Sampling					
Mobilization/Demobilization - Austin (truck mounted rig)	2	@	\$400.00	per mobilization	\$800.00
Mobilization/Demobilization - Dallas (atv track rig)	1	@	\$2,000.00	per mobilization	\$2,000.00
Driller Per Diem (atv track crew)	11	@	\$250.00	per day	\$2,750.00
Drilling & Sampling- Soils	940	@	\$22.00	per foot	\$20,680.00
Drilling & Sampling- Rock	475	@	\$30.00	per foot	\$14,250.00
Shelby Tube (Thin Wall)	166	@	\$20.00	each	\$3,320.00
Standard Penetration Tests (SPT)	166	@	\$20.00	each	\$3,320.00
Backfilling Soils	1,415	@	\$7.00	per foot	\$9,905.00
Vehicle Trip	34	@	\$45.00	each	\$1,530.00
Core Box Storage	10	@	\$150.00	per month	\$1,500.00
				Sub Total	\$60,055.00
Moisture Content	142	@	\$18.00	each	\$2,556.00
Atterberg Limits	94	@	\$65.00	each	\$6,110.00
#200 Sieve Analysis	94	@	\$45.00	each	\$4,230.00
Unconfined Compressive Strength Tests	142	@	\$50.00	each	\$7,100.00
				Sub Total	\$19,996.00
Geotechnical Engineering & Reporting					
Principal, PE	38	@	\$255.00	hr	\$9,690.00
Prepare 60% GBR and Tunnel/Shaft Specifications	4				
Prepare 90% GBR and Tunnel/Shaft Specifications	4				
Prepare Final GBR and Tunnel/Shaft Specifications	4				
Design Project Management and QC	26				
Special Tunnel Consultant, PE	124	@	\$220.00	hr	\$27,280.00
Review Geotechnical Data	8				
Conceptual Design of Trenchless Crossings (30% Design)	20				
Prepare 60/90%/Final GBR and Tunnel/Shaft Specifications	76				
Design Project Management and QC	20				
Project Engineer, PE	60	@	\$150.00	hr	\$9,000.00
Project management and coordination	26				
Lab, log, and report review	34				
Staff Engineer II, EIT	311	@	\$85.00	hr	\$26,435.00
Staking and Field Coordination with Property Owners	82				
Logging of Borings	151				
Bore logs and lab data entry	54				
Prepare 60/90%/Final GBR and Tunnel/Shaft Specifications	24				
Project Administrator	32	@	\$50.00	hr	\$1,600.00
Prepare 60/90%/Final GBR and Tunnel/Shaft Specifications	24				
Design Project Management and QC	8				
				Sub-Total	\$74,005.00
				TOTAL	\$154,056.00

March 24, 2020

Ron Mick, PE
Senior Project Manager
BGE, Inc.
101 W Louis Henna Blvd, Suite 400
Austin, TX 78728
M: 512.879.0400
RMick@bgeinc.com

**RE: Subsurface Utility Engineering
Alliance Regional Water Authority Phase 1B Segment C – Final Design**

Dear Mr. Mick:

The Rios Group, Inc. (TRG) is pleased to submit a cost proposal for Subsurface Utility Engineering (SUE) for the above referenced project. This proposal is based on information provided via email on February 10, 2020.

Introduction

TRG will perform SUE services for this project in general accordance with the recommended practices and procedures described in ASCE publication CI/ASCE 38-02 “Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.” As described in the publication, four levels have been established to describe and depict the quality of subsurface utility information. The four quality levels are as follows:

- Quality Level D (QL“D”) – Information obtained from existing utility records.
- Quality Level C (QL“C”) – Surveyed data depicting visible above-ground features supplemented with QL“D” information.
- Quality Level B (QL“B”) – Two-dimensional horizontal information obtained through the application and interpretation of non-destructive surface geophysical methods. Also known as “designating,” this level incorporates QL“C” information and provides horizontal positioning of subsurface utilities to within approximately 1.0 foot.
- Quality Level A (QL“A”) – Three-dimensional horizontal and vertical information obtained through non-destructive vacuum excavation equipment to expose utilities at critical points. Also known as “locating,” this level incorporates QL“B” information and provides horizontal and vertical positioning of subsurface utilities to within approximately 0.05 feet.

Scope of Work

Based on information provided by BGE, Inc. (Client), TRG has developed a proposed scope for SUE services on this project. This scope may be modified, with Client and TRG concurrence, during the performance of work if warranted by changing or unexpected field conditions.

The Base Scope of this proposal includes QL“A” and QL“B” SUE services for the Alliance Regional Water Authority Phase 1B Segment C pipeline project in Hays and Caldwell Counties, Texas. QL“B” base scope of this proposal includes up to 10,000 LF of designating along a gas pipeline that parallels the water main alignment. The specific sections of QL “B” along the gas pipeline will be provided by the Client. The QL“A” base scope of this proposal includes sixty-three (63) test holes along the proposed water main alignment at locations that will be provided by the Client. This scope of work also includes up to three meetings with the Client to identify the final locations of the QL“A” and QL“B” SUE needs, review data, and evaluate findings.

This proposal also includes Supplemental Services for ten (10) QL“A” SUE test holes at locations that will be provided by the Client.

The survey of SUE field markings for both the Base Scope and Supplemental Services is included in the scope of work. It is assumed that the Client will provide the necessary survey control information.

Any necessary Right-Of-Entry (ROE) permits, including railroad ROE, will be provided by the Client prior to the start of field work.

TRG Procedures

QL“D” and “C” – Records Research and Surface Feature Survey

It is the responsibility of the SUE provider to perform due-diligence with regard to records research and the acquisition of available utility records. The due-diligence provided for this project will consist of contacting the applicable One Call agency and associated utility owners/municipalities, visually inspecting the work area for evidence of utilities, and reviewing available utility record information. Additional utilities not identified through these efforts will be referred to as Unknown utilities.

QL“B” – Designating

Following a review of the project scope and available utility records with the project manager, TRG field personnel will begin designating the approximate horizontal position of known subsurface utilities within the project area. A suite of geophysical equipment that includes magnetic and electromagnetic induction will be used to designate conductive utilities. Where access is available, a sonde will be inserted into non-conductive utilities to provide a medium for transmission which can then be designated using geophysical equipment. Non-conductive utilities can also be designated using other proven methods, such as rodding and probing. TRG will make a reasonable attempt to designate Unknown utilities identified during field work; however, no guarantee is made that all Unknown utilities will be designated. Utilities will be marked and labeled to distinguish type and ownership. Field data depicting the designated utilities, as well as relevant surface features, will be produced to ensure accuracy and completeness of subsequent survey data. The TRG project manager will review the collected survey data, field data, and utility records for accuracy and completeness.

QL“A” – Locating

TRG will utilize non-destructive vacuum excavation equipment to excavate test holes at the requested locations. To layout the test holes, TRG will follow the *QL “B” – Designating* procedures described above. Once each utility is located, TRG will record the size, type, material, and depth. Test holes will be uniquely marked. Excavations will be backfilled by mechanical means with the appropriate material, and the original surface will be restored. If necessary, TRG can core pavement up to a depth of 12 inches. Asphalt surfaces will be repaired with an asphalt cold patch, and concrete cores will be epoxied in place, flush with the surrounding surface. TRG assumes that flowable fill will not be required when backfilling test holes and that full-section pavement repair (including sidewalks) will not be required to restore the original pavement surface. If requested, these services can be provided at an additional cost.

TRG will establish any necessary routine traffic control measures at no additional cost. However, if non-routine traffic control measures (lane closures, traffic detours, flagpersons, etc.) are required, this service will be invoiced as a direct expense. Due to the risk of damage, TRG will not attempt to probe or excavate test holes on AC water lines unless approval is obtained from the owner in advance. Additionally, excavation in rock, or to a depth greater than 18 feet, is considered beyond the scope of this proposal.

TRG has made the following assumptions with regard to the test holes on this project:

- All test holes will be accessible to truck-mounted vacuum excavation equipment.
- Right-Of-Way (ROW) permits from Hays and/or Caldwell County will be required. TRG will obtain all required County permits and ensure that coordination and compliance with the County is provided.
- Designed traffic control plans will not be required.
- Non-routine traffic control measures will be required. TRG will acquire the services of a qualified Maintenance-Of-Traffic (MOT) Subcontractor, and ensure that adequate traffic control is provided. It is assumed that two traffic control set-ups will be required.
- The coring of pavement will not be required.

Deliverables

TRG will provide the following as a final deliverable to the Client:

- A utility file in CAD format depicting all designated and located utilities. The Client will provide TRG with any necessary background files for use in completing the final deliverables.
- A summary sheet of all test hole coordinate data and depth information.
- 8.5” x 11” Test Hole Data Forms for all test hole locations completed. These plans will be signed and sealed by a Professional Engineer and delivered to the Client in electronic PDF form.
- 11” x 17” SUE Plan Sheets depicting all designated and located utilities. These plans will be signed and sealed by a Professional Engineer and delivered to the Client in electronic PDF form.

Schedule

TRG can mobilize within three (3) weeks of receiving Notice-To-Proceed (NTP). TRG estimates that the QL“B” SUE work for the Base Scope can be completed in seventeen (17) working days, broken down as follows:

- QL“B” SUE field work – 5 days
- Survey and preparation of data – 5 days
- Deliverable preparation – 7 days

TRG estimates that the QL“A” SUE work for the Base Scope can be completed in thirty-five (35) working days, broken down as follows:

- QL“A” SUE field work – 20 days
- Survey and preparation of data – 5 days
- Deliverable preparation – 10 days

TRG estimates that the QL“A” SUE work for the Supplemental Services can be completed in twenty (20) working days, broken down as follows:

- QL“A” SUE field work – 5 days
- Survey and preparation of data – 5 days
- Deliverable preparation – 10 days

Estimated Fee

The total estimated cost to complete the work described herein for the Base Scope is **One Hundred Twenty-Two Thousand Four Hundred Ninety Dollars and NO/100 (\$122,490.00)**. An itemized breakdown of cost is provided in Exhibit A-1.

The total estimated cost to complete the work described herein for the Supplemental Services is **Twenty-One Thousand One Hundred Five Dollars and NO/100 (\$21,105.00)**. An itemized breakdown of cost is provided in Exhibit A-2.

Please note that these pricings are based on an assumption of quantities, and that only actual quantities will be invoiced – up to the total Contract amount.

We look forward to working with you on this project. If there are any questions, please do not hesitate to call at 512.580.5440.

Respectfully,

The Rios Group, Inc.

A handwritten signature in blue ink, appearing to read "Ry C Chapin".

Ryan C. Chapin, P.E.
Project Manager

Prime Provider: BGE, Inc.
Subprovider: The Rios Group, Inc.
ARWA Phase 1B Segment C

EXHIBIT A-1
FEE SCHEDULE SUMMARY
Method of Payment: Specified Rate and Unit Cost

	Description of Work Task	Total
	SUE Office Effort	\$ 10,690.00
	SUE Field Effort	\$ 100,550.00
	Other Direct Expenses	\$ 11,250.00
	Total Fee	\$122,490.00

Total Fee

\$122,490.00

Exhibit A-1				
Prime Provider: BGE, Inc.				
Subprovider: The Rios Group, Inc.				
Alliance Regional Water Authority Phase 1B Segment C				
Specified Rate Classification	Unit	Specified Contract Rate	Quantity	Total Cost
SUE (Quality Level C and D)				
This unit price includes personnel and equipment for records research, CADD, and mapping. Price per linear foot (including all related services)	LF	0.60	0.00	\$ -
SUE (Quality Level B - Utility Designating)				
This unit price includes personnel and equipment for records research, designating, engineering, surveying, CADD, mapping and limited traffic control. Price per linear foot (including all related services)	LF	1.55	6,000.00	\$ 9,300.00
SUE (Quality Level A - Utility Locate, Test Holes)				
Includes labor and equipment for vacuum excavation, engineering, surveying, and CADD.				
Price per Test Hole:				
Level A: 0 to 5 ft.	EA	\$ 1,100.00	30.00	\$ 33,000.00
Level A: > 5 to 10 ft.	EA	\$ 1,350.00	20.00	\$ 27,000.00
Level A: > 10 to 15 ft.	EA	\$ 1,750.00	11.00	\$ 19,250.00
Level A: > 15 to 20 ft.	EA	\$ 2,300.00	2.00	\$ 4,600.00
Level A: > 20 ft.	VF	\$ 160.00	0.00	\$ -
SUE Mobilization/Demobilization	MILE	\$ 5.00	0.00	\$ -
Traffic Control Services - Small Project (Includes labor, equipment, and fuel)	DAY	\$ 1,000.00	2.00	\$ 2,000.00
SUE Field Services One (1) Designating Person with Equipment - Test Hole Layout	Hour	\$ 135.00	40.00	\$ 5,400.00
SUE Field Services Two (2) Designating Person with Equipment	Hour	\$ 180.00	0.00	\$ -
TOTAL				\$ 100,550.00
The unit costs shown include labor, overhead, and profit. Payment based on units completed. No partial payments.				
All unit costs are negotiated costs and are not subject to change or adjustment.				
Unit Cost Payment Basis: If unit costs by year are included, unit costs billed should correspond to the fiscal or calendar year, if applicable, in which the work was done.				
Note: Any direct labor, unit cost, or other direct expense classification included in the contract, but not in a work authorization, is not eligible for payment under that work authorization.				

Prime Provider: BGE, Inc.
 Subprovider: The Rios Group, Inc.
 Alliance Regional Water Authority Phase 1B Segment C

Exhibit A-1

OTHER DIRECT EXPENSE	UNIT	UNIT COST	QUANTITY	COST
Lodging/Hotel (Taxes/fees not included)	day/person	\$ 141.00	0	\$ -
Lodging/Hotel - Taxes and Fees	day/person	\$ 30.00	0	\$ -
Meals (Excluding alcohol & tips) (Overnight stay required)	day/person	\$ 59.00	0	\$ -
Mileage	mile	\$ 0.535	0	\$ -
Survey	day	\$ 2,250.00	5	\$ 11,250.00
				\$ -
Subtotal Other Direct Expense:				\$ 11,250.00

Profit not allowed on Other Direct Expenses.

Prime Provider: BGE, Inc.
Subprovider: The Rios Group, Inc.
ARWA Phase 1B Segment C

EXHIBIT A-2
FEE SCHEDULE SUMMARY
Method of Payment: Specified Rate and Unit Cost

	Description of Work Task	Total
	SUE Office Effort	\$ 1,980.00
	SUE Field Effort	\$ 16,875.00
	Other Direct Expenses	\$ 2,250.00
	Total Fee	\$21,105.00

Total Fee

\$21,105.00

Prime Provider: BGE, Inc.
 Subprovider: The Rios Group, Inc.
 Alliance Regional Water Authority Phase 1B Segment C

Exhibit A-2

Specified Rate Classification	Unit	Specified Contract Rate	Quantity	Total Cost
SUE (Quality Level C and D)				
This unit price includes personnel and equipment for records research, CADD, and mapping. Price per linear foot (including all related services)	LF	0.60	0.00	\$ -
SUE (Quality Level B - Utility Designating)				
This unit price includes personnel and equipment for records research, designating, engineering, surveying, CADD, mapping and limited traffic control. Price per linear foot (including all related services)	LF	1.55	0.00	\$ -
SUE (Quality Level A - Utility Locate, Test Holes)				
Includes labor and equipment for vacuum excavation, engineering, surveying, and CADD.				
Price per Test Hole:				
Level A: 0 to 5 ft.	EA	\$ 1,100.00	4.00	\$ 4,400.00
Level A: > 5 to 10 ft.	EA	\$ 1,350.00	4.00	\$ 5,400.00
Level A: > 10 to 15 ft.	EA	\$ 1,750.00	1.00	\$ 1,750.00
Level A: > 15 to 20 ft.	EA	\$ 2,300.00	1.00	\$ 2,300.00
Level A: > 20 ft.	VF	\$ 160.00	0.00	\$ -
SUE Mobilization/Demobilization	MILE	\$ 5.00	0.00	\$ -
Traffic Control Services - Small Project (Includes labor, equipment, and fuel)	DAY	\$ 1,000.00	1.00	\$ 1,000.00
SUE Field Services One (1) Designating Person with Equipment - Test Hole Layout	Hour	\$ 135.00	15.00	\$ 2,025.00
SUE Field Services Two (2) Designating Person with Equipment	Hour	\$ 180.00	0.00	\$ -
TOTAL				\$ 16,875.00

The unit costs shown include labor, overhead, and profit. Payment based on units completed. No partial payments.

All unit costs are negotiated costs and are not subject to change or adjustment.

Unit Cost Payment Basis: If unit costs by year are included, unit costs billed should correspond to the fiscal or calendar year, if applicable, in which the work was done.

Note: Any direct labor, unit cost, or other direct expense classification included in the contract, but not in a work authorization, is not eligible for payment under that work authorization.

Prime Provider: BGE, Inc.

Exhibit A-2

Subprovider: The Rios Group, Inc.

Alliance Regional Water Authority Phase 1B Segment C

OTHER DIRECT EXPENSE	UNIT	UNIT COST	QUANTITY	COST
Lodging/Hotel (Taxes/fees not included)	day/person	\$ 141.00	0	\$ -
Lodging/Hotel - Taxes and Fees	day/person	\$ 30.00	0	\$ -
Meals (Excluding alcohol & tips) (Overnight stay required)	day/person	\$ 59.00	0	\$ -
Mileage	mile	\$ 0.535	0	\$ -
Survey	day	\$ 2,250.00	1	\$ 2,250.00
				\$ -
Subtotal Other Direct Expense:				\$ 2,250.00

Profit not allowed on Other Direct Expenses.



UNINTECH CONSULTING ENGINEERS, INC.

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March 26, 2020

Mr. Ron Mick, P.E.
Senior Project Manager
Brown & Gay Engineers, Inc. (BGE)
101 West Louis Henna Boulevard
Suite 400
Austin, Texas 78728

Re: Alliance Regional Water Authority (ARWA); Phase 1B Pipeline Segment C

UNINTECH CONSULTING ENGINEERS, INC. (UCE), is pleased to submit this proposal to provide Professional Surveying Services in connection with the above referenced project.

PROJECT DESCRIPTION AND LIMITS

This proposal is based on your initial phone contact, project materials provided by your office, a subsequent meeting, and a field visit. We understand that the project involves Topographic/Design surveying of a handful of primary pipeline segments which make up Phase 1B, Segment C. The total estimated length of the proposed survey segments is approximately 119,000 L.F. or approximately 22.5 miles.

Based on our meeting and review of the Technical Memorandum, prepared by BGE, UCE further understands the complexity and goals of the regional approach to provide a water supply to an underserved land area. Several Central Texas Engineering consultants are involved with the project. The consultants UCE expects to interact with, are Kimley-Horn, CP&Y and BGE. As you explained, during our meeting, Kimley-Horn is the Program Manager, and CP&Y is performing the Boundary Surveying and Easement preparation for the private properties to be crossed. BGE will be providing CP&Y's digital information to UCE as it is completed.

The primary Survey Project Limits will be based upon the alignment of the segments to be provided by BGE. This alignment is to be the centerline of the pipeline (easements) corridors. The corridor widths are to be 40 feet wide for proposed pipelines of 16", plus an additional 20 feet on both sides (where possible), and 60 feet wide for proposed pipelines larger than 16", plus an additional 20 feet on both sides (where possible). Based on the "preferred" alignment described in the Technical Memorandum and shown on a KMZ file provided by BGE, approximately 28,000 feet of corridor will be 80 feet wide, and 91,000 feet will be 100 feet wide. These pipeline corridors constitute the primary limits of the Survey.

Per our discussions, and the document entitled "Topographic Survey Scope of Work Request" (SOW), you provided, UCE understands the following items constitute a description of the surveying services requested by your firm.

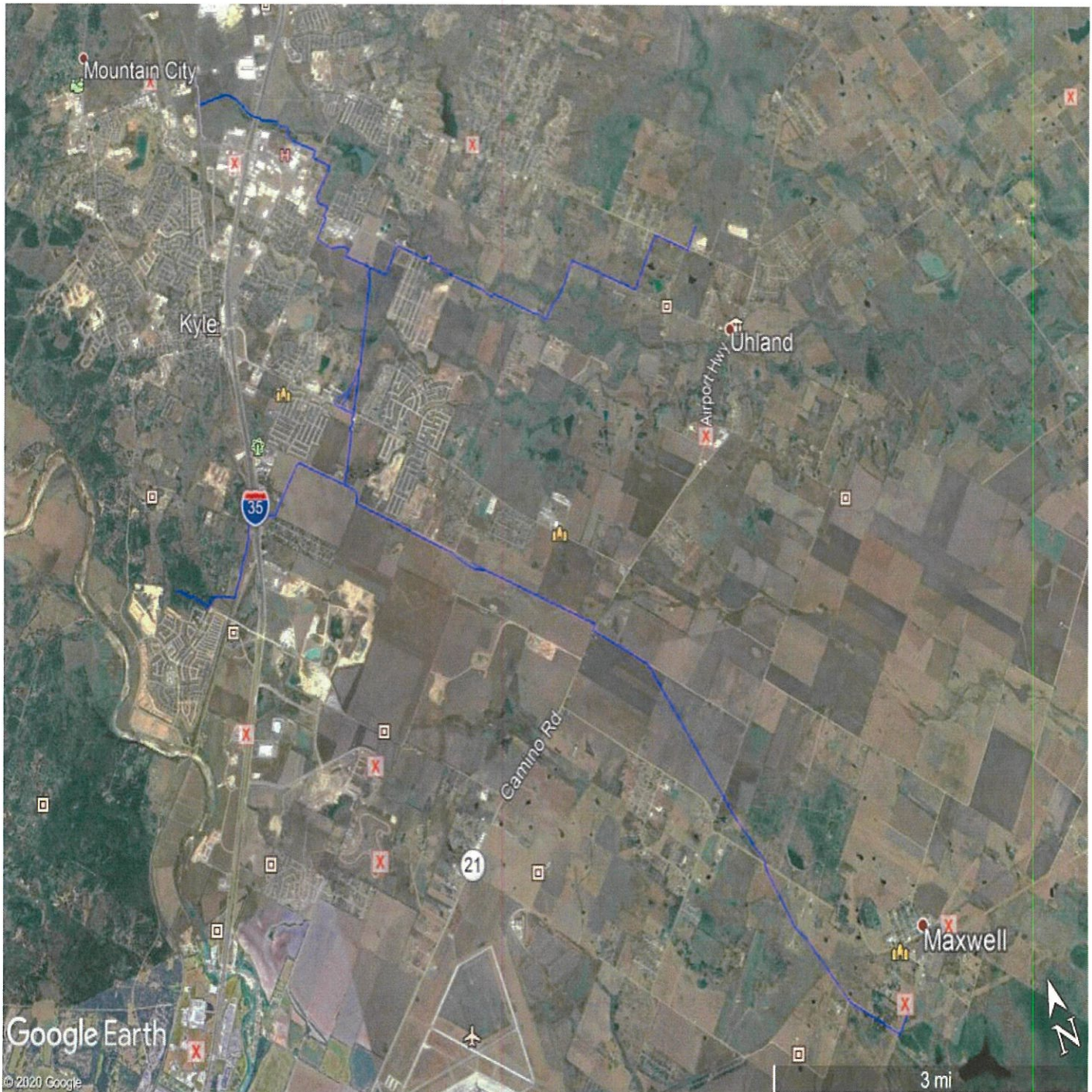


UNINTECH CONSULTING ENGINEERS, INC.

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Page Two

SURVEY SITE – DESIGN ALIGNMENT SEGMENTS





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Page Three

Task 1 - Survey Control

It is noted in the material provided to UCE, that we will be provided with Primary Control Points to utilize for this survey. Item 4 in the Work Request requires that we “verify control points provided by ARWA Owner’s Representative”. Those points considered, or intended to be used as, Primary control, will be verified by STATIC GPS methods. Said positions will be occupied for a minimum of 1-hour. The data collected, will be Post-Processed using NGS OPUS facilities. Unless otherwise specified, Horizontal values will be Texas Coordinate System, NAD 83/93 HARN (2011/IGS08 Ref. Frame), expressed in Grid coordinates. Elevation values will use the NAVD88 Datum, computed using GEOID12B applied to the vertical component of the STATIC GPS Observations. Secondary Control will be placed as needed and the positions obtained using “Rapid Static” observations, with a much shorter Epoch time. Control placed by CP&Y for use locating boundaries for Easements will be considered Secondary Control. Those points may be located for a cross check between the Boundaries and the Topographic/Design Survey.

Task 2 - Planimetric Data, Existing Conditions and DTM Data Collection

This task is the heart of the Topo/Design Survey. Survey observations made, and data collected, will be utilized to identify and map the horizontal position, and/or footprint, of all visible above-ground features, improvements, utilities and structure. Including street curbs and pavement edges, markings, street/road signage and traffic control structure, bridges and cross-culverts, sidewalks and driveways, fences and walls, buildings, drainage channels and structure, (i.e., inlets, drive-way culverts, out-fall structure), above-ground utility lines (including poles and guy wires) and, underground utility evidence (i.e., signage, manholes, valves, meters, pavement cuts, etc.). A digital CAD drawing file will be developed and delivered in 2D or dwg format.

The following is taken verbatim from the SOW:

- a. Where drainage culverts are crossed, the survey is to identify the manhole, junction box, or outfall structure immediately upstream and downstream of the water main crossing and provide flowline and pipe size information for the culvert crossing the water main.
- b. Where a sewer main is crossed, the survey is to identify manholes on each side of the crossing and provide flowline, pipe diameter, and material information for the wastewater main.
- c. Where water mains or gas mains are crossed, survey will locate any surface features of the main within 50 feet of the easement.
- d. All communications manholes within 50 feet of the easement are to be identified in the survey.



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Page Four

Task 2 – Continued:

In addition, per our meeting to discuss the Project:

- All visible, man-made improvements observed along the identified survey segments.
- When locating street signs, provide a description of sign type and any labeling on the sign. Collect a photograph for back-up evidence.
- Natural ground observations will be obtained by cross sections at 50 foot intervals, where possible. Obtain sufficient elevation positions to map existing ground conditions and DTM, which shall include a minimum of breaklines, etc., to develop a contour plan with a one (1') foot interval.
- If deemed appropriate by the Field Survey Chief, sketches or field drawings of the improvements will be made to backup digital files. NOTE: Digital photographs may be collected in addition to sketches.
- When crossing under overhead utilities and over buried utilities having visible surface evidence, additional observations will be taken outside the survey corridor limits in order to locate the next available utility indication (i.e. poles, structures, signs, or evidence) on either side of the corridor. Any ownership information or phone numbers will be noted, if observed.
- When crossing railroads or roadways, additional observations will be taken outside the survey corridor limits for drafting purposes.
- When crossing streams or waterways, additional observations will be taken outside the survey corridor, limits upstream and downstream, in the manner of cross sections. This data will aid in showing the designer profile and drainage characteristics of the crossing area.
- Crossings of wastewater or storm lines, the closest manholes, inlets or drainage structures to the corridor will be located and detailed and photographed. Inverts and pipeline material will be noted where possible.
- RTK GPS equipment will be utilized, where possible, to obtain survey information, tied to the primary and secondary control mentioned above.
- Topographic observations or shots using conventional instruments shall not exceed 500 feet from the instrument.

As most of the corridor alignments cross open fields, and reasonably open areas, gathering this topographic/planimetric data using on-the-ground survey methodology would be “time prohibitive”. UCE plans to achieve collection of the data using a combination of ground methods and aerial survey methods. UCE will subcontract aerial collection of survey data to United Geo Technologies, LLC, (UGT) – a woman owned, HUB business in San Antonio. Acquisition will utilize the Survey Grace Phoenix LiDAR system, carried by a multi-hex rotor UAV. UGT will process the raw point cloud in the LAS format. This data will be conveyed to UCE as Topographic bare earth data in LAS/AutoCAD format, and Planimetrics in AutoCAD format. The aerial data, and ground survey data will be melded together, and a 3D DTM created for contour creation.



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Task 2 – Continued:

In Addition:

- UCE will provide ground control for orientation and coordination with the on-board RTK GPS UAV Navigation. UCE will provide linear ground-truthing for the aerial data.
- The UGT Flight Crew will obtain all licenses and permits required for the aerial surveys.
- Flight Crew will coordinate with local law enforcement, airport authorities and the FAA to establish aerial flight plans, especially around the Airport areas.
- Flight Crew to provide a flight schedule detailing date and time of the aerial surveys.

When UCE is proceeding with the project, the project will be captured as soon as the above logistics have been accomplished, and weather permits. Please note that due to the size and bureaucracy of the FAA, permission and permitting may require an unusual length of time. Therefore, getting that initiated as soon as possible should be a priority.

Task 3 – Tree Survey and Inventory

Where the alignment corridors encounter significant trees, they will be tagged and located in accordance with the Hill Country Tree Ordinance, City of Kyle Ordinance No. 912, Section 53-995 and City of San Marcos Environmental Regulations Article 4, Sections 6.4.1.1 through 6.4.2.2 And in accordance with the SOW, UCE will employ Baer Engineering and Environmental Consulting, Inc, a woman owned HUB business in Austin, to provide us with a Field Scientist to verify our Survey Field Crew tree observations, and a Staff Scientist to review and confirm species. The identifier tags and species information will be included as a tree list, or inventory, in the 2D Planimetric Plan.

Task 4 – QA/QC and Project Deliverables

- UCE will employ our standard quality assurance and control measures throughout the completion of Professional Surveying Services for this project. This includes coordinating with the Subs used, to ensure the consistency and quality of all work on the project.
- Prepare AUTOCAD 2d and 3d DTM drawings showing the results of the field survey.
- Digital File Copies for the Survey (.DWG & .PDF); Digital photograph files; and Copies of Field Book Notes, or independent sketches will be provided.

Task 5 – Supplemental Survey Services Upon Request of ARWA

Should the ARWA request the following additional services, UCE has budgeted them separately, at your request:



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Page Six

Supplemental Survey Services, continued:

- If deemed necessary, UCE would recover Horizontal & Vertical Control points along the alignment for use during construction. A photograph and/or verification note or sketch would be created to ensure the condition of the control object as of that date.
- Should the control object not be found, and determined to be obliterated, UCE would set or reset a point at that location, and complete GPS observations necessary to tie it in to the overall network datums. A new data sheet would be prepared for the new position.

Exclusions to Scope:

1. No coordination with 811 or One Call, to have potential utilities marked in the field. Only visible evidence of subsurface utilities will be located per the scope. Client agrees to contact utilities noted in the "Technical Memorandum" to mark any areas deemed necessary. This is due to the corridor alignment information being controlled by BGE.
2. Data Collection outside of the project limits described other than that listed in Task 2.
3. No subsurface utility engineering (SUE), will be conducted by UCE.
4. No Geotechnical locations or coordination with such consultants is included herein.

Additional Services:

Any items requested that are not outlined in the above scope would be considered additional services and would be provided via a separate fee proposal.

To Be Provided By Client:

- Client to provide Unintech with Right-Of-Entry (ROE) documentation to Private properties, or Restricted Areas prior to the start of any field activities or work performed by Unintech Consulting Engineers, Inc.
- All boundary and easement survey data completed by CP&Y in digital format.
- Drawing Templates, line styles, or any other CAD Standards unique to the Client.

Fee Schedule and Invoicing Requirements:

We propose to provide the above described services listed in Task Items 1 thru 4, for a total **Lump Sum Fee of \$302,789.00**. Invoicing will occur on a monthly basis during execution of the Project. Invoices will be prepared in a percent complete format to cover UCE efforts performed at the calendar end of each month. Task Item 5 is to be considered separate, and will not be acted upon



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Fee Schedule and Invoicing Requirements, Continued:

unless requested in writing, and contracted for separately. We propose to provide services listed in Task 5 for a Time & Materials basis, with an **Estimated fee of \$20,000.00**. Invoicing will occur on a monthly basis during execution of the Project. Invoices will be prepared identifying those services completed, and listing the titles of assets utilized, and hours they worked, to arrive at that months' total Invoice fee.

If the scope and terms of this proposal are acceptable to you, please sign and date where indicated, and return at your earliest convenience. Should you have any questions or require additional information, please do not hesitate to contact me at (512) 579-0722, or lsavory@unintech.com.

Thank you for the opportunity to prepare this proposal. We look forward to providing these, and any future professional surveying services you may require.

Sincerely,

A handwritten signature in black ink that reads "Lynn R. Savory". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

Lynn R. Savory, RPLS
UNINTECH Project Manager
& Austin Office Administrator

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UNINTECH CONSULTING ENGINEERS, INC.

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BGE – ARWA – PHASE 1B PIPELINE SEGMENT C TERMS AND CONDITIONS:

UNINTECH shall perform the services outlined in this agreement for the stated fee arrangement.

Assignment

Neither party to this Agreement shall transfer, sublet or assign any rights under or interest in this Agreement (including, but not limited to, monies that are due or monies that may be due) without the prior written consent of the other party.

Access To Site:

Unless otherwise stated, UNINTECH will have access to the site for activities necessary for the performance of the services. UNINTECH will take precautions to minimize damage due to these activities, but have not included in the fee the cost of restoration of any resulting damage.

Jobsite Safety

Neither the professional activities of UNINTECH, nor the presence of UNINTECH's employees and sub-consultants at a construction site, shall relieve the General Contractor and any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the Work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. UNINTECH and its personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. CLIENT agrees that the General Contractor is solely responsible for jobsite safety, and warrants that this intent shall be made evident in CLIENT's agreement with the General Contractor.

Dispute Resolution:

Any claims or disputes made during design, construction or post-construction between CLIENT and UNINTECH shall be submitted to non-binding mediation. CLIENT and UNINTECH agree to include a similar mediation agreement with all contractors, subcontractors, sub consultants, suppliers and fabricators, thereby providing for mediation as the primary method for dispute resolution between all parties.

Indemnification:

CLIENT shall, to the fullest extent permitted by law, indemnify and hold harmless UNINTECH, its officers, directors, employees, agents and sub consultants from and against all damage, liability and cost, including reasonable attorney's fees and defense costs, arising out of or in any way connected with the performance by any of the parties above named of the services under this agreement, excepting only those damages, liabilities or costs attributable to the sole negligence or willful misconduct of UNINTECH.

Limitation of Liability:

In recognition of the relative risks, rewards and benefits of the project to both CLIENT and UNINTECH, the risks have been allocated such that CLIENT agrees that, to the fullest extent permitted by law, UNINTECH's total liability to CLIENT for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement from any cause or causes, shall not exceed total amount of engineering fee stated in this agreement. Such causes include but are not limited to, UNINTECH's negligence, errors, omissions, strict liability, breach of contract or breach of warranty.

Governing Law

The laws of the State of Texas will govern the validity of this Agreement, its interpretation and performance. Any litigation arising in any way from this Agreement shall be brought in the courts of the State of Texas, County of Bexar.



UNINTECH CONSULTING ENGINEERS, INC.

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Terms & Conditions, Cont.

Third Party Beneficiaries

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either CLIENT or UNINTECH. UNINTECH's services under this Agreement are being Performed solely for CLIENT's benefit, and no other entity shall have any claim against UNINTECH because of this Agreement or the performance or nonperformance of services hereunder. CLIENT agrees to include a provision in all contracts with contractors and other entitles involved in this project to carry out the intent of this paragraph.

Certifications, Guarantees and Warranties:

UNINTECH shall not be required to execute any documents that would result in their certifying, guaranteeing or warranting the existence of conditions whose existence UNINTECH cannot ascertain. UNINTECH shall not be required to execute any documents subsequent to the signing of this Agreement that in any way might, in the sole judgment of UNINTECH, increase UNINTECH's risk or the availability or cost of his or her professional or general liability insurance.

Billings/Payments:

Invoices for the Firm's services shall be submitted, at the Firm's option, either upon completion of such services or on a monthly basis. Invoices shall be payable within 30 days after the invoice date. All such invoices are due and payable to 2431 E. Evans Road, Sa Antonio, Texas. If the invoice is not paid within 30 days the Firm may, without waiving any claim or right against the Client, and without liability whatsoever to the Client, terminate the performance of the service. Retainers shall be credited on the final invoice.

Late Payments:

Accounts unpaid 60 days after the invoice date may be subject to a monthly service charge of 1.5% (or the legal rate) on the then unpaid balance. In the event any portion or all of an account remains unpaid 90 days after billing, CLIENT shall pay all costs of collection, including reasonable attorney's fees.

Termination of Services:

This agreement may be terminated by CLIENT or UNINTECH should the other fail to perform its obligations hereunder. In the event of termination, CLIENT shall pay UNINTECH for all services rendered to the date of termination, all reimbursable expenses, and reimbursable termination expenses.

Ownership of Documents:

All documents produced by UNINTECH under this agreement shall remain the property of UNINTECH and may not be used by CLIENT for any other endeavor without the written consent of UNINTECH. CLIENT agrees, to the fullest extent permitted by law, to defend, indemnify and hold UNINTECH harmless from any claim, liability or cost (including reasonable attorneys' fees and defense costs) arising or allegedly arising out of any unauthorized reuse or modification of the construction documents by CLIENT or any person or entity that acquires or obtains the plans and specifications from or through CLIENT without the written authorization of UNINTECH.

Contract offered this 26th day of March, 2020, and is valid for 30 days.

Unintech Consulting Engineers, Inc.

Min Chow (Clifford) Hew, CEO

Contract accepted this _____ day of _____, 2020.

By, _____

REGULAR MEETING
Alliance Regional Water Authority Technical Committee

COMMITTEE MEMBER PACKETS

Wednesday, April 8th, 2020 at 3:00 P.M.

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F.4 Update and possible direction to Staff regarding bids received for the Phase 1B Well Construction project. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*

Background/Information

Proposals were opened on April 2, 2020:

Bidder	Total Proposal Amount
Friedel Drilling Company	\$2,934,016
Weisinger Inc.	\$3,489,000
Hydro Resources	\$2,597,000

Note: The Project is being procured through a Competitive Sealed Proposal process and therefor the Selection Team is reviewing the information submitted by each Offeror to determine the overall Best Value to Alliance Water.

Next Step(s)

- Proposal Review and Scoring
- April Board Meeting Approval

Technical Committee Decision Needed:

- Possible direction to Staff.

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COMMITTEE MEMBER PACKETS

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- F.5** Update on status of groundwater management in project target area, and Gonzales County Underground Water Conservation District, Plum Creek Conservation District, Groundwater Management Area 13, Region L Planning Group, Guadalupe-Blanco River Authority, Hays County and CAPCOG activities.
~ *Graham Moore, P.E., Executive Director*
-

Gonzales County Underground Water Conservation District (GCUWCD)

The GCUWCD is scheduled to meet on April 14th.

Plum Creek Conservation District (PCCD)

The PCCD is scheduled to meet on April 21st.

Groundwater Management Area 13

No update.

Region L Planning Group

No update.

Guadalupe-Blanco River Authority; Hays County Activities; CAPCOG Activities

No update.

Technical Committee decision needed:

- None.

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- G. EXECUTIVE DIRECTOR REPORT** - Update on future meeting dates, locations, consultant invoices paid, approved changed orders, status of Authority procurements, Executive Director activities and other operational activities where no action is required. ~ *Graham Moore, P.E., Executive Director*

Board Meeting

- The March Board meeting will be held Virtually on Wednesday, April 22nd.

Consultant Invoices Paid

- Below are reports on the consultant invoices paid in March.

FY 19-20 CONSULTANT INVOICES PAID in MARCH 2020

Consultant	Total Authorized	Current Invoice	Invoiced-to-Date	% of Contract Invoiced	Remaining	Notes/Anomalies
Mark B. Taylor	\$17,500.00	\$0.00	\$12,895.00	74%	\$4,605.00	
LAN - Kyle/Buda Design	\$116,280.27	\$11,810.77	\$32,773.44	28%	\$83,506.83	
Patricia Ehrlinger Carls	\$25,000.00	\$3,381.00	\$11,229.25	45%	\$13,770.75	
RW Harden	\$40,000.00	\$1,418.00	\$12,129.25	30%	\$27,870.75	
Tx Solutions Group	\$72,000.00	\$6,000.00	\$36,000.00	50%	\$36,000.00	
BGE - Ph 1A CA	\$53,938.59	\$2,401.38	\$16,248.16	30%	\$37,690.43	
LAN - ROW Acquisition	\$32,110.04	\$0.00	\$0.00	0%	\$32,110.04	
Kent Alan Sick - ROW Legal	\$45,000.00	\$2,383.80	\$37,425.08	83%	\$7,574.92	
LNV - Ph 1A Observations	\$4,006.84	\$840.00	\$950.00	24%	\$3,056.84	
LNV - GIS Svcs	\$30,777.63	\$937.50	\$1,237.50	4%	\$29,540.13	
MLA Labs, Inc. - Pump Station	\$10,814.00	\$350.00	\$2,600.00	24%	\$8,214.00	
Armstrong, Vaughan & Associates, P.C.	\$10,715.00	\$0.00	\$10,715.00	100%	\$0.00	
J.R. Tolles & Associates, Inc.	\$189,985.00	\$18,520.00	\$89,090.00	47%	\$100,895.00	
Lloyd Gosselink Rochelle & Townsend	\$92,105.00	\$6,060.28	\$12,134.46	13%	\$79,970.54	
MLA Labs, Inc. - Segment B	\$13,118.00	\$350.00	\$2,983.00	23%	\$10,135.00	
Total	\$753,350.37	\$54,452.73	\$278,410.14		\$474,940.23	

REGULAR MEETING
Alliance Regional Water Authority Technical Committee

COMMITTEE MEMBER PACKETS

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PHASE 1B FY 19-20 CONSULTANT INVOICES PAID in MARCH 2020

Consultant	Total Authorized	Current Invoice	Invoiced-to-Date	% of Contract Invoiced	Remaining	Notes/ Anomalies
Kimley-Horn Ph 1B Owner's Rep WO3	\$1,372,351.19	\$388,234.17	\$1,364,772.77	99%	\$7,578.42	
Kimley-Horn Ph 1B Owner's Rep WO4	\$3,110,422.00	\$0.00	\$0.00	0%	\$3,110,422.00	
Blanton -	\$580,237.08	\$68,403.68	\$230,516.40	40%	\$349,720.68	
LAN - Segment A	\$182,524.80	\$0.00	\$64,749.55	35%	\$117,775.25	
LAN - Segment A Final	\$1,932,444.00	\$111,068.31	\$217,711.24	11%	\$1,714,732.76	
KFA - Segment B Prelim	\$118,202.94	\$39,462.75	\$89,214.00	75%	\$28,988.94	
KFA - Segment B Final	\$1,846,634.00	\$21,762.50	\$21,762.50	1%	\$1,824,871.50	
BGE - Segment C Prelim	\$172,491.20	\$11,273.67	\$107,032.45	62%	\$65,458.75	
FNI - Segment D	\$73,867.86	\$0.00	\$10,334.20	14%	\$63,533.66	
Walker - Segment E Prelim	\$283,489.60	\$5,305.00	\$31,462.30	11%	\$252,027.30	
LAN - ROW Acquisition	\$2,145,847.22	\$27,922.01	\$165,199.30	8%	\$1,980,647.92	
DTR&G	\$894,535.31	\$18,669.95	\$132,086.31	15%	\$762,449.00	
CBRE - Appraisals	\$2,291,500.00	\$0.00	\$87,750.00	4%	\$2,203,750.00	
CP&Y - Survey	\$2,019,932.20	\$89,851.75	\$480,463.45	24%	\$1,539,468.75	
RW Harden - WDH	\$13,920.00	\$0.00	\$8,880.00	64%	\$5,040.00	
LVN - RWI	\$1,063,283.45	\$32,601.83	\$203,751.56	19%	\$859,531.89	
Walker Partners - WTP Design	\$254,937.12	\$31,903.75	\$253,663.76	100%	\$1,273.36	
FNI - BPS Prelim	\$283,282.88	\$35,898.63	\$245,990.26	87%	\$37,292.62	
Plummer - Inline Elevated Tank	\$87,509.05	\$2,687.35	\$24,070.85	28%	\$63,438.20	
Total	\$18,727,411.90	\$885,045.35	\$3,739,410.90		\$14,988,001.00	

Approved Change Orders

- See below for Change Orders approved in March 2020.

CHANGE ORDERS APPROVED IN MARCH 2020				
Consultant	Original Authorization	Change Orders to Date	Change Order Approved this Month	New Total Contract Amount
Walker Partners: 1B Segment E	\$ 408,755.00	\$ 164,719.00	\$ 12,562.00	\$ 573,474.00
Black Castle - Phase 1A BPS Construction	\$ 4,999,080.00	\$ 111,827.56	\$ -	\$ 5,110,907.56
Drilling & Hydrogeology	\$ 114,000.00	\$ 31,380.00	\$ -	\$ 145,380.00
Freese & Nichols: 1B BPS & DP Prelim	\$ 771,617.00	\$ 34,863.00	\$ -	\$ 806,480.00
K Friese & Assoc.: 1B Segment B	\$ 565,417.00	\$ 60,095.00	\$ -	\$ 625,512.00
BGE: 1B Segment C	\$ 614,626.00	\$ 10,290.00	\$ -	\$ 624,916.00
Freese & Nichols: 1B Segment D	\$ 597,714.00	\$ 66,722.00	\$ -	\$ 664,436.00
Walker Partners: 1B WTP	\$ 1,203,606.00	\$ 40,406.00	\$ -	\$ 1,244,012.00
CP&Y: Ph 1B Program Survey	\$ 3,375,780.00	\$ 62,000.00	\$ -	\$ 3,437,780.00
Freese & Nichols: 1B Segment D (Final)	\$ 1,999,464.00	\$ 5,790.00	\$ -	\$ 2,005,254.00
LAN: 1B Segment A Final Design	\$ 1,903,077.00	\$ 84,130.00	\$ 54,763.00	\$ 1,987,207.00
Blanton & Assoc: Environmental Invest.	\$ 1,398,775.00	\$ 150,703.00	\$ -	\$ 1,549,478.00
K Friese & Assoc: 1B Seg B Final Design	\$ 1,830,994.00	\$ 21,003.13	\$ 10,683.13	\$ 1,851,997.13

REGULAR MEETING
Alliance Regional Water Authority Technical Committee

COMMITTEE MEMBER PACKETS

Wednesday, April 8th, 2020 at 3:00 P.M.

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- H. COMMITTEE MEMBER ITEMS OR FUTURE AGENDA ITEMS – Possible acknowledgement by Committee Members of future area events and/or requests for item(s) to be placed on a future agenda where no action is required.
-

Background/Information

The Committee Members have an opportunity to make announcements or to request that items be added to future Board or Committee agendas.

REGULAR MEETING
Alliance Regional Water Authority Technical Committee

COMMITTEE MEMBER PACKETS

Wednesday, April 8th, 2020 at 3:00 P.M.

Conference Call Number: 1-903-405-2572; Code: 120 771 382#

I.1 *Executive Session pursuant to the Government Code, Section 551.071 (Consultation with Attorney) and/or Section 551.072 (Real Property Deliberations) regarding:*

- A. *Water supply partnership options*
 - B. *Groundwater leases*
 - C. *Acquisition of real property for water supply project purposes*
-

REGULAR MEETING
Alliance Regional Water Authority Technical Committee

COMMITTEE MEMBER PACKETS

Wednesday, April 8th, 2020 at 3:00 P.M.

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I.2 Action from Executive Session on the following matters:

- A. *Water supply partnership options*
 - B. *Groundwater leases*
 - C. *Acquisition of real property for water supply project purposes*
-

REGULAR MEETING
Alliance Regional Water Authority Technical Committee

COMMITTEE MEMBER PACKETS
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J. ADJOURNMENT
