

**Alliance Regional Water Authority  
Technical Committee**

**REGULAR MEETING**



**ALLIANCE WATER**

**COMMITTEE MEMBER PACKETS**

Wednesday, December 8th, 2021 at 3:00 P.M.

Call-In Number: 1-346-248-7799

Meeting ID: 968 8616 3170

Passcode: 495028

**REGULAR MEETING**  
**Alliance Regional Water Authority Technical Committee**

**COMMITTEE MEMBER PACKETS**

Wednesday, December 8th, 2021 at 3:00 P.M.

Conference Call Number: 1-346-248-7799; Meeting ID: 968 8616 3170; Code: 495028

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, December 8, 2021. The public may participate in this meeting by calling the following number and code:

**ZOOM MEETING LINK**

Call-In Number: 1-346-248-7799

Meeting ID: 968 8616 3170

Passcode: 495028

Members of the public wishing to make public comment during the meeting must register by emailing [info@alliancewater.org](mailto:info@alliancewater.org) prior to 3:00 p.m. on December 8, 2021. 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 Regular Technical Committee Meeting held October 13, 2021. ~ *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 construction of the Authority's Phase 1B program. ~ *Chris Noe, P.E., Pape-Dawson Engineers*

F.2 Update, discussion 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 Possible recommendation to the Board to contingently award a construction contract for the Authority's Phase 1B Segment B Pipeline Project. ~ *Graham Moore, P.E., Executive Director*
- F.4 Possible recommendation to the Board to authorize a Work Order with K Friese & Associates, Inc. for construction administration services on the Authority's Phase 1B Segment B Pipeline Project. ~ *Graham Moore, P.E., Executive Director*
- F.5 Discussion and possible recommendation to the Board to approve a Work Order with Pape-Dawson Engineers, Inc. for Construction Management and Inspection Services on the Authority's Phase 1B Program. ~ *Graham Moore, P.E., Executive Director*
- F.6 Discussion and possible direction to Staff regarding the criteria and scoring to be utilized in the Authority's Request for Qualifications for Operation and Maintenance of the Carrizo Water Supply Project. ~ *Graham Moore, P.E., Executive Director*
- 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. ~ *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*

**REGULAR MEETING**  
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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*

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**

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No Backup Information for this Item.

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**COMMITTEE MEMBER PACKETS**

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**B. ROLL CALL**

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<u>NAME</u>	<u>PRESENT</u>
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Blake Neffendorf

James Earp

Paul Kite

Humberto Ramos

Tim Samford

Regina Franke

<u>NON-VOTING MEMBERS</u>	<u>PRESENT</u>
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Mayor Lee Urbanovsky

**REGULAR MEETING**  
**Alliance Regional Water Authority Technical Committee**

**COMMITTEE MEMBER PACKETS**

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**C. PUBLIC COMMENT PERIOD**

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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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**Alliance Regional Water Authority Technical Committee**

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**D. CONSENT AGENDA**

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



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**COMMITTEE MEMBER PACKETS**

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**D.1** Consider approval of minutes of the Technical Committee Meeting held October 13, 2021. ~ *Graham Moore, P.E., Executive Director*

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Attachment(s)

- 2021 10 13 Technical Committee Meeting Minutes

**Technical Committee decision needed:**

- Approval of minutes.



## ALLIANCE WATER

### Alliance Regional Water Authority

### TECHNICAL COMMITTEE MEETING

### MINUTES

**Wednesday, October 13, 2021**

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, October 13, 2021 by telephonic conference call 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. 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: Neffendorf, Earp, Kite, Ramos and Franke.**
- **Absent: Samford and Urbanovsky.**

C. PUBLIC COMMENT PERIOD

- **None.**

D. CONSENT AGENDA

D.1 Consider approval of minutes of the Regular Technical Committee Meeting held September 8, 2021.

- **Motion to adopt the minutes as presented was made by Mr. Neffendorf, seconded by Mr. Earp 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 construction of the Authority's Phase 1B program.
- **Mr. Noe provided an update on the Phase 1B construction.**
  - **No Action.**
- F.2 Discuss and possible approval of Change Order #1 to the Authority's Water Treatment Plant and Raw Water Infrastructure project.
- **Staff was requested to ensure that appropriate outreach is being made to landowners prior to the start of construction of projects.**
  - **Motion to approve Change Order #1 to in the amount of \$249,606 was made by Mr. Ramos, seconded by Mr. Kite and approved 5-0.**

Items F.3 and F.4 were opened simultaneously.

- F.3 Update and possible direction to Staff regarding the Authority's Phase 1B program.
- F.4 Update, discussion and possible direction to Staff regarding the Authority's Phase 1B Cost and Schedule Updates.
- **Mr. Sowa provided an update on the Phase 1B program as well as updates to the overall Program schedule and budget.**
  - **Mr. Ramos asked if the GBRA agreement needs to be modified to reflect the current schedule.**
  - **Mr. Moore responded that GBRA is kept abreast of the program schedule, budget and major items monthly at the Project Advisory Committee meetings and is aware of the current schedule for all shared projects.**
  - **Mr. Ramos requested an update at a future meeting as to how much additional funding might be necessary and the timing of the proposed funding.**
  - **No Action.**
- F.5 Update, discussion and possible direction to Staff regarding the Commissioning Plan for the Authority's Phase 1B Program.
- **Mr. Cobler made a presentation on the Commissioning Plan for the Phase 1B Program.**
  - **No Action.**
- F.6 Discussion and possible direction to Staff regarding Considerations for Operations of the Authority's Water System.
- **Mr. Moore reported that as a result of the GBRA agreement for Water Treatment and Transmission, that the Authority must utilize a**

**competitive process for selection of operators for the Phase 1B infrastructure.**

- **No Action.**

F.7 Update, discussion and possible direction to Staff regarding weatherization of the Authority's existing infrastructure.

- **Mr. Biemer made a presentation updating the Committee on Staff's weatherization efforts for the Phase 1A facilities.**
- **No Action.**

F.8 Discussion of legislative issues for the 87th Texas Legislature Special Session #2, and possible direction to Staff.

- **Mr. Moore provided an update.**
- **No Action.**

F.9 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.**
- **No Action.**

**G. EXECUTIVE DIRECTOR REPORT**

- **No Action.**

**H. COMMITTEE MEMBER ITEMS OR FUTURE AGENDA ITEMS**

- **No Items.**

**I. EXECUTIVE SESSION**

I.1 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 Executive Session.**

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 4:50 p.m. by Mr. Earp.

APPROVED: \_\_\_\_\_, 2021

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**F.1** Update and possible direction to Staff regarding construction of the Authority's Phase 1B program. ~ *Chris Noe, P.E., Pape-Dawson Engineers*

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Background/Information

Chris Noe with Pape Dawson will update the Committee on recent construction activities associated with the Phase 1B program.

Attachment(s)

- Phase 1B Construction Update – December 8, 2021

**Technical Committee Decisions Needed:**

- None.



# PHASE 1B CONSTRUCTION UPDATE

## TECHNICAL COMMITTEE MEETING

CMI Progress

December 8, 2021

Water Resources | Transportation | Land Development | Surveying | Environmental



## ONGOING PROGRESS



### Procurement / Construction Status

#### Water Treatment Plant & Raw Water Infrastructure

- Temporary Access Road (CO0001) complete
- All-weather access road inside plant near completion
- Flow EQ Basin bottom slab poured, steel for reinforcing walls is being placed
- Recycle PS foundation slab complete
- High Service Pump Station and Clearwell excavation near completion
- Raw Water Tanks, Filter Complex, and Rapid Mix Basin excavation complete

#### Booster Pump Station

- MWH mobilized
- Entrance gates installed
- Clearing for access road, staging area, and trailers complete

#### Segment A

- Pre-Construction Kickoff held and NTP issued
- Submittals are being received and processed thru SharePoint

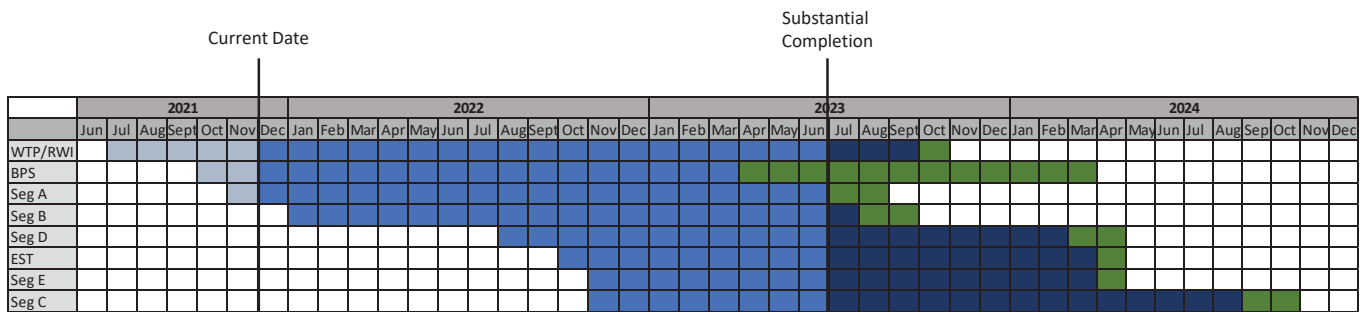


# CONTRACT VALUES

PROJECT	CONTRACT VALUE	BILLED TO DATE	REMAINING	% COMPLETE
WTP/RWI	\$54,599,281.00	\$3,683,722.10	\$50,915,558.90	6.75%
BPS	\$19,759,331.00	\$0.00	\$19,759,331.00	0.00%
EST	\$0.00	\$0.00	\$0.00	0.00%
Seg A	\$49,471,384.71	\$0.00	\$49,471,384.71	0.00%
Seg B	\$0.00	\$0.00	\$0.00	0.00%
Seg D	\$0.00	\$0.00	\$0.00	0.00%
Seg C	\$0.00	\$0.00	\$0.00	0.00%
Seg E	\$0.00	\$0.00	\$0.00	0.00%

3

# SCHEDULE DURATIONS



Project	Contract Status	Notice to Proceed	Substantial Completion	Sub Comp Delta (Days)	Sub Comp Status	Final Completion	Final Comp Delta (Days)
WTP/RWI	Awarded	7/16/2021	9/3/2023	0	Behind 3 mo	11/2/2023	0
BPS	Awarded	10/25/2021	3/19/2023	0	On Time	3/18/2024	0
Seg A	Awarded	11/16/2021	6/9/2023	32	On Time	8/8/2023	32
Seg B*	Pending						
Seg D*	Pending						
EST*	Pending						
Seg E*	Pending						
Seg C*	Pending						

\* Tentative Dates  
Change from previous report

4



# PROGRESS PHOTOS



WTP/RWI - Temporary Access Road



WTP/RWI - Plant Access Road



WTP/RWI - Flow Equalization Basin

5

# PROGRESS PHOTOS



WTP/RWI - Recycle Pump Station



WTP/RWI - Clearwell excavation



WTP/RWI - Filter Complex  
excavation

6

# PROGRESS PHOTOS



BPS – Placing fence and gate at entrance



BPS – Tree removal

7

# PROGRESS PHOTOS



BPS – Clearing for Access Road



BPS – Construction entrance preparation

8

**QUESTIONS?**

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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*
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Background/Information

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 – December 8, 2021
- Kimley-Horn Monthly Summary of Activities for November 2021

**Technical Committee Decisions Needed:**

- None.



# Phase 1B Program Update

Technical Committee Meeting  
December 8, 2021



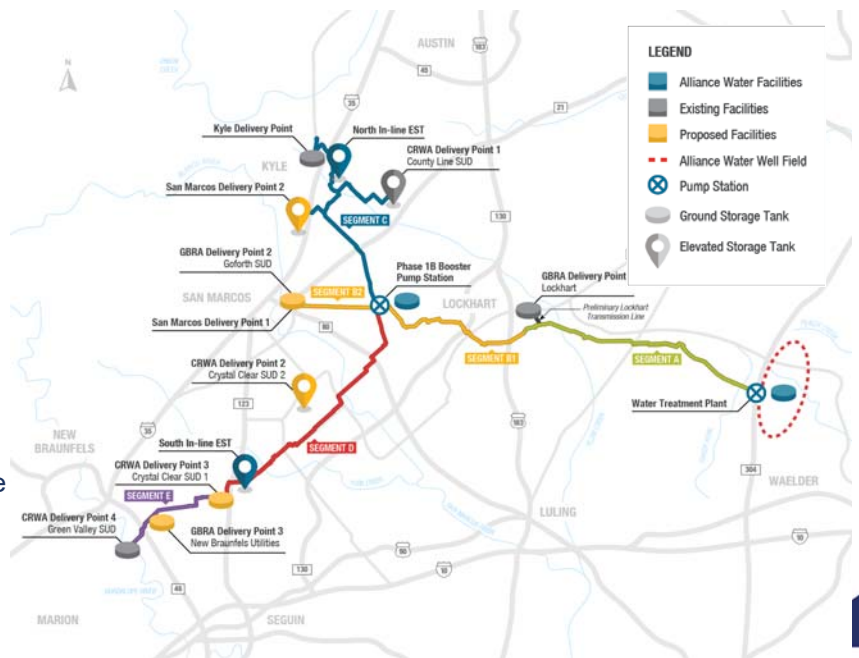
**ALLIANCE WATER**

PRESENTED BY **Kimley»Horn**  
Expect More. Experience Better.

## Ongoing Progress

### ► Design Milestone Status

- Design Submittals
  - Segment C & E – 100% submittals anticipated in January
- TWDB Reviews
  - Segment A
    - Construction Funding Release Disbursed
    - Working on Land Acquisition Release
  - Segment B
    - Final Design, Procurement Funding Release in Preparation
- Pipeline Segment B
  - Anticipated NTP to Contractor: Late January



# Pipeline Easement Acquisition Status

Pipeline Segment	Number of Parcels	STATUS						
		(A) Appraisal/Offer in Development	(B) Negotiation (Initial Offer)	(C) Negotiation (Final Offer)	(D) = (A+B+C) Appraisal / Negotiation	(E) Condemnation in Process	(F) = (D+E) Possession Still Needed	(G) Purchase Agreement Signed / Possession Obtained
A	39	0	0	0	0	0	0	39
B	52	0	0	0	0	4	4	48
D	57	0	0	3	3	26	29	28
C	74	1	29	4	34	24	58	16
E	37	1	10	0	11	21	32	5
Well Field	20	17	0	0	17	0	17	3
<b>Total</b>	<b>279</b>						<b>140</b>	<b>139</b>



## COST UPDATES BASED ON NOVEMBER MILESTONE SUBMITTALS

		ORIGINAL (FEB. 2019)	REVISED	
Construction Package		ARWA Total Projected Cost	ARWA Total Projected Cost	DIFFERENCE
<b>Submittal (%) Combined Program Infrastructure</b>				
Const.	Water Treatment Plant	\$ 25,200,000	\$ 29,500,000	\$ 4,300,000
Const.	Booster Pump Station & GBRA Meter Stations	\$ 12,100,000	\$ 13,200,000	\$ 1,100,000
60	Inline EST (South)	\$ 3,600,000	\$ 4,100,000	\$ 500,000
Const.	Pipeline Segment A	\$ 27,200,000	\$ 28,600,000	\$ 1,400,000
100	Pipeline Segment B	\$ 27,100,000	\$ 34,000,000	\$ 6,900,000
100	Pipeline Segment D	\$ 36,300,000	\$ 43,700,000	\$ 7,400,000
90	Pipeline Segment E	\$ 9,500,000	\$ 10,900,000	\$ 1,400,000
	<b>Subtotal</b>	<b>\$141,000,000</b>	<b>\$164,000,000</b>	<b>\$ 23,000,000</b>
<b>ARWA-Only Infrastructure</b>				
Const.	Well Drilling	\$ 3,800,000	\$ 3,300,000	(\$ 500,000)
Const.	Raw Water Infrastructure	\$ 7,000,000	\$ 10,600,000	\$ 3,600,000
Const.	ARWA Booster Pump Station & Delivery Points	\$ 7,700,000	\$ 4,800,000	(\$ 2,900,000)
30	Inline EST (North)	\$ 5,400,000	\$ 6,500,000	\$ 1,100,000
90	Pipeline Segment C	\$ 64,500,000	\$ 68,600,000	\$ 4,100,000
90	Pipeline Segment E (ARWA-Only)	\$ 6,700,000	\$ 12,600,000	\$ 5,900,000
No Design	Administration and Operations Building	\$ 4,300,000	\$ 4,200,000	(\$ 100,000)
	<b>Subtotal</b>	<b>\$ 99,400,000</b>	<b>\$110,600,000</b>	<b>\$ 11,200,000</b>
	<b>Total</b>	<b>\$240,400,000</b>	<b>\$274,600,000</b>	<b>\$34,200,000</b>

DECEMBER 2021 UPDATE

CHANGE FROM  
NOVEMBER UPDATE

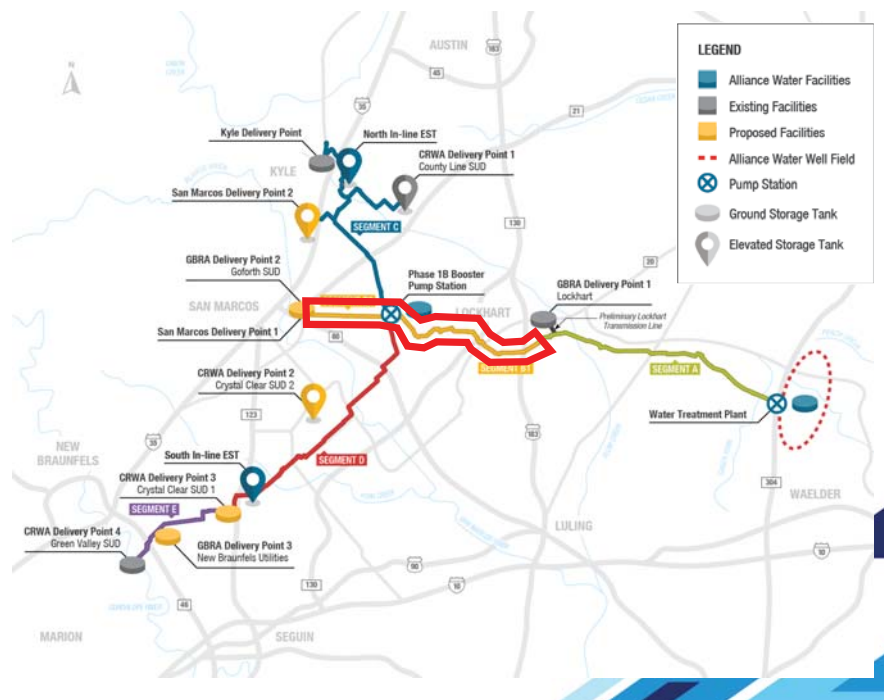
**\$100,000**



## Consulting Services

## Construction Phase Services

- ▶ Projects on this Agenda:
  - Pipeline Segment B



## Pipeline Segment B

- ▶ Construction Phase Services (Hourly not to Exceed)
- ▶ Basic Services Scope to Include:
  - Project Management and Coordination
  - Construction Progress Meetings
  - Periodic Site Visits
  - Shop Drawing Submittals
  - Requests for Information
  - Requests for Proposals, Change Orders
  - Final Walkthroughs
  - Record Drawings



## Pipeline Segment B

- ▶ Construction Phase Services (Hourly not to Exceed)
- ▶ Supplemental Services Scope to Include:
  - Verifying / Resetting Horizontal and Vertical Control
  - Additional Meetings / Site Visits
  - Review of Additional Submittals, Substitutions, etc.
- ▶ Basic Services Fee = \$471,544.00
- ▶ Supplemental Services Fee = \$150,000.00







**Questions?**

December 03, 2021

## **Project Monthly Summary**

### **November 2021 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 the Board Meeting Update.
  - Prepared and presented the Project Advisory Committee Meeting Update.
  - Prepared for and held Monthly Status Meeting with Alliance Water.
  
- Task 3 – Budgeting
  - Prepared and presented the monthly Budget Update for the Board meeting.
  - Continued updates to Budget Workbook to include monthly tracking of actual costs for ARWA review.
  
- Task 4 – Schedule
  - Revised Project Deliverable Schedule based on the feedback received from ARWA and Design Consultants.
  - Coordinated with Program team to integrate each project schedule into overall Program schedule. Developed and distributed the monthly Program schedule summary.
  
- Task 6 – Data Management
  - Ongoing maintenance of Microsoft SharePoint Online program.
  - Continued updating of web-based GIS for easement acquisition process and alignment changes.
  
- Task 7 – Environmental Management
  - Prepared an Environmental Status Update for the Board meeting.
  - Continued coordination with Program Environmental Consultant concerning the comment responses to the United States Army Corps of Engineers.
  - Coordinated with the Program Environmental Consultant regarding Inline Elevated Storage Tank site field work.
  - Continued coordination with the Program Environmental Consultant regarding additional hazmat studies for Segments C and E.
  - 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**

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- 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 C, D, E, and W 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
  - Continued coordination with TWDB Staff to track all EFRs, environmental reports, and bid documents currently under review.
  
- Task 10 – Design Standards
  - Reviewed the Pipeline Construction Standards considering Contractor recommendations for cost savings.
  
- Task 11 – Engineering Design Management
  - Pipelines:
    - Segment A
      - Continued coordination with Design Consultant during project procurement and construction.
    - Segment B
      - Continued coordination with Design Consultant during project procurement.
    - Segment C
      - Continued coordination with Design Consultant for final design.
      - Continued coordination with Design Consultant regarding ongoing field work and pipeline alignment considerations.
    - Segment D
      - Continued coordination with Design Consultant for final design and preparation for procurement.
    - Segment E

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

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- Continued coordination with Design Consultant for final design.
    - Wellfield:
      - Continued coordination regarding the completion of construction for Wells 6-9.
    - Raw Water Infrastructure:
      - Continued coordination with Design Consultant for construction phase services.
    - Water Treatment Plant:
      - Continued coordination with Design Consultant concerning Hydraulics/Surge development.
      - Continued coordination with Design Consultant for construction phase services.
    - Booster Pump Station:
      - Coordinated with Design Consultant during project for construction phase services.
    - Inline Elevated Storage Tanks:
      - Continued coordination with Design Consultant for 90% design development.
    - 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.
- Task 13 – Electrical Power Planning
  - Continued coordination with ARWA and GVEC to develop agreement language for service to the well field.
  - 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, Guadalupe, and Hays County TxDOT offices concerning roadway crossings.
  - Continued coordination with Caldwell, Guadalupe, and Hays Counties regarding on going permit reviews.
  - Continued General Coordination with GVEC and BBEC.
  - On-going Permit Tracking Log Updates.
- Task 15 – Procurement and Construction Phase Services
  - Continued coordinated with Segment A and BPS Design Consultants during the construction phase.
  - Coordination with Segment B during procurement phase.

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

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- On-going coordination with WTP and RWI Design Consultants during the construction phase.
- Task 16 – Other Services
  - Pipeline Easement Acquisition Cost Projection
    - Prepared an updated acquisition cost projection for ARWA’s review and presented to the Board.

**December 2021 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 the Technical Committee Update.
  - Prepare and present Project Advisory 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.
- Task 4 – Schedule
  - Revise the Project Deliverable Schedule based on the feedback received from ARWA and Design Consultants.
  - Coordinate with Program team to integrate each project schedule into overall Program schedule. Develop and distribute schedule update and memorandum.
- Task 6 – Data Management
  - Ongoing maintenance of Microsoft SharePoint Online program.
  - Continued updating of web-based GIS for easement acquisition process and alignment changes.
- Task 7 – Environmental Management
  - Review the Segment C Hazmat Phase II and Technical Documents report prepared by the Environmental Consultant.
  - Continue coordination with Program Environmental Consultant concerning the comment responses to the United States Army Corps of Engineers.
  - Continued coordination with the Program Environmental Consultant regarding additional hazmat studies for Segment C and E.

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

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- 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 C, D, E, and W 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
  - Continue coordination with TWDB Staff to track all EFRs, environmental reports, and bid documents currently under review.
  
- Task 10 – Design Standards
  - Review Pipeline Construction Standards considering Contractor recommendations for cost savings.
  - Coordinate with Pipeline Manufacturers to review potential cost savings measures to consider.
  
- Task 11 – Engineering Design Management
  - Pipelines:
    - Segment A
      - Continue coordination with Design Consultant for construction phase services.
    - Segment B
      - Continue coordination with Design Consultant for procurement phase services.
    - Segment C
      - Continue coordination with Design Consultant for final design.

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

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- Continue coordination with Design Consultant regarding ongoing field work and pipeline alignment considerations.
    - Segment D
      - Continue coordination with Design Consultant for final design and preparation for procurement.
    - Segment E
      - Continue coordination with Design Consultant for final design.
  - Wellfield:
    - Continue coordination regarding the completion of construction of Wells 6-9.
  - Raw Water Infrastructure:
    - Continued coordination with Design Consultant for construction phase services.
  - Water Treatment Plant:
    - Continue coordination with Design Consultant concerning Hydraulics/Surge development.
    - Continued coordination with Design Consultant for construction phase services.
  - Booster Pump Station:
    - Coordination with Design Consultant for final design and procurement development.
  - Inline Elevated Storage Tanks:
    - Coordination with Design Consultant for 90% 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 and GVEC to develop agreement language for service to the well field.
  - Continue coordination with GVEC regarding electric service to the WTP and wellfield.
- Task 14 – Permit Coordination/Tracking
  - Continue Permit coordination with Pipeline consultants
  - Coordinate with Hays County concerning the Site Development Permit.
  - General Coordination with TxDOT.
  - Coordinate with Caldwell, Guadalupe, and Hays County TxDOT offices concerning roadway crossings.
  - General Coordination with GVEC and BBEC.
  - On-going Permit Tracking Log Updates.
- Task 15 – Procurement and Construction Phase Services

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

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- On-going coordination with Segment A and BPS Design Consultants during the construction phase.
- Coordination with Segment B to prepare for procurement and pre-construction phase.
- On-going coordination with WTP and RWI Design Consultants during the construction phase.
  
- Task 16 – Other Services
  - Finalize and submit the City of San Marcos Watershed Protection Plan for the Booster Pump Station Plat.

**Scope Elements Added/Removed:**

None at this time.

**Outstanding Issues/Concerns:**

None at this time.



**REGULAR MEETING**  
**Alliance Regional Water Authority Technical Committee**

**COMMITTEE MEMBER PACKETS**

Wednesday, December 8th, 2021 at 3:00 P.M.

Conference Call Number: 1-346-248-7799; Meeting ID: 968 8616 3170; Code: 495028

- F.3** Possible recommendation to the Board to contingently award a construction contract for the Authority's Phase 1B Segment B Pipeline Project. ~ *Graham Moore, P.E., Executive Director*
- 

Background/Information

Alliance Water sought proposals for the Phase 1B Segment B Pipeline Project starting in September with proposals submitted on November 12, 2021. In accordance with the Authority's policies and Texas Water Development Board (TWDB) requirements, the project was advertised for two consecutive weeks in the Hays Free Press and in the Lockhart Post-Register.

The project includes approximately 10.5-miles of 42-inch pipeline and 5.4-miles of 36-inch pipeline and related appurtenances from the end of Segment A to the Booster Pump Station and from the Booster Pump Station to the San Marcos Water Treatment Plant. The bid was setup for additive alternates of pipe material (ductile iron, concrete steel cylinder and welded steel) in both 42-inch and 36-inch diameters.

A total of three proposals were received. The bidding documents utilized a Competitive Sealed Proposal (CSP) process whereby cost is considered but so too are the qualifications of the contractor to perform the work.

Attachment(s)

- Segment B Recommendation Presentation

**Technical Committee Decision Needed:**

- Possible recommendation to the Board to recommend contingently awarding the Segment B Pipeline Project to Garney Construction with Alternative C.

# Alliance Regional Water Authority

## Segment B – Recommendation of Construction Award

December 8, 2021



1

### Meeting Agenda

#### Segment B Pipeline

- Summary of Proposals Received
- Alternative Bid Items
- Review Team Total Combined Score
- Recommendation



# Segment B Pipeline

## Summary of Proposals Received

Proposal Price	Alt Description	Proposal Company		
		Carstensen	Garney	SJ Louis
Base Proposal		\$7,410,219.35	\$7,210,026.70	\$7,239,424.10
Alt A	Ductile Iron	No Bid	\$39,730,904.10	\$57,869,319.58
Alt B	Reinforced Concrete	\$35,841,941.00	\$28,821,139.76	\$32,485,452.20
Alt C	Steel Pipe	\$36,223,592.00	\$30,419,077.72	\$34,790,762.70
Alt D	UST Removal	\$9,000.00	\$16,423.47	\$50,000.00
Alt E	Open Cut CR 218	(\$95,000.00)	(\$56,504.94)	(\$21,000.00)
Alt F	Open Cut CR 241	(\$68,000.00)	(\$36,398.95)	(\$16,400.00)
Alt G	Open Cut CR 238 #1	(\$85,000.00)	(\$52,246.56)	(\$22,000.00)
Alt H	Open Cut CR 238 #2	(\$73,000.00)	(\$89,550.54)	(\$19,000.00)
Recommended Option (Base + Alt C)		\$43,633,811.35	\$37,629,104.42	\$42,030,186.80



## Criteria for Selection

- Proposal Price (40 Points)
- Quality Reputation, and Ability to Complete Similar Projects on Schedule and Within Budget (20 Points)
- Key Personnel (15 Points)
- Project Approach (15 Points)
- Safety Record (5 Points)
- Historically Underutilized Business (HUB) Program Compliance Plan (5 Points)



## Review Team Total Combined Score

Criteria	Carstensen	Garney	SJ Louis
Proposal Price (40 Points)	24.8	39.8	33.1
Quality, Reputation, and Ability to Complete Similar Projects on Schedule and Within Budget (20 Points)	10.2	19.0	16.6
Key Personnel (15 Points)	8.2	14.0	12.0
Project Approach (15 Points)	8.6	14.4	11.2
Safety Record (5 Points)	3.2	4.6	4.2
Historically Underutilized Business (HUB) Program Compliance Plan (5 Points)	1.4	4.8	4.2
<b>Total (100 Points Possible)</b>	<b>56.4</b>	<b>96.6</b>	<b>81.3</b>



## Recommendation

- It is the recommendation that **Garney Construction** be selected as the General Contractor for the Alliance Regional Water Authority Segment B Project.
- Award Bid Alternative C for welded steel piping.



**REGULAR MEETING**  
**Alliance Regional Water Authority Technical Committee**

**COMMITTEE MEMBER PACKETS**

Wednesday, December 8th, 2021 at 3:00 P.M.

Conference Call Number: 1-346-248-7799; Meeting ID: 968 8616 3170; Code: 495028

- F.4** Possible recommendation to the Board to authorize a Work Order with K Friese & Associates, Inc. for construction administration services on the Authority's Phase 1B Segment B Pipeline Project. ~ *Graham Moore, P.E., Executive Director*
- 

Background/Information

Alliance Water entered into a Work Order in August 2019 with K Friese & Associates, Inc. (KFA) to provide final design engineering services for the Phase 1B Segment B Pipeline project. The final design is complete and the construction notice-to-proceed is expected to be issued in January. In order to maintain progress, Staff has negotiated a scope and fee with KFA to provide construction administration and construction engineering services for the Phase 1B Segment B Pipeline project.

Below are some of the key facts regarding the proposal:

Firm: K Friese & Associates, Inc.  
Fee: \$621,544 (50% ARWA)  
Work Order Type: Hourly, Not-to-Exceed  
Anticipated Duration: 20 months  
Project Manager: Tom Owen, P.E.  
Key Subconsultants: Plummer & Associates

Staff is requesting that the Committee recommend Board approval of a Work Order with a fee for the basic services of \$471,544.00 and a fee for supplemental effort in an amount not-to-exceed \$150,000.00 for a total fee of \$621,544. The Executive Director will be given the discretion to authorize the supplemental effort if needed.

Attachment(s)

- September 1, 2021 - Booster Pump Station and Delivery Points Construction Phase Services.

**Technical Committee Decision Needed:**

- Possible recommendation to the Board to approve a work order with K Friese & Associates, Inc. for Construction Phase Services on the Phase 1B Segment B Pipeline Project.



1120 S. Capital of Texas Highway  
 CityView 2, Suite 100  
 Austin, Texas 78746  
 TBPE Firm #6535  
 P - 512.338.1704 F - 512.338.1784  
 kfriese.com

September 1, 2021

Mr. Graham Moore, PE  
 Executive Director  
 Alliance Regional Water Authority  
 630 E. Hopkins  
 San Marcos, TX 78666

Sent Via: E-MAIL

Re: Alliance Regional Water Authority  
 Phase 1B, Segment B Pipeline  
 Construction Phase Services

Dear Mr. Moore:

K Friese + Associates (KFA) is pleased to submit our proposal for Construction Phase Services for the Phase 1B, Segment B Pipeline. We understand this phase will be performed on a time and materials basis with an approximately 20-month duration per the current Program schedule. We propose to perform the Basic Services and the Supplemental Services described in the attached Scope in accordance with the below breakdown.

<b>TASK</b>	<b>AMOUNT</b>
Basic Services	
Task 1 - Project Management	\$35,052
Task 2 - Regulatory Agency Coordination and Permits	\$6,516
Task 3 - Public Utility Coordination	\$5,482
Task 4 - Fiber Coordination	9,700
Task 5 - Adjacent Design Consultant Coordination	\$14,421
Task 6 - Construction Site Visits and Progress Meetings	\$130,841
Task 7 - Construction Coordination	\$51,843
Task 8 - Shop Drawing/Submittal Review	\$59,298
Task 9 - Alternatives and Substitutions	\$18,838
Task 10 - Request for Information (RFIs)	\$22,225
Task 11 - Request for Proposals (RFPs) and Change Orders (COs)	\$38,083
Task 12 - Substantial/Final Completion Walk-Throughs	\$22,718
Task 13 - Record Drawings and Corrosion Services	\$56,526
<b>Subtotal</b>	<b>\$471,544</b>
Supplemental Services	\$150,000
<b>Total</b>	<b>\$621,544</b>

Mr. Graham Moore, P.E.  
September 1, 2021  
Page 2 of 2

We look forward to working on the next phase of this project and very much appreciate the opportunity. If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'T. M. Owens', with a stylized flourish at the end.

Thomas M Owens, P.E.  
Project Manager

**Alliance Regional Water Authority – Phase 1B  
Construction Phase Pipeline Scope  
Segment B Pipeline**

1. Project Management
  - 1.1. Prepare Monthly Summary Reports/Invoicing as identified in the ARWA Phase 1B Program Management Plan (20 Summary Reports/Invoices)
  - 1.2. Meetings
    - 1.2.1. Quality Control Audit (1 workshop)
    - 1.2.2. Training and coordination meeting on Construction Management & Inspection Team (CM&I) Electronic Document Management System (EDMS)
2. Regulatory Agency Coordination and Permits, including agenda and meeting minutes
  - 2.1. Texas Commission on Environmental Quality (two one-hour virtual meetings or phone conf.)
  - 2.2. Texas Water Development Board (two one-hour virtual meetings or phone conf.)
  - 2.3. Caldwell County (two one-hour virtual meetings or phone conf.)
  - 2.4. Texas Department of Transportation (two one-hour virtual meetings or phone conf.)
  - 2.5. City of San Marcos (one one-hour virtual meeting of phone conf.)
  - 2.6. City of Lockhart (one one-hour virtual meeting of phone conf.)
  - 2.7. Plum Creek Conservation District (one one-hour virtual meeting of phone conf.)
3. Public Utility Coordination, including agenda and meeting minutes
  - 3.1. Bluebonnet Electric Cooperative (two one-hour virtual meetings or phone conferences)
  - 3.2. LCRA (two one-hour virtual meetings or phone conferences)
  - 3.3. Central Texas Regional Water Supply Corporation (one one-hour virtual meeting or phone conference)
  - 3.4. Maxwell Water Supply Corporation (two one-hour virtual meetings or phone conferences)
4. Fiber Coordination
  - 4.1. Coordination with Segment A and Pump Station Contractors and/or Consultants related to fiber installation. Coordination includes up to two site visits.
5. Adjacent Design Consultant Coordination (if required, site visits included in Specialty Observations site visit quantity)
  - 5.1. Coordination for connections with Pipeline Segment A and Segment D Consultants, Pump Station Design Consultant, San Marcos Water Treatment Plant Design Consultant.
6. Construction Site Visits and Progress Meetings
  - 6.1. Pre-Construction Meeting
    - 6.1.1. Attend a pre-construction meeting coordinated by the Construction Management and Inspection (CM&I) team.
    - 6.1.2. Attend separate SH-130 pre-construction meeting coordinated by the Construction CM&I team.
  - 6.2. Monthly Site Observation (20 Site Visits same day as Construction Meetings)
    - 6.2.1. Site observations will be limited to spot checking, selective measurement, and similar methods of general observation. Based on information obtained during site visits, Consultant will evaluate whether Contractor's work is generally proceeding in accordance with the Contract Documents, and Consultant will keep Client informed of the general progress of the work. Consultant is not required to make exhaustive or continuous inspections to check the quality or quantity of the Work. In this effort, Consultant will endeavor to protect the Owner against defects and deficiencies in the work of Contractor



and will report any observed deficiencies to CM&I. Consultant's visits and observations are subject to the limitations on Consultant's authority and responsibility described in the General Conditions.

Consultant will not supervise, direct, or have control over Contractor's work, nor shall Consultant have authority to stop the Work or have responsibility for the means, methods, techniques, equipment choice and usage, schedules, or procedures of construction selected by Contractor, for safety programs incident to Contractor's work, or for any failure of Contractor to comply with any laws. Consultant does not guarantee the performance of any Contractor and has no responsibility for Contractor's failure to perform its work in accordance with the Contract Documents. Consultant is to inform the CM&I of issues or concerns and CM&I is to work with Contractor to address these issues or concerns.

- 6.2.2. Site observation reports will be prepared and provided to the CM&I team via the CM&I Electronic Document Management System (EDMS) within 48 hours of each site visit.
- 6.2.3. Notify CM&I team of inconsistencies with observed work with respect to Contract Documents.
- 6.2.4. Specialty Observations will be limited to spot checking, selective measure, and similar methods of general observations for observation of equipment requiring additional observations beyond the monthly observations. (18 Specialty Observations)
- 6.2.5. Specialty Observation reports will be prepared and provided to the CM&I team via the CM&I Electronic Document Management System (EDMS) within 48 hours of each site visit.
- 6.2.6. Notify CM&I team of inconsistencies with observed work with respect to Contract Documents.
- 6.3. Monthly Construction Progress Meetings (20 Construction Meetings same day as Site Visits)
  - 6.3.1. Attend Progress Meetings led by the CM&I team. Discuss status of document reviews, proposed contract modifications and any issues or concerns that need to be addressed to allow construction of the project to progress.
  - 6.3.2. Review Project Decision Register and Action Item Register prior to each meeting. Report discrepancies in the Project Decision Register to the CM&I team immediately. Update the status on Action Items at least 10 days before meetings.
  - 6.3.3. Review monthly Construction Activity Reports prepared by the CM&I team. Provide feedback on report content as appropriate.
- 7. Construction Coordination
  - 7.1. Regular coordination with Owner's Representative and CM&I group as required to facilitate administration of the project.
  - 7.2. Participate in project quality audits as necessary, and implementation of agreed corrective actions. Attend up to four meetings related to quality issues during construction.
  - 7.3. Review monthly construction pay applications and make recommendations for payment
  - 7.4. Review monthly schedules to confirm compliance with Contract dates and key milestones
  - 7.5. Review monthly as-builts provided by Contractor.
  - 7.6. Utilize EDMS for upload/download of all construction-related documentation.

8. Shop Drawing/Submittal Review
  - 8.1. Review shop drawings/submittals for conformance with the project plans and specifications and provide responses within 10 working days. For the purposes of this scope, assume review effort will include the original submittal and first resubmittal. Assume up to 60 submittals.
9. Alternatives and Substitutions
  - 9.1. Review alternatives and substitutions proposed by Contractor. Recommend acceptance or rejection of the request for substitutions within 14 calendar days. Assume up to 10 substitution reviews.
10. Request for Information (RFIs)
  - 10.1. Review Contractor questions or concerns that may arise during construction and respond within 5 calendar days. Assume up to 20 RFIs
11. Request for Proposals (RFPs) and Change Orders (COs)
  - 11.1. Coordinate with CM&I to prepare a description of proposed Modifications. CM&I will issue the RFP form to Contractor through the EDMS. Assume up to 10 RFPs
  - 11.2. Coordinate with CM&I for review and response to RFP and provide recommendations to the Owner's Representative for consideration. Assume up to 10 RFPs
  - 11.3. Review Change Order prepared by the CM&I team. Assume up to 10 Change Orders, not including the Final Change Order
  - 11.4. Prepare final Change Order (over and unders) recapitulation of the Project in conjunction with the final pay request
12. Substantial/Final Completion Walk-Throughs
  - 12.1. Consultant to conduct two (2) substantial completion walk-throughs/inspections, one for Segment B2 and one for Segment B1, coordinated by the CM&I. After considering any objections from Owner's Representative, if the Consultant considers the work substantially complete, Consultant will submit a Substantial Completion punch list and letter to the Owner's Representative.
  - 12.2. Consultant to conduct one (1) final completion walk-through/inspection (coordinated by the CM&I) to determine if the completed work of Contractor is acceptable to both the Owner's Representative and Consultant so that Consultant may recommend, in writing, the final payment to the Contractor.
13. Record Drawings and Corrosion Services
  - 13.1. Consultant will prepare Contract Record Drawings using the marked up red lines drawings provided by the Contractor during construction. Record drawing information will be based solely on the provided red line drawings and appropriate field documentation received from the Consultant and the CM&I group during construction site visits. Items associated with this work include:
    - 13.1.1. Prepare Record Drawings of the constructed project based on change order revisions, RFI responses, and as built information provided by the contractor.
    - 13.1.2. Provide the Owner's Representative:
      - 13.1.2.1. With one (1) set of Record Drawings in .pdf and .dwg electronic format.
      - 13.1.2.2. The DWG file with the reference state plane coordinate system for use by ARWA.

## 13.2. Corrosion Investigation, Data Collection and Design Support

### 13.2.1. Post Construction Corrosion Services

13.2.1.1. Attend a pre-commissioning site visit prior to testing

13.2.1.1.1. Conduct an alignment walk-thru and develop punch list of deficient Items

13.2.1.1.2. Check continuity and isolation along pipeline

13.2.1.2. Commissioning/Testing

13.2.1.2.1. Attend and witness testing performed by contractor

13.2.1.2.2. Prepare a Commissioning Report and develop post-commissioning punchlist

## 14. Supplemental

### 14.1. Survey

14.1.1. Verify/Reset horizontal and vertical control points for construction purposes

### 14.2. General Construction Phase Services, which may include:

14.2.1. Additional site visits.

14.2.2. Providing services to review or evaluate Contractor claims that are not due to causes within the control of Consultant (three claims).

14.2.3. Assisting Owner in preparing for, or appearing at litigation, mediation, arbitration, dispute review boards, or other legal and/or administrative proceedings in the defense or prosecution of claims disputes with Contractor.

14.2.4. Assisting Owner in the defense or prosecution of litigation in connection with or in addition to those services contemplated by this Agreement.

14.2.5. Any services required as a result of default of the Contractor or the failure, for any reason, of the Contractor to complete the work within the Contract Time.

14.3. Attend additional meetings in the vicinity of the project (5 meetings)

14.4. Review additional submittals and/or RFIs

14.4.1. Review up to 40 additional submittals

14.4.2. Review up to 5 additional RFIs

14.5. Additional Post Construction Corrosion Services

## 15. Assumptions

15.1. Construction phase services will occur over a 20-month period.

15.2. CM&I Team will verify all pay application quantities prior to being sent for review

15.3. Construction coordination with TWDB beyond that described in Item 2 will be performed by the Program and/or CM&I Team.

15.4. Record drawing information will be provided by the Contractor and CM&I group at Substantial Completion. Pipeline Segment B1 and B2 Record Drawings will be developed together, following Substantial Completion of both pipe segments.

15.5. Record Drawing coordinate system will match the coordinate system used in the design plans.

Alliance Water Phase 1B Program											Project Fee Summary				
Pipeline Consultant 9/1/2021											Basic Effort	\$	471,544		
Detailed Overall K Friese + Associates Cost Breakdown											Supplemental	\$	150,000		
											Total Effort	\$	621,544		

Task	Employee Project Role	Project Manager	Senior Engineer	Project Engineer	EIT	CADD Operator	Admin	Total Hours	Total Labor Effort	Total Expense Effort	Plummer	Brierley Associates	Chapman	SAM, Inc.	Total Sub Effort	Total Effort	Assumptions
<b>Task 1 - Project Management</b>																	
1.1	Prepare Monthly Summary Reports/Invoicing as identified in the ARWA Phase 1B Program Management Plan	16	44				20	80	\$ 23,080	\$ -	\$ 5,442	\$ 5,720	\$ 810	\$ -	\$ 11,972	\$ 35,052	
1.2	Meetings							0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
1.2.1	Quality Control Audit (1 workshop)	4	8		4			16	\$ 3,520	\$ -	\$ 936	\$ -	\$ -	\$ -	\$ 936	\$ 4,456	
1.2.2	Training and coordination meeting on Construction Management & Inspection Team (CM&I) Electronic Document Management System (EDMS)	4	4		4			12	\$ 2,560	\$ -	\$ 996	\$ 440	\$ -	\$ -	\$ 1,436	\$ 3,996	
<b>Task 2 - Regulatory Agency Coordination and Permits</b>																	
2.1	Texas Commission on Environmental Quality (two one-hour virtual meetings or phone conf.)		3		3			6	\$ 1,050	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,050	Included time for agenda and minutes
2.2	Texas Water Development Board (two one-hour virtual meetings or phone conf.)		3		3			6	\$ 1,050	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,050	Included time for agenda and minutes
2.3	Caldwell County (two one-hour virtual meetings or phone conf.)		3		3			6	\$ 1,050	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,050	Included time for agenda and minutes
2.4	Texas Department of Transportation (two one-hour virtual meetings or phone conf.)		3		3			6	\$ 1,050	\$ -	\$ 468	\$ -	\$ -	\$ -	\$ 468	\$ 1,518	Included time for agenda and minutes
2.5	City of San Marcos (one one-hour virtual meeting of phone conf.)		1		2			3	\$ 460	\$ -	\$ 468	\$ -	\$ -	\$ -	\$ 468	\$ 928	Included time for agenda and minutes
2.6	City of Lockhart (one one-hour virtual meeting of phone conf.)		1		2			3	\$ 460	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 460	Included time for agenda and minutes
2.7	Plum Creek Conservation District (one one-hour virtual meeting of phone conf.)		1		2			3	\$ 460	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 460	Included time for agenda and minutes
<b>Task 3 - Public Utility Coordination</b>																	
3.1	Bluebonnet Electric Cooperative (two one-hour virtual meetings or phone conferences)		3		3			6	\$ 1,050	\$ -	\$ 468	\$ -	\$ -	\$ -	\$ 468	\$ 1,518	Included time for meeting minutes
3.2	LCRA (two one-hour virtual meetings or phone conferences)		3		3			6	\$ 1,050	\$ -	\$ 468	\$ -	\$ -	\$ -	\$ 468	\$ 1,518	Included time for meeting minutes
3.3	Central Texas Regional Water Supply Corporation (one one-hour virtual meeting or phone conference)		1		2			3	\$ 460	\$ -	\$ 468	\$ -	\$ -	\$ -	\$ 468	\$ 928	Included time for meeting minutes
3.4	Maxwell Water Supply Corporation (two one-hour virtual meetings or phone conferences)		3		3			6	\$ 1,050	\$ -	\$ 468	\$ -	\$ -	\$ -	\$ 468	\$ 1,518	Included time for meeting minutes
<b>Task 4 - Fiber Coordination</b>																	
4.1	Coordination with Segment A and Pump Station Contractors and/or Consultants related to fiber installation		40					40	\$ 9,600	\$ 100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,700	Two site visits
<b>Task 5 - Adjacent Design Consultant Coordination</b>																	
5.1	Coordination for connections with Pipeline Segment A and Segment D Consultants, Pump Station Design Consultant, San Marcos Water Treatment Plant Design Consultant.		40		20			60	\$ 11,800	\$ -	\$ 2,621	\$ -	\$ -	\$ -	\$ 2,621	\$ 14,421	required site visits under 6.2.4
<b>Task 6 - Construction Site Visits and Progress Meetings</b>																	
6.1	Pre-Construction Meeting							0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
6.1.1	Attend a pre-construction meeting coordinated by the Construction Management and Inspection (CM&I) team.	6	8		8			22	\$ 4,540	\$ 50	\$ 996	\$ -	\$ -	\$ -	\$ 996	\$ 5,586	
6.1.2	Attend separate SH-130 pre-construction meeting coordinated by the Construction CM&I team.		8		8			16	\$ 2,800	\$ 50	\$ -	\$ 1,531	\$ -	\$ -	\$ 1,531	\$ 4,381	
6.2	Monthly Site Observation							0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
6.2.1	Site observations will be limited to spot checking, selective measurement, and similar methods of general observation.	16	56	16	16			104	\$ 21,840	\$ 450	\$ 1,992	\$ 5,222	\$ -	\$ -	\$ 7,214	\$ 29,504	18 for KFA, 2 for Plummer
6.2.2	Site observation reports will be prepared and provided to the CM&I team via the CM&I Electronic Document Management System (EDMS) within 48 hours of each site visit.	4	8	4	4			20	\$ 4,020	\$ -	\$ 468	\$ 660	\$ -	\$ -	\$ 1,128	\$ 5,148	
6.2.3	Notify CM&I team of inconsistencies with observed worked with respect to Contract Documents.	4	8	4	8			24	\$ 4,460	\$ -	\$ 1,498	\$ 880	\$ -	\$ -	\$ 2,378	\$ 6,838	
6.2.4	Specialty Observations will be limited to spot checking, selective measure, and similar methods of general observations for observation of equipment requiring additional observations beyond the monthly observations.	12	36	18	18			84	\$ 16,350	\$ 600	\$ 5,856	\$ 2,611	\$ -	\$ -	\$ 8,467	\$ 25,417	KFA = 12, Plummer = 4, BA = 2
6.2.5	Specialty Observation reports will be prepared and provided to the CM&I team via the CM&I Electronic Document Management System (EDMS) within 48 hours of each site visit.	4	12	6	6			28	\$ 5,450	\$ -	\$ 1,872	\$ 330	\$ -	\$ -	\$ 2,202	\$ 7,652	
6.2.6	Notify CM&I team of inconsistencies with observed work with respect to Contract Documents.	4	8	2	2			16	\$ 3,550	\$ -	\$ 1,498	\$ 440	\$ -	\$ -	\$ 1,938	\$ 5,488	
6.3	Monthly Construction Progress Meetings							0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
6.3.1	Attend Progress Meetings led by the CM&I team. Discuss status of document reviews, proposed contract modifications and any issues or concerns that need to be addressed to allow construction of the project to progress.	16	56	24	24			120	\$ 23,720	\$ 900	\$ 1,872	\$ 1,000	\$ -	\$ -	\$ 2,872	\$ 27,492	18 for KFA, 2 for Plummer

Alliance Water Phase 1B Program											Project Fee Summary					
Pipeline Consultant 9/1/2021											Basic Effort	\$	471,544			
Detailed Overall K Friese + Associates Cost Breakdown											Supplemental	\$	150,000			
											Total Effort	\$	621,544			

Task	Employee	Project Role						Total Hours	Total Labor Effort	Total Expense Effort	Plummer	Brierley Associates	Chapman	SAM, Inc.	Total Sub Effort	Total Effort	Assumptions
		Project Manager	Senior Engineer	Project Engineer	EIT	CADD Operator	Admin										
Hourly Bill Rate		\$290.00	\$240.00	\$125.00	\$110.00	\$110.00	\$90.00										
6.3.2	Review Project Decision Register and Action Item Register prior to each meeting. Report discrepancies in the Project Decision Register to the CM&I team immediately. Update the status on Action Items at least 10 days before meetings.	8	12					20	\$ 5,200	\$ -	\$ 468	\$ 1,000	\$ -	\$ -	\$ 1,468	\$ 6,668	
6.3.3	Review monthly Construction Activity Reports prepared by the CM&I team. Provide feedback on report content as appropriate.	8	12					20	\$ 5,200	\$ -	\$ 468	\$ 1,000	\$ -	\$ -	\$ 1,468	\$ 6,668	
<b>Task 7 - Construction Coordination</b>									\$ 45,720	\$ 200	\$ 5,923	\$ -	\$ -	\$ 5,923	\$ 51,843		
7.1	Regular coordination with Owner's Representative and CM&I group as required to facilitate administration of the project.	16	40	8	16			80	\$ 17,000	\$ -	\$ 1,872	\$ -	\$ -	\$ 1,872	\$ 18,872	4 hrs/mo	
7.2	Participate in project quality audits as necessary, and implementation of agreed corrective actions. Attend up to four meetings related to quality issues during construction.	8	32	16	16			72	\$ 13,760	\$ 200	\$ 1,618	\$ -	\$ -	\$ 1,618	\$ 15,578		
7.3	Review monthly construction pay applications and make recommendations for payment		16	12	12			40	\$ 6,660	\$ -	\$ 1,310	\$ -	\$ -	\$ 1,310	\$ 7,970		
7.4	Review monthly schedules to confirm compliance with Contract dates and key milestones		8	4	8			20	\$ 3,300	\$ -	\$ 562	\$ -	\$ -	\$ 562	\$ 3,862		
7.5	Review monthly as-builts provided by Contractor.	4	16					20	\$ 5,000	\$ -	\$ 562	\$ -	\$ -	\$ 562	\$ 5,562		
7.6	Utilize EDMS for upload/download of all construction-related documentation.							0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
<b>Task 8 - Shop Drawing/Submittal Review</b>									\$ 41,000	\$ -	\$ 4,118	\$ 13,100	\$ 1,080	\$ 18,298	\$ 59,298		
8.1	Review shop drawings/submittals for conformance with the project plans and specifications and provide responses within 10 working days. For the purposes of this scope, assume review effort will include the original submittal and first resubmittal. Assume up to 60 submittals.	20	80	40	100			240	\$ 41,000	\$ -	\$ 4,118	\$ 13,100	\$ 1,080	\$ 18,298	\$ 59,298	40 for KFA, 20 split between BA, Chapman, Plummer - 4 hrs each with 50% resubmittal	
<b>Task 9 - Alternatives and Substitutions</b>									\$ 14,160	\$ -	\$ 1,498	\$ 2,000	\$ 1,180	\$ 4,678	\$ 18,838		
9.1	Review alternatives and substitutions proposed by Contractor. Recommend acceptance or rejection of the request for substitutions within 14 calendar days. Assume up to 10 substitution reviews.	16	24	16	16			72	\$ 14,160	\$ -	\$ 1,498	\$ 2,000	\$ 1,180	\$ 4,678	\$ 18,838	7 for KFA plus coordination, 1 Plummer, 1 BA, 1 Chapman	
<b>Task 10 - Request for Information (RFIs)</b>									\$ 12,640	\$ -	\$ 2,995	\$ 6,000	\$ 590	\$ 9,585	\$ 22,225		
10.1	Review Contractor questions or concerns that may arise during construction and respond within 5 calendar days. Assume up to 20 RFIs	4	40	8	8			60	\$ 12,640	\$ -	\$ 2,995	\$ 6,000	\$ 590	\$ 9,585	\$ 22,225	11 for KFA plus coordination, 4 Plummer, 4 BA, 1 Chapman	
<b>Task 11 - Request for Proposals (RFPs) and Change Orders (COs)</b>									\$ 29,280	\$ -	\$ 5,803	\$ 3,000	\$ -	\$ 8,803	\$ 38,083		
11.1	Coordinate with CM&I to prepare a description of proposed Modifications. CM&I will issue the RFP form to Contractor through the EDMS. Assume up to 10 RFPs	4	40	8	8			60	\$ 12,640	\$ -	\$ 2,995	\$ 2,000	\$ -	\$ 4,995	\$ 17,635	7 KFA, 2 Plummer, 1 BA	
11.2	Coordinate with CM&I for review and response to RFP and provide recommendations to the Owner's Representative for consideration. Assume up to 10 RFPs	2	20	4	4			30	\$ 6,320	\$ -	\$ 1,872	\$ 1,000	\$ -	\$ 2,872	\$ 9,192	7 KFA, 2 Plummer, 1 BA	
11.3	Review Change Order prepared by the CM&I team. Assume up to 10 Change Orders, not including the Final Change Order	4	24	8	4			40	\$ 8,360	\$ -	\$ 468	\$ -	\$ -	\$ 468	\$ 8,828		
11.4	Prepare final Change Order (over and unders) recapitulation of the Project in conjunction with the final pay request		4	8				12	\$ 1,960	\$ -	\$ 468	\$ -	\$ -	\$ 468	\$ 2,428		
<b>Task 12 - Substantial/Final Completion Walk-Throughs</b>									\$ 18,640	\$ 150	\$ 2,928	\$ 1,000	\$ -	\$ 3,928	\$ 22,718		
12.1	Consultant to conduct two (2) substantial completion walk-throughs/inspections, one for Segment B2 and one for Segment B1, coordinated by the CM&I. After considering any objections from Owner's Representative, if the Consultant considers the work substantially complete, Consultant will submit a Substantial Completion punch list and letter to the Owner's Representative.	12	16	16				44	\$ 9,320	\$ 100	\$ 1,932	\$ 1,000	\$ -	\$ 2,932	\$ 12,352		
12.2	Consultant to conduct one (1) final completion walk-through/inspection (coordinated by the CM&I) to determine if the completed work of Contractor is acceptable to both the Owner's Representative and Consultant so that Consultant may recommend, in writing, the final payment to the Contractor.	12	16	16				44	\$ 9,320	\$ 50	\$ 996	\$ -	\$ -	\$ 996	\$ 10,366		
<b>Task 13 - Record Drawings and Corrosion Services</b>									\$ 32,380	\$ 200	\$ 6,396	\$ 880	\$ 16,670	\$ 23,946	\$ 56,526		
13.1	Consultant will prepare Contract Record Drawings using the marked up red lines drawings provided by the Contractor during construction. Record drawing information will be based solely on the provided red line drawings and appropriate field documentation received from the Consultant and the CM&I group during construction site visits. Items associated with this work include:							0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
13.1.1	Prepare Record Drawings of the constructed project based on change order revisions, RFI responses, and as built information provided by the contractor.	4	8	40				208	\$ 25,240	\$ -	\$ 6,136	\$ 880	\$ 3,240	\$ 10,256	\$ 35,496	104 Shts KFA (not including TCP details), 47 Plummer, 3 BA, 3 Chapman	
13.1.2	Provide the Owner's Representative:							0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		

Alliance Water Phase 1B Program										Project Fee Summary					
Pipeline Consultant										Basic Effort		\$		471,544	
9/1/2021										Supplemental		\$		150,000	
Detailed Overall K Friese + Associates Cost Breakdown										Total Effort		\$		621,544	

Task	Employee	Project Role						Total Hours	Total Labor Effort	Total Expense Effort	Plummer	Brierley Associates	Chapman	SAM, Inc.	Total Sub Effort	Total Effort	Assumptions
		Project Manager	Senior Engineer	Project Engineer	EIT	CADD Operator	Admin										
Hourly Bill Rate		\$290.00	\$240.00	\$125.00	\$110.00	\$110.00	\$90.00										
13.1.2.1	With one (1) set of Record Drawings in .pdf and .dwg electronic format.		4	4			8										
13.1.2.2	The DWG file with the reference state plane coordinate system for use by ARWA.																
13.2	Corrosion Investigation, Data Collection and Design Support																
13.2.1	Post Construction Corrosion Services																
13.2.1.1	Attend a pre-commissioning site visit prior to testing																
13.2.1.1.1	Conduct an alignment walk-thru and develop punch list of deficient Items		8														
13.2.1.1.2	Check continuity and isolation along pipeline																
13.2.1.2	Commissioning/Testing																
13.2.1.2.1	Attend and witness testing performed by contractor		8														
13.2.1.2.2	Prepare a Commissioning Report and develop post-commissioning punchlist		4														
<b>14. Supplemental Services</b>																	
14.1	Survey								\$ 56,763	\$ 250	\$ 21,318	\$ 21,811	\$ 6,880	\$ 42,978	\$ 92,987	\$ 150,000	
14.2	General Construction Phase Services, which may include:								\$ 2,120	\$ -	\$ -	\$ -	\$ -	\$ 42,978	\$ 42,978	\$ 45,098	
14.3	Attend additional meetings in the vicinity of the project (5 meetings)								\$ 16,560	\$ -	\$ 15,000	\$ 15,000	\$ 3,440	\$ -	\$ 33,440	\$ 50,000	
14.4	Review additional submittals and/or RFIs								\$ 6,030	\$ 250	\$ 936	\$ 811	\$ -	\$ -	\$ 1,747	\$ 8,027	
14.5	Additional Post Construction Corrosion Services								\$ 27,053	\$ -	\$ 5,382	\$ 6,000	\$ -	\$ -	\$ 11,382	\$ 38,435	
									\$ 5,000	\$ -	\$ -	\$ -	\$ 3,440	\$ -	\$ 3,440	\$ 8,440	
									\$ 56,763	\$ 250	\$ 21,318	\$ 21,811	\$ 6,880	\$ 42,978	\$ 92,987	\$ 150,000	
	Basic Services								\$ 344,620	\$ 2,700	\$ 57,520	\$ 46,374	\$ 20,330	\$ -	\$ 124,224	\$ 471,544	
	Grand Total								\$ 401,383	\$ 2,950	\$ 78,838	\$ 68,185	\$ 27,210	\$ 42,978	\$ 217,211	\$ 621,544	

## **SUBCONSULTANT PROPOSALS**

PLUMMER

<b>Alliance Water Phase 1B Program</b>						<b>Project Fee Summary</b>		
Pipeline Consultant 8/31/2021						Basic Effort	\$	57,520
Detailed SUBCONSULTANT Cost Breakdown						Supplemental	\$	21,318
						Total Effort	\$	78,838

Task	Employee	Guerra	Ramos	Bauman	Total Hours	Total Labor Effort	Total Expense Effort	Total Effort	Assumptions
	Hourly Bill Rate	\$234.00	\$140.40	\$130.00					
<b>Task 1 - Project Management</b>									
1.1	Prepare Monthly Summary Reports/Invoicing as identified in the ARWA Phase 1B Program Management Plan	15			15	\$ 5,382	\$ 60	\$ 5,442	
1.2	Meetings				0	\$ -	\$ -	\$ -	
1.2.1	Quality Control Audit (1 workshop)	4			4	\$ 936	\$ -	\$ 936	
1.2.2	Training and coordination meeting on Construction Management & Inspection Team (CM&I) Electronic Document Management System (EDMS)	4			4	\$ 936	\$ 60	\$ 996	
<b>Task 2 - Regulatory Agency Coordination and Permits</b>									
2.1	Texas Commission on Environmental Quality (two one-hour virtual meetings or phone conf.)				0	\$ -	\$ -	\$ -	
2.2	Texas Water Development Board (two one-hour virtual meetings or phone conf.)				0	\$ -	\$ -	\$ -	
2.3	Caldwell County (two one-hour virtual meetings or phone conf.)				0	\$ -	\$ -	\$ -	
2.4	Texas Department of Transportation (two one-hour virtual meetings or phone conf.)	2			2	\$ 468	\$ -	\$ 468	
2.5	City of San Marcos (one one-hour virtual meeting of phone conf.)	2			2	\$ 468	\$ -	\$ 468	
2.6	City of Lockhart (one one-hour virtual meeting of phone conf.)				0	\$ -	\$ -	\$ -	
2.7	Plum Creek Conservation District (one one-hour virtual meeting of phone conf.)				0	\$ -	\$ -	\$ -	
<b>Task 3 - Public Utility Coordination</b>									
3.1	Bluebonnet Electric Cooperative (two one-hour virtual meetings or phone conferences)	2			2	\$ 468	\$ -	\$ 468	
3.2	LCRA (two one-hour virtual meetings or phone conferences)	2			2	\$ 468	\$ -	\$ 468	
3.3	Central Texas Regional Water Supply Corporation (one one-hour virtual meeting or phone conference)	2			2	\$ 468	\$ -	\$ 468	
3.4	Maxwell Water Supply Corporation (two one-hour virtual meetings or phone conferences)	2			2	\$ 468	\$ -	\$ 468	
<b>Task 4 - Fiber Coordination</b>									
4.1	Coordination with Segment A and Pump Station Contractors and/or Consultants related to fiber installation				0	\$ -	\$ -	\$ -	
<b>Task 5 - Adjacent Design Consultant Coordination</b>									
5.1	Coordination for connections with Pipeline Segment A and Segment D Consultants, Pump Station Design Consultant, San Marcos Water Treatment Plant Design Consultant.	4	12		16	\$ 2,621	\$ -	\$ 2,621	
<b>Task 6 - Construction Site Visits and Progress Meetings</b>									
6.1	Pre-Construction Meeting				0	\$ -	\$ -	\$ -	
6.1.1	Attend a pre-construction meeting coordinated by the Construction Management and Inspection (CM&I) team.	4			4	\$ 936	\$ 60	\$ 996	
6.1.2	Attend separate SH-130 pre-construction meeting coordinated by the Construction CM&I team.				0	\$ -	\$ -	\$ -	
6.2	Monthly Site Observation				0	\$ -	\$ -	\$ -	
6.2.1	6.2.1. Site observations will be limited to spot checking, selective measurement, and similar methods of general observation.	8			8	\$ 1,872	\$ 120	\$ 1,992	
6.2.2	Site observation reports will be prepared and provided to the CM&I team via the CM&I Electronic Document Management System (EDMS) within 48 hours of each site visit.	2			2	\$ 468	\$ -	\$ 468	
6.2.3	Notify CM&I team of inconsistencies with observed worked with respect to Contract Documents.	4	4		8	\$ 1,498	\$ -	\$ 1,498	
6.2.4	Specialty Observations will be limited to spot checking, selective measure, and similar methods of general observations for observation of equipment requiring additional observations beyond the monthly observations.	24			24	\$ 5,616	\$ 240	\$ 5,856	
6.2.5	Specialty Observation reports will be prepared and provided to the CM&I team via the CM&I Electronic Document Management System (EDMS) within 48 hours of each site visit.	8			8	\$ 1,872	\$ -	\$ 1,872	
6.2.6	Notify CM&I team of inconsistencies with observed work with respect to Contract Documents.	4	4		8	\$ 1,498	\$ -	\$ 1,498	
6.3	Monthly Construction Progress Meetings				0	\$ -	\$ -	\$ -	
6.3.1	Attend Progress Meetings led by the CM&I team. Discuss status of document reviews, proposed contract modifications and any issues or concerns that need to be addressed to allow construction of the project to progress.	8			8	\$ 1,872	\$ -	\$ 1,872	
6.3.2	Review Project Decision Register and Action Item Register prior to each meeting. Report discrepancies in the Project Decision Register to the CM&I team immediately. Update the status on Action Items at least 10 days before meetings.	2			2	\$ 468	\$ -	\$ 468	
6.3.3	Review monthly Construction Activity Reports prepared by the CM&I team. Provide feedback on report content as appropriate.	2			2	\$ 468	\$ -	\$ 468	
<b>Task 7 - Construction Coordination</b>									
7.1	Regular coordination with Owner's Representative and CM&I group as required to facilitate administration of the project.	8			8	\$ 1,872	\$ -	\$ 1,872	
7.2	Participate in project quality audits as necessary, and implementation of agreed corrective actions. Attend up to four meetings related to quality issues during construction.	4	4		8	\$ 1,498	\$ 120	\$ 1,618	
7.3	Review monthly construction pay applications and make recommendations for payment	2	6		8	\$ 1,310	\$ -	\$ 1,310	
7.4	Review monthly schedules to confirm compliance with Contract dates and key milestones		4		4	\$ 562	\$ -	\$ 562	
7.5	Review monthly as-builts provided by Contractor.		4		4	\$ 562	\$ -	\$ 562	
7.6	Utilize EDMS for upload/download of all construction-related documentation.				0	\$ -	\$ -	\$ -	
<b>Task 8 - Shop Drawing/Submittal Review</b>									
8.1	Review shop drawings/submittals for conformance with the project plans and specifications and provide responses within 10 working days. For the purposes of this scope, assume review effort will include the original submittal and first resubmittal. Assume up to 60 submittals.	8	16		24	\$ 4,118	\$ -	\$ 4,118	
<b>Task 9 - Alternatives and Substitutions</b>									
9.1	Review alternatives and substitutions proposed by Contractor. Recommend acceptance or rejection of the request for substitutions within 14 calendar days. Assume up to 10 substitution reviews.	4	4		8	\$ 1,498	\$ -	\$ 1,498	
<b>Task 10 - Request for information (RFIs)</b>									
						\$ 2,995	\$ -	\$ 2,995	



PLUMMER

<b>Alliance Water Phase 1B Program</b>					<b>Project Fee Summary</b>		
Pipeline Consultant 8/31/2021					Basic Effort	\$	57,520
Detailed SUBCONSULTANT Cost Breakdown					Supplemental	\$	21,318
					Total Effort	\$	78,838

Task	Employee	Guerra	Ramos	Bauman	Total Hours	Total Labor Effort	Total Expense Effort	Total Effort	Assumptions
		PM	EIT	CAD					
Project Role		\$234.00	\$140.40	\$130.00					
Hourly Bill Rate									
10.1	Review Contractor questions or concerns that may arise during construction and respond within 5 calendar days. Assume up to 20 RFIs	8	8		16	\$ 2,995	\$ -	\$ 2,995	
<b>Task 11 - Request for Proposals (RFPs) and Change Orders (COs)</b>						\$ 5,803	\$ -	\$ 5,803	
11.1	Coordinate with CM&I to prepare a description of proposed Modifications. CM&I will issue the RFP form to Contractor through the EDMS. Assume up to 10 RFPs	8	8		16	\$ 2,995	\$ -	\$ 2,995	
11.2	Coordinate with CM&I for review and response to RFP and provide recommendations to the Owner's Representative for consideration. Assume up to 10 RFPs	8			8	\$ 1,872	\$ -	\$ 1,872	
11.3	Review Change Order prepared by the CM&I team. Assume up to 10 Change Orders, not including the Final Change Order	2			2	\$ 468	\$ -	\$ 468	
11.4	Prepare final Change Order (over and unders) recapitulation of the Project in conjunction with the final pay request	2			2	\$ 468	\$ -	\$ 468	
<b>Task 12 - Substantial/Final Completion Walk-Throughs</b>						\$ 2,808	\$ 120	\$ 2,928	
12.1	Consultant to conduct two (2) substantial completion walk-throughs/inspections, one for Segment B2 and one for Segment B1, coordinated by the CM&I. After considering any objections from Owner's Representative, if the Consultant considers the work substantially complete, Consultant will submit a Substantial Completion punch list and letter to the Owner's Representative.	8			8	\$ 1,872	\$ 60	\$ 1,932	
12.2	Consultant to conduct one (1) final completion walk-through/inspection (coordinated by the CM&I) to determine if the completed work of Contractor is acceptable to both the Owner's Representative and Consultant so that Consultant may recommend, in writing, the final payment to the Contractor.	4			4	\$ 936	\$ 60	\$ 996	
<b>Task 13 - Record Drawings and Corrosion Services</b>						\$ 6,396	\$ -	\$ 6,396	
13.1	Consultant will prepare Contract Record Drawings using the marked up red lines drawings provided by the Contractor during construction. Record drawing information will be based solely on the provided red line drawings and appropriate field documentation received from the Consultant and the CM&I group during construction site visits. Items associated with this work include:				0	\$ -	\$ -	\$ -	
13.1.1	Prepare Record Drawings of the constructed project based on change order revisions, RFI responses, and as built information provided by the contractor.	4		40	44	\$ 6,136	\$ -	\$ 6,136	
13.1.2	Provide the Owner's Representative:				0	\$ -	\$ -	\$ -	
13.1.2.1	With one (1) set of Record Drawings in .pdf and .dwg electronic format.			1	1	\$ 130	\$ -	\$ 130	
13.1.2.2	The DWG file with the reference state plane coordinate system for use by ARWA.			1	1	\$ 130	\$ -	\$ 130	
13.2	Corrosion Investigation, Data Collection and Design Support				0	\$ -	\$ -	\$ -	
13.2.1	Post Construction Corrosion Services				0	\$ -	\$ -	\$ -	
13.2.1.1	Attend a pre-commissioning site visit prior to testing				0	\$ -	\$ -	\$ -	
13.2.1.1.1	Conduct an alignment walk-thru and develop punch list of deficient Items				0	\$ -	\$ -	\$ -	
13.2.1.1.2	Check continuity and isolation along pipeline				0	\$ -	\$ -	\$ -	
13.2.1.2	Commissioning/Testing				0	\$ -	\$ -	\$ -	
13.2.1.2.1	Attend and witness testing performed by contractor				0	\$ -	\$ -	\$ -	
13.2.1.2.2	Prepare a Commissioning Report and develop post-commissioning punchlist				0	\$ -	\$ -	\$ -	
<b>14. Supplemental Services</b>						\$ 21,318	\$ -	\$ 21,318	
14.1	Survey					\$ -	\$ -	\$ -	
14.2	General Construction Phase Services, which may include:					\$ 15,000	\$ -	\$ 15,000	
14.3	Attend additional meetings in the vicinity of the project (5 meetings)					\$ 936	\$ -	\$ 936	
14.4	Review additional submittals and/or RFIs					\$ 5,382	\$ -	\$ 5,382	
14.5	Additional Post Construction Corrosion Services					\$ -	\$ -	\$ -	
					0	\$ -	\$ -	\$ -	
<b>Grand Total</b>						\$ 78,118	\$ 720	\$ 78,838	

Basic Services	\$ 78,118	\$ 720	\$ 78,838
Engineering Fee		\$ 78,838	

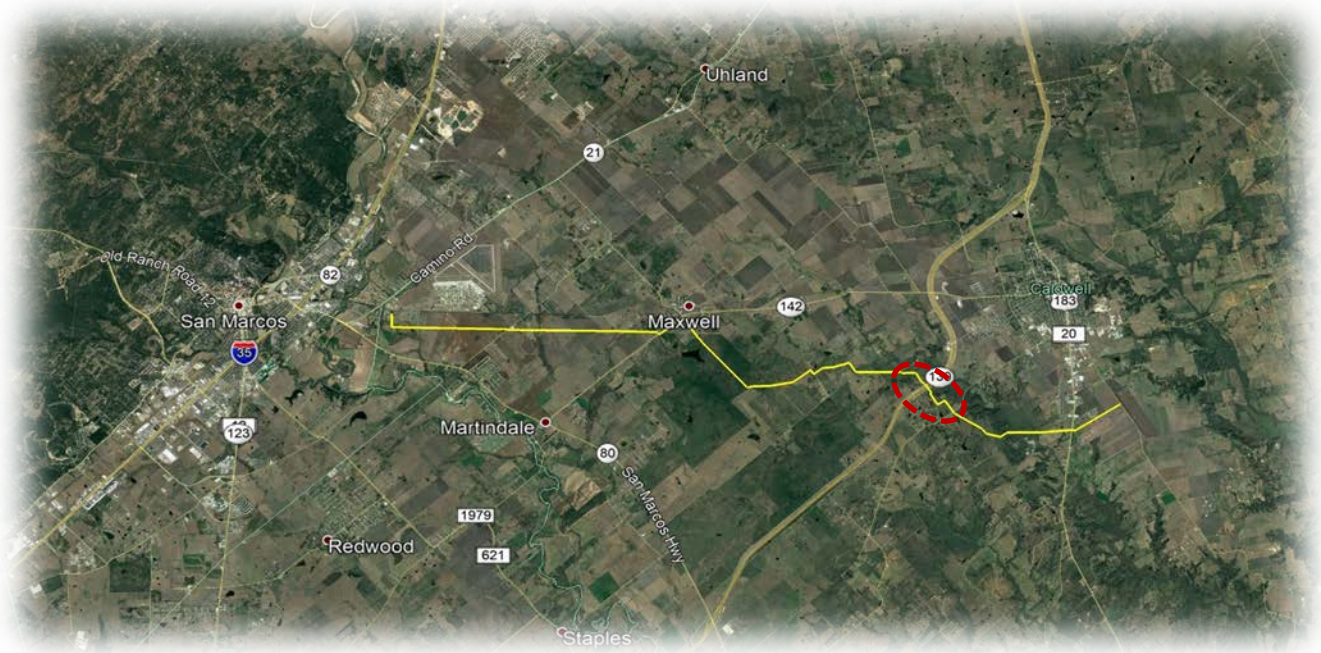
August 27, 2021  
Brierley Project # 121202

Mr. Thomas Owens, P.E.  
KFriese + Associates  
1120 S. Capital of Texas Highway, CityView 2, Suite 100  
Austin, TX 78746

RE: Proposal for ARWA1BSB – Construction Phase Services

Dear Mr. Owens:

Brierley Associates Corporation (Brierley) is pleased to submit this proposal to KFriese + Associates (KFA) to provide construction phase services associated with the Alliance Regional Water Authority (ARWA) Pipeline Segment B. The proposed Segment B pipeline will begin near the intersection of S. Commerce St. and Seawillow Rd. located in Lockhart, Texas. The 42-inch pipeline will generally head west and northwest to Booster Pump Station #1 located near Maxwell, Texas. From the Booster Pump Station #1, the pipeline will be downsized to 30-inch and will generally head west through Reedville, Texas and terminate at the Guadalupe-Blanco River Authority Water Treatment plant located near the intersection of Airport Highway and N. Old Bastrop Highway in San Marcos, Texas. We understand that KFA would like Brierley's construction phase services only for the SH-130 crossing (red dashed circle below).



Brierley will only be involved on the SH-130 segment (ATTACHMENT 1) of the alignment which will be constructed using tunneling or trenchless techniques (for the remainder of this proposal the term "tunneling" will be used but could refer to either a tunneling or trenchless construction technique).

The ARWA has elected to utilize a phased approach for the project as outlined in the RFQ and highlighted below:

- a. Feasibility/Preliminary Engineering Phase Services
- b. Design and Permitting Services
- c. Bidding Services
- d. Construction Phase Services**
- e. Warranty Phase Services

This proposal will be structured under **d. Construction Phase Services** identified within the RFQ and is specifically for this phase.

A draft scope and fee template were provided to Brierley for development of this proposal; we have mirrored our tasks with the scope of services outlined in the scope and fee template. The number in parentheses within the task headings below refers directly to the scope of services within the provided documents.

Brierley's work associated with this phase of the ARWA project will generally be incorporated into the following Tasks:

***Design and Permitting Services***

- Task 1** – Project Management
- Task 6** – Construction Site Visits and Progress Meetings
- Task 8** – Shop Drawing/Submittal Review
- Task 9** – Alternatives and Substitutions
- Task 10** – Request for Information (RFIs)
- Task 11** – Request for Proposals (RFPs) and Change Orders (COs)
- Task 12** – Substantial/Final Completion Walk-Throughs
- Task 13** – Record Drawings and Corrosion Services
- Task 14** – Supplemental

Task numbers were skipped intentionally to conform with the template format provided and the requested Brierley participation. Brierley understands that the Construction Phase Services addressed in this proposal will be approximately 12 months in length. It should be noted that the overall construction is anticipated to be 22 months however Brierley's scope for the tunnel should be in the range of a 12 month duration.

***TASK 1 – PROJECT MANAGEMENT (1.0)***

***1.1 Prepare Monthly Summary Reports/Invoicing*** - Brierley will prepare monthly Lump Sum invoices, under the assumptions that this phase of the work will be completed in 12 months. Brierley assumes two (2) hours per invoice.

***1.2.1 Training and coordination meeting on Construction Management & Inspection Team (CM&I) Electronic Document Management System (EDMS)*** - Brierley will designate one (1) person to attend this training and coordination meeting. Brierley assumes that this effort will be virtual and will take two (2) hours.

***TASK 6 – CONSTRUCTION SITE VISITS AND PROGRESS MEETINGS (6.0)***

***6.1.2. SH-130 Pre-Construction Meeting*** – Brierley will attend a separate SH-130 pre-construction meeting coordinated by the Construction CM&I team. Brierley will have two (2) people from the design team attend this meeting, which will be the Engineer of Record (EOR) and geologist for the project. It is assumed that this meeting will be held on site and will be an hour in duration.

***6.2.1. Monthly Site Observation*** – Brierley will make four (4) site visits during the construction of the SH-130 tunnel. These visits will serve to evaluate Contractor's

work is generally proceeding in accordance with the Contract Documents and will keep Client informed of the general progress of the work. We will report any observed deficiencies to CM&I team. Brierley assumes one (1) person and six (6) hours per site visit including travel time.

**6.2.2. Site Observation Reports Submission** – Brierley will prepare and provide to the CM&I team via the CM&I Electronic Document Management System (EDMS) within 48 hours of each site visit. Brierley assumes 1 hour for each report submission.

**6.2.3. Construction Inconsistencies** – Brierley will notify CM&I team of inconsistencies with observed work regarding shafts and tunnel with respect to Contract Documents. Brierley assumes one (1) person and one (1) hour per site visit.

**6.2.4. Specialty Site Observation Reports** – Brierley will make one (1) visit during annular grouting activities and one (1) visit during pipe placement in tunnel. Brierley assumes one (1) person and six (6) hours per site visit including travel time.

**6.2.5. Specialty Site Observation Reports Submission** – Brierley will prepare and provide to the CM&I team via the CM&I Electronic Document Management System (EDMS) within 48 hours of each specialty site visit. Brierley assumes 1 hour for each report submission.

**6.2.6. Specialty Construction Inconsistencies** – Brierley will notify CM&I team of inconsistencies with observed work regarding annular grouting and pipe placement in tunnel with respect to Contract Documents. Brierley assumes one (1) person and two (1) hour per site visit.

**6.3.1. Monthly Progress Meetings** – Brierley will attend progress meetings led by the CM&I team. These meetings are intended to discuss status of document reviews, proposed contract modifications and any issues or concerns that need to be addressed to allow construction of the project to progress. Brierley assumes these will be virtual and one (1) person will attend four (4) meetings and one (1) hour per meeting.

**6.3.2. Review Project Decision Register and Action Item Register** – Brierley will review these registers prior to the monthly progress meetings and will report discrepancies in the Project Decision Register to the CM&I team immediately. Update the status on Action Items at least 10 days before meetings. KFA will lead and gather information from Brierley. Brierley assumes one (1) hour per site visit totaling four (4) hours.

**6.3.3. Review Monthly Construction Activity Reports** – Brierley will review these monthly construction activity reports prepared by the CM&I team and will provide feedback on report content as appropriate. Brierley assumes one (1) hour per site visit totaling four (4) hours.

## **TASK 8 – SHOP DRAWINGS/SUBMITTAL REVIEW (8.0)**

**8.1. Review Shop Drawings/Submittals** – Brierley will review shop drawings/submittals for conformance with the project plans and specifications and provide responses within 10 working days. For the purposes of this scope, Brierley assumes review effort will include the original submittal and first resubmittal. Brierley anticipates the following submittals pertaining to the shaft and tunnel components of the project:

- Instrumentation and Monitoring
- Groundwater Control
- Shaft Excavation
- Tunnel Excavation
- Contact Grouting
- Annular Grouting
- Pipe Placement in Tunnel

Brierley assumes up to 14 submittals including original submittal and first resubmittal and up to four (4) hours per submittal.

**TASK 9 – ALTERNATIVES AND SUBSTITUTIONS (9.0)**

**9.1. Review Alternatives and Substitutions proposed by Contractor** – Brierley will review alternatives and substitutions proposed by the Contractor. Brierley will recommend acceptance or rejection of the request for substitutions within 14 calendar days. Brierley assumes one (1) person up to eight (8) hours for this task and it will include up to 10 substitution reviews.

**TASK 10 – REQUEST FOR INFORMATION (RFIs) (10.0)**

**10.1. RFIs** - Brierley will review Contractor questions or concerns that may arise during construction and respond within 5 calendar days. Brierley assumes one (1) person and up to six (6) RFIs at four (4) hours each.

**TASK 11 – REQUEST FOR PROPOSALS (RFPs) AND CHANGE ORDERS (COs) (11.0)**

**11.1. Coordinate with CM&I to prepare a description of proposed Modifications** - Brierley will Coordinate with CM&I to prepare a description of proposed Modifications. CM&I will issue the RFP form to Contractor through the EDMS. Brierley assumes one (1) person and one (1) RFP for a total of 8 hours.

**11.2. Coordinate with CM&I for review and response to RFP** - Brierley will coordinate with CM&I for review and response to RFP and provide recommendations to the Owner's Representative for consideration. Brierley assumes one (1) person and one (1) RFP for a total of 4 hours.

**TASK 12 – SUBSTANTIAL/FINAL COMPLETION WALK-THROUGHS (12.0)**

**12.1. Substantial Completion Walk-throughs/Inspections** - Brierley will perform a substantial completion/walk-through for the SH-130 tunnel. Brierley assumes that KFA will be present during this walk-through and KFA will provide the substantial completion punch list based on Brierley's input and observations. Brierley assumes one (1) person for this task for a total of four (4) hours.

**TASK 13 – RECORD DRAWINGS AND CORROSION SERVICES (13.0)**

**13.1.1. Prepare Record Drawings** – Brierley will simply provide input to KFA, and KFA will incorporate into record drawings. Brierley assumes one (1) person for this task for a total of four (4) hours.

**TASK 14 – SUPPLEMENTAL (14.0)**

**14.2. General Construction Phase Services** – In the event that Contractor claims arise, the program has requested Brierley to include a lumpsum fee of \$15,000 that may include an additional site visit and assisting Owner in reviewing and evaluating claims.

**14.3. Attend Additional Meetings** – In the event that additional meetings are needed, Brierley assumes one (1) meeting in the vicinity of the project and assumes one (1) person for three (3) hours including travel time.

**14.4. Review Additional Submittals and/or RFIs** – In the event that additional submittal reviews are needed, Brierley assumes up to five (5) additional submittals. Brierley assumes one (1) person and up to four (4) hours per submittal. In the event that additional RFI reviews are needed, Brierley assumes up to one (1) additional RFI review. Brierley assumes one (1) person and up to four (4) hours.

**COST**

Brierley proposes to perform the tasks described herein and summarized on the attached Fee Estimate worksheet to be paid as a Lump Sum.

Note that the hourly rates used are reflective of Brierley's 2021 Standard Fee Schedule. If, for some reason, the design and permitting services is not completed by December 31, 2022, we reserve the right to escalate our fees by 5% per year from the 2021 hourly rates (Contract amount will not be exceeded). Brierley expects to be allowed to utilize skilled engineering staff throughout Brierley, as needed to perform and review its work. Our fees for this scope will be invoiced monthly, with estimated percent complete for lump sum items. If additional effort beyond the scope detailed is requested, a negotiated fee and contract amendment will be agreed to prior to commencing work. An e-mail or other written directive will be sent to Brierley prior to proceeding with additional scope.

Please call me at 512-219-1733 if you need anything else to clarify this proposal or if we can be of any other assistance to KFriese + Associates.



Sincerely,  
Kevin Mandeville, P.G.  
Associate  
Brierley Associates

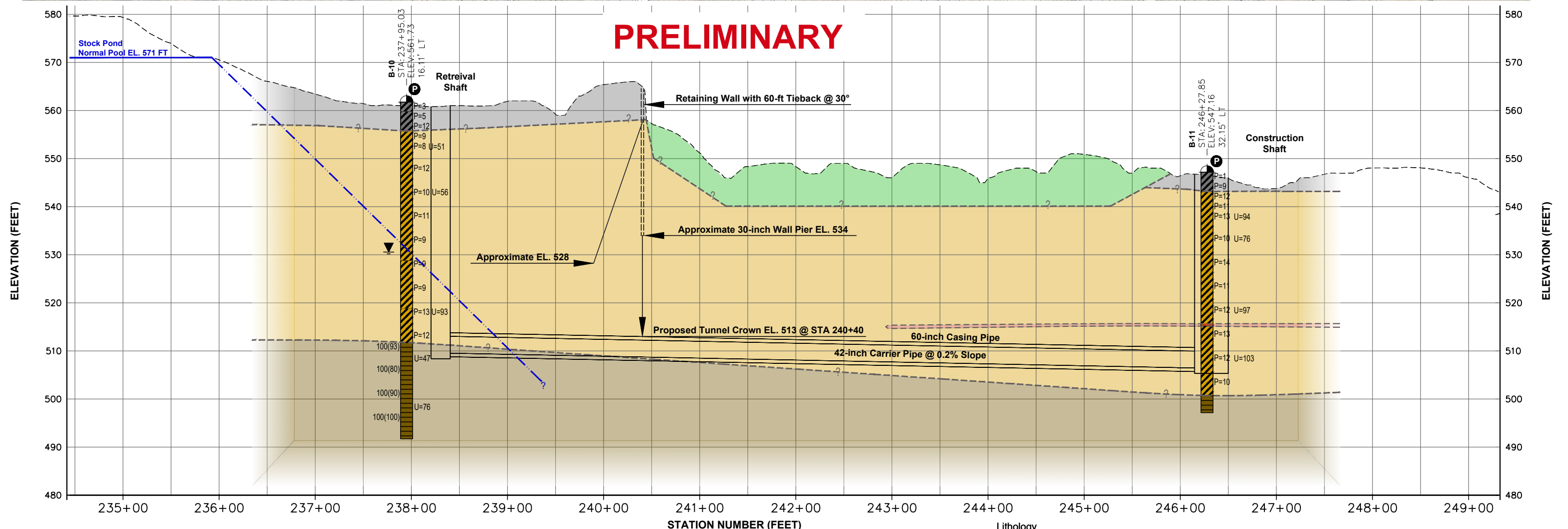
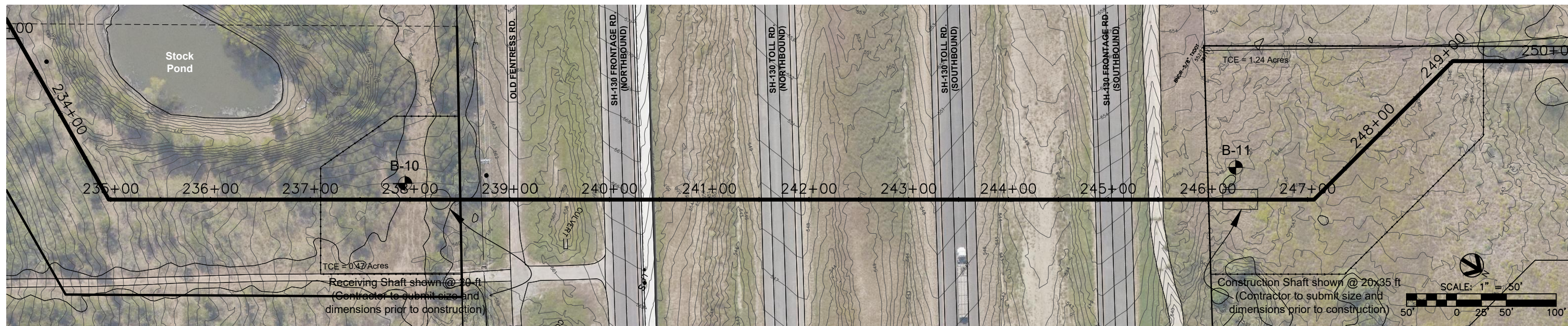
Accepted by:

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Thomas Owens, P.E.  
Executive Vice President

Attachments: ATTACHMENT 1 – Geologic Plan and Profile, ATTACHMENT 2 – Fee Estimate, ATTACHMENT 3 - 2021 Standard Fee Schedule, ATTACHMENT 4 – BA Terms and Conditions, ATTACHMENT 5 – Construction Phase Scope Template

BY: KEVIN MANDEVILLE  
PLOT DATE: Thursday, December 3, 2020 8:26:13 AM  
DWG FILE: S:\Projects\2018 Projects\617048-001 ARWA Phase 1B Segment B Pipeline Final Design\03 Rpts Dwg\Spees\03 Dwg\Plan-Profile 21.dwg



**Notes**

Profile represents generalized conditions based on test borings and field observations. Formation contacts are baselines that may vary up to 5 feet vertically and 50 feet horizontally from locations shown. Refer to Geotechnical Data Report by Arias Geotechnical, Inc. for boring logs.

See Appendix B in GBR for TxDOT Retaining Wall As-Builts. Proposed tunnel below Drilled Shaft at approximately STA 16+70 (TxDOT As-Builts) Sheet ER7.1. Typical Tieback detail located on Sheet ER 11.2 (TxDOT As-Builts).

**Geologic Units**

- Fill
- Residual Soil
- Weathered Midway Group (Emi)
- Slightly Weathered to Fresh Midway Group (Emi)
- Ironstone layer

Shading for Geologic Units between Stick Logs is lighter for presentation purposes.

**Legend**

N = Standard Penetration Test (N-Value)  
P = Pocket Penetrometer (TSF)  
U = Unconfined Compressive Strength (PSI)  
100(90) = Recovery/Rock Quality Designation (RQD)

- 2-inch PVC Standpipe Piezometer

- Groundwater at time of Drilling in Borehole

- Groundwater in Piezometer (highest reading)

- Baseline Groundwater (Non-Conventional Groundwater due to Stock Pond Seepage)

Lithology

<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Fat Clay (CH)	<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Lean Clay (CL)	<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Silt (ML)	<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Clayey Gravel (GC)	<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Claystone
<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Sandy Fat Clay (CH)	<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Sandy Lean Clay (CL)	<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Clayey Sand (SC)	<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Gravel and Cobbles	<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Sandy Claystone
<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Gravelly Fat Clay (CH)	<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Gravelly Lean Clay (CL)	<span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span> Poorly-graded Sand (SP)		

**BRIERLEY ASSOCIATES**  
*Creating Space Underground*  
15808 Ranch Rd 620 N, Ste 210, Austin, TX 78717  
PHONE: 512.219.1733 55 FAX: 512.219.1759

CLIENT  
**K FRIESE + ASSOCIATES, INC.**  
PROJECT NUMBER:  
**ALLIANCE REGIONAL WATER AUTHORITY  
PHASE 1B SEGMENT B PIPELINE  
CALDWELL COUNTY, TEXAS**

FIGURE TITLE  
**GEOLOGIC PLAN AND PROFILE  
STA 238+40 TO 246+15**  
**GEOTECHNICAL BASELINE REPORT**

FIGURE  
**3**

Alliance Water Phase 1B Program										Project Fee Summary	
Pipeline Consultant										Basic Effort	\$ 46,374
8/27/2021										Supplemental	\$ 21,811
Detailed BRIERLEY Cost Breakdown										Total Effort	\$ 68,185

Task	Employee	Project Role	Hourly Bill Rate				Total Hours	Total Labor Effort	Total Expense Effort	Total Sub Effort	Total Effort	Assumptions
			Principal	Senior Associate	Project Manager	Professional II						
			\$260.00	\$250.00	\$220.00	\$165.00						
<b>Task 1 - Project Management</b>												
1.1	Prepare Monthly Summary Reports/Invoicing as identified in the ARWA Phase 1B Program Management Plan					24	24	\$ 5,720	\$ -	\$ -	\$ 5,720	
1.2.2	Training and coordination meeting on Construction Management & Inspection Team (CM&I) Electronic Document Management System (EDMS)					2	2	\$ 440	\$ -	\$ -	\$ 440	
<b>Task 6 - Construction Site Visits and Progress Meetings</b>												
6.1	Pre-Construction Meeting						0	\$ -	\$ -	\$ -	\$ -	
6.1.2	Attend separate SH-130 pre-construction meeting coordinated by the Construction CM&I team.					3	6	\$ 1,410	\$ 121	\$ -	\$ 1,531	
6.2	Monthly Site Observation						0	\$ -	\$ -	\$ -	\$ -	
6.2.1	6.2.1. Site observations will be limited to spot checking, selective measurement, and similar methods of general observation.					12	24	\$ 4,980	\$ 242	\$ -	\$ 5,222	
6.2.2	Site observation reports will be prepared and provided to the CM&I team via the CM&I Electronic Document Management System (EDMS) within 48 hours of each site visit.						4	\$ 660	\$ -	\$ -	\$ 660	
6.2.3	Notify CM&I team of inconsistencies with observed worked with respect to Contract Documents.						4	\$ 880	\$ -	\$ -	\$ 880	
6.2.4	Specialty Observations will be limited to spot checking, selective measure, and similar methods of general observations for observation of equipment requiring additional observations beyond the monthly observations.					6	12	\$ 2,490	\$ 121	\$ -	\$ 2,611	
6.2.5	Specialty Observation reports will be prepared and provided to the CM&I team via the CM&I Electronic Document Management System (EDMS) within 48 hours of each site visit.						2	\$ 330	\$ -	\$ -	\$ 330	
6.2.6	Notify CM&I team of inconsistencies with observed work with respect to Contract Documents.						2	\$ 440	\$ -	\$ -	\$ 440	
6.3	Monthly Construction Progress Meetings						0	\$ -	\$ -	\$ -	\$ -	
6.3.1	Attend Progress Meetings led by the CM&I team. Discuss status of document reviews, proposed contract modifications and any issues or concerns that need to be addressed to allow construction of the project to progress.					4	4	\$ 1,000	\$ -	\$ -	\$ 1,000	
6.3.2	Review Project Decision Register and Action Item Register prior to each meeting. Report discrepancies in the Project Decision Register to the CM&I team immediately. Update the status on Action Items at least 10 days before meetings.					4	4	\$ 1,000	\$ -	\$ -	\$ 1,000	
6.3.3	Review monthly Construction Activity Reports prepared by the CM&I team. Provide feedback on report content as appropriate.					4	4	\$ 1,000	\$ -	\$ -	\$ 1,000	
<b>Task 8 - Shop Drawing/Submittal Review</b>												
8.1	Review shop drawings/submittals for conformance with the project plans and specifications and provide responses within 10 working days. For the purposes of this scope, assume review effort will include the original submittal and first resubmittal. Assume up to 60 submittals.					26	56	\$ 13,100	\$ -	\$ -	\$ 13,100	
<b>Task 9 - Alternatives and Substitutions</b>												
							\$ 2,000	\$ -	\$ -	\$ 2,000		



Alliance Water Phase 1B Program							Project Fee Summary			
Pipeline Consultant 8/27/2021 Detailed BRIERLEY Cost Breakdown							Basic Effort	\$	46,374	
							Supplemental	\$	21,811	
							Total Effort	\$	68,185	

Task	Employee	Project Role	Hourly Bill Rate				Total Hours	Total Labor Effort	Total Expense Effort	Total Sub Effort	Total Effort	Assumptions
			Principal	Senior Associate	Project Manager	Professional II						
9.1	Review alternatives and substitutions proposed by Contractor. Recommend acceptance or rejection of the request for substitutions within 14 calendar days. Assume up to 10 substitution reviews.		\$260.00	\$250.00	\$220.00	\$165.00	8	\$ 2,000	\$ -	\$ -	\$ 2,000	
<b>Task 10 - Request for Information (RFIs)</b>								\$ 6,000	\$ -	\$ -	\$ 6,000	
10.1	Review Contractor questions or concerns that may arise during construction and respond within 5 calendar days. Assume up to 20 RFIs			24			24	\$ 6,000	\$ -	\$ -	\$ 6,000	
<b>Task 11 - Request for Proposals (RFPs) and Change Orders (COs)</b>								\$ 3,000	\$ -	\$ -	\$ 3,000	
11.1	Coordinate with CM&I to prepare a description of proposed Modifications. CM&I will issue the RFP form to Contractor through the EDMS. Assume up to 10 RFPs			8			8	\$ 2,000	\$ -	\$ -	\$ 2,000	
11.2	Coordinate with CM&I for review and response to RFP and provide recommendations to the Owner's Representative for consideration. Assume up to 10 RFPs			4			4	\$ 1,000	\$ -	\$ -	\$ 1,000	
<b>Task 12 - Substantial/Final Completion Walk-Throughs</b>								\$ 1,000	\$ -	\$ -	\$ 1,000	
12.1	Consultant to conduct two (2) substantial completion walk-throughs/inspections, one for Segment B2 and one for Segment B1, coordinated by the CM&I. After considering any objections from Owner's Representative, if the Consultant considers the work substantially complete, Consultant will submit a Substantial Completion punch list and letter to the Owner's Representative.			4			4	\$ 1,000	\$ -	\$ -	\$ 1,000	
<b>Task 13 - Record Drawings and Corrosion Services</b>								\$ 880	\$ -	\$ -	\$ 880	
13.1.1	Prepare Record Drawings of the constructed project based on change order revisions, RFI responses, and as built information provided by the contractor.					4	4	\$ 880	\$ -	\$ -	\$ 880	
<b>14. Supplemental Services</b>								\$ 6,750	\$ 61	\$ -	\$ 21,811	
14.1	Survey						0	\$ -	\$ -	\$ -	\$ -	
14.2	General Construction Phase Services						0	\$ -	\$ -	\$ -	\$ 15,000	
14.3	Attend additional meetings in the vicinity of the project (1 meeting)			3			3	\$ 750	\$ 61	\$ -	\$ 811	
14.4	Review additional submittals and/or RFIs			24			24	\$ 6,000	\$ -	\$ -	\$ 6,000	
14.5	Attend Post Construction Corrosion Services						0	\$ -	\$ -	\$ -	\$ -	
<b>Grand Total</b>								\$ 52,640	\$ 545	\$ -	\$ 68,185	

<b>Alliance Water Phase 1B Program</b>					<b>Project Fee Summary</b>		
<b>Pipeline Consultant</b>					<b>Basic Effort</b>	\$	20,330
<b>7/29/2021</b>					<b>Supplemental</b>	\$	6,880
<b>Detailed CHAPMAN Cost Breakdown</b>					<b>Total Effort</b>	\$	27,210

Task	Employee	Project Role	Principal Engineer	Corrosion Engineer	Project Coordinator	Total Hours	Total Labor Effort	Total Effort	Assumptions
			Hourly Bill Rate	\$185.00	\$135.00				
<b>Task 1 - Project Management</b>									
1.1	Prepare Monthly Summary Reports/Invoicing as identified in the ARWA Phase 1B Program Management Plan					6	\$ 810	\$ 810	
1.2	Meetings					0	\$ -	\$ -	
1.2.1	Quality Control Audit (1 workshop)					0	\$ -	\$ -	
1.2.2	Training and coordination meeting on Construction Management & Inspection Team (CM&I) Electronic Document Management System (EDMS)					0	\$ -	\$ -	
<b>Task 8 - Shop Drawing/Submittal Review</b>									
8.1	Review shop drawings/submittals for conformance with the project plans and specifications and provide responses within 10 working days. For the purposes of this scope, assume review effort will include the original submittal and first resubmittal. Assume up to 60 submittals.					8	\$ 1,080	\$ 1,080	
<b>Task 9 - Alternatives and Substitutions</b>									
9.1	Review alternatives and substitutions proposed by Contractor. Recommend acceptance or rejection of the request for substitutions within 14 calendar days. Assume up to 10 substitution reviews.					8	\$ 1,180	\$ 1,180	
<b>Task 10 - Request for Information (RFIs)</b>									
10.1	Review Contractor questions or concerns that may arise during construction and respond within 5 calendar days. Assume up to 20 RFIs					4	\$ 590	\$ 590	
<b>Task 13 - Record Drawings and Corrosion Services</b>									
13.1	Consultant will prepare Contract Record Drawings using the marked up red lines drawings provided by the Contractor during construction. Record drawing information will be based solely on the provided red line drawings and appropriate field documentation received from the Consultant and the CM&I group during construction site visits. Items associated with this work include:					0	\$ -	\$ -	
13.1.1	Prepare Record Drawings of the constructed project based on change order revisions, RFI responses, and as built information provided by the contractor.					24	\$ 3,240	\$ 3,240	
13.1.2	Provide the Owner's Representative:					0	\$ -	\$ -	
13.1.2.1	With one (1) set of Record Drawings in .pdf and .dwg electronic format.					1	\$ 135	\$ 135	
13.1.2.2	The DWG file with the reference state plane coordinate system for use by ARWA.					1	\$ 135	\$ 135	
13.2	Corrosion Investigation, Data Collection and Design Support					0	\$ -	\$ -	
13.2.1	Post Construction Corrosion Services					0	\$ -	\$ -	

<b>Alliance Water Phase 1B Program</b>					<b>Project Fee Summary</b>		
<b>Pipeline Consultant</b>					<b>Basic Effort</b>	\$	20,330
<b>7/29/2021</b>					<b>Supplemental</b>	\$	6,880
<b>Detailed CHAPMAN Cost Breakdown</b>					<b>Total Effort</b>	\$	27,210

Task	Employee	Project Role	Principal Engineer	Corrosion Engineer	Project Coordinator	Total Hours	Total Labor Effort	Total Effort	Assumptions
			Hourly Bill Rate	\$185.00	\$135.00				
13.2.1.1		Attend a pre-commissioning site visit prior to testing		8		8	\$ 1,080	\$ 1,080	
13.2.1.1.1		Conduct an alignment walk-thru and develop punch list of deficient Items		32		32	\$ 4,320	\$ 4,320	
13.2.1.1.2		Check continuity and isolation along pipeline		24		24	\$ 3,240	\$ 3,240	
13.2.1.2		Commissioning/Testing				0	\$ -	\$ -	
13.2.1.2.1		Attend and witness testing performed by contractor		16		16	\$ 2,160	\$ 2,160	
13.2.1.2.2		Prepare a Commissioning Report and develop post-commissioning punchlist	4	12		16	\$ 2,360	\$ 2,360	
<b>14. Supplemental Services</b>									
14.1		Survey				0	\$ -	\$ -	
14.1.1		Verify/Reset horizontal and vertical control points for construction purposes				0	\$ -	\$ -	
14.2		General Construction Phase Services, which may include:				0	\$ -	\$ -	
14.2.1.		Additional site visits.		8		8	\$ 1,080	\$ 1,080	
14.2.2		Providing services to review or evaluate Contractor claims that are not due to causes within the control of Consultant.	4	12		16	\$ 2,360	\$ 2,360	
14.2.3		Assisting Owner in preparing for, or appearing at litigation, mediation, arbitration, dispute review boards, or other legal and/or administrative proceedings in the defense or prosecution of claims disputes with Contractor.				0	\$ -	\$ -	
14.2.4		Assisting Owner in the defense or prosecution of litigation in connection with or in addition to those services contemplated by this Agreement.				0	\$ -	\$ -	
14.2.5		Any services required as a result of default of the Contractor or the failure, for any reason, of the Contractor to complete the work within the Contract Time.				0	\$ -	\$ -	
14.3		Attend additional meetings in the vicinity of the project (5 meetings)				0	\$ -	\$ -	
14.4		Review additional submittals and/or RFIs				0	\$ -	\$ -	
14.4.1		Review up to 40 additional submittals				0	\$ -	\$ -	
14.4.2		Review up to 5 additional RFIs				0	\$ -	\$ -	
14.5		Additional Post Construction Corrosion Services	4	20		24	\$ 3,440	\$ 3,440	
						0	\$ -	\$ -	
<b>Grand Total</b>							\$ 17,860	\$ 27,210	



**SCOPE OF SERVICES AND FEE**  
**ARWA1BSB-Construction Phase Services**

Survey Task per Alliance Regional Water Authority-Phase 1B Construction Phase Pipe Scope Segment B Pipeline  
Item number 14.1 Survey:

14.1.1 Verify/Reset horizontal and vertical control points for the construction purposes

SAM will recover/verify and reset any of the 37 Primary Control Points that are missing.

<b>Alliance Water Phase 1B Program</b>										<b>Project Fee Summary</b>			
<b>Pipeline Consultant</b>										<b>Basic Effort</b>	\$	1,610	
<b>7/29/2021</b>										<b>Supplemental</b>	\$	41,368	
<b>Detailed SAM Cost Breakdown</b>										<b>Total Effort</b>	\$	42,978	

Task	Employee	Project Role	Principal/Department Manager	Senior Project Manager	Project Manager	Senior Survey Technician	Survey Technician	Administration/Clerical Support	Two Person Survey Field Crew	Field Coordinator	Total Hours	Total Labor Effort	Total Expense Effort	Total Effort	Assumptions
			Hourly Bill Rate	\$250.00	\$195.00	\$160.00	\$105.00	\$95.00	\$85.00	\$160.00					
<b>Task 1 - Project Management</b>															
1.1	Prepare Monthly Summary Reports/Invoicing as identified in the ARWA Phase 1B Program Management Plan		1	2	5			2			10	\$ 1,610	\$ -	\$ 1,610	
<b>14. Supplemental Services</b>															
14.1	Survey		1	1	2	2	2				8	\$ 1,165	\$ -	\$ 1,165	
14.1.1	Verify/Reset horizontal and vertical control points for construction purposes			4	18	14	50		150	6	242	\$ 34,570	\$ 5,633	\$ 40,203	Verify/Reset 37 Primary Control Points
											0	\$ -	\$ -	\$ -	
											<b>Grand Total</b>	\$ 37,345	\$ 5,633	\$ 42,978	

**REGULAR MEETING**  
**Alliance Regional Water Authority Technical Committee**

**COMMITTEE MEMBER PACKETS**

Wednesday, December 8th, 2021 at 3:00 P.M.

Conference Call Number: 1-346-248-7799; Meeting ID: 968 8616 3170; Code: 495028

- F.5** Discussion and possible recommendation to the Board to approve a Work Order with Pape-Dawson Engineers, Inc. for Construction Management and Inspection Services on the Authority's Phase 1B Program. ~ *Graham Moore, P.E., Executive Director*

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Background/Information

The Authority issued RFQ 2019-003 in December 2019 for the Construction Management & Inspection Services for the Authority's Phase 1B Program. In May 2021 the Authority issued a work order to Pape-Dawson for Construction Management and Inspection on the Phase 1B Program through the end of 2021. These same services are needed in 2022 as construction continues on the Water Treatment Plant and Booster Pump Station and as construction starts on the Segment A and B pipelines.

The work order for 2021 was a total amount of \$2,148,056. Based on the current spending rates, the total amount anticipated to be expended of this work order is \$1,262,304 or 59% of the amount authorized.

The Executive Director negotiated the attached scope and fee for the construction management and inspection services. The effort is based on an hourly rates with staff brought on board to the program as the various projects move into construction. The work order has been structured to last the entirety of 2022.

In addition to the typical observation and inspection efforts (observing construction, periodic contractor meetings, submittal/RFI coordination, review of pay apps, schedules and change order requests, etc.), the scope of services includes fee to maintain the electronic document tracking system and maintaining construction trailers at the treatment plant and booster pump station.

Staff anticipates multiple work orders over the next several years with Pape-Dawson for the construction management and inspection work.

Below are some of the key facts regarding the proposal:

**Firm:** Pape-Dawson Engineers, Inc.

**Fee:** \$6,009,908

**Work Order Type:** Hourly Rate, Not-to-Exceed

**Anticipated Duration:** 12 months

**Project Manager:** Chris Noe, P.E.

**Key Subconsultants:** Foster CM Group, TEC Consulting & JH Engineering

**REGULAR MEETING**  
**Alliance Regional Water Authority Technical Committee**

**COMMITTEE MEMBER PACKETS**

Wednesday, December 8th, 2021 at 3:00 P.M.

Conference Call Number: 1-346-248-7799; Meeting ID: 968 8616 3170; Code: 495028

Staff is requesting Board approval of the Work Order#6 with a fee not-to-exceed \$6,009,908.

Attachment(s)

- ARWA Phase 1B CM&I Proposal for 2022 dated December 7, 2021

**Technical Committee Decision Needed:**

- Possible recommendation to the Board to approve a work order with Pape-Dawson Engineers, Inc. for Construction Management and Inspection Services on the Phase 1B Program for 2022.

December 7, 2021

Mr. Graham Moore, P.E.  
Alliance Regional Water Authority  
630 E. Hopkins  
San Marcos, TX 78666

Re: ARWA Phase 1B CM&I – Work Order #6

Dear Mr. Moore:

We are pleased to present this proposal for providing Construction Management and Inspection (CMI) services in connection with the above referenced project. Our proposed scope of services and associated fees are as follows:

**I. GENERAL TASKS**

**A. Program Construction Manager Services**

- Perform construction observation and construction administration tasks as ARWA’s designated Owner’s Representative during construction.
- Serve as the primary point of contact for the Owner’s Project Team (OPT) in the administration of the construction program. The OPT consists of ARWA, Kimley-Horn, Pape-Dawson, the Design Consultants and the Material Testing Service. Pape-Dawson will establish the construction oversight processes and procedures and conduct progress meetings for the program.
- Suggest required staffing levels and make assignments as necessary to see that construction activities are adequately covered and that the needs of the program are being met. Provide a Construction Management Team (CMT) of qualified personnel to execute the responsibilities of the Owner’s Representative. Major team roles to be staffed include:
  - *Owner’s Representative during Construction (referred to as the CMI in Specification Section 00 73 00 of the Contract Documents)*
    - The single-point of contact for the OPT for Construction Phase activities and is responsible for the execution of Owner’s Representative Services across the Program.
  - *Construction Managers*
    - Provide on-site, full-time Construction Manager for facilities projects for coordination and oversight of Project Contractor and Design Consultant activities on behalf of Program Manager and Owner.
    - Provide on-site, full-time Construction Manager for pipeline projects for coordination and oversight of project Contractor and Design Consultant activities on behalf of Program Manager and Owner.



- *Owner's Field Representatives*
  - Provide on-site, full-time Owner's Field Representatives for facilities projects for observation of construction activities on behalf of ARWA.
  - Provide on-site, full-time Owner's Field Representatives for pipeline projects for observation of construction activities on behalf of ARWA.
  - Provide specialized Owner's Field Representatives for as needed to support facility and pipeline Owner's Field Representatives. Examples include activities such as electrical, welding, and tunneling.
- *Owner's Representative Scheduler*
  - Provide Owner's Representative Scheduler for facility and pipeline projects.
- *Commissioning Manager*
  - Provide Commissioning Manager to oversee Program's commissioning and startup planning and execution activities.
- Implement, and execute a Construction Management Plan to assist in the administration of the construction contracts in accordance with the Program's requirements and Construction Documents. The Construction Management Plan (CMP) establishes standard operating procedures, protocols and forms for construction management and administration activities, including submittals, substitution requests, construction schedule, requests for information, requests for change in the Contract Amount or the Contract Time, applications for payment, as-builts, records drawings, materials testing, record-keeping, and operating and maintenance manuals.
  - Review schedules, project costs and project progress payment requests from the Contractor and approve or reject.
  - Provide monthly status reports which include at a minimum:
    - Pape-Dawson progress pay requests
    - Risk Register updates
    - Updates to Program Schedule milestones which are mutually agreed upon by ARWA, Pape-Dawson and Kimley-Horn
    - Overall Work completed to Date
    - Tasks completed in the last 30 days
    - Tasks to be completed in the next 30 days
    - Overall Work to be completed
    - Reasons & Solutions for Delays
- Develop, implement, and maintain an Electronic Document Management System (EDMS) using Microsoft SharePoint. Pape-Dawson will host the SharePoint site and provide access to individuals involved in Construction Phase activities. Pape-Dawson intends to maintain documents in electronic format to the extent possible to be sustainable and also for ease of search and retrieval. Documentation includes drawings, logs, RFIs, submittals, correspondence, letters and reports. Manage access to EDMS.
- Provide temporary field offices at the Water Treatment Plant and Booster Pump Station for Pape-Dawson use. The Contractor will provide temporary services and connections to the CMT trailer and provide a level gravel pad to support the

trailer. Pape-Dawson is responsible for monthly service charges which will be invoiced to ARWA.

- Provide a Field Observation Report platform that promotes consistency in data collections, is searchable using metadata, and provides near-real time information to the OPT. Pape-Dawson intends to use Headlight to provide this service.

#### **B. Field Construction Manager Services**

- Manage and administer the day-to-day Owner Representative requirements of the Projects.
- Serve as the liaison between the construction contractors and the OPT. Provide leadership to the assigned Field Staff in the performance of their duties and manage the administrative efforts required to support construction of the Projects.
- Execute the Construction Management Plan. This includes such activities as determination of pay application quantities, review of schedule updates, coordination of change orders, coordinate material testing, lead daily site observations, and coordinate quality assurance activities with the OPT.
- Maintain and monitor project risk using a risk register. Project risk registers will initially be the Design Consultant's list of open risk items remaining at the end of the Design Phase. The risk register will be reviewed by the OPT and Contractor during progress meetings. As risks to the project develop or change, the register will be updated and reported in Pape-Dawson's monthly status report to ARWA.

#### **C. Owner's Field Representative Services**

- Perform observation and documentation of construction activities for conformance to the Contract Documents as directed by the Construction Manager.
- Provide adequate, qualified staff to conduct daily, on-site, full-time observation services.
- Provide daily quality assurance of the Contractor's quality control process.
- Coordinate Material Testing Service verification testing with Contractors.

#### **D. Commissioning**

Serve as ARWA's designated representative as the Program-wide commissioning manager responsible for integrating the commissioning and startup activities of the Program's multiple Projects. Review the Contractor's Facility Startup and Performance Plan, functional and performance test results, completed unit process startup forms, and completed facility performance demonstration/certification forms. Check the Contractor's scheduled tasks and timelines against the Contractor's Facility Startup and Performance plan for adequacy to meet Program milestones. Coordinate specialists or technical advisers required from the Design Consultant. Work directly with ARWA to facilitate seamless handover to operations

staff prior to Commercial Operations. Attend facility startup meetings conducted by the Contractor.

## II. SIGNIFICANT SPECIFIC TASKS

### A. Bidding Support Services

1. Participate as a member of the Competitive Seal Proposal evaluation team.
2. Compile contract documents from the Contractor and provide to the Program Team.

### B. Schedule and Conduct Construction Meetings

1. Preconstruction Conferences  
Coordinate and conduct preconstruction conferences with OPT and Contractors. Prepare the meeting agenda packet and meeting minutes for Project meetings and distribute copies as directed by ARWA.
2. Construction Meetings  
Coordinate and conduct construction meetings with OPT and Contractors for purposes of conforming with Program schedule goals.

### C. Monitor Contractor Activities During Construction Phase to Check Conformance with Program Schedule, Budget and Quality Goals

1. Site Visits  
Prepare daily field reports and representative photos that generally document the Contractor's personnel, hours on job site, equipment in use and idle, general safety observations, quality control activities, weather conditions, data relative to extras or deductions in bid items, Work in progress and accomplished, whether Work is in general conformance with the Contract Documents, general observations and documentation of testing procedures and results. Identify deviations in the Work from the Contract Documents, note the deviations in daily reports, notify the Contractor and, as needed, the OPT of the deviations, and monitor the deviations until they are resolved.

Review documentation and Contractor resources to check that Contractor, Subcontractor, and other Project team members have the required qualifications, training, licenses, and certifications as specified.

2. Design Consultant Observation  
Monitor Design Consultant observations of the progress and quality of the executed work and coordinate responses to Contractors when work is not proceeding according to contract requirements.

3. Contractor Pay Requests

Before the Contractor submits applications for payment to the Design Consultant under Section 12.1 of the TWDB Supplemental Contract Conditions, review each application in draft form, check whether the amount requested reflects the progress of the Work and is in accordance with the Contract Documents, and approve or reject the application.

4. Contractor Schedule

Review, analyze, and check logic, sequencing, and required milestones in the Contractor's initial schedule. Check Contractor's WBS against SOV to facilitate future payment review process. Translate Contractor's detailed WBS into Program Master Schedule WBS.

Review schedule for variances Contractor's schedule as part of the monthly pay application review process and notify OPT of potential concerns in delivering the Project on time.

5. Contractor Redlines

Maintain records of construction activity, approved changes, and contract deviations to support the preparation of accurate Record Drawings at the conclusion of construction.

6. Quality Assurance

Monitor the Contractor for implementation, documentation, and verification of the Contractor's Quality Control Plan. Receive, log, and distribute QA and testing results from the Material Testing Service. Review submittals and Certified Test Reports. Conduct preparatory meetings of the three-phase control system with CMT, Design Consultant, and Contractor.

7. Change Order Documentation

Monitor and coordinate with the Design Consultant the preparation of supporting documentation and/or design, and review of final draft of Change Order documents. Coordinate with the Design Consultant in the preparation, maintenance, and distribution of the Project Change Order log.

8. Substantial Completion Coordination

Coordinate with OPT and Contractor to conduct an on-site review. Maintain records of list of Work corrections (punch-list items) that need to be addressed for Final Completion and provide to Contractor.

9. Final Completion Coordination

Coordinate with the OPT and Contractor to conduct an on-site review upon notification by Contractor that Work is ready for final inspection and acceptance, and receipt of Contractor's final Application for Payment. Support

the Design Consultant with preparation of the final Application for Payment upon work being found acceptable.

**E. Monitor, Review and Coordinate RFIs, Change Orders, Field Revisions, Punch Lists, and other Actions during Construction.**

1. RFI Coordination

Coordinate monitor and log Design Consultant responses to requests for information (RFI) submitted by the Contractor. Prepare, maintain and distribute a Project RFI log. Assist in the resolution of RFI's as needed.

2. Technical Documentation Coordination

Coordinate the provision of technical documentation to support the resolution of claims, disputes and other matters relating to the execution or progress of the construction work or interpretation of the Contract Documents.

3. Change Management

Track the progress of changes (potential and approved). Notify ARWA and Kimley-Horn of potential change requests based on RFI submitted by the Contractor, or discussions of the work. Review Contractor change orders and delay claims and make recommendations to ARWA. Assist the Design Consultant in the preparation of change requests for review, approval or rejection by ARWA providing photographs, field records, testing results and other documentation as needed to help evaluate the change request.

4. Substantial and Final Completion

Coordinate and support the Design Consultants professional inspections to determine the dates of substantial completion and final completion for the Project, to evaluate the work for acceptable conformance with the construction contract documents and to verify that any minor deviations from the construction contract documents have been corrected. Coordinate with the Design Consultants to receive and review written warranties and related documents required by the construction contract documents and assembled by the Contractor.

5. Submittals

- Monitor and record the progress of Contractor submittals such as shop drawings, product data, samples, schedules, laboratory, quarry, shop and mill tests of material and equipment. Coordinate and monitor Design Consultant progress in review and processing of Contractor submittals.
- Identify if submittals are reviewed and returned to the Contractor by the Design Consultants with recommendation for action to be taken
- Prepare, maintain and provide updated electronic copies of the Master Submittal Log. The Master Submittal Log will indicate the accurate status of project submittal requirements. Maintain status of submittals such as Reviewed, Reviewed with Comments, Revise and Resubmit or Other

Action. The Contractor will prepare a Submittal Schedule, based on the Master Submittal Log. The Master Submittal Log will be distributed as requested by ARWA.

6. As-built Surveys

Perform as-built survey activities using GPS equipment. GPS performance requirements to be provided by ARWA.

**F. Monitor and Coordinate Program and Project Close Out**

1. Record Drawings

Coordinate and monitor the Design Consultant's review of contractor as-built drawings and check that compiled field changes and orders, and permit corrections are complete and correctly reflected on drawings according to best available information and knowledge. Production of the record drawings will be done by the Design Consultant.

2. Close Out Procedure

Work with the Design Consultants and ARWA to check that close out paperwork required by the TWDB and Contract Documents is completed and submitted to receive release of retainage and Certificate of Approval for each Project.

**Estimate of costs: See attached Exhibit A.**

**THIS PROPOSAL ASSUMES AND/OR EXCLUDES THE FOLLOWING:**

- *Because the construction phase Owner's Representative support services are dependent on the number and duration of individual construction projects, this scope and fee is only an estimate to establish an initial funding of the Owner's Representative's work. The fee will be reevaluated as work progresses and additional fees may be required.*
- *Field observation staffing is estimated at 48 hours per week per pipeline segment based on the Program construction time frames shown in Exhibit C.*
- *Work will be invoiced on an hourly basis using the attached rate schedule (Exhibit D). Rates are valid through 2022.*
- *Microsoft SharePoint services are estimated based upon standard cloud business deployment. Program needs that escalate those standard deployments, such as cyber-security requirements, will require additional fees.*
- *Direct expenses for reproduction, travel, express mail, and special deliveries will be invoiced at cost per the Master Agreement.*
- *Additional services requested by ARWA which may arise, and are not outlined above, to be compensated for on an hourly basis or negotiated to a lump sum fee.*

**COMPENSATION**

**Basis of Compensation**

Pape-Dawson's compensation for the above services will be a charge for personnel services plus an hourly charge for specialized equipment and computers. A budget of **\$6,009,908** is the estimated cost of Pape-

Dawson's current understanding of the services identified above. This also includes estimated expenses for field office trailers, temporary field office services, a cloud-based field reporting system, and direct expenses as defined below. This budget figure does not include applicable sales tax on services. If this budget figure is exceeded, Pape-Dawson may request modification of this Agreement.

Direct Expenses include reproduction, travel, express mail, special deliveries and subcontractor expenses related to these services. Direct Expenses will be charged at cost.

**Agreement**

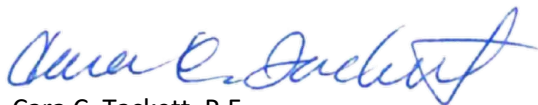
Upon the signing of this Proposal by Client, this Proposal to be governed by the existing Master Agreement for Professional Engineering Services by and between Client and Engineer, dated effective as of the **27th** day of **May 2020**, with the same force and effect as if all of the terms of such Master Agreement were recited verbatim herein. Conflicts between the Master Agreement and this Proposal to be governed and controlled by this Proposal.

We appreciate the opportunity to work with you on this project. If this proposal meets with your approval, please acknowledge such by signing this proposal letter and returning it to our office via email, fax or US Mail for our records. Receipt of the executed document serves as authorization for us to proceed with the work.

Sincerely,  
Pape-Dawson Engineers, Inc.



Chris Noe, P.E.  
Associate Vice President



Cara C. Tackett, P.E.  
Sr. Vice President

**Attachments**

- Exhibit A – Estimate of Costs
- Exhibit B – CMI Organization Chart
- Exhibit C – Estimated Staffing Matrix for 2022
- Exhibit D – 2022 Hourly Rate Schedule

EXHIBIT A  
Estimate of Costs

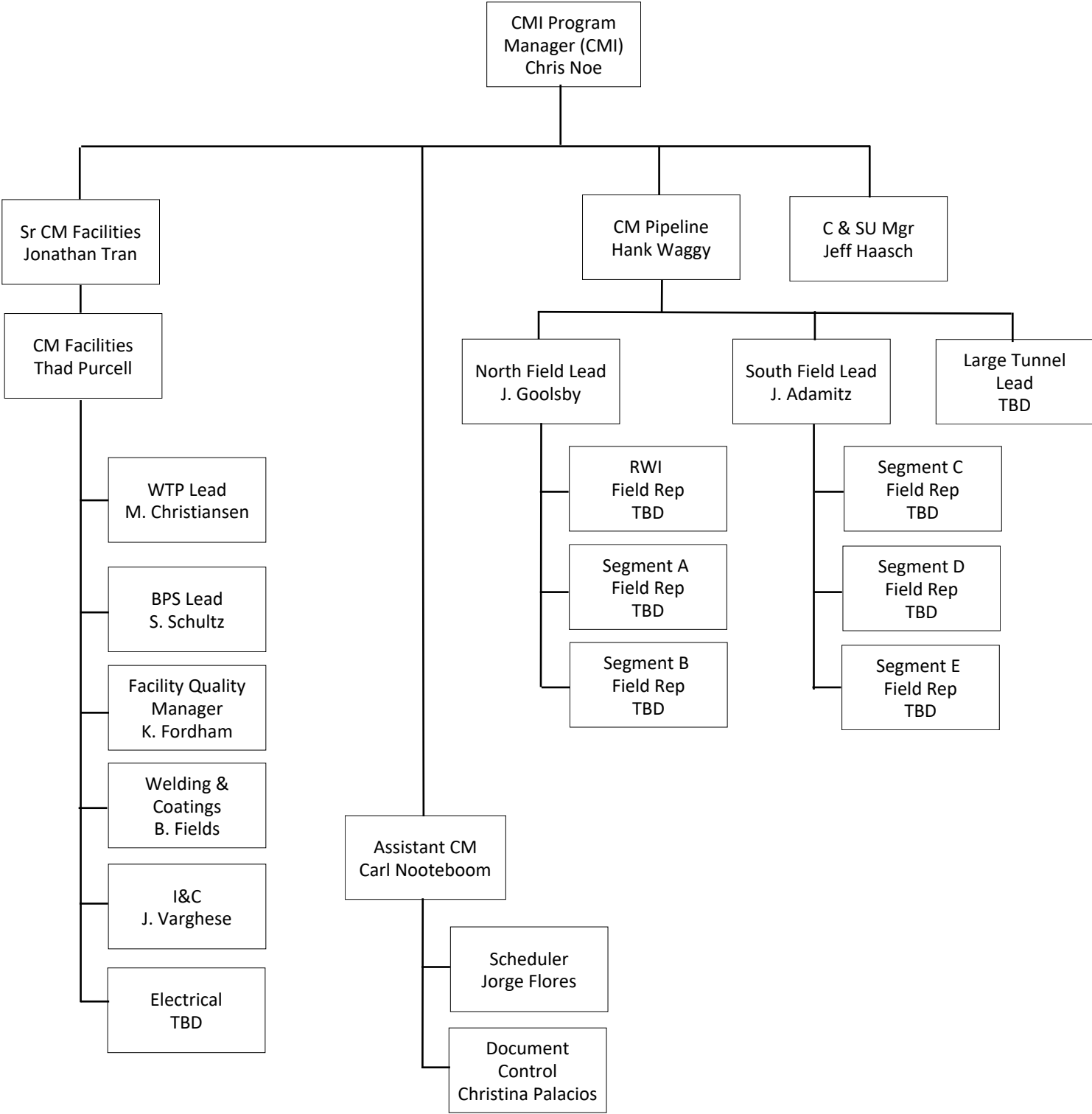
		2022	
		Hr - total	Fee
<b>A. Program Construction Manager Services</b>			
<b>Develop, Implement and Execute CMP</b>		Jan -Dec 2022 (12 months)	
CMI Program Manager (PD)	1,040	239,200	
Assistant CM (PD)	2,496	524,160	
Scheduler (FCM)	1,560	296,400	
Administrative (PD)	520	54,600	
<b>Develop, Implement and Maintain EDMS</b>		Jan -Dec 2022 (12 months)	
Document Control Manager	2,080	270,400	
<b>Provide Field Observation Platform</b>		Jan -Dec 2022 (12 months)	
		<u>Total</u>	<u>Fee</u>
Headlight Platform (10 seats x 12 months)	120	34,980	
GPS Equipment	60	7,920	
<b>Provide Temporary Field Offices</b>		Jan -Dec 2022 (12 months)	
		<u>Total</u>	<u>Fee</u>
WTP Trailer (Rent/mo)	12	21,120	
WTP Utilities (Monthly)	12	2,640	
BPS Trailer (Rent)	12	21,120	
BPS Utilities	12	2,640	
<b>Labor Subtotal</b>	7,696	1,384,760	
<b>Non-Labor Subtotal</b>		90,420	
<b>B. Field Construction Manager Services</b>			
<b>Execute CMP</b>		Jan -Dec 2022 (12 months)	
Senior CM Facilities (TEC)	104	22,880	
CM Facilities (TEC)	2,496	549,120	
CM Pipelines (FCM)	1,560	343,200	
<b>Labor Subtotal</b>	4,160	915,200	
<b>C. Owner's Field Representative Services</b>			
<b>WTP Field Observation and Reporting</b>		Jan -Dec 2022 (12 months)	
WTP Lead Field Representative	2,496	449,280	
Facility Quality Manager	260	44,200	
Facility - Welding and Coatings Field Rep	260	44,200	
Facility Electrical Field Representative	1,040	197,600	
Facilities - I&C Field Representative	520	111,800	
<b>BPS Field Observation and Reporting</b>		Jan -Dec 2022 (12 months)	
BPS Lead Field Representative	2,496	449,280	
Facility Quality Manager	260	44,200	
Facility - Welding and Coatings Field Rep	260	44,200	
Facility Electrical Field Representative	1,040	197,600	
Facilities - I&C Field Representative	520	111,800	



EXHIBIT A  
Estimate of Costs

	2022	
	Hr - total	Fee
<b>Senior Pipeline Field Oversight</b>	Jan -Dec 2022 (12 months)	
Large Tunnel Lead (PE)	1,440	288,000
Pipe Lead Field Representative	2,496	424,320
<b>RWI Field Observation and Reporting</b>	Jun -Oct 2022 (5 months)	
Inspector	704	109,120
<b>Segment A Field Observation and Reporting</b>	Jan-Dec 2022 (12 months)	
Inspector	2,496	424,320
<b>Segment B Field Observation and Reporting</b>	Feb-Dec 2022 (11 months)	
Inspector	2,304	391,680
<b>Segment C Field Observation and Reporting</b>	Not Started	
Inspector	-	-
<b>Segment D Field Observation and Reporting</b>	Sep-Dec 2022 (4 months)	
Inspector	624	102,960
<b>Segment E Field Observation and Reporting</b>	Not Started	
Inspector	-	-
<b>EST Field Observation and Reporting</b>	Not Started	
Inspector	-	-
<b>Labor Subtotal</b>	19,216	3,434,560
<b><u>D. Commissioning Services</u></b>		
<b>Program-Wide Commissioning and Startup Oversight</b>	Jan -Dec 2022 (12 months)	
Facility - Commissioning and Startup Manager	260	68,900
<b>Labor Subtotal</b>	260	68,900
<b>TOTALS</b>		
Labor Total	31,332	5,803,420
Non-Labor Total		90,420
Estimated Direct Expenses (2% of Labor)		116,068
<b>Grand Total</b>		6,009,908

# EXHIBIT B CMI Organization Chart



**EXHIBIT C**  
Estimated Staffing for 2022

	NTP	2022												Hours
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>A. Program Construction Manager Services</b>														
<b>Develop, Implement and Execute CMP</b>														
CMI Program Manager (PD)	Chris Noe	87	87	87	87	87	87	87	87	87	87	87	83	1,040
Assistant CM (PD)	Carl Nootboom	208	208	208	208	208	208	208	208	208	208	208	208	2,496
Scheduler (FCM)	Jorge Flores	130	130	130	130	130	130	130	130	130	130	130	130	1,560
Administrative (PD)	Gabriele Dooley	44	44	44	44	44	44	44	44	44	44	44	36	520
<b>Develop, Implement and Maintain EDMS</b>														
Document Control Manager	Christina Palacios	174	174	174	174	174	174	174	174	174	174	174	166	2,080
<b>B. Field Construction Manager Services</b>														
<b>Execute CMP</b>														
Senior CM Facilities (TEC)	Jonathan Tran	9	9	9	9	9	9	9	9	9	9	9	5	104
CM Facilities (TEC)	Thad Purcell	208	208	208	208	208	208	208	208	208	208	208	208	2,496
CM Pipelines (FCM)	Hank Waggy	130	130	130	130	130	130	130	130	130	130	130	130	1,560
<b>C. Owner's Field Representative Services</b>														
<b>WTP Field Observation and Reporting</b>														Jul-21
WTP Lead Field Representative	Mark Christiansen	208	208	208	208	208	208	208	208	208	208	208	208	2,496
Facility Quality Manager	Kirkland Fordham	18	22	22	22	22	22	22	22	22	22	22	22	260
Facility - Welding and Coatings Field Rep	Billy Fields	-	-	26	26	26	26	26	26	26	26	26	26	260
Facility Electrical Field Representative	TBD	-	-	104	104	104	104	104	104	104	104	104	104	1,040
Facilities - I&C Field Representative	Josh Varghese	-	-	52	52	52	52	52	52	52	52	52	52	520
<b>BPS Field Observation and Reporting</b>														Oct-21
BPS Lead Field Representative	Stephanie Schultz	208	208	208	208	208	208	208	208	208	208	208	208	2,496
Facility Quality Manager	Kirkland Fordham	18	22	22	22	22	22	22	22	22	22	22	22	260
Facility - Welding and Coatings Field Rep	Billy Fields	-	-	26	26	26	26	26	26	26	26	26	26	260
Facility Electrical Field Representative	TBD	-	-	104	104	104	104	104	104	104	104	104	104	1,040
Facilities - I&C Field Representative	Josh Varghese	-	-	52	52	52	52	52	52	52	52	52	52	520
<b>Delivery Points Field Observation and Reporting</b>														Nov-21
BPS Lead Field Representative	Stephanie Schultz	Included in WTP & BPS Effort												-
BPS Electrical Field Representative	TBD	Included in WTP & BPS Effort												-
Facility Quality Manager	Kirkland Fordham	Included in WTP & BPS Effort												-
<b>Senior Pipeline Field Oversight</b>														
Tunnel Field Representative (PE)	TBD - PE	-	-	-	-	-	-	140	260	260	260	260	260	1,440
Pipe Lead Field Representative (South)	Jason Adamitz	-	-	-	-	-	-	-	-	-	-	-	-	-
Pipe Lead Field Representative (North)	James Goolsby	208	208	208	208	208	208	208	208	208	208	208	208	2,496
<b>Field Observation and Reporting</b>														
RWI Field Observation and Reporting	TBD	Jul-21	-	-	-	176	176	176	176	-	-	-	-	704
Segment A Field Observation and Reporting	TBD	Oct-21	208	208	208	208	208	208	208	208	208	208	208	2,496
Segment B Field Observation and Reporting	TBD	Jan-22	16	208	208	208	208	208	208	208	208	208	208	2,304
Segment C Field Observation and Reporting	TBD	Nov-22	-	-	-	-	-	-	-	-	-	-	-	-
Segment D Field Observation and Reporting	TBD	Aug-22	-	-	-	-	-	-	-	-	208	208	208	624
Segment E Field Observation and Reporting	TBD	Nov-22	-	-	-	-	-	-	-	-	-	-	-	-
Elevated Storage Tanks	TBD	Oct-22	-	-	-	-	-	-	-	-	-	-	-	-
<b>D. Commissioning Services</b>														
<b>Program-Wide Commissioning and Startup Oversight</b>														Jan-22
Facility - Commissioning and Startup Manager	Jeff Haasch	-	26	26	26	26	26	26	26	26	26	26	13	260
<b>TOTALS</b>														<b>31,332</b>

**EXHIBIT D**  
**2022 HOURLY RATES**

<b>Key Staff</b>		<b>Range (\$/Hr)</b>	
Principal In Charge		\$300	
Project Manager (CMI)		\$230	
Construction Manager		\$220	
Assistant Construction Manager		\$210	\$215
Commissioning Manager		\$265	
<b>Full-Time Inspectors <sup>(1)</sup></b>		<b>Range (\$/Hr)</b>	
Pipeline (Senior)		\$155	\$170
Pipeline (Junior)		\$110	\$120
Facility - Building/Structural/Mechanical		\$180	\$205
Facility - Quality Manager		\$160	\$180
<b>As-Needed Inspectors <sup>(2)</sup></b>		<b>Range (\$/Hr)</b>	
Electrical / I&C		\$200	\$220
CWI/Coatings		\$155	\$175
Cathodic Protection		\$190	\$220
Process Equipment		\$180	\$205
Tunnel (P.E.)		\$200	\$225
<b>Support</b>		<b>Range (\$/Hr)</b>	
Scheduler		\$190	\$200
Administrative		\$100	\$110
SharePoint Manager		\$150	\$170
SharePoint Tech		\$110	\$130
Document Control Manager		\$130	\$135
Document Control Assistant		\$85	\$100
<b>Notes</b>			
(1) Rates <b>include</b> costs for vehicle, per diem, and lodging			
(2) Mileage, vehicle, and lodging costs may be charged for this group at standard allowable rates			

**REGULAR MEETING**  
**Alliance Regional Water Authority Technical Committee**

**COMMITTEE MEMBER PACKETS**

Wednesday, December 8th, 2021 at 3:00 P.M.

Conference Call Number: 1-346-248-7799; Meeting ID: 968 8616 3170; Code: 495028

**F.6** Discussion and possible direction to Staff regarding the criteria and scoring to be utilized in the Authority’s Request for Qualifications for Operation and Maintenance of the Carrizo Water Supply Project. ~ *Graham Moore, P.E., Executive Director*

Background/Information

Staff is in the process of finalizing the Request for Proposals for the Operations and Maintenance of the Authority’s Carrizo Water Supply Project. The RFP is being setup as a 3-year base contract with two 1-year extensions. Below is they key criteria under consideration:

Key Criteria:

- Team Qualifications
- Project Approach
  - Consider Various Operational Scenarios:
    - Standard Operations (M-F 8A-5P with weekend checks)
    - Emergency Operations
    - Commissioning
  - Ongoing Maintenance
- Price Proposal

Staff would like input from the Technical Committee on the evaluation matrix – the following criteria and points are proposed:

<b>Evaluation Criteria</b>	<b>Max Points</b>
Responsiveness of the Proposal	Pass/Fail
Financial Stability	Pass/Fail
Team Qualifications	30 points
Project Approach	50 points
Price Proposal	20 points
<b>TOTAL MAX AVAILABLE POINTS</b>	<b>100 points</b>

Staff is anticipating issuing the RFQ on Friday, December 17<sup>th</sup> with responses due on February 10<sup>th</sup>.

**Technical Committee Decision Needed:**

- Possible direction to Staff.

**REGULAR MEETING**  
**Alliance Regional Water Authority Technical Committee**

**COMMITTEE MEMBER PACKETS**

Wednesday, December 8th, 2021 at 3:00 P.M.

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- 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.  
~ *Graham Moore, P.E., Executive Director*
- 

Gonzales County Underground Water Conservation District (GCUWCD)

The GCUWCD is scheduled to meet on December 14th.

Plum Creek Conservation District (PCCD)

The PCCD is scheduled to meet on December 21<sup>st</sup>.

Groundwater Management Area 13

No update.

Region L Planning Group

No update.

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

Staff met with GBRA and other regional participants to discuss possible cooperation in short and long-term water supply projects. The conversation is expected to continue in 2022 with focus on the projects that are already planned by all entities. No set goals or expectations have been set for how and what the coordination will include. Staff will continue to keep the Technical Committee updated.

**Technical Committee decision needed:**

- None.

**REGULAR MEETING**  
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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*

Consultant Invoices Paid

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

**FY 20-21 CONSULTANT INVOICES PAID IN OCTOBER 2021**

Consultant	Total Authorized	Current Invoice	Invoiced-to-Date	% of Contract Invoiced	Remaining	Notes/ Anomalies
LAN - Kyle/Buda Design	\$76,971.62	\$0.00	\$12,009.70	16%	\$64,961.92	
RW Harden	\$30,000.00	\$540.00	\$12,782.31	43%	\$17,217.69	
Tx Solutions Group	\$72,000.00	\$0.00	\$72,000.00	100%	\$0.00	
BGE - Ph 1A CA	\$7,110.08	\$0.00	\$1,400.30	20%	\$5,709.78	
Kent Alan Sick - ROW Legal	\$45,000.00	\$0.00	\$7,916.40	18%	\$37,083.60	
LNV - GIS Svcs	\$16,693.63	\$236.25	\$15,102.75	90%	\$1,590.88	
Armstrong, Vaughan & Associates, P.C.	\$10,930.00	\$0.00	\$10,930.00	100%	\$0.00	
J.R. Tolles & Associates, Inc.	\$245,000.00	\$20,619.00	\$210,140.00	86%	\$34,860.00	
Lloyd Gosselink Rochelle & Townsend	\$125,000.00	\$19,000.87	\$105,308.86	84%	\$19,691.14	
CD&P - Public Relations	\$45,404.50	\$0.00	\$34,108.03	75%	\$11,296.47	
MLA Labs, Inc. - Segment B	\$6,773.00	\$0.00	\$398.00	6%	\$6,375.00	
HDR - 2021 Rate Study	\$16,125.00	\$0.00	\$0.00	0%	\$16,125.00	
Law Offices of Patricia Erlinger Carls	\$25,000.00	\$1,612.80	\$2,715.30	11%	\$22,284.70	
<b>Total</b>	<b>\$722,007.83</b>	<b>\$42,008.92</b>	<b>\$484,811.65</b>		<b>\$237,196.18</b>	

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- On the following page is the report on the Phase 1B invoices paid in October.

**PHASE 1B FY 20-21 CONSULTANT INVOICES PAID IN SEPTEMBER 2021**

<b>Consultant</b>	<b>Total Authorized</b>	<b>Current Invoice</b>	<b>Invoiced-to-Date</b>	<b>% of Contract Invoiced</b>	<b>Remaining</b>	<b>Notes/ Anomalies</b>
Kimley-Horn Ph 1B Owner's Rep W04	\$1,319,033.52	\$0.00	\$1,319,033.52	100%	\$0.00	
Kimley-Horn Ph 1B Owner's Rep W05	\$2,685,433.00	\$682,992.56	\$1,056,737.20	39%	\$1,628,695.80	
Blanton - Environmental	\$875,510.28	\$146,139.55	\$681,717.17	78%	\$193,793.11	
LAN - Segment A Prelim	\$116,364.20	\$9,457.40	\$11,724.00	10%	\$104,640.20	
LAN - Segment A Final	\$447,554.89	\$71,277.43	\$370,470.04	83%	\$77,084.85	
KFA - Segment B Prelim	\$13,275.94	\$0.00	\$0.00	0%	\$13,275.94	
KFA - Segment B Final	\$775,215.97	\$96,095.05	\$641,875.82	83%	\$133,340.15	
BGE - Segment C Prelim	\$15,099.24	\$0.00	\$0.00	0%	\$15,099.24	
BGE - Segment C Final	\$2,522,617.09	\$333,080.18	\$2,323,767.40	92%	\$198,849.69	
FNI - Segment D Prelim	\$63,533.66	\$0.00	\$0.00	0%	\$63,533.66	
FNI - Segment D Final	\$993,177.03	\$95,599.16	\$865,975.19	87%	\$127,201.84	
Walker - Segment E Prelim	\$58,638.01	\$0.00	\$20,484.77	35%	\$38,153.24	
Walker - Segment E Final	\$1,094,367.61	\$92,541.59	\$789,963.59	72%	\$304,404.02	
LAN - ROW Acquisition	\$1,601,100.28	\$217,309.88	\$786,543.73	49%	\$814,556.55	
DTR&G	\$1,272,719.30	\$179,875.65	\$976,594.67	77%	\$296,124.63	
CBRE - Appraisals	\$1,784,150.00	\$90,000.00	\$656,700.00	37%	\$1,127,450.00	
CP&Y - Survey	\$984,980.00	\$82,417.50	\$588,990.00	60%	\$395,990.00	
RW Harden - WDH Const Admin	\$358,153.60	\$39,886.00	\$321,578.00	90%	\$36,575.60	
LNV - RWI	\$273,573.86	\$26,345.00	\$155,933.86	57%	\$117,640.00	
Walker Partners - WTP Final Design	\$1,029,963.16	\$24,997.75	\$966,578.78	94%	\$63,384.38	
FNI - BPS Prelim	\$4,772.50	\$0.00	\$4,772.50	100%	\$0.00	
FNI - BPS Final	\$838,134.63	\$43,583.27	\$587,285.13	70%	\$250,849.50	
Plummer - Inline Elevated Tank Prelim	\$42,799.42	\$0.00	\$39,069.35	91%	\$3,730.07	
Plummer - Inline Elevated Tank Final	\$423,526.00	\$96,936.55	\$111,357.55	26%	\$312,168.45	
Pape-Dawson - CM&I W0#1	\$16,880.44	\$0.00	\$16,380.03	97%	\$500.41	
Pape-Dawson - CM&I W0#2	\$147,500.00	\$8,035.00	\$138,370.00	94%	\$9,130.00	
Pape-Dawson - CM&I W0#3	\$74,460.00	\$1,320.00	\$72,680.00	98%	\$1,780.00	
Pape-Dawson - CM&I W0#4	\$100,600.00	\$19,245.00	\$100,597.50	100%	\$2.50	
Pape-Dawson - CM&I W0#5	\$2,034,310.00	\$333,185.65	\$333,185.65	16%	\$1,701,124.35	
Hicks & Co - WDH Environmental	\$15,874.00	\$0.00	\$303.00	2%	\$15,571.00	
Walker Partners - WTP CA Svcs	\$1,215,171.00	\$81,695.00	\$18,436.71	2%	\$1,196,734.29	
CP&Y - SCADA Programming Svcs	\$970,150.00	\$79,340.00	\$79,340.00	8%	\$890,810.00	
<b>Total</b>	<b>\$24,168,638.63</b>	<b>\$2,851,355.17</b>	<b>\$14,036,445.16</b>		<b>\$10,132,193.47</b>	



**REGULAR MEETING**  
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**COMMITTEE MEMBER PACKETS**

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Approved Change Orders

<b>CHANGE ORDERS APPROVED IN OCTOBER 2021</b>				
<b>Consultant</b>	<b>Original Authorization</b>	<b>Change Orders to Date</b>	<b>Change Order Approved this Month</b>	<b>New Total Contract Amount</b>
Freese & Nichols: 1B BPS & DP Prelim	\$ 771,617.00	\$ 44,408.00	\$ -	\$ 816,025.00
CP&Y: Ph 1B Program Survey	\$ 3,375,780.00	\$ 83,500.00	\$ -	\$ 3,459,280.00
Freese & Nichols: 1B Segment D (Final)	\$ 1,999,464.00	\$ 173,739.09	\$ -	\$ 2,158,203.09
LAN: 1B Segment A Final Design	\$ 1,903,077.00	\$ 262,949.00	\$ 6,358.00	\$ 2,166,026.00
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	\$ 306,242.13	\$ -	\$ 2,063,949.13
LAN: 1A Seg B Const Admin	\$ 108,860.01	\$ 6,204.04	\$ -	\$ 115,064.05
LNV: 1B Raw Water (Design)	\$ 1,418,700.00	\$ 85,337.00	\$ -	\$ 1,504,037.00
Walker Partners: 1B Seg E (Final)	\$ 1,190,421.00	\$ 123,128.00	\$ 25,000.00	\$ 1,313,549.00
BGE: 1B Segment C Final	\$ 2,688,310.00	\$ 280,021.00	\$ -	\$ 2,968,331.00
Freese & Nichols: 1B BPS & DP Final	\$ 1,580,519.00	\$ 126,073.00	\$ -	\$ 1,706,592.00
Pape Dawson: CMI	\$ 57,520.00	\$ 43,080.00	\$ -	\$ 100,600.00

**REGULAR MEETING**  
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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.

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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, December 8th, 2021 at 3:00 P.M.

Conference Call Number: 1-346-248-7799; Meeting ID: 968 8616 3170; Code: 495028

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, December 8th, 2021 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**

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