



**CITY OF CHANDLER
JOB ORDER PROJECT AGREEMENT**

HAHN RESERVOIR MAIN REPAIR

Project No. WA2303.401

Council Date: May 25, 2023

Item No.

This JOB ORDER PROJECT AGREEMENT ("Job Order") is made this ____ day of _____ 2023 ("Effective Date"), by and between the City of Chandler, an Arizona municipal corporation, ("City") and **B&F Contracting, Inc.**, an Arizona corporation, ("JOC Contractor") and is entered into pursuant to Job Order Master Agreement No. JOC2101.401 ("JOC Master Agreement"). City and JOC Contractor may be referred to individually as "Party" or collectively as "Parties").

City and JOC Contractor, in consideration of the mutual covenants herein set forth, agree as follows:

RECITALS

A. On or about February 4, 2022, the Parties entered into the JOC Master Agreement, which terms and conditions are made a part of and incorporated into this Job Order Project Agreement by this reference.

B. City proposes to engage JOC Contractor to repair 16-inch water main from Hahn Reservoir across Warner Road and replace 16-inch valve, as more fully described in **Exhibit "A"**, which is attached to and made a part of this Job Order by this reference.

C. JOC Contractor is ready, willing, and able to provide the services described in **Exhibit "A"** for the compensation and fees set forth and as described in **Exhibit "B"**, which is attached to and made a part of this Agreement by this reference.

ARTICLE 1. DESCRIPTION OF WORK

The Parties enter into this Job Order Project Agreement for the **HAHN RESERVOIR MAIN REPAIR**, Project Number **WA2303.401**. The scope of work consists of repairing 16-inch water main from Hahn Reservoir across Warner Road and replace 16-inch valve., all as more particularly set forth in **Exhibit "A"** attached hereto and incorporated herein by reference.

The JOC Contractor will not accept any change of scope, or change in Agreement provisions, unless issued in writing, as a Agreement amendment or change order and signed by the authorized signatories for each party.

Performance and Payment Bonds, as set forth in **Exhibit "C"** and **Exhibit "D"** respectively attached hereto and incorporated herein by reference, will be due prior to execution of each Job Order Project Agreement in the full amount of each Job Order.

At project completion, JOC Contractor must complete Contractor's Affidavit Regarding Settlement of Claims and Certificate of Completion, as set forth in **Exhibit "E"** and **Exhibit "F"** respectively attached hereto and incorporated herein by reference.

ARTICLE 2. PROJECT PRICE

City will pay JOC Contractor for completion of the Work in accordance with the JOC Master Agreement a fee not to exceed the Guaranteed Maximum Price of **\$349,494.23** Dollars determined and payable as set forth in JOC Master Agreement and **Exhibit "B"** attached hereto and made a part hereof by reference.

ARTICLE 3. AGREEMENT TIME & SCHEDULE

JOC Contractor agrees to complete all Construction within **90** calendar days from the Notice to Proceed (NTP) Date.

ARTICLE 4. JOB ORDER CONTACTS

The following parties serve in the capacity below for this Job Order Project.

CITY:	Construction Project Manager: Scott Riter
	Phone: 480-782-3328
	Email: Scott.riter@chandleraz.gov
JOC CONTRACTOR:	B&F Contracting, Inc.
	11011 N. 23rd Ave. Phoenix, AZ 85029
	JOC Contractor Representative: Kelly Haberly
	Phone: 623-217-7763
	Email: kelly.haberly@bfcontracting.com

ARTICLE 5. FORCED LABOR OF ETHNIC UYGHURS PROHIBITED

By entering into this Agreement, Contractor certifies and agrees Contractor does not currently use and will not use for the term of this Agreement: (i) the forced labor of ethnic Uyghurs in the People's Republic of China; or (ii) any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or (iii) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China

SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, the Parties have executed this Job Order as of the Effective Date.

"CITY" CITY OF CHANDLER

"JOC CONTRACTOR"

B&F Contracting, Inc.

Kelly Haberly

Digitally signed by Kelly Haberly
DN: C=US,
E=Kelly.Haberly@bfcontracting.com, O=B&F
Contracting, CN=Kelly Haberly
Date: 2023.05.09 08:46:50 -07'00'

Signature

Date

RECOMMENDED BY:



Kimberly Moon, P.E.
CIP City Engineer

Kelly Haberly

Print Name

Public Works Division Manager

Title

kelly.haberly@bfcontracting.com

Signer Email Address

APPROVED AS TO FORM:

City Attorney



ATTEST:

City Clerk

Seal

EXHIBIT A
SCOPE OF WORK



May 4, 2023

Scott Riter
City of Chandler Public Works & Utilities Department
975 E. Armstrong Way, Building L
Chandler AZ. 85286

RE: WA2303.401 Hahn Well Main Repair

Subject: Construction JOC Proposal

Scott,

B&F is please to submit our proposal for the Hahn Well Main Repair in accordance with the Job Order Contract (JOC) for the repair of the 16" water main crossing Warner Rd. west of McQueen – Project Number WA2303.401. Attached to this cover letter you will find the B&F Contracting Inc. Construction Services Proposal.

B&F proposes to complete the work associated with this portion of the JOC for a not-to-exceed the amount of \$349,494.23. Our proposal is based on the pothole findings and coordination with the City of Chandler and numerous meetings to discuss the existing 16" main alignment.

Please contact Kelly Haberly at (623)217-7763 if you have any questions or concerns.

Respectfully,

Kelly Haberly



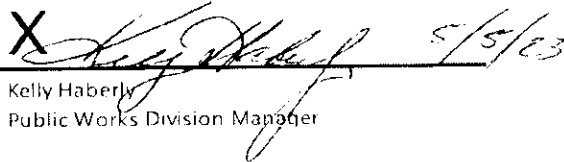
Built on Integrity!

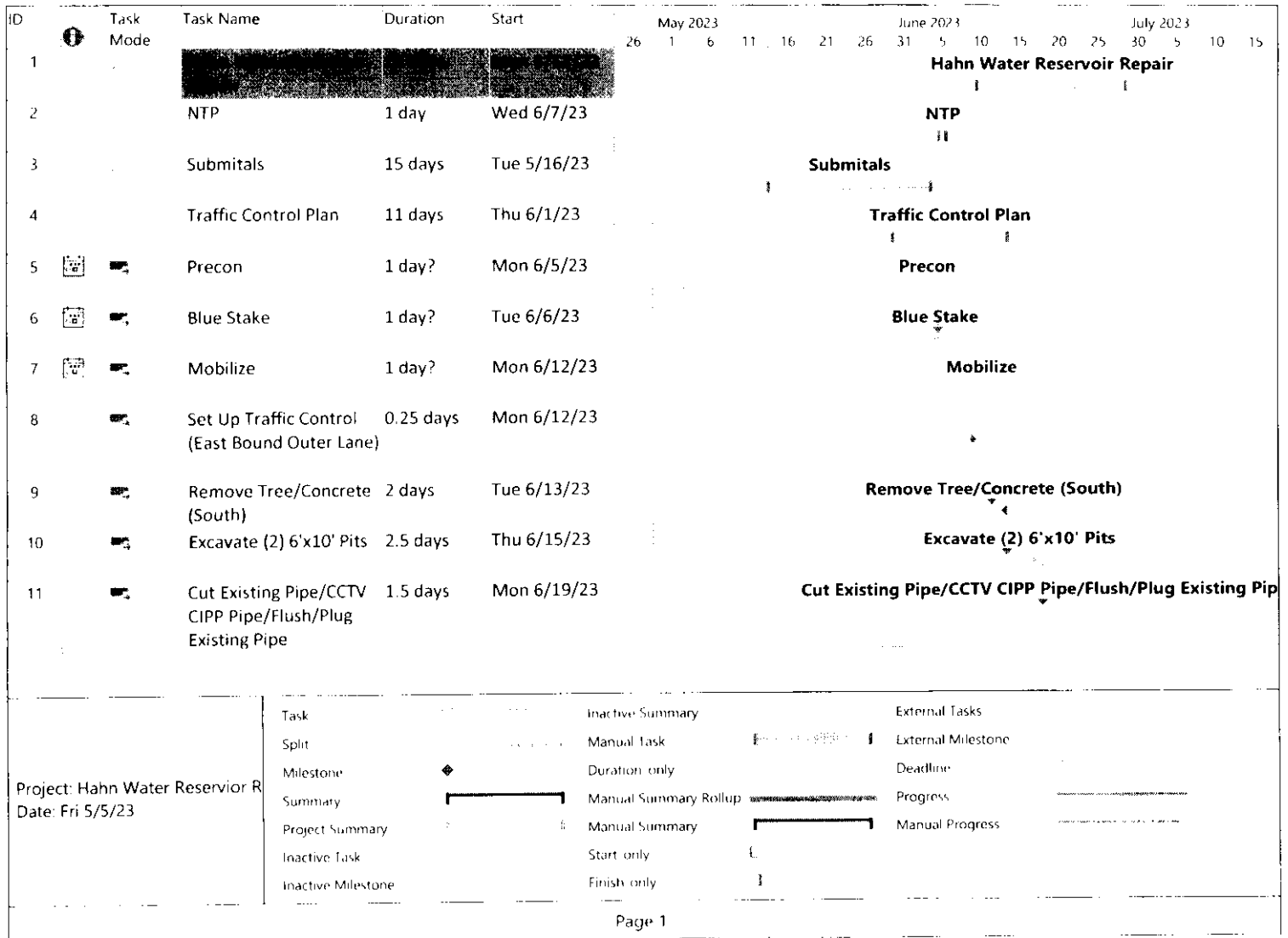
ROC 089744A / ROC 111282 B-4
B&F Contracting 11011 N. 23rd Ave.
Phoenix, AZ. 85029

SCOPE OF WORK – JOC2101.401 - Hahn Well Reservoir Main Repair

This scope of work is to CIPP line a 110lf segment of 16" DIP watermain that had ruptured in the median on Warner Road (west of McQueen). With the CIPP lining and the addition of new fittings, this will allow the City of Chandler to start the Hahn Well and deliver water to the community in which it feeds. The following items will be in the scope of work to be completed by B&F Contracting but not limited to.

- Traffic Control Plans to allow for work in the westbound inner lane of Warner Rd. to make necessary asphalt and curb repairs.
- Traffic Control Plans to allow for the work necessary to complete work in the eastbound outer lane of Warner Rd. to make the tie-ins and remove and replace the temporary asphalt patch with a permanent patch per City of Chandler Detail.
- Removal of Landscaping and Tree on the southside of Warner Rd.
- Replacement of tree and landscape restoration.
- Removal & Replacement of sidewalk/curb & gutter.
- The excavation of (2) pits for the CIPP lining to take place.
- The preparation of the (2) pits for Insituform to complete the CIPP lining.
- Cut and remove 6'-8' sections of the 16" DIP main to accommodate the CIPP lining process.
- Initial CCTV of the 16" main (Pre & Post)
- Lining of the 16" DIP main with a fully structural NSF 61 liner.
- B&F will provide a Sealed CIPP liner calculation package from an AZ licensed PE (civil or structural).
- Installation of (1) new 16" gate valve/pipe & fittings.
- B&F will provide public notifications to all that will be affected by the shut-down for the tie-in.
- Traffic control will be an allowance-based line item in the contract (SOV).

X  5/5/03
Kelly Haberly
Public Works Division Manager



ID	Task Mode	Task Name	Duration	Start	May 2023	June 2023	July 2023
					26 1 6 11 16 21 26	31 5 10 15 20 25 30	5 10 15
12		16" CIPP Lining	1 day	Wed 6/21/23			16" CIPP Lining
13		Cap/Pressure Test/Chlorinate/Flush	3 days	Thu 6/22/23			Cap/Pressure Test/Chlorinate/Flush
14		Build South Valve & Appertences/swab and Install	1 day	Thu 6/22/23			Build South Valve & Appertences/swab and Install
15		Shutdown and Tie into Existing 16in (Early AM)	0.5 days	Fri 6/23/23			Shutdown and Tie into Existing 16in (Early AM)
16		Backfill Excavation Pits	2 days	Fri 6/23/23			Backfill Excavation Pits
17		Replace Concrete/Asphalt (West Bound & East Bound)	3 days	Fri 6/23/23			Replace Concrete/Asphalt (West Bound & East Bound)
18		Install Tree	1 day	Wed 6/28/23			Install Tree
19		Lanscaping on South Side	2 days	Thu 6/29/23			Lanscaping on South Side
20		Substantial Completion	1 day	Fri 6/30/23			
21		Punch List Walk Through	1 day	Mon 7/3/23			Punch List Walk Through
22		Site Clean Up	1 day	Mon 7/3/23			Site Clean Up

Project: Hahn Water Reservoir R
Date: Fri 5/5/23

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start only	
Inactive Milestone	Finish only	

ID	Task Mode	Task Name	Duration	Start	May 2023	June 2023	July 2023
23		Demobilize	1 day	Tue 7/4/23	26 1 6 11 16 21 26	31 5 10 15 20 25	30 5 10 15

Demobilize

Project: Hahn Water Reservoir R Date: Fri 5/5/23	Task	Inactive Summary	External Tasks
	Split	Manual Task	External Milestone
	Milestone	Duration only	Deadline
	Summary	Manual Summary Rollup	Progress
	Project Summary	Manual Summary	Manual Progress
	Inactive Task	Start only	
	Inactive Milestone	Finish only	

EXHIBIT B
FEE SCHEDULE



EXHIBIT "B"

JOB ORDER COST PROPOSAL SUMMARY SHEET

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City of Chandler Project - WA2303.401

Negotiated Prices			
Price of Subcontractor(s)		\$	141,050.00
Direct Cost (GC)		\$	103,325.49
General Conditions		\$	30,129.56
Preconstruction Labor (if applicable)		\$	-
Construction Labor (if applicable)		\$	-
SUBTOTAL (NEGOTIATED PRICES):		\$	274,505.05
Overhead and Profit (Coefficient per Job Order Master Agreement)			
	8.00%	\$	21,960.40
TOTAL (NEGOTIATED PRICES + OVERHEAD & PROFIT):		\$	296,465.45
Insurance, Bonds, & Taxes			
Sales Tax Percentage (Current Tax Rate)	ENTER TAX % HERE: 5.07%	\$	15,030.80
General Liability Insurance Percentage (Actual Cost per Job Order)	1.00%	\$	2,964.65
Builder's Risk Insurance Percentage (Actual Cost per Job Order)	0.10%	\$	296.47
Payment Bond (Actual Cost per Job Order)	0.50%	\$	1,482.33
Performance Bond (Actual Cost per Job Order)	0.50%	\$	1,482.33
SUBTOTAL (INSURANCE, BONDS, & TAXES):		\$	21,256.57
COMBINED TOTAL (TOTAL + INSURANCE, BONDS, & TAXES):		\$	317,722.03
City's Allowance @ 10%	10%	\$	31,772.20
TOTAL JOB ORDER:		\$	349,494.23

Per the Job Order Master Agreement - This Fee Table includes all fees, costs, insurance and bond premiums, allowances, construction contingency, and taxes of any type necessary to fully, properly and timely perform and construct the Work. Also per the Job Order Master Agreement - For any portion of the Work which, either through this Contract, Change Order or otherwise, is performed and paid for on a cost, or time and materials basis, the costs may be reimbursed to JOC Contractor and chargeable against the Contract Price will be determined as set forth in MAG 109.5.

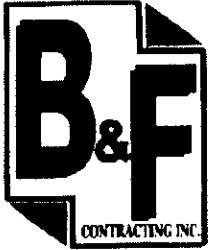


**WA2303.401 - Hahn Reservoir Main Repair
SOV**

5/3/2023

DETAIL SUMMARY

Item	Category	Description of Work	Estimate Quantity	Unit	Unit Price	Contract Price	Basis
	Scope of Work	GC - B&F Scope					
2		Tree Removal & Replace	1	EA	\$ 6,876.39	\$ 6,876.39	Estm.
3		Remove & Replace Concrete Sidewalk	100	SF	\$ 111.40	\$ 11,139.72	Estm.
4		Remove & Replace Curb & Gutter	30	LF	\$ 249.72	\$ 7,491.69	Estm.
5		Sawcutting	60	LF	\$ 50.00	\$ 3,000.00	Estm.
		Excavate (2) Pits	50	CY	\$ 308.44	\$ 15,421.92	Estm.
		Demo - Cut Host Pipe for Lining/Plug	2	EA	\$ 2,398.38	\$ 4,796.76	Estm.
		CCTV - Fresh Water Camera	1	LS	\$ 1,350.00	\$ 1,350.00	Estm.
		Install New 16" Gate Valve	1	EA	\$ 12,951.44	\$ 12,951.44	Estm.
		DIP CL 350 16"/Bolt Kits/Mega Lugs	1	LS	\$ 20,662.81	\$ 20,662.81	Estm.
		Pit Backfill	1	LS	\$ 10,554.36	\$ 10,554.36	Estm.
		Landscape Restoration	1	LS	\$ 3,027.04	\$ 3,027.04	Estm.
		Asphalt Remove & Replace	20	SF	\$ 182.52	\$ 3,650.32	Estm.
		CIPP Lining Supprt Crew	110	LF	\$ 21.85	\$ 2,403.04	Estm.
		Total B&F Rehab Division				\$ 103,325.49	
6	Lining Subcontractor - Insituform						
7		Mobilization	1	LS	\$ 9,500.00	\$ 9,500.00	Quote Attached
		16" DIP Lining	110	LF	\$ 1,105.00	\$ 121,550.00	Quote Attached
		Total Insituform				\$ 131,050.00	
8	Traffic Control Subcontractor - Aguilar						
9		Traffic Control Barricade Equipment	1	AL	\$ 10,000.00	\$ 10,000.00	Estm.
		Total Aguilar				\$ 10,000.00	
19	General Conditions	General Conditions					
		Mobilization	2	EA	\$ 1,037.84	\$ 2,075.68	Estm.
20		GC - Chlorinate & Pressure Test	3	DY	\$ 2,972.72	\$ 8,918.16	Estm.
21		Dump Fees	5	EA	\$ 95.00	\$ 475.00	Estm.
22		Construction Water	15,000	GAL	\$ 0.05	\$ 750.00	Estm.
23		Water Meter	1	EA	\$ 1,500.00	\$ 1,500.00	Estm.
24		Water & Ice	8	DY	\$ 25.00	\$ 200.00	Estm.
25		GC - Clean Up Site	0.25	DY	\$ 1,453.76	\$ 363.44	Estm.
26		Port - A - Johns	0.5	MO	\$ 1,000.00	\$ 500.00	Estm.
27		Project Manager	3	DY	\$ 821.12	\$ 2,463.36	Estm.
28		Project Superintendent	8	DY	\$ 827.44	\$ 6,619.52	Estm.
29		Project Engineer	5	DY	\$ 636.88	\$ 3,184.40	Estm.
		First Aid	1	LS	\$ 150.00	\$ 150.00	Estm.
		PPE/Fall Protection	1	LS	\$ 680.00	\$ 680.00	Estm.
		Small Tools & Supplies	1	LS	\$ 500.00	\$ 500.00	Estm.
		SWPPP	1	LS	\$ 1,750.00	\$ 1,750.00	Estm.
		Total GC				\$ 30,129.56	
	Summary	Total Construction Labor & Equipment				\$ 274,505.05	
67							
68							
69	Markups	Total Subcontractor				\$ 141,050.00	
		Total General Conditions				\$ 30,129.56	
		Total Construction Labor				\$ 103,325.49	
70		Subtotal prior to JOC Coefficient				\$ 274,505.05	
71		JOC OH&P Coefficient		8.00%		\$ 21,960.40	
	Totals	Total With Coefficient				\$ 296,465.45	
72							
73		Insurance Cost		1.00%		\$ 2,964.65	
74		Builders Risk		0.10%		\$ 296.47	
75		Bond Cost		1.00%		\$ 2,964.65	
76	Totals	Sales Tax		5.07%		\$ 15,030.80	
77		Total General Contractor				\$ 317,721.93	
		Owner's Allowance	1	AL	\$ 32,011.93	\$ 31,772.19	



Proposal

Corporate: 11011 N. 23rd Ave. Phoenix, AZ 85029

Office: 623-582-1170|Fax: 623-582-3761

Tucson: 1904 W. Prince Rd. Tucson, AZ 85705

Office: 520-207-8228|Fax: 520-305-3323

AZ Licenses: ROC-089744 A General Contracting

ROC-111282 B-04 General Engineering

Cost Detail

Project Name:	WA2303.401 Hahn Reservoir Main Repair	Customer:	City of Chandler
Job Number:	22-4470-10	Bid Number:	W23025
Bid As:	JOC	Billing Address:	Mail Stop 407, P.O. Box 4008 Chandler, AZ 85244 USA
Estimator:	Kelly Haberly	Phone:	480-782-3310
Project Address:	490 E Warner Rd, Chandler, AZ	Contact:	Scott Riter
Completion Date:	6/30/2023		

Pay Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
D 2 - Tree Removal/Replace	1.00	EACH	\$6,876.48	\$6,876.48
Tree Removal Crew (2.00 EACH/DY, 0.50 DY)	1.00	EACH	\$1,236.48	\$1,236.48
Truck - Crew	4.00	HR	\$26.45	\$105.80
Backhoe - Light	4.00	HR	\$80.39	\$321.56
Foreman	4.00	HR	\$61.61	\$246.44
Operator: Small Equipment	4.00	HR	\$38.27	\$153.08
Laborer [2]	4.00	HR	\$26.20	\$209.60
Small - Tools Chainsaw [2]	4.00	HR	\$25.00	\$200.00
Trucking (1.00 DY, 0.50 Trucks, 0.13 LOAD/HR)	1.00	LOAD	\$540.00	\$540.00
Miscellaneous-Dump Fees	1.00	LOAD	\$100.00	\$100.00
Purchase Tree - 15' Replacement	1.00	EACH	\$5,000.00	\$5,000.00
D 3 - Remove & Replace Concrete Sidewalk	100.00	SF	\$111.40	\$11,139.72
CP-Concrete Demo Sidewalk Crew (150.00 SF/DY, 0.67 DY)	100.00	SF	\$17.42	\$1,741.76
Truck - Crew	5.33	HR	\$26.45	\$141.07
Backhoe - Light	5.33	HR	\$80.39	\$428.75
Water Truck - 2000 Gal	5.33	HR	\$33.73	\$179.89
Foreman	5.33	HR	\$61.61	\$328.59
Operator: Small Equipment	5.33	HR	\$38.27	\$204.11
Laborer [2]	5.33	HR	\$26.20	\$279.47
Water Truck Driver	5.33	HR	\$33.73	\$179.89
Trucking (1.00 DY, 1.00 Trucks, 0.25 LOAD/HR)	2.00	LOAD	\$540.00	\$1,080.00
TR - 2/6/2023 10:46 AM: 2 loads, 2 four hour min	2.00	LOAD	\$100.00	\$200.00
Miscellaneous-Dump Fees	100.00	SF	\$66.93	\$6,692.96
CP-Concrete Sidewalk Crew (50.00 SF/DY, 2.00 DY)	16.00	HR	\$26.45	\$423.20
Truck - Crew	16.00	HR	\$11.23	\$179.68
Box Trailer	16.00	HR	\$80.39	\$1,286.24
Backhoe - Light	16.00	HR	\$61.61	\$985.76
Foreman	16.00	HR	\$43.54	\$2,786.56
Concrete Finisher [4]	16.00	HR	\$38.27	\$612.32
Operator: Small Equipment				

Description		Quantity	UM	Unit Direct Cost	Total Direct Cost
(Item 3 - Remove & Replace Concrete Sidewalk continued)					
 Laborer		16.00	HR	\$26.20	\$419.20
 Miscellaneous-Materials		1.00	LS	\$500.00	\$500.00
 Ready Mix Concrete - MAG A 3000		5.00	CY	\$185.00	\$925.00
D 4 - Remove & Replace Curb & Gutter (Including Median Island Curb That Was Previously Removed)		30.00	LF	\$249.72	\$7,491.69
 CP-Concrete Demo Curb & Gutter Crew (70.00 LF/DY, 0.43 DY)		30.00	LF	\$37.32	\$1,119.70
 Truck - Crew		3.43	HR	\$26.45	\$90.69
 Backhoe - Light		3.43	HR	\$80.39	\$275.62
 Water Truck - 2000 Gal		3.43	HR	\$33.73	\$115.65
 Foreman		3.43	HR	\$61.61	\$211.23
 Operator: Small Equipment		3.43	HR	\$38.27	\$131.21
 Laborer [2]		3.43	HR	\$26.20	\$179.66
 Water Truck Driver		3.43	HR	\$33.73	\$115.65
 CP-Concrete Curb & Gutter Crew (23.33 LF/DY, 1.29 DY)		30.00	LF	\$158.73	\$4,761.99
 Truck - Crew		10.29	HR	\$26.45	\$272.06
 Box Trailer		10.29	HR	\$11.23	\$115.51
 Backhoe - Light		16.00	HR	\$80.39	\$1,286.24
 Foreman		10.29	HR	\$61.61	\$633.70
 Concrete Finisher [4]		10.29	HR	\$43.54	\$1,791.36
 Operator: Small Equipment		10.29	HR	\$38.27	\$393.63
 Laborer		10.29	HR	\$26.20	\$269.49
 Miscellaneous-Materials		1.00	LS	\$500.00	\$500.00
 Ready Mix Concrete - MAG A 3000		6.00	CY	\$185.00	\$1,110.00
D 5 - CP-Saw-cutting W/ Small Crew		60.00	LF	\$50.00	\$3,000.00
 CP-Sawcutting w/ Small Crew		60.00	LF	\$50.00	\$3,000.00
 Subcontracted-Sawcutting		60.00	LF	\$50.00	\$3,000.00
D 6 - Excavate (2) 6'x10' Pits		50.00	CY	\$308.44	\$15,421.92
 WL-DIP CL 50 16in Art W/ Extra Large Diameter Crew		50.00	CY	\$178.04	\$8,901.92
 WL-DIP CL 50 16in Art Extra Large Diameter Crew (25.00 CY/DY, 2.00 DY)		50.00	CY	\$178.04	\$8,901.92
 Truck - Crew		16.00	HR	\$26.45	\$423.20
 Excavator - 60k LB		16.00	HR	\$179.52	\$2,872.32
 Backhoe - Light		16.00	HR	\$80.39	\$1,286.24
 Water Truck - 2000 Gal		16.00	HR	\$33.73	\$539.68
 Foreman		16.00	HR	\$61.61	\$985.76
 Laborer [2]		16.00	HR	\$26.20	\$838.40
 Water Truck Driver		16.00	HR	\$33.73	\$539.68
 Operator: Large Equipment		16.00	HR	\$50.27	\$804.32
 Operator: Small Equipment		16.00	HR	\$38.27	\$612.32
 Trucking (8.00 DY, 0.50 Trucks, 0.06 LOAD/HR)		4.00	LOAD	\$1,080.00	\$4,320.00
 Shoring		4.00	DY	\$550.00	\$2,200.00
D 7 - Demo - Cut Sections Of Host Pipe For Lining/Plug Upstream & Downstream Lines		2.00	EACH	\$2,162.74	\$4,325.48
 WL-Demo Appurtenances		2.00	EACH	\$1,987.74	\$3,975.48
 WL-Demo Appurtenance Crew (1.33 EACH/DY, 1.50 DY)		2.00	EACH	\$1,987.74	\$3,975.48
 Truck - Crew		12.00	HR	\$26.45	\$317.40

Description		Quantity	UM	Unit Direct Cost	Total Direct Cost
(Item 7 - Demo - Cut Sections Of Host Pipe For Lining/Plug Upstream & Downstream Lines continued)					
 Backhoe - Light		12.00	HR	\$80.39	\$964.68
 Water Truck - 2000 Gal		12.00	HR	\$33.73	\$404.76
 Foreman		12.00	HR	\$61.61	\$739.32
 Operator: Small Equipment		12.00	HR	\$38.27	\$459.24
 Pipelayer		12.00	HR	\$30.91	\$370.92
 Laborer		12.00	HR	\$26.20	\$314.40
 Water Truck Driver		12.00	HR	\$33.73	\$404.76
 Plug - PVC C-Duct Plug 16in		2.00	EACH	\$175.00	\$350.00
 Pump - 4in Pump		8.00	HR	\$28.00	\$224.00
 Pipelayer [2]		4.00	HR	\$30.91	\$247.28
S 8 - GC-CCTV Fresh Water Camera		1.00	LS	\$1,350.00	\$1,350.00
D 9 - 16" CIPP Lining		110.00	LF	\$1,213.21	\$133,453.04
 Subcontracted-CIPP Lining		110.00	LF	\$1,191.36	\$131,050.00
 RH-CIPP Lining Support Crew (110.00 LF/DY, 1.00 DY)		110.00	LF	\$21.85	\$2,403.04
 Truck - Crew		8.00	HR	\$26.45	\$211.60
 Backhoe - Light		8.00	HR	\$80.39	\$643.12
 Water Truck - 2000 Gal		8.00	HR	\$33.73	\$269.84
 Foreman		8.00	HR	\$61.61	\$492.88
 Water Truck Driver		8.00	HR	\$33.73	\$269.84
 Laborer		8.00	HR	\$26.20	\$209.60
 Operator: Small Equipment		8.00	HR	\$38.27	\$306.16
D 10 - Install New 16" Gate Valves		1.00	EACH	\$12,951.44	\$12,951.44
 WL-Gate Valve 16in		1.00	EACH	\$12,951.44	\$12,951.44
 WL-Gate Valve 16in Appurtenance Crew (2.00 EACH/DY, 0.50 DY)		1.00	EACH	\$1,055.32	\$1,055.32
 Truck - Crew		4.00	HR	\$26.45	\$105.80
 Backhoe - Light		4.00	HR	\$80.39	\$321.56
 Foreman		4.00	HR	\$61.61	\$246.44
 Operator: Small Equipment		4.00	HR	\$38.27	\$153.08
 Pipelayer		4.00	HR	\$30.91	\$123.64
 Laborer		4.00	HR	\$26.20	\$104.80
 Valve - Gate Valve 16in		1.00	EACH	\$9,293.82	\$9,293.82
 Accessory Set - Accessory Set with Gland		1.00	EACH	\$689.30	\$689.30
 Ready Mix Concrete - MAG A 3000 - Short Load		5.00	CY	\$185.00	\$925.00
 Riser - Valve Box Riser 8in		1.00	EACH	\$988.00	\$988.00
D WL-DIP PC 350 16in - Misc. Mega Lug & Bolt Kits		1.00	LS	\$20,662.81	\$20,662.81
 WL-DIP PC 350 16in Raw W/ Extra Large Diameter Crew		1.00	LF	\$20,662.81	\$20,662.81
 WL-DIP PC 350 16in Raw Extra Large Diameter Crew (0.67 LF/DY, 1.50 DY)		1.00	LF	\$13,723.08	\$13,723.08
 Truck - Crew		12.00	HR	\$26.45	\$317.40
 Excavator - 110k LB		12.00	HR	\$254.32	\$3,051.84
 Excavator - 75k LB		12.00	HR	\$166.30	\$1,995.60
 Wheel Loader - 40k LB		12.00	HR	\$94.96	\$1,139.52
 Backhoe - Light		12.00	HR	\$80.39	\$964.68
 Dump Truck - 10 Wheel		12.00	HR	\$62.67	\$752.04
 Water Truck - 4000 Gal		12.00	HR	\$68.40	\$820.80

Description		Quantity	UM	Unit Direct Cost	Total Direct Cost
<i>(Item WL-DIP PC 350 16in - Misc. Mega Lug & Bolt Kits continued)</i>					
 Pipelayer [2]		12.00	HR	\$30.91	\$741.84
 Laborer [2]		12.00	HR	\$26.20	\$628.80
 Truck Driver		12.00	HR	\$29.73	\$356.76
 Water Truck Driver		12.00	HR	\$33.73	\$404.76
 MJ Sleeve		2.00	EACH	\$573.07	\$1,146.14
 Field Lock Gasket		1.00	EACH	\$86.08	\$86.08
 DIP Mega With Kit		8.00	EACH	\$344.65	\$2,757.20
 DIP MJ Tee 16		1.00	EACH	\$1,247.26	\$1,247.26
 MJ 90		1.00	EACH	\$890.06	\$890.06
 Foster 16		1.00	EACH	\$724.99	\$724.99
 Tape - Marking Tape		1.00	ROLL	\$88.00	\$88.00
D 11 - Pit Backfill (2) - Crew And Material		1.00	LS	\$10,554.36	\$10,554.36
 WL-DIP PC 350 16in Art W/ Large Diameter Crew		1.00	LF	\$8,502.20	\$8,502.20
 WL-DIP PC 350 16in Art Large Diameter Crew (1.00 LF/DY, 1.00 DY)		1.00	LF	\$2,657.20	\$2,657.20
 Truck - Crew		8.00	HR	\$26.45	\$211.60
 Backhoe - Light [2]		8.00	HR	\$80.39	\$1,286.24
 Foreman		8.00	HR	\$61.61	\$492.88
 Pipelayer		8.00	HR	\$30.91	\$247.28
 Laborer [2]		8.00	HR	\$26.20	\$419.20
 Ready Mix - Slurry ABC Slurry 1/2 Sack		46.00	CY	\$125.00	\$5,750.00
 Tape - Marking Tape		1.00	ROLL	\$95.00	\$95.00
Shoring		3.00	DY	\$550.00	\$1,650.00
 Operator: Large Equipment		8.00	HR	\$50.27	\$402.16
D 12 - Landscape Restoration		1.00	LS	\$3,027.04	\$3,027.04
 GC-Landscaping Crew (EACH) (1.00 AL/DY, 1.00 DY)		1.00	AL	\$2,403.04	\$2,403.04
 Truck - Crew		8.00	HR	\$26.45	\$211.60
 Water Truck - 2000 Gal		8.00	HR	\$33.73	\$269.84
 Backhoe - Light		8.00	HR	\$80.39	\$643.12
 Foreman		8.00	HR	\$61.61	\$492.88
 Operator: Small Equipment		8.00	HR	\$38.27	\$306.16
 Laborer		8.00	HR	\$26.20	\$209.60
 Water Truck Driver		8.00	HR	\$33.73	\$269.84
 Aggregate - Replace DG		12.00	TON	\$52.00	\$624.00
D 13 - Traffic Control		1.00	AL	\$10,000.00	\$10,000.00
 Barricades		8.00	DY	\$1,250.00	\$10,000.00
D 14 - CP-Asphalt Remove & Replace		20.00	SF	\$182.52	\$3,650.32
 CP-Asphalt Paving		20.00	SY	\$182.52	\$3,650.32
 CP-Asphalt Paving Crew (40.00 SY/DY, 0.50 DY)		20.00	SY	\$88.77	\$1,775.32
 Truck - Crew		4.00	HR	\$26.45	\$105.80
 Asphalt Roller - 35in-50in		4.00	HR	\$31.11	\$124.44
 Backhoe - Light		4.00	HR	\$80.39	\$321.56
 Dump Truck - 6 Wheel (Bobtail)		4.00	HR	\$59.40	\$237.60
 Foreman		4.00	HR	\$61.61	\$246.44
 Operator: Small Equipment [2]		4.00	HR	\$38.27	\$306.16
 Laborer [3]		4.00	HR	\$26.20	\$314.40

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
(Item 14 - CP-Asphalt Remove & Replace continued)				
 Operator: Small Equipment [2]	4.00	HR	\$38.27	\$306.16
 Laborer [3]	4.00	HR	\$26.20	\$314.40
 Truck Driver	4.00	HR	\$29.73	\$118.92
 Asphalt - Asphalt	25.00	TON	\$58.00	\$1,450.00
 Asphalt - Tack Coat	1.00	5GAL	\$225.00	\$225.00
 Crack Seal	1.00	LS	\$200.00	\$200.00

Indirect Items

Description	Quantity	UM	Unit Indirect Cost	Total Indirect Cost
D 1.1 - GC-Mobilization	2.00	TRIP	\$1,037.84	\$2,075.68
 GC-Mobilization	2.00	TRIP	\$1,037.84	\$2,075.68
 GC-Mobilization Crew (1.00 TRIP/DY, 2.00 DY)	2.00	TRIP	\$1,037.84	\$2,075.68
 Transport Truck	16.00	HR	\$79.82	\$1,277.12
 Transport Trailer - 48 FT	16.00	HR	\$20.18	\$322.88
 Truck Driver	16.00	HR	\$29.73	\$475.68
D 1.3 - GC-Chlorine & Pressure Test	3.00	DY	\$2,972.72	\$8,918.16
 GC-Chlorine & Pressure Test	3.00	DY	\$2,972.72	\$8,918.16
 GC-Chlorine & Pressure Test Crew (1.00 DY/DY, 3.00 DY)	3.00	DY	\$2,972.72	\$8,918.16
 Truck - Crew	24.00	HR	\$26.45	\$634.80
 Backhoe - Light	24.00	HR	\$80.39	\$1,929.36
 Water Truck - 2000 Gal	24.00	HR	\$33.73	\$809.52
 Hydrostatic Test Pump Trailer	24.00	HR	\$40.30	\$967.20
 Foreman	24.00	HR	\$61.61	\$1,478.64
 Operator: Small Equipment	24.00	HR	\$38.27	\$918.48
 Pipelayer	24.00	HR	\$30.91	\$741.84
 Laborer	24.00	HR	\$26.20	\$628.80
 Water Truck Driver	24.00	HR	\$33.73	\$809.52
Q 2.0 - JI- Dump Fees	5.00	EACH	\$95.00	\$475.00
Q 2.2 - JI-Construction Water	15,000.00	GAL	\$0.05	\$750.00
Q 2.3 - JI-Water Meter	1.00	EACH	\$1,500.00	\$1,500.00
P 2.4 - JI-Water & Ice	8.00	WDAY	\$25.00	\$200.00
D 2.6 - GC-Site Clean Up	0.25	DY	\$1,453.76	\$363.44
 GC-Site/Yard Setup & Takedown	0.25	DY	\$1,453.76	\$363.44
 GC-Site/Yard Setup & Takedown Crew (1.00 DY/DY, 0.25 DY)	0.25	DY	\$1,453.76	\$363.44
 Truck - Crew	2.00	HR	\$26.45	\$52.90
 Water Truck - 2000 Gal	2.00	HR	\$33.73	\$67.46
 Foreman	2.00	HR	\$61.61	\$123.22
 Laborer	2.00	HR	\$26.20	\$52.40
 Water Truck Driver	2.00	HR	\$33.73	\$67.46
Q 2.8 - JI-Portas/J-Johns	0.50	MO	\$1,000.00	\$500.00
D 3.1 - JI-Project Manager	3.00	DY	\$821.12	\$2,463.36
 JI-Project Manager	24.00	HR	\$102.64	\$2,463.36
 JI Project Manager Crew (8.00 HR/DY, 3.00 DY)	24.00	HR	\$102.64	\$2,463.36

Description		Quantity	UM	Unit Indirect Cost	Total Indirect Cost
(Item 3.1 - JI-Project Manager continued)					
 JI-Project Manager Crew (8.00 HR/DY, 3.00 DY)		24.00	HR	\$102.64	\$2,463.36
 Truck - Management		24.00	HR	\$16.67	\$400.08
 Project Manager		24.00	HR	\$85.97	\$2,063.28
D 3.2 - JI-Project Superintendent		8.00	DY	\$827.44	\$6,619.52
 JI-Project Superintendent		64.00	HR	\$103.43	\$6,619.52
 JI-Project Superintendent Crew (8.00 HR/DY, 8.00 DY)		64.00	HR	\$103.43	\$6,619.52
 Truck - Management		64.00	HR	\$16.67	\$1,066.88
 Project Superintendent		64.00	HR	\$86.76	\$5,552.64
D 3.3 - JI-Project Engineer		5.00	DY	\$636.88	\$3,184.40
 JI-Project Engineer		40.00	HR	\$79.61	\$3,184.40
 JI-Project Engineer Crew (8.00 HR/DY, 5.00 DY)		40.00	HR	\$79.61	\$3,184.40
 Truck - Management		40.00	HR	\$16.67	\$666.80
 Project Engineer		40.00	HR	\$62.94	\$2,517.60
P 5.3 - JI-First Aid		1.00	LS	\$150.00	\$150.00
P 5.4 - JI-PPE/Fall Protection		1.00	LS	\$680.00	\$680.00
P 5.5 - JI-Small Tools & Supplies		1.00	LS	\$500.00	\$500.00
S GC-SWPPP		1.00	LS	\$1,750.00	\$1,750.00

EXHIBIT C

PERFORMANCE BOND

ARIZONA STATUTORY PERFORMANCE BOND
PURSUANT TO TITLES 28, 34, AND 41, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Agreement amount)

KNOW ALL MEN BY THESE PRESENTS THAT:_____

(hereinafter "Principal"), and _____ (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____ (hereinafter "Obligee") in the amount of _____ (Dollars) (\$_____), for the payment whereof, Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Agreement with the Obligee, dated the _____ day of _____, 20__ for construction of **HAHN RESERVOIR MAIN REPAIR, WA2303.401** which Agreement is hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all the undertakings, covenants, terms, conditions and agreements of the Agreement during the original term of the Agreement and any extension of the Agreement, with or without notice of the Surety, and during the life of any guaranty required under the Agreement, and also performs and fulfills all the undertakings, covenants, terms, conditions, and agreements of all duly authorized modifications of the Agreement that may hereafter be made, notice of which modifications to the Surety being hereby waived, the above obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Agreement.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

AGENT OF RECORD

PRINCIPAL

SEAL

By _____

SURETY

SEAL

EXHIBIT D

PAYMENT BOND

ARIZONA STATUTORY PAYMENT BOND
PURSUANT TO TITLES 28, 34, AND 41, OF THE ARIZONA REVISED STATUTES
(Penalty of this Bond must be 100% of the Agreement amount)

KNOW ALL MEN BY THESE PRESENTS THAT: _____

(hereinafter "Principal"), as Principal, and _____ (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____ (hereinafter "Obligee") in the amount of _____ (Dollars) (\$ _____), for the payment whereof, the Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Agreement with the Obligee, dated the _____ day of _____, 20__ for construction of **HAHN RESERVOIR MAIN REPAIR, WA2303.401** which Amendment is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal promptly pays all moneys due to all persons supplying labor or materials to the Principal or the Principal's subcontractors in the prosecution of the work provided for in said Agreement, this obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2 Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions, conditions and limitations of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Agreement.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

AGENT OF RECORD

PRINCIPAL SEAL

By _____

SURETY SEAL

AGENT ADDRESS

EXHIBIT E

CONTRACTOR'S AFFIDAVIT REGARDING SETTLEMENT OF CLAIMS

_____, Arizona

Date _____

Project Name: **HAHN RESERVOIR MAIN REPAIR**

Project No.: **WA2303.401**

To the City of Chandler, Arizona

Gentlemen:

This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged.

The undersigned, for the consideration of \$_____, as set out in the final pay estimate, as full and complete payment under the terms of the Agreement, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project. The undersigned further agrees to indemnify and save harmless the City of Chandler against any and all liens, claims or liens, suits, actions, damages, charges and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performances and materials furnished for the performance of said installation.

Signed and dated at _____, this _____ day of _____ 20_____.

CONTRACTOR

By _____

STATE OF ARIZONA)
) SS
COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to before me this _____ day of _____ 20 _____.

Notary Public

My Commission Expires

EXHIBIT F

CERTIFICATE OF COMPLETION

Project: **HAHN RESERVOIR MAIN REPAIR**

Project No.: **WA2303.401**

(TO BE COMPLETED BY CONTRACTOR)

I HEREBY CERTIFY THAT ALL GOODS AND/OR SERVICES REQUIRED BY CITY OF CHANDLER PROJECT NO. **WA2303.401** HAVE BEEN DELIVERED IN ACCORDANCE WITH THE AGREEMENT DOCUMENTS AND BID SPECIFICATIONS AND ALL ACTIVITIES REQUIRED BY THE CONTRACTOR UNDER THE AGREEMENT HAVE BEEN COMPLETED AS OF _____.

(Date)

FIRM NAME: _____

PRINCIPAL: _____

(Name)

(Signature)

DATE: _____

(Title)

CERTIFIED BY ENGINEER/CONSULTANT (IF APPLICABLE):

(Signature)

DATE: _____

(Firm Name)

PROJECT ACCEPTED BY USER DEPARTMENT

(Signature)

DATE: _____

(Dept. /Div.)

Date of Final Walk-Through

Date As-Built Received

City As-Built Number

EXHIBIT G

SUBCONTRACTOR DOCUMENTS WITH CONTRACTOR

Any subconsultant assumptions, clarifications, exclusions, terms & conditions, signature blocks, etc. included are strictly between the Consultant and their subconsultants, and do not apply to the Agreement between the Consultant and the City.

Project Proposal



PROPOSAL DATE: 1/26/23

PROJECT NAME: **HAHN RESERVOIR – WARNER RD – 16" CIPP PRESSURE LINING**

CUSTOMER: **B&F CONTRACTING**

INSITUFORM TECHNOLOGIES, LLC herein proposes to furnish a Proposal for all labor, materials, equipment, and services set forth below for the above referenced project. All pricing is considered confidential.

PROPOSAL PRICING

ITEM #	DESCRIPTION	QTY	UNIT	Unit \$	Total \$
	Mobilization	1	LS	\$9,500	\$9,500
	16" IMain Pressure CIPP	110	LF	\$1,105	\$121,550
	Total				\$131,050
	<i>Lining Only (See full list of Inclusions & Exclusions below.)</i>				

ASSUMPTIONS & QUALIFICATIONS

Insituform Technologies, LLC have based proposal on a nominal wall thickness for the InsituTube as shown in the specifications or derived from general, industry accepted specifications and design criteria. This is based on the best available information at the time of this proposal. Existing pipe deterioration in excess of the conditions assumed, ground water loads in excess of those assumed, or other loads or conditions may increase the recommended thickness for all or various portions of the work. Final recommendations may be submitted following completion of preliminary video inspection of the existing pipeline to be rehabilitated. Stated prices are subject to change if unforeseen conditions are determined.

Insituform Technologies, LLC is not a union shop and considered a specialty contractor, and shall not be subject to any union requirements or project labor agreements.

Water shall be provided at no cost to Insituform Technologies for all construction phases of this project. Insituform Technologies will follow all required deposit, backflow prevention, and metering procedures.

Access requirements for existing pipeline to be rehabilitated shall be provided by Owner – includes entry and exit access approved from Insituform Project Manager and/or Field Engineer.

Driving access to the installation/cleaning points shall be provided by the GC, or others.

ITI assumes the work will be completed during dry weather conditions.

PROPOSAL INCLUSIONS

Insituform Technologies, LLC proposal pricing includes only items listed below; other items, scope of work, and/or project requirements are not part of the Insituform Technologies, LLC proposal pricing.

Project Proposal



1. One mobilization and demobilization for 110 LF of 16" IMain CIPP liner as stated in drawings.
2. Pricing is based on one instance of mobilization. Additional mobilization will be required depending on project schedule.
3. CCTV inspection immediately after lining is complete
4. Install resin impregnated InsituMain CIPP liner in accordance with ASTM F1216 or 1743.
5. At this time Insituform estimates **one (1)** CIPP installations and will need **two (2)** pit locations. If unforeseen bends, valves or other impediments are encountered this may change.
6. Materials will be wetout at an approved, existing Insituform wetout location. Impregnation shall be performed under permanent facility-controlled environment.
7. Measure pipe for material acquisition at **least six (4) weeks prior to lining**. The GC is responsible to provide the access/means to acquire these measurements. CIPP materials can be manufactured/ordered after pipe measurements are taken and pits are prepared.
8. All mechanicals, labor, and equipment required for pressuring testing.
9. Confined space safe entry practices.
10. Standard construction warranty as indicated in Warranty section of project specifications.
11. Certificate of insurance with a standard coverage.

PROPOSAL EXCLUSIONS

Insituform Technologies, LLC proposal pricing excludes all items and scope of work listed below. Any and all items below are to be furnished "by others". Insituform Technologies, LLC is not responsible for any costs associated with items listed below – Excluded in proposal pricing.

- Provide all necessary permits. Make provisions for appropriate timeframes for work during installation and curing of the Insituform liner, this may include around the clock work during the liner cure process.
- GC to supply material and labor for final tie-in/completion at all pit locations.
- Bypass or temporary flows management.
- Pre-CCTV video and cleaning prior to the InsituMain installation.
- Provide all environmental controls (i.e., hay bales, silt fence etc.) that may be required adjacent to manholes, access points and/or water supply hose.
- Provide sufficient water to complete CIPP installation location free of charge to ITI. ITI assumes 2" connection with a minimum pressure of 50 psi. Provide water to the insertion pit location.
- GC to provide a laydown area for all materials and equipment for the duration of the project.
- Provide any traffic control as needed, including police details and/or flagmen and special traffic control setups that may be required when working near or on a local or State Road.
- If the pipe is damaged during any industry standard high-pressure jet cleaning operations, preparation or lining, the repair of the pipe is the responsibility of others. If subsequent cleaning is required to remove debris that has fallen into the pipe because of any such collapse or repair, this would also be the responsibility of others.
- Removal of any laterals, tees, bends, valves or any other fitting that may impede CIPP liner installation.
- Restoration including but not limited to pavement, concrete, seeding, turf, grading, etc.
- Labor, mechanicals, and fittings for final tie in at tees and branch lines.
- Provide a secure yard or facility for the overnight and weekend storage/parking of Insituform trucks and equipment if needed.
- Dewatering host pipe prior to the CIPP lining and post-lining CCTV. Dewatering of installation pits, including well pointing if necessary.
- BAC-T/Chlorination and bacteria testing.
- Furnish/installation of closure piping and all service connections.

Project Proposal

- Pits/excavations required for pipe access (cutouts) and service reconnections, valves and hydrants as shown on plans. All pits to include OSHA approved shoring and access and need to be vehicle accessible.
 - **Excavation pits need to be 6'x 10' in length, with at least 6-8 ft of host pipe removed host pipes. These dimensions will be for both the insertion and receiving pits.** If unforeseen bends, valves or other impediments are encountered this may change, an additional pit may be required at these locations.
- Provide backwall within the excavation pits for supporting the pressure testing.
- Provide the access necessary for Insituform to acquire ID measurement within 1/4" at least 4 weeks prior to anticipated lining date.
- Prime Tax on Material
- Shutdowns due to weather decisions / environmental concerns by Owner / GC will be charged at provided standby rates
- Survey fees / costs

PROPOSAL TERMS & CONDITIONS

- a) When CIPP is required to negotiate bends or defects in the host pipe, there is a tendency to experience wrinkling in the installed CIPP around the inside radius of the bend or in the area where the host pipe defect is located. This is normal and should be expected. It will not affect the structural integrity of the finished product. Insituform will not be liable for repairs or penalties due to wrinkles in the CIPP at the locations of bends or defects in the host pipe.
- b) Limits of Liability. In consideration of INSITUFORM TECHNOLOGIES agreement to maintain no less than \$5,000,000 of comprehensive general liability insurance in the form required by the Contract, INSITUFORM TECHNOLOGIES liability to the Prime for any matter covered by such insurance will be limited to the extent of such insurance and the Prime will indemnify and hold INSITUFORM TECHNOLOGIES harmless from any third party claims covered by such insurance to the extent such claims exceed the limits of such insurance. Neither party shall be liable to the other for consequential damages relating to the contract. In case of conflict between this provision and any other provision in the Contract as ultimately executed, this provision shall govern and prevail.
- c) LIMITED WARRANTY. IN LIEU OF ALL OTHER EXPRESSED, IMPLIED AND/OR STATUTORY WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, INSITUFORM AGREES TO CORRECT ANY DEFECTS IN THE MATERIALS OR SERVICES PROVIDED BY INSITUFORM WHICH ARE BROUGHT TO THE ATTENTION OF INSITUFORM WITHIN ONE YEAR FOLLOWING COMPLETION OF INSITUFORM'S WORK, PROVIDED OWNER AFFORDS INSITUFORM SUITABLE ACCESS AND WORKING CONDITIONS TO ACCOMPLISH SUCH CORRECTION.
- d) MUTUAL RELEASE OF CONSEQUENTIAL DAMAGES. Neither party shall be liable to the other for consequential damages relating to or arising out of the Contract.
- e) PROPOSAL SUBJECT TO NEGOTIATION OF OTHER STANDARD TERMS OF AGREEMENT. This proposal is subject to agreement of the parties on other terms and conditions as are customary in contracts of this nature.
- f) Quantities are estimated. Unit prices apply for actual invoice and payment.
- g) Payments are due at net within thirty days of invoice. Final payment is due within thirty days of completion of project.
- h) Monthly progress partial payments shall be requested for the value of work in progress or completed, including materials secured and on site.
- i) Prices stated are in effect for thirty days from the date of this proposal. The acceptance period may be extended at the sole option of INSITUFORM TECHNOLOGIES
- j) Conflicts. In case of conflict between the provision of the aforesaid paragraphs and any other provision in the Contract as ultimately executed the provisions as set forth above shall govern and prevail.

This proposal is subject to the Terms and Conditions at www.aegion.com/INSPPTerms, which form an integral part of this proposal.

Project Proposal



OFFERED BY:

INSITUFORM TECHNOLOGIES, LLC

Todd Venable

TODD VENABLE
BUSINESS DEVELOPMENT MANAGER
(480) 938-7145
evenable@aegion.com

Arizona Office: 645 S. 24th Street
Tempe, AZ 85282
(480) 446-0620

CONTRACTOR LICENSE & REGISTRATION NUMBERS - Western US:

AZ (277787) UT (6981198-5501) NM (374011) CA (758411) OR (133115) WA (INSITTL883CW) NV (0048110) HI (21894)

ACCEPTED BY:

CONTRACTOR NAME

AUTHORIZED REPRESENTATIVE

SIGNATURE

CONTRACTOR

PROJECT NAME	16 inch DIP WM Rehab Hahn Reservoir Warner Rd Chandler AZ
LOCATION	Chandler, AZ
CLIENT	City of Chandler
	City of Chandler Chandler Hahn Reservoir 16" DI WM Rehab AZ

PIPE MEAN INSIDE DIAMETER (inches)	16.00 in
OVALITY (q) %	2.00 %
PIPE MINIMUM INSIDE DIAMETER (inches)	15.68 in
INTERNAL PRESSURE, (P) psi	65.0 psi
INSITUMAIN™ FLEXURAL MODULUS (E) psi	400000 psi
INSITUMAIN™ FLEXURAL STRENGTH (s) psi	6500 psi
FLEXURAL MODULUS REDUCTION TO ACCOUNT FOR LONG-TERM EFFECTS (%)	50 %
PROPOSED NUMBER OF FIBERGLASS LAYERS	1
TENSILE LOAD CAPACITY	2,700 lb/inch
TENSILE LOAD CAPACITY RETENTION TO ACCOUNT FOR LC 1.33	50.00 %
INTERNAL PRESSURE FACTOR OF SAFETY, N _p	2.0

I. Internal Pressure Design

The proposed construction has 1 layers of fiberglass

ISO Equation R161-1960

Internal Pressure -

$$P = \frac{2 \times T_L}{(OD - t) \times N}$$

where,

P = Pressure Rating >=

t = InsituMain™ wall thickness =

T_L = 50 year tensile load capacity =

OD = outside diameter of InsituMain™

N = internal pressure factor of safety =

65 psi

8.50 mm

1350 lbs/inch

16.0 in

2.0

0.335 in



Dated: 5-4-23

Amber Wagner

Therefore,

$$P = \frac{2 \times T_L}{(OD-t) \times N} = 86.2 \text{ psi} > 65.0 \text{ psi}$$

SELECT INSITUMAIN™ THICKNESS

* THICKNESS LIMITATIONS *	
8.5 mm:	INTERNAL PRESSURE, NOMINAL INSITUMAIN™ THICKNESS
RECOMMENDED INSTALLED NOMINAL THICKNESS:	8.5 mm

The input data for this project should be verified in the field prior to construction. Should any other conditions exist now or be expected in the field over the design life of this InsituMain™ differing from the information contained herein, then appropriate adjustments must be made to the design calculations.

<><><><><><> **INSITU MAIN DESIGN ASTM F1216** <><><><><><>

Client: City of Chandler
 Project: 16 inch DIP WM Rehab_ Hahn Reservoir_Warner Rd_ Chandler AZ
 Location: Chandler, AZ

Date:
 Time:
 Prep:

Conduit \ Condition: Pressure Pipe, Below Ground, Fully Deteriorated

400,000 psi	Flexural Modulus
50 %	Flexural Modulus Reduction to Account for Long-term Effects
6,500 psi	Flexural Strength
2.00	Safety Factor for External Loads
2.00	Safety Factor, Internal Pressure
6,500 psi	Tensile Strength
50.00 %	Tensile Load Capacity Retention to Account for Long-term Effects
16.00 inches	Mean Diameter
15.68 inches	Minimum Diameter
2.00 %	Ovality
1.33 feet	Maximum External Water Pressure to flowline
15.66 feet	Depth at Top of Conduit , soil only
65.00 psi	Maximum Internal Pressure
120.00 lb./cu.ft.	Soil Density
1000 psi	Soil Modulus
13.6 psi	Total Loading
	(includes 0.52 psi Highway surcharge)

Thickness Limitations (in inches)

0.100 inches	: Maximum compressive hoop stress
0.120 inches	: External pressure buckling
0.225 inches	: Minimum stiffness limitation, deteriorated conduit
0.255 inches	: External pressure, deteriorated conduit (AWWA)
1.0 layers	: Internal pressure, deteriorated conduit, no. of fiber reinforced layers

Minimum Design Thickness due to External Loads = 0.255 inches = 6.47 mm

The input data for this project should be verified in the field prior to construction. Should other conditions exist now or are expected in the field over the design life of the InsituMain differing from the information contained herein, then appropriate adjustments must be made to the design calculations.



OF PHOENIX
WATER • SEWER • STORM

11051 N 132ND AVE
SURPRISE, AZ 85379

PHONE (623) 536-6192
FAX (623) 536-9307

Quoted To Customer

B & F CONTRACTING INC
11011 N 23RD AVE
PHOENIX, AZ 85029 4828

Phone (623) 582-1170
Fax (623) 582-3761

Job Name

CHANDLER PROJECT

Quote No.	Date	Page
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0026806	4/28/23	1
Expiration Date	5/28/23	
Revised Date	4/28/23	
Bid Due Date	4/28/23	

Quoted By

DANNY KOELLEN
drkoellen@winwaterworks.com
(623) 229-2804

Customer	Payment Terms	Quoted To	Salesperson	FOB
002037	2% 10TH, NET 25TH	DANNY KOELLEN	HOUSE ACCOUNT	S

Line	Qty.	Description	Unit Price	UOM	Extended Price
2.0	2	-----VALVES W/ VB&C----- 16 OL MJ X MJ RW GATE VALVE 7571 KENNEDY	9293.8200	EA	18587.64
3.0	4	16 TUFGRIP DI JNT REST &ACC F 114215 IMP W/ACC	272.2300	EA	1088.92
4.0	2	6855-16T TOP SECTION SLIP LL 112228 IOMP L/ACC	72.5000	EA	145.00
5.0	2	6855-36B BOTTOM SECTION SLIP 112082 IMP L/ACC	92.5000	EA	185.00
6.0	2	NON POP POLYMER LID - WATER	54.3300	EA	108.66
7.0	1	DC457 DEBRIS CAP BLUE - WATER	61.7700	EA	61.77
		SUBTOTAL			20176.99
11.0	36	----- PIPE ----- 16 CL350 DI PIPE SJ AC/CL TYTON JOINT	86.2900	EA	3106.44
12.0	340	37" POLYWRAP FOR 18 DIP 14"-18" BLACK 340' 20' PERF.	1.0900	FT	370.60
13.0	2	T17-102 2X100 10 MIL PVC TAPE Spec sheet: https://pimmedia.winsupply.com/pim/SPEC/09/0017%20JONTS%20PIPIENS%20WORLD%20AND%20MAIN%20117/02%20117/001%20SPEC.pdf	6.7500	EA	13.50
		SUBTOTAL			3490.54
17.0	1	-----PIT #1----- 16 MJ L/SLV C153 TC IMP 137450 IMP L/ACC C153	566.2300	EA	566.23
18.0	2	16 TUFGRIP DI JNT REST &ACC F 114215 IMP W/ACC	272.2300	EA	544.46
19.0	1	16 TYTON FIELD LOC GASKET	368.3800	EA	368.38
		SUBTOTAL			1479.07
23.0	1	-----PIT #2----- 16 MJ 90 C153 CL-TC IMP 101956 IMP L/ACC C153	757.7900	EA	757.79
24.0	1	16 MJX MJ TEE C153 CL-TC IMP 103257 IMP L/ACC C153	993.2000	EA	993.20
25.0	6	16 TUFGRIP DI JNT REST &ACC F	272.2300	EA	1633.38



Job Name
CHANDLER PROJECT

Quote No.	Date	Page
0026806	4/28/23	2
Expiration Date		5/28/23
Revised Date		4/28/23
Bid Due Date		4/28/23

Line	Qty.	Description	Unit Price	UOM	Extended Price
26.0	1	114215 IMP W/ACC			
27.0	1	16 FOSTER ADAPT W/ ACC 16FA-OX	567.5200	EA	567.52
	1	16 MJ L/SLV C153 TC IMP	566.2300	EA	566.23
		137450 IMP L/ACC C153			
		SUBTOTAL			4518.12

<u>Tax Area Id</u>	<u>Net Sales</u>	<u>29,664.72</u>
<u>030130700</u>	<u>Freight</u>	<u>.00</u>
	<u>Tax</u>	<u>.00</u>
	<u>Quotation Total</u>	<u>29,664.72</u>