Hydrometrics, Inc.

Calculation Sheet

1. Purpose

Determine Quantities & Approximate Costs for Construction of the Timbrshor HOA Well No. 5/9 PWS. Compare costs of HEI Estimate to Hydrometrics Estimate

Urecon Price Quote #36599 dated 11/22/21 - \$120,000 for 2,600 LF pipe

Job Number: 21001

Client: Timbrshor Homeowners Associatino

Hydrometrics, Inc.
Consulting Scientists and Engineers

Well No. 5/9 PWS Project: By:

Checked by:

K:\project\21001-THOA\Opinion of Probable Capital Costs

3/18/2022

2. References

Ace Drilling Quote dated 7/29/21

2020 RS Means

Multiple Supplier Quotes and References

June 2019 Letter to Board from HEI

3. Assumptions

1 See Below

2 Service connections will be the responsibility of each homeowner and are not included in this opinion of probable capital costs.

4. Calculations

Well No. 5/9 PWS							
Item #	Bid Item	QNTY	Unit	Price/Unit	Cost	Source/Calculation	Cost Source
1	Mobilization/Demobilization/Cleanup	1	LS	\$45,000.00	\$45,000		~10% of Subtotal
						Item #1 - Subtotal Mobilization/Demobilization/Cleanup:	\$45,000
2a	Pumphouse #5/9-Grading and Site Preparation	2500	SF	\$10.00	\$25,000		RS Means Section 31, includes finished grading, excavation and foundation prep
2b	Pumphouse #5/9-Pumphouse #5/9 Foundation	540	SF	\$60.00	\$32,400		Estimated Cost
2c	Pumphouse #5/9-Pumphouse #5/9 Building	540	SF	\$100.00	\$54,000		Estimated Cost
2d	Pumphouse #5/9-8,000 Gallon Water Storage Tanks	2	EA	\$8,500.00	\$17,000	=3000*2+2500	Online Supplier Quote. Assumed 50% labor, 50% equipment, 100 ft drain and overflow pipes @ \$25/ft
2e	Pumphouse #5/9-Booster Pumps	1	LS	\$15,000.00	\$15,000		Supplier Quote
2f	Pumphouse #5/9-Piping, Meters and Valves, Pressure Tank	1	LS	\$17,500.00	\$17,500		Estimated Cost
2g	Pumphouse #5/9-VFDs	1	LS	\$10,000.00	\$10,000		Supplier Quote (\$2,500 Ea w/enclosure + \$2,500 Install)
2h	Pumphouse #5/9-Electrical & Controls (Including lighting, electrical, etc.)	1	LS	\$25,000.00	\$25,000	=2742*5*1.25+10000	Estimated Cost. RS Means 2020 Crew R1C-1wk, \$10,000 materials
2j	Pumphouse #5/9-Driveway	900	SF	\$4.00	\$3,600		Recent Bid - includes 3-in asphalt and base course
						Item #2 - Subtotal Pumphouse:	\$199,500
3a	Water Mains-Well No. 5/9 Water Main #1	950	LF	\$75.00	\$71,250		Supplier Quote (\$50/LF)+\$25/LF Excavation & Backfill (Includes all Heat Trace)
3b	Water Mains-Well No. 5/9 Water Main #2	600	LF	\$75.00	\$45,000		
3c	Water Mains-Well No. 5 Raw Water Main	70	LF	\$100.00	\$7,000		Excavation/Backfill @ \$75/LF, Pipe at \$25/LF
3d	Water Mains-Well No. 9 Raw Water Main	95	LF	\$100.00	\$9,500		Excavation/Backfill @ \$75/LF, Pipe at \$25/LF
3e	Water Mains-Potable Water-Sanitary Sewer Crossings	3	EA	\$200.00	\$600		Combination of supplier quotes
3f	Water Mains-Surface Restoration	1550	LF	\$10.00	\$15,500		Three ft. wide, assumed similar cost as ashalt paving.
3g	Water Mains-Service Line Connections	19	EA	\$250.00	\$4,750		Combination of supplier quotes
				•		Item #3 - Subtotal Water Mains:	\$153,600
4	Generator Building & Generator	1	LS	\$15,000.00	\$15,000		\$10,000 generator, \$5,000 building. (Online Product Quotes)
5	Propane Tank and Gas Line	1	LS	\$4,000.00	\$4,000		Online Product Cost
6	Buried Electric Cable	500	LF	\$20.00	\$10,000		(2020 RS Means 26.05.13.16L0800(\$10.50*1.25)+\$5/LF Pipe)
						Item # 4,5,6 - Subtotal Backup Power Facilities :	\$29,000
7	Site Restoration	1	LS	\$10,000.00	\$10,000	=74.76*40*3+1000	(RS Means Crew A-2=3 wk, \$1,000 materials)
8	Start-Up, Demonstration & Instruction of Systems	1	LS	\$30,000.00	\$30,000	=168*2*40*2	168 hours * 2 for Start-up and Instruction - 2 persons @ \$40/HR
9	Special Bedrock Excavation	150	CY	\$211.00	\$31,650	=1550*2*1/27*1.25	2020 RS Means 31 23 16.30.2200
						Item #7,8,9 - Subtotal Additional Project Work:	\$71,650
	Final Engineering Plans, Well Pump Testing & Reporting (Separate Contract) * 2 wells Driller Wells No. 5 & 9 Construction and Development Cost (Separate & Existing Contract) Driller Wells No. 5 & 9 Pumping and Testing Cost (Separate & Existing Contract) Surveying (5%) Contractor Profit (5%)				\$498,750		
						=(28961.13)*2+5720	(Hydrometrics 2022 Proposal)*2+ Final Design (40hrs @\$143/HR)
					\$57,300		7/28/21 Ace Drilling Contract
					\$20,000		4/2/21 Ace Drilling Proposal
						Subtotal Well Cost (Separate & Existing Contracts):	\$140,942
					\$25,000		Typical Assumption
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	Part-time Construction Observation and Engineering Support During Construction					=2500*15+10000	15 weeks of construction (1 site visit per week) + \$10,000 of in-office construction support
	Contingency (15%) {HEI Contingency is 10%}				\$74,900		Level of Capital Cost Opinion
						Subtotal Construction Support & Contingency:	\$172,400
	Well No. 5/9 PWS - Opinion of Probable Capital Costs				\$812,100		

24

\$33,838

Cost Per Unit

5. Conclusions

1 See above

Number of Units