

RFP2020-38 ENGINEERING SERVICES FOR PHASES 1 AND 2 OF THE DECENTRALIZED WATER STORAGE TANK PROJECT FOR THE CITY OF TRENTON, DEPARTMENT OF WATER AND SEWER PROPOSALS OPENED 9/9/2020 AT 11:00AM

RFP2020-38 ENGINEERING SERVICES FOR PHASES 1 AND 2 OF THE DECENTRALIZED WATER STORAGE TANK PROJECT FOR THE CITY OF TRENTON, DEPARTMENT OF WATER AND SEWER					
NUMBER OF RESPONDENTS:	5				
NAME OF BIDDER	ARCADIS U.S., INC.	BUCHART HORN, INC.	JACOBS ENGINEERING GROUP, INC.	MOTT MACDONALD LLC	H2M ASSOCAITES, INC.
ADDRESS	17-17 ROUTE 208 NORTH, SUITE 290 WEST	2 EVES DRIVE, SUITE 110	412 MT. KEMBLE AVENUE, SUITE 100S DOWNTOWN BUILDING-1ST FLOOR	111 WOOD AVENUE SOUTH	4810 BELMAR BOULEVARD
CITY, STATE, ZIP	FAIR LAWN, NJ 07410	MARLTON, NJ 08053	MORRISTOWN, NJ 07960	ISELIN, NJ 08830	WALL TOWNSHIP, NJ 07753
CONTACT NAME	GERARD SPIESBACH	EDWARD J. DIMOND, PE, PROJECT MANAGER	A.J. CAPUZZI	JOSEPH STANLEY, PE, PP, CME, SENIOR VICE PRESIDENT	STEVEN C. HEARL, P.E., LEED AP, CCCA, VICE PRESIDENT
TELEPHONE	201-398-4379	856-797-4344	862-242-7320	973-912-2485	732-414-2661
FAX	201-797-4399	717-852-1401	972-267-3555	973-912-2455	732-414-2662
E-MAIL	GERRY.SPIESBACH@ARCADIS.COM	EDIMOND@BUCHARTHORN.COM	ALBERT.CAPUZZI@JACOBS.COM	JOSEPH.STANLEY@MOTTMAC.COM	SHEARL@H2M.COM
OWNERSHIP DISCLOSURE STATEMENT	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
EQUAL EMPLOYMENT OPPORTUNITY EXHIBIT A	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
REQUIRED EVIDENCE EEO/AFFIRMATIVE ACTION REGULATIONS QUESTIONNAIRE	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
ACKNOWLEDGEMENT OF RECEIPT OF ADDENDA DATE 8/24/2020	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
NJ BUSINESS REGISTRATION CERTIFICATE	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
NON-COLLUSION AFFADAVIT	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
AMERICANS WITH DISABILITIES ACT OF 1990 LANGUAGE	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
ETHICS COMPLAINT DISCLOSURE	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
DEBARMENT NOTICE	INCLUDED	INCLUDED	REQUIRED FROM AWARDED VENDOR	INCLUDED	INCLUDED
CERTIFICATION AND DISCLOSURE OF POLITICAL CONTRIBUTIONS	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
DISCLOSURE OF INVESTED ACTIVITIES IN IRAN	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
CITY OF TRENTON RESIDENT EMPLOYMENT POLICY	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
EIC	CERT.#188 EXP. 08/15/2021	CERT.#4602 EXP. 09/15/2020	CERT.#3187 EXP. 01/15/2023	CERT.#2062 EXP. 08/15/2021	CERT.#3244 EXP. 05/15/2023
CERTIFICATE OF INSURANCE	REQUIRED FROM AWARDED VENDOR	REQUIRED FROM AWARDED VENDOR	REQUIRED FROM AWARDED VENDOR	REQUIRED FROM AWARDED VENDOR	REQUIRED FROM AWARDED VENDOR
60-DAY EXTENSION COMPLIANCE	YES	YES	YES	YES	YES
PROVIDE PRIORITY EMERGENCY SERVICES	N/A	YES	YES	YES	YES
REFERENCES	N/A	N/A	INCLUDED	INCLUDED	INCLUDED
W-9	N/A	N/A	INCLUDED	INCLUDED	N/A
EXCEPTIONS (IF ANY)	NONE	NONE	NONE	NONE	N/A
TOTAL FEE FOR BOTH PHASES	\$160,031.00 (SEE ATTACHED BREAKDOWN OF PRICING)	\$462,574.00 (SEE ATTACHED BREAKDOWN OF PRICING)	\$650,000.00 (SEE ATTACHED BREAKDOWN OF PRICING)	\$678,972.00 (SEE ATTACHED BREAKDOWN OF PRICING)	\$1,192,258.00 (SEE ATTACHED BREAKDOWN OF PRICING)
FATAL FLAW	NONE	NONE	NONE	NONE	NONE



FEE PROPOSAL



Fee Proposal - Cost Table

City of Trenton - Department of Water and Sewer
Engineering Services for Phases 1 and 2 of the Decentralized Water Storage Tank Project

Fee Proposal - Phase 1 - Design/Permitting, Bid Services

Title	Principal- in- Charge/ Director	Principal Engineer/ Scientist II	Principal Engineer/ Scientist I	Senior Engineer/ Scientist II	Senior Engineer/ Scientist I	Project Engineer/ Scientist	Staff Engineer/ Scientist	Engineer/ Scientist	CADD Designer	Drafter	TOTAL
Rate	\$ 230	\$ 215	\$ 205	\$ 185	\$ 160	\$ 155	\$ 145	\$ 120	\$ 150	\$ 71	
Hours	36	80	330	440	300	740	300			1,000	3,226
Fee	\$ 8,280	\$17,200	\$ 67,650	\$ 81,400	\$ 48,000	\$114,700	\$43,500	\$ -	\$ -	\$ 71,000	\$ 451,730
										Subs	\$ 77,550
										Expenses	\$ 7,804
										Permitting and Sampling Allowance	\$ 50,000
										TOTAL	\$ 587,084

Fee Proposal - Phase 2 - Site Location Services

Title	Principal- in- Charge/ Director	Principal Engineer/ Scientist II	Principal Engineer/ Scientist I	Senior Engineer/ Scientist II	Senior Engineer/ Scientist I	Project Engineer/ Scientist	Staff Engineer/ Scientist	Engineer/ Scientist	CADD Designer	Drafter	TOTAL
Rate	\$ 230	\$ 215	\$ 205	\$ 185	\$ 160	\$ 155	\$ 145	\$ 120	\$ 150	\$ 71	
Hours	14	-	240	40	140	150	55			100	739
Fee	\$ 3,220	\$ -	\$ 49,200	\$ 7,400	\$ 22,400	\$ 23,250	\$ 7,975	\$ -	\$ -	\$ 7,100	\$ 120,545
										Subs	\$ 36,300
										Expenses	\$ 3,186
										TOTAL	\$ 160,031

If Arcadis is selected for both Phase 1 and Phase 2, subtract \$15,000 - \$20,000 for efficiencies related to overall project management and subcontractor onboarding.

Hourly Rate Schedule

Charges for services provided will be in accordance with the following schedule. All rates presented apply to services rendered as per the schedule provided.

Classification	Hourly Rate(s)
Design Tech II/Resident Project Rep II	\$ 71
CADD Technician	80
Drafter I/Resident Project Rep III and IV	85
Drafter II/Resident Project Rep V	100
Project Assistant I	120
Project Assistant II	140
CADD Designer	150
Engineer/Scientist	120
Staff Engineer/Scientist/Architect	145
Project Engineer/Scientist/Architect	155
Senior Engineer/Scientist/Architect I	160
Senior Engineer/Scientist/Architect II	185
Principal Engineer/Scientist/Architect I	205
Principal Engineer/Scientist/Architect II	215
Engineer/Scientist Director	230

Other Direct Costs

All expenses incurred for a project, except in-house services specified below, from outside vendors will be invoiced at cost plus 10% to cover administrative expenses. These items may include, but are not limited to: shipping charges; printing; supplies; equipment; traveling expenses; special insurance; licenses; permits; or subcontractors.

In-house Services

In-house services consist of the following:

- Transportation - \$0.64 per mile for vehicles.
- Equipment - A schedule of usage rates for specialty equipment is available for field assignments.
- Web Hosting - A schedule of monthly web hosting rates is available for client access websites.

FEE PROPOSAL

Buchart Horn is pleased to provide our not-to-exceed fee for the scope of work described in our proposal, as summarized below:



Task	Not to Exceed Fee
PHASE I	
Preliminary Engineering/Design Memorandum	\$ 50,455.00
Hydraulic Modeling	\$ 19,490.00
Design	\$ 146,076.00
Permitting	\$ 14,635.00
Bid Phase	\$ 11,990.00
Site Survey	\$ 15,400.00
Geotechnical Investigations	\$ 17,700.00
TOTAL PHASE I	\$ 275,746.00
PHASE II	
Site Evaluation	\$ 46,348.00
Environmental Assessments	\$ 50,850.00
Property Appraisals (5 sites)	\$ 16,810.00
Site Survey (3 sites, assume 2 acre max.)	\$ 22,820.00
TOTAL PHASE II	\$ 136,828.00
Allowance for Permitting, Sampling and Analysis, and Miscellaneous Expenses	\$ 50,000.00
TOTAL PHASE I AND PHASE II	\$ 462,574.00
Proposed Credit if selected for both Phases	\$ (10,000.00)

Fee tables are also attached for Phases 1 and 2 to provide a breakdown of the costs by task, indicating labor title, estimated hours, hourly rates, and direct expenses.

Please note, a credit has been offered if both Phases of the project are awarded to BH.





Fee Proposal
 City of Trenton
 Engineering Services for Phase 1 and 2
 Decentralized Water Storage Tank Project
Phase 1

Task No.	Description	Project Manager	Senior Engineer	Project Engineer	CAD Designer	QA/QC Reviews	Project Structural Engineer	Project Civil Engineer	Engineer-in Training	Electrical Project Engineer	Electrical Engineer/Designer	Specifications and Estimating Engineer	Administrative Support	Total Hours	Labor	Direct Cost & Subs	Total
		\$ 195.00	\$ 155.00	\$ 135.00	\$ 80.00	\$ 195.00	\$ 163.00	\$ 140.00	\$ 80.00	\$ 125.00	\$ 100.00	\$ 100.00	\$ 75.00				
Billing Rate Breakdown																	
	Hourly Billable Rate	\$ 195.00	\$ 155.00	\$ 135.00	\$ 80.00	\$ 195.00	\$ 163.00	\$ 140.00	\$ 80.00	\$ 125.00	\$ 100.00	\$ 100.00	\$ 75.00				
1	Preliminary Engineering/Design Memorandum																
	Review Background Information	8		16		4								28	\$ 4,500		\$ 4,500
	Technical Evaluation of Options	8		40	32	12								92	\$ 11,860		\$ 11,860
	Vacate Parkway Ave Evaluation	6		10	20									36	\$ 4,120		\$ 4,120
	Mixer Evaluation	2		12	12	1								27	\$ 3,165		\$ 3,165
	Life Cycle Cost Analysis	2		24	24	2								52	\$ 5,940		\$ 5,940
	Design Memorandum	10		32	24	2								68	\$ 8,580		\$ 8,580
	Conceptual Plan Development	2		16	24	16								58	\$ 7,590	\$ 100	\$ 7,690
	Electrical Site Survey										8			8	\$ 800		\$ 800
	Utility Coordination/New 120/240V Service									2	16			18	\$ 1,850		\$ 1,850
	Elec. Design Memorandum - Preliminary System Analysis									4	6			10	\$ 1,100		\$ 1,100
	Communications Overview									2	6			8	\$ 850		\$ 850
														0	\$ -		\$ -
	Subtotal	38	0	150	136	37	0	0	0	8	36	0	0	405	\$ 50,355	\$ 100	\$ 50,455
2	Hydraulic Modeling																
	Obtain/Review WaterGEMS Model	4	12			4			20					40	\$ 5,020		\$ 5,020
	Initial Model Runs for Verification	4	8			2			16					30	\$ 3,690		\$ 3,690
	Preliminary Model Runs with Tank	8	8			2			16					34	\$ 4,470		\$ 4,470
	Confirmatory Model Runs	2	8			2			16					28	\$ 3,300		\$ 3,300
	Modeling Report	2	8						16					26	\$ 2,910	\$ 100	\$ 3,010
														0	\$ -		\$ -
	Subtotal	20	44	0	0	10	0	0	84	0	0	0	0	158	\$ 19,390	\$ 100	\$ 19,490
3	Design Phase																
	Process Mechanical																
	Project Management	80												80	\$ 15,600		\$ 15,600
	Site Visits (3)	16		16		8								40	\$ 6,840	\$ 250	\$ 7,090
	Review Meetings (4)	40		24		8								72	\$ 12,600	\$ 250	\$ 12,850
	30% Design																
	Survey and Base Maps (CES)			2	4									6	\$ 590		\$ 590
	Tanks			12	12									24	\$ 2,580	\$ 100	\$ 2,680
	Site Piping			8	12									20	\$ 2,040	\$ 100	\$ 2,140
	Vaults (4)			12	20									32	\$ 3,220	\$ 50	\$ 3,270
	Mixers			8	8									16	\$ 1,720		\$ 1,720
	Demolition			4	8									12	\$ 1,180		\$ 1,180
	Utility Replacement			16	12									28	\$ 3,120	\$ 100	\$ 3,220
	P&IDs				12									12	\$ 960	\$ 50	\$ 1,010
	Technical Specifications			4										4	\$ 540		\$ 540
	QA/QC			4		24								28	\$ 5,220		\$ 5,220
	60% Design																
	Geotechnical			2										2	\$ 270		\$ 270
	Tanks		4	16	24									44	\$ 4,700	\$ 100	\$ 4,800
	Site Piping			8	32									40	\$ 3,640	\$ 100	\$ 3,740
	Vaults (4)			12	32									44	\$ 4,180	\$ 50	\$ 4,230
	Mixers		2	4	8									14	\$ 1,490		\$ 1,490
	Demolition			4	4									8	\$ 860	\$ 50	\$ 910
	Utility Replacement			12	32									44	\$ 4,180	\$ 100	\$ 4,280
	Technical Specifications			12										12	\$ 1,620	\$ 300	\$ 1,920
	P&IDs				4									4	\$ 320	\$ 50	\$ 370

95% Design															0	\$ -	\$ -	\$ -
Tanks				8	20										28	\$ 2,680	\$ 100	\$ 2,780
Site Piping				8	20										28	\$ 2,680	\$ 100	\$ 2,780
Vaults (4)				12	20										32	\$ 3,220	\$ 50	\$ 3,270
Mixers				8	8										16	\$ 1,720		\$ 1,720
Demolition				2	4										6	\$ 590	\$ 50	\$ 640
Utility Replacement				8	12										20	\$ 2,040		\$ 2,040
Technical Specifications				12											12	\$ 1,620	\$ 300	\$ 1,920
P&IDs					4										4	\$ 320	\$ 50	\$ 370
QA/QC				4		40									44	\$ 8,340		\$ 8,340
															0	\$ -		\$ -
Bid Ready Documents				12	32										44	\$ 4,180	\$ 2,000	\$ 6,180
Subtotal	136	6	254	344	80	0	0	0	0	0	0	0	0	820	\$ 104,860	\$ 4,300	\$ 109,160	
Civil/Site																		
Grading & Drainage					32				40						72	\$ 8,160		\$ 8,160
Traffic Control				40	32										72	\$ 2,560	\$ 100	\$ 2,660
															0	\$ -		\$ -
Subtotal	0	0	40	64	0	0	40	0	0	0	0	0	0	144	\$ 10,720	\$ 100	\$ 10,820	
Structural																		
Miscellaneous Concrete Pads				8	12										20	\$ 2,596		\$ 2,596
															0	\$ -		\$ -
Subtotal	0	0	0	8	12	0	0	0	0	0	0	0	0	20	\$ 2,596	\$ -	\$ 2,596	
Electrical/I&C																		
Tank Site/Lighting Plan/ Gate Controls									2	8					10	\$ 1,050		\$ 1,050
Tank/Vault Power and Instrumentation Plans									12	24					36	\$ 3,900		\$ 3,900
RTU/ I/O Cabinet									4	18					22	\$ 2,300		\$ 2,300
Wiring Diagrams									4	8					12	\$ 1,300		\$ 1,300
Grounding and Lightning Protection									4	6					10	\$ 1,100		\$ 1,100
Power Distribution Panel/Schedule/One-Line/ETAP Model									2	12					14	\$ 1,450		\$ 1,450
P&ID										4					4	\$ 400		\$ 400
Technical Specifications										12					12	\$ 1,200		\$ 1,200
Description of Operation/Alarms/Control Narrative										6					6	\$ 600		\$ 600
Cost Estimate									2	8					10	\$ 1,050		\$ 1,050
30, 60, and 90% submission										6					6	\$ 600		\$ 600
Respond to Client Review Comments									2	8					10	\$ 1,050		\$ 1,050
															0	\$ -		\$ -
Subtotal	0	0	0	0	0	0	0	0	0	32	120	0	0	152	\$ 16,000	\$ -	\$ 16,000	
Specifications and Estimating																		
Technical Specifications Preparation												24	12	36	\$ 3,300		\$ 3,300	
Cost Estimating												8	12	20	\$ 1,700		\$ 1,700	
Final Bid Documents												16	12	28	\$ 2,500		\$ 2,500	
														0	\$ -		\$ -	
Subtotal	0	0	0	0	0	0	0	0	0	0	0	48	36	84	\$ 7,500	\$ -	\$ 7,500	
Permitting																		
Local Zoning Board Site Plan approval	16		48	40											104	\$ 6,320	\$ 500	\$ 6,820
NJDEP Bureau of Potable Water Permit	4		20	24											48	\$ 2,700	\$ 100	\$ 2,800
Soil Erosion and Sediment Control Permit	1		12	16											29	\$ 1,475	\$ 100	\$ 1,575
Environmental Clearances NJEIT	2		16	16											34	\$ 1,670	\$ 100	\$ 1,770
Coordination with Mercer County	2		16	16											34	\$ 1,670		\$ 1,670
															0	\$ -		\$ -
Subtotal	25	0	112	112	0	0	0	0	0	0	0	0	0	249	\$ 13,835	\$ 800	\$ 14,635	
4 Bid Phase																		
Bidding															0	\$ -		\$ -
Pre-bid Meeting w/ Agenda & Minutes	6		12												18	\$ 2,790	\$ 100	\$ 2,890
Respond to RFI and Prepare Addenda	4		18	12	2				8	8					52	\$ 6,360	\$ 100	\$ 6,460
Review Bid and Prepare Report	8		8												16	\$ 2,640		\$ 2,640
															0	\$ -		\$ -
Subtotal	18	0	38	12	2	0	0	0	8	8	0	0	0	86	\$ 11,790	\$ 200	\$ 11,990	
5 Other Services																		
Survey and Base Maps (CES)															0	\$ -	\$ 15,400	\$ 15,400
Geotechnical															0	\$ -	\$ 17,700	\$ 17,700
															0	\$ -		\$ -
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ -	\$ 33,100	\$ 33,100	
TOTALS	237	50	594	676	129	12	40	84	48	164	48	36	2118	\$ 237,046	\$ 5,600	\$ 275,746		



Fee Proposal
 City of Trenton
 Engineering Services for Phase 1 and 2
 Decentralized Water Storage Tank Project
 Phase 2

Task No.	Description	Project Manager	Senior Engineer	Project Engineer	CAD Designer	QA/QC Reviews	LSRP	Project Civil Engineer	Engineer -in Training	Electrical Project Engineer	Electrical Engineer/Senior Designer	Specifications and Estimating Engineer	Administrative Support	Total Hours	Labor	Direct Cost	Total
		\$ 195.00	\$ 155.00	\$ 135.00	\$ 80.00	\$ 195.00	\$ 142.00	\$ 140.00	\$ 80.00	\$ 125.00	\$ 100.00	\$ 100.00	\$ 75.00				
1	Site Evaluation																
	Project Management	40												40	\$ 7,800		\$ 7,800
	Desktop Screening (GIS, Aerials)	2		20	40		8							70	\$ 7,426	\$ 100	\$ 7,526
	Hydraulic Model Runs to set General Areas	2	8						8					18	\$ 2,270		\$ 2,270
	Field Visits (5 sites)			16			16							32	\$ 4,432	\$ 100	\$ 4,532
	Conceptual Layouts		2	20	40	6								68	\$ 7,380	\$ 100	\$ 7,480
	NJSHPO & Theeatened/Endangered Research			6	12									18	\$ 1,770	\$ 100	\$ 1,870
	Meetings (3 per RFP)	12		12		4								28	\$ 4,740	\$ 100	\$ 4,840
	Evaluation and Recommendation 3 sites (Brief Report)	4		16	20	4							8	52	\$ 3,760		\$ 3,760
	Construction Cost Estimates	2		24	24							16		66	\$ 3,910		\$ 3,910
	Update Conceptual Layouts after Survey (3 sites)	2		8	24									34	\$ 2,310	\$ 50	\$ 2,360
														0	\$ -		\$ -
	Subtotal	64	10	122	160	14	24	0	8	0	0	16	8	426	\$ 35,808	\$ 550	\$ 46,348
2	Environmental Assessments																
	Phase 1 Site Assessments (5 sites)	5					125							130	\$ 18,725	\$ 250	\$ 18,975
	Preliminary Site Assessment (5 sites)	5					200							205	\$ 29,375	\$ 2,500	\$ 31,875
														0	\$ -		\$ -
	Subtotal	10	0	0	0	0	325	0	0	0	0	0	0	335	\$ 48,100	\$ 2,750	\$ 50,850
3	Other Services																
	Property Appraisals (5 sites)			6										6	\$ 810	\$ 16,000	\$ 16,810
	Site Survey (3 sites, assume 2 acre max.)			2	4									6	\$ 320	\$ 22,500	\$ 22,820
														0	\$ -		\$ -
	Subtotal	0	0	8	4	0	0	0	0	0	0	0	0	12	\$ 1,130	\$ 38,500	\$ 39,630
	TOTALS	74	10	130	164	14	349	0	8	0	0	16	8	773	\$ 85,038	\$ 41,800	\$ 136,828



SECTION 7 Fee Schedule



We have provided our fee summary in the table below. Our fee for the Phase 1 work is \$540,725 and our fee for the Phase 2 work is \$109,275. The total fee if we were awarded both projects is \$650,000. Per Addendum #1, we included \$50,000 in permit fees, environmental sampling and analysis, and miscellaneous items in the Phase 1 budget. We have also provided the requested breakdown of hours and costs by task and sub task in tables on the following pages. The detailed breakdowns include the hourly rates by job classification. The project will be billed on a not-to-exceed basis using the billing rates provided in our fee.

Phase	Description	Total
1	Phase 1: Design + Allowance	\$ 540,725
	Gravity Zone Storage Tank Design	\$ 490,725
	Addendum 1 Allowance	\$ 50,000
2	Central Pumping Zone Siting Study	\$ 109,275
Total (if awarded both projects)		\$ 650,000

The fee for Phase 1 is based on the most expensive option to design and bid from the three possible design scenarios defined in Addendum No.1:

- 1-large tank across 942 Prospect Street, Parkway Avenue, and 50 Parkway Ave
- 4-smaller tanks on 942 Prospect Street and 50 Parkway Ave
- 2-smaller tanks (with at least 15.5 MG storage) on 942 Prospect Street

