

## 90% ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

PROJECT NAME: Phase 1 Water System Improvements - Drinking Water Storage (Clearwells)

PROJECT LOCATION: 705 Circle Drive, Sunrise Beach Village, TX 78643

OWNER: City of Sunrise Beach Village, Texas

Bid Item	Item Description	Unit	Quantity	Unit Cost	Total Cost
<b>A. GENERAL CIVIL</b>					
1	Mobilization/Demobilization including Performance, Payment, Permits, and Maintenance Bonds in accordance with the Contract Documents (10%)	LS	1	\$ 158,000	\$ 158,000
2	Complete TPDES requirements, including development and implementation of SWPPP, stabilized construction access, and all permitting, maintenance, inspection, reporting and removal upon completion of construction, as shown on the plans or required by the permit, complete in place	LS	1	\$ 9,300	\$ 9,300
3	Furnish and Install City of Sunrise Beach Village Project Sign in accordance to City's Standard Details stated in the Specifications, including the maintenance during construction and the removal upon completion of construction, complete in place.	EA	1	\$ 2,000	\$ 2,000
<b>SUBTOTAL FOR GENERAL CIVIL</b>					<b>\$ 169,300</b>
<b>B. WATER TREATMENT PLANT IMPROVEMENTS</b>					
Bid Item	Item Description	Unit	Quantity	Unit Cost	Total Cost
4	Miscellaneous site work including but not limited to clearing, grading and leveling as required for construction of proposed work, hydro mulch seeding, and site restoration to pre-construction conditions for the Sunrise Beach Village Water Plant Site, all including labor, material, and supervision, complete in place	LS	1	\$ 62,000	\$ 62,000
5	Cut, plug, and abandon in place or remove (as noted on Plans) existing water line and associated valves and fittings, as shown on Plans, complete in place	LF	550	\$ 25	\$ 13,800
6	Demolition of existing 19,000-gal clear well tank (AWWA D100) structure and removal of equipment as shown on Plans, including but not limited to tank foundation, associated pipes, valves, and fittings, and associated appurtenances, all including labor, material, and supervision along with asbestos abatement as necessary and required for disposal of waste material	LS	1	\$ 75,000	\$ 75,000
7	Demolition of existing fiberglass cover and well header as shown on Plans, including but not limited to concrete pad, associated pipes, valves, and fittings, and associated appurtenances, all including labor, material, and supervision along asbestos abatement as necessary and required for disposal of waste material	LS	1	\$ 25,000	\$ 25,000
8	Remove and replace existing barbed wire fence as necessary for construction.	LS	1	\$ 15,000	\$ 15,000
9	Provide two (2) proposed 70,000-gallon clear well welded steel tanks, including manufacturer fabricated, and contractor erected, complete in place, including but not limited to overflow and drain structure, tank piping and associated supports, baffle wall, tank coating and lining, interior/exterior ladders, access hatch, guardrail, sample tap, level instrumentation, and other tank appurtenances shown in drawings, all including temporary provisions for tank construction, labor, material, supervision, testing, start-up, and all other appurtenances required for a complete and operational system.	LS	1	\$ 591,000	\$ 591,000
10	Furnish and install tank foundation and structural preparation for two (2) 70,000-gallon clear well tanks, subgrade preparation and improvements, import, treatment, and placement of select structural fill for subgrade, off-site disposal of excavated material, ground water control, foundation, and all ancillary work necessary to provide a stable and level surface, as detailed on the Plans and specifications and in accordance with Geotechnical Report.	LS	1	\$ 187,200	\$ 187,200
11	Furnish and install new 6-inch (AWWA C906 DIPS OD, DR11 200psi rated, or AWWA C900 DR21 200psi rated) water line by open cut as shown on Plans, all including labor, material, fittings, tree protection, utility coordination, required testing and disinfection, and supervision, complete in place	LF	100	\$ 300	\$ 30,000
12	Furnish and install new 6-inch DIP (DR11 200psi rated) water line by open cut as shown on Plans, all including labor, material, fittings, tree protection, utility coordination, required testing and disinfection, and supervision, complete in place	LF	10	\$ 200	\$ 2,000
13	Furnish and install new 6"x6"x6" Tee (AWWA C110) as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	EA	2	\$ 2,000	\$ 4,000
14	Furnish and install new 6"x6"x6" Tee and Blind Flange (AWWA C110) as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	EA	1	\$ 5,000	\$ 5,000
15	Furnish and install 6" DI MJ Solid Sleeve as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	EA	1	\$ 2,500	\$ 2,500
16	Furnish and install 6-inch gate valve (AWWA 509) as shown on Plans, including labor, material, fittings, tree protection, utility coordination, required testing and disinfection, and supervision, complete in place.	EA	2	\$ 6,000	\$ 12,000
17	Furnish and install 6-inch gate valve (AWWA 509) and valve box as shown on Plans, including labor, material, fittings, tree protection, utility coordination, required testing and disinfection, and supervision, complete in place.	EA	2	\$ 9,000	\$ 18,000
18	Furnish and install new 6-inch 90-bend (AWWA C110) as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	EA	7	\$ 1,000	\$ 7,000
19	Furnish and install new 6"x8" reducing 90-bend (AWWA C110) as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	EA	1	\$ 1,500	\$ 1,500

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20	Furnish and install new 8-inch (AWWA C906 DIPS OD, DR11 200psi rated, or AWWA C900 DR21 200psi rated) water line by open cut as shown on Plans, all including labor, material, fittings, tree protection, utility coordination, required testing and disinfection, and supervision, complete in place	LF	100	\$ 350	\$ 35,000
21	Furnish and install new 8-inch DIP (DR11 200psi rated) water line by open cut as shown on Plans, all including labor, material, fittings, tree protection, utility coordination, required testing and disinfection, and supervision, complete in place	LF	10	\$ 250	\$ 2,500
22	Furnish and install 8-inch gate valve (AWWA 509) as shown on Plans, including labor, material, fittings, tree protection, utility coordination, required testing and disinfection, and supervision, complete in place.	EA	2	\$ 6,000	\$ 12,000
23	Furnish and install 8-inch gate valve (AWWA 509) and valve box as shown on Plans, including labor, material, fittings, tree protection, utility coordination, required testing and disinfection, and supervision, complete in place.	EA	2	\$ 9,000	\$ 18,000
24	Furnish and install new 8"x8"x8" Tee (AWWA C110) as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	EA	2	\$ 2,500	\$ 5,000
25	Furnish and install new 8-inch 90-bend (AWWA C110) as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	EA	5	\$ 1,000	\$ 5,000
26	Furnish and install 8" DI MJ Solid Sleeve as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	EA	1	\$ 2,500	\$ 2,500
27	Furnish and install new 1" PVC SCH 80 Chemical Feed Line as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	LF	70	\$ 50	\$ 3,500
28	Furnish and install new 3/4" PVC SCH 80 Chemical Sample Line as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	LF	70	\$ 50	\$ 3,500
29	Furnish and install new 3" PVC storm pipe as shown on Plans, all including labor, material, fittings, required testing and disinfection, and supervision, complete in place	LF	50	\$ 100	\$ 5,000
30	Furnish and install above-ground well discharge header, including 6-inch DIP (DR11 200psi rated), fittings, sample taps, chlorine injection, flow meter, 2-inch air release valve, supports, aluminum heated enclosure, concrete pad, and all related appurtenances, complete in place as shown on the plans and in accordance with project specifications.	LS	1	\$ 73,200	\$ 73,200
31	Furnish and install all site electrical, control, and instrumentation assemblies, conduits, conductors, wire terminations, duct banks, tank lightning protection, labor, materials, supervision, testing, start up, utility coordination and all related appurtenances required for a complete and operational system.	LS	1	\$ 70,000	\$ 70,000
32	Furnish and install all concrete paving, splash pads, and sidewalk as shown on drawings along with subgrade preparation, construction/expansion joints, off site waste disposal, and all material, labor, and supervision for a complete system.	LS	1	\$ 5,000	\$ 5,000
<b>SUBTOTAL FOR WATER TREATMENT PLANT IMPROVEMENTS</b>					<b>\$ 1,291,200</b>

**C. ALLOWANCE ITEMS**

Item No.	Item Description	Unit	Quantity	Unit Cost	Total Cost
33	Material Testing & Disinfection	LS	1	\$ 25,000	\$ 25,000
34	Contingency Allowance for unexpected costs and circumstances such as changes in scope, unforeseen site conditions or any other unanticipated challenges that may arise during construction	LS	1	\$ 200,000	\$ 200,000
<b>SUBTOTAL FOR ALLOWANCE ITEMS</b>					<b>\$ 225,000</b>

**D. EXTRA UNIT PRICE ITEMS**

Item No.	Item Description	Unit	Quantity	Unit Cost	Total Cost
35	Extra Hand Excavation	CY	100	\$ 20	\$ 2,000
36	Extra Machine Excavation	CY	100	\$ 30	\$ 3,000
37	Extra Select Backfill Material	CY	100	\$ 45	\$ 4,500
38	Extra Cement Stabilized Sand	CY	100	\$ 20	\$ 2,000
39	Extra 6" PVC C900	LF	40	\$ 300	\$ 12,000
40	Extra 8" PVC C900	LF	40	\$ 300	\$ 12,000
41	Extra Pipe Removal	LF	150	\$ 50	\$ 7,500
<b>SUBTOTAL FOR EXTRA UNIT PRICE ITEMS</b>					<b>\$ 43,000</b>

<b>A. SUBTOTAL FOR GENERAL CIVIL</b>	<b>\$ 169,300</b>
<b>B. SUBTOTAL FOR WATER TREATMENT PLANT IMPROVEMENTS</b>	<b>\$ 1,291,200</b>
<b>C. SUBTOTAL FOR ALLOWANCE ITEMS</b>	<b>\$ 225,000</b>
<b>D. SUBTOTAL FOR EXTRA UNIT PRICE ITEMS</b>	<b>\$ 43,000</b>

15% CONTIGENCY \$ 259,300

**TOTAL FOR UTILITY IMPROVEMENTS \$ 1,987,800**

**TOTAL BASE BID (Items 1 through 41) \$ 1,728,500**

Item No.	Item Breakdown	Unit	Quantity	Unit Cost	Total Cost
2	Complete TPDES requirements, including development and implementation of SWPPP, stabilized construction access, and all permitting, maintenance, inspection, reporting and removal upon completion of construction, as shown on the plans or required by the permit, complete in place	LS	1		\$ 9,300.00
	Filter fabric fence	LF	250	\$ 2.50	\$ 625.00
	Inlet protection barriers	EA	2	\$ 300.00	\$ 600.00
	SWPPP plan and implementation	LS	1	\$ 3,000.00	\$ 3,000.00
	Construction access (Entrance/Exit)	EA	1	\$ 5,000.00	\$ 5,000.00
9	Provide two (2) proposed 70,000-gallon clear well welded steel tanks, including manufacturer fabricated, and contractor erected, complete in place, including but not limited to overflow and drain structure, tank piping and associated supports, baffle wall, tank coating and lining, interior/exterior ladders, access hatch, guardrail, sample tap, level instrumentation, and other tank appurtenances shown in drawings, all including temporary provisions for tank construction, labor, material, supervision, testing, start-up, and all other appurtenances required for a complete and operational system.	LS	1		\$ 591,000.00
	70,000 CW and appurtenances	EA	2	\$ 285,000.00	\$ 570,000.00
	Sample Taps	EA	2	\$ 500.00	\$ 1,000.00
	Startup and Testing	LS	1	\$ 20,000.00	\$ 20,000.00
10	Furnish and install tank foundation and structural preparation for two (2) 70,000-gallon clear well tanks, subgrade preparation and improvements, import, treatment, and placement of select structural fill for subgrade, off-site disposal of excavated material, ground water control, foundation, and all ancillary work necessary to provide a stable and level surface, as detailed on the Plans and specifications and in accordance with Geotechnical Report.	LS	1		\$ 187,200.00
	Structural backfill	CY	574	\$ 50.00	\$ 28,717.18
	Foundation Slab	CY	26	\$ 1,100.00	\$ 28,221.97
	Excavation	CY	1200	\$ 35.00	\$ 42,000.00
	Cement stabilized sand	CY	600	\$ 45.00	\$ 27,000.00
	Haul off of excavated material	CY	1200	\$ 25.00	\$ 30,000.00
	Foundation design (by MFR)	LS	1	\$ 31,187.83	\$ 31,187.83
30	Furnish and install above-ground well discharge header, including 6-inch DIP (DR11 200psi rated), fittings, sample taps, chlorine injection, flow meter, 2-inch air release valve, supports, aluminum heated enclosure, concrete pad, and all related appurtenances, complete in place as shown on the plans and in accordance with project specifications.	LS	1		\$ 73,200.00
	2" Comb air release valve	EA	1	\$ 5,000.00	\$ 5,000.00
	6" DIP	LF	20	\$ 150.00	\$ 3,000.00
	6" 90-bend	EA	4	\$ 1,000.00	\$ 4,000.00
	6" dismantling joint	EA	1	\$ 1,500.00	\$ 1,500.00
	6" flowmeter	EA	1	\$ 10,000.00	\$ 10,000.00
	Chlorine injection	EA	1	\$ 200.00	\$ 200.00
	Sample tap	EA	1	\$ 200.00	\$ 200.00
	Haul off of excavated material	CY	3	\$ 25.00	\$ 75.00
	Concrete pad	CY	2	\$ 1,100.00	\$ 2,200.00
	Aluminum heated enclosure	EA	1	\$ 45,000.00	\$ 45,000.00
	Concrete thrust	EA	2	\$ 2,000.00	\$ 2,000.00
	31	Furnish and install all site electrical, control, and instrumentation assemblies, conduits, conductors, wire terminations, duct banks, tank lightning protection, labor, materials, supervision, testing, start up, utility coordination and all related appurtenances required for a complete and operational system.	LS	1	
Utility coordination		LS	1	\$ 20,000.00	\$ 20,000.00
SCADA Integration		LS	1	\$ 25,000.00	\$ 25,000.00
Electrical		LS	1	\$ 25,000.00	\$ 25,000.00