

**City of Holtville Wastewater Treatment Plan Improvement Project**

**Attachment 4**

**EXHIBIT B -SUPPLEMENTAL DETAIL COSTS**

ITEM DESCRIPTION: (Specification as Available)	QUANTITY		MATERIAL COST		LABOR COST		MATERIAL AND LABOR		OVERHEAD	
	NUMBER	UNIT	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL
<b><u>Plant Improvement with Biolac® System (WaveOx - Integral Secondary Clarifiers)</u></b>										
<b>Septage Holding Tank</b>										
Excavation	652	CY					\$10	\$6,520		
Backfill & Compaction	439	CY					\$15	\$6,585		
<u>Concrete</u>										
Side Wall	66	CY	\$400	\$26,400	\$500	\$33,000	\$900	\$59,400		
Bottom Slab	21	CY	\$300	\$6,300	\$300	\$6,300	\$600	\$12,600		
Top Slab	14	CY	\$400	\$5,600	\$800	\$11,200	\$1,200	\$16,800		
Miscellaneous	5	CY	\$400	\$2,000	\$500	\$2,500	\$900	\$4,500		
Pump	2	EA	\$20,000	\$40,000	\$5,000	\$10,000	\$25,000	\$50,000		
Blower	2	EA	\$20,000	\$40,000	\$5,000	\$10,000	\$25,000	\$50,000		
Aeration Diffuser	1	LS	\$10,000	\$10,000	\$5,000	\$5,000	\$15,000	\$15,000		
Misc Piping and Valves	1	LS	\$15,000	\$15,000	\$5,000	\$5,000	\$20,000	\$20,000		
<b>Septate Holding Tank, Subtotal</b>								<b>\$241,405</b>	<b>\$41,477.87</b>	<b>\$282,883</b>
<b>Parshall Flume</b>										
Earthwork	22	CY					\$25	\$550		
Concrete	2	CY	\$400	\$800	\$500	\$1,000	\$900	\$1,800		
Parshall Flume	1	EA	\$1,500	\$1,500	\$1,500	\$1,500	\$3,000	\$3,000		
Flow Monitor Sensor and Indicator	1	EA	\$2,500	\$2,500	\$2,500	\$2,500	\$5,000	\$5,000		
Misc Piping and Pipe Connection	1	LS					\$5,000	\$5,000		
<b>Parshall Flume, Subtotal</b>								<b>\$15,350</b>	<b>\$2,637.42</b>	<b>\$17,987</b>
<b>Packaged Headworks</b>										
Excavation	1,145	CY					\$10	\$11,450		
Backfill & Compaction	617	CY					\$15	\$9,255		
<u>Concrete</u>										
Side Wall	47	CY	\$400	\$18,800	\$500	\$23,500	\$900	\$42,300		
Bottom Slab	42	CY	\$300	\$12,600	\$300	\$12,600	\$600	\$25,200		
Miscellaneous	8	CY	\$400	\$3,200	\$500	\$4,000	\$900	\$7,200		
Packaged Skid Unit System (Screen and Grit Chamber)	1	EA	\$350,000	\$350,000	\$20,000	\$20,000	\$370,000	\$370,000		
Misc Piping and Valve	1	LS	\$20,000	\$20,000	\$15,000	\$15,000	\$35,000	\$35,000		
<b>Packaged Headworks, Subtotal</b>								<b>\$500,405</b>	<b>\$85,978.89</b>	<b>\$586,384</b>

ITEM DESCRIPTION: (Specification as Available)	QUANTITY		MATERIAL COST		LABOR COST		MATERIAL AND LABOR		OVERHEAD	
	NUMBER	UNIT	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL
<b>Influent Distribution Box</b>										
Earthwork	96	CY			\$25	\$2,400	\$25	\$2,400		
<u>Concrete</u>										
Side Wall	13	CY	\$400	\$5,200	\$500	\$6,500	\$900	\$11,700		
Bottom Slab	3	CY	\$300	\$900	\$300	\$900	\$600	\$1,800		
Gate	4	EA	\$7,000	\$28,000	\$3,000	\$12,000	\$10,000	\$40,000		
<u>SCE Piping</u>										
18" PVC (From Headwork Manhole to DB)	70	LF	\$50	\$3,500	\$40	\$2,800	\$90	\$6,300		
Fittings	5	EA	\$1,500	\$7,500	\$100	\$500	\$1,600	\$8,000		
12" PVC (From DB to Biolac Aeration Basin)	100	LF	\$30	\$3,000	\$35	\$3,500	\$65	\$6,500		
Fittings	5	EA	\$400	\$2,000	\$70	\$350	\$470	\$2,350		
Misc. Metals	1	LS	\$10,000	\$10,000	\$8,000	\$8,000	\$18,000	\$18,000		
<b>Distribution Boxes, Subtotal</b>								<b>\$97,050</b>	\$16,674.99	\$113,725
<b>Biolac Basin</b>										
Earthwork	8,250	CY			\$25	\$206,250	\$25	\$206,250		
Revetment	9,000	SF	\$6	\$54,000	\$2	\$18,000	\$8	\$72,000		
HDPE Liner	28,000	SF	\$0.8	\$22,400	\$0.5	\$14,000	\$1	\$36,400		
Geotextile Fabric	28,000	SF	\$0.4	\$11,200	\$0.5	\$14,000	\$1	\$25,200		
Integrated Clarifier Concrete	270	CY	\$400	\$108,000	\$500	\$135,000	\$900	\$243,000		
<u>Aeration System</u>										
Aeration Chain/Diffusers, Motorized valves,	1	LS	\$470,000	\$470,000	\$200,000	\$200,000	\$670,000	\$670,000		
Controls, Clarifier Equipment, and Startup										
Aeration Air Piping	400	LF	\$200	\$80,000	\$80	\$32,000	\$280	\$112,000		
Aeration Air Flowmeters	3	EA	\$5,000	\$15,000	\$2,500	\$7,500	\$7,500	\$22,500		
<u>Piping</u>										
16" SE from Clarifier to Existing 16" SCE Piping	500	LF	\$90	\$45,000	\$50	\$25,000	\$140	\$70,000		
Fittings	7	EA	\$1,500	\$10,500	\$100	\$700	\$1,600	\$11,200		
Precast Manhole	1	EA	\$2,000	\$2,000	\$1,000	\$1,000	\$3,000	\$3,000		
Misc. metals (pipe supports, bracket, etc...)	1	LS	\$30,000	\$30,000	\$30,000	\$30,000	\$60,000	\$60,000		
<b>Biolac Basin, Subtotal</b>								<b>\$1,531,550</b>	\$263,148.77	\$1,794,699
<b>Blower/MCC Building</b>										
Blowers with VFD and Controls	3	EA	\$50,000	\$150,000	\$10,000	\$30,000	\$60,000	\$180,000		
CMU Building	1,000	SF	\$60	\$60,000	\$40	\$40,000	\$100	\$100,000		
Miscellaneous Building Items	1	LS	\$30,000	\$30,000	\$15,000	\$15,000	\$45,000	\$45,000		
<b>Blower/MCC Building, Subtotal</b>								<b>\$325,000</b>	\$55,841.04	\$380,841

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	NUMBER	UNIT	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL
<b>RAS/WAS Pump Station</b>										
Earthwork	40	CY			\$25	\$1,000	\$25	\$1,000		
Prefabricated Pump Station	2	EA	\$15,000	\$30,000	\$5,000	\$10,000	\$20,000	\$40,000		
Scum pumps	2	EA	\$17,000	\$34,000	\$3,000	\$6,000	\$20,000	\$40,000		
WAS pumps	2	EA	\$17,000	\$34,000	\$3,000	\$6,000	\$20,000	\$40,000		
<u>Piping and Fittings</u>										
12" RAS from Clarifier to DB	250	LF	\$30	\$7,500	\$35	\$8,750	\$65	\$16,250		
12" Ductile Iron (Elbow, Tee, Wye, etc.)	8	EA	\$400	\$3,200	\$70	\$560	\$470	\$3,760		
4" WAS/Scum from Biolac to WAS PS to Exist Digest	250	LF	\$20	\$5,000	\$35	\$8,750	\$55	\$13,750		
4" Ductile Iron (Elbow, Tee, Wye, etc.)	10	EA	\$150	\$1,500	\$70	\$700	\$220	\$2,200		
12" Valve	2	EA	\$5,500	\$11,000	\$1,000	\$2,000	\$6,500	\$13,000		
4" Valves	8	EA	\$1,500	\$12,000	\$300	\$2,400	\$1,800	\$14,400		
RAS, WAS Magmeter	2	EA	\$6,000	\$12,000	\$3,000	\$6,000	\$9,000	\$18,000		
Misc. Metals (pipe supports, brackets, stairs, grating etc...)	1	LS	\$30,000	\$30,000	\$15,000	\$15,000	\$45,000	\$45,000		
<b>RAS/WAS Pump Stations, Subtotal</b>								<b>\$247,360</b>	\$42,501.05	\$289,861
<b>Filtrate Pump Station</b>										
Submersible Chopper Pump	2	EA	\$13,500	\$27,000	\$5,000	\$10,000	\$18,500	\$37,000		
4" PVC Pipe to New Headworks	200	LF	\$35	\$7,000	\$20	\$4,000	\$55	\$11,000		
Misc Fittings and Valves	1	LS	\$4,000	\$4,000	\$1,500	\$1,500	\$5,500	\$5,500		
<b>Filtrate Pump, Subtotal</b>								<b>\$53,500</b>	\$9,192.29	\$62,692
<b>Secondary Effluent Pump Station</b>										
Remove Existing Coating	1	LS						\$15,000		
<b>Secondary Effluent Pump Station Subtotal</b>								<b>\$15,000</b>	\$2,577.28	\$17,577
<b>Dynasand Filters</b>										
Replace Filter Media (3 filters)	1	LS						\$80,000		
<b>Replace Filter Media Subtotal</b>								<b>\$80,000</b>	\$13,745.49	\$93,745
<b>Additional Improvements</b>										
Laboratory Building	\$1,324	S.F.	\$225	\$297,900	\$115	\$152,260	\$340	\$450,200		
Sludge Containment Structure - 20 FT X 40 FT	\$800	S.F.	\$80	\$64,000	\$70	\$56,000	\$150	\$120,000		
Rotary Drum Sludge Thickner w/support equipment (Polymer and Thickened Sludge Pumping) and piping	\$1	EACH	\$240,000	\$240,000	\$40,000	\$40,000	\$280,000	\$280,000		
Pre-engineered non-potable water system w/distribution piping	\$1	EACH	\$65,000	\$65,000	\$30,000	\$30,000	\$95,000	\$95,000		
Pre-engineered potable water system	\$1	EACH	\$20,000	\$20,000	\$20,000	\$20,000	\$40,000	\$40,000		
Existing electrical system unit integration into new electrical system	\$1	EACH	\$55,000	\$55,000	\$48,000	\$48,000	\$103,000	\$103,000		

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	NUMBER	UNIT	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL
Demolition of laboratory building	\$1	EACH	\$15,000	\$15,000	\$20,000	\$20,000	\$35,000	\$35,000		
Paving of A.C. entrance road and laboratory building parking lot including area lighting	\$8,350	S.F.	\$5	\$39,663	\$4	\$33,400	\$9	\$73,100		
New generator set stand by self contained on a pad outdoors	\$1	EACH	\$210,000	\$210,000	\$65,000	\$65,000	\$275,000	\$275,000		
Additional drying beds near dynasand filter	\$9,000	S.F.	\$13	\$117,000	\$12	\$108,000	\$25	\$225,000		
<b>Additional Improvements Subtotal</b>								<b>\$1,696,300</b>	\$291,455.89	\$1,987,756
<b>Project Subtotal Without Electrical and Instrumentation</b>								<b>\$4,802,920</b>	\$825,230.98	\$5,628,151
<b>Electrical and Instrumentation</b>								<b>\$621,324</b>	\$106,755.02	\$728,079
<b>SUBTOTAL</b>								<b>\$5,424,244</b>	\$931,986.00	<b>\$6,356,230</b>
<b>TOTAL PROJECT COST (Rounded)</b>										<b>\$6,360,000</b>