

D'Angelis Water Treatment Plant PFAs Upgrades
Millis, MA
Opinion of Probable Capital Cost (60% Design)

	Quantity	Unit	Unit Price	Extended Total
Division 1 - General Requirements				
Mob/Demob	1	LS	\$ 40,000	\$40,000
Contractor Project Coordination	14	Months	\$ 5,000	\$70,000
Schedule	1	LS	\$ 15,000	\$15,000
HASP	1	LS	\$ 10,000	\$10,000
SWPPP	1	LS	\$ 10,000	\$10,000
Test Pits	1	LS	\$ 10,000	\$10,000
Clearing and Grubbing	1	LS	\$ 15,000	\$15,000
Installation of Erosion Controls	550	LF	\$ 6	\$3,300
Startup and Testing	24	HR	\$ 100	\$2,400
Subtotal Division 1	\$175,700			
Division 2 - Site Work				
Demolition of Existing Structures	5	DAY	\$ 8,000	\$40,000
Pump Station 1 & 2 Process Demo	2	DAY	\$ 8,000	\$16,000
Demolition Material Disposal	1	LS	\$ 20,000	\$20,000
Utility Pole Relocation	1	LS	\$ 25,000	\$25,000
Asbestos/PCB/Lead Abatement for Existing Structures	1	LS	\$ 150,000	\$150,000
Building Foundation Excavation	1200	CY	\$ 45	\$54,000
Soil Disposal - Class A	1200	CY	\$ 20	\$24,000
Support of Excavation	1575	SQ	\$ 30	\$47,250
Crushed Stone	75	CY	\$ 55	\$4,125
4" Top Soil	250	CY	\$ 25	\$6,250
Manhole Covers	2	EA	\$ 1,000	\$2,000
Hydroseed and Fertilizer	1	DAY	\$ 1,500	\$1,500
Riprap Construction & Installation	2	CY	\$ 55	\$110
Existing Pavement Demolition	150	CY	\$ 50	\$7,500
Asphalt Installation	275	TON	\$ 200	\$55,000
Pavement Subbase	150	CY	\$ 40	\$6,000
New Retaining Wall	1	LS	\$ 10,000	\$10,000
8" Iron Ductile Pipe	500	FT	\$ 200	\$100,000
8" PVC overflow (outside)	20	FT	\$ 50	\$1,000
2" PVC Forcemain	500	FT	\$ 50	\$25,000
Check Valves Pump Stations	1	LS	\$ 900	\$900
8" Butterfly Valves Inside Treatment Building	8	EA	\$ 2,500	\$20,000
Disinfection of water main and pressure testing	1	LS	\$ 5,000	\$5,000
Ground Improvements	1	LS	\$ 200,000	\$200,000
Subtotal Division 2	\$820,635			
Division 3 - Concrete				
Concrete (Foundation + Footings)	350	CY	\$ 700	\$245,000
Pre-cast Infiltration Chambers	6	EA	\$ 3,000	\$18,000
Subtotal Division 3	\$263,000			
Division 5 - Metals				
Pipe Trench Grate	60	FT	\$ 100	\$6,000
Access Hatches	2	EA	\$ 3,000	\$6,000
Subtotal Division 5	\$12,000			
Division 11 - Equipment				
Water Supply Pumps and interior pump modification	1	LS	\$ 85,000	\$85,000
Pressure Transducers	4	EA	\$ 4,500	\$18,000
Sump Pump (Floor Drain)	1	EA	\$ 250	\$250
Discharge Pump (Residuals Tank)	1	EA	\$ 1,500	\$1,500
Filtration System	1	LS	\$ 1,050,000	\$1,050,000
Pump station Flow meters	2	EA	\$ 6,000	\$12,000
Pressure Gauges	6	EA	\$ 65	\$390
DWT Flow Meters	3	EA	\$ 7,500	\$22,500
8" DI Pipe (Interior)	20	FT	\$ 40	\$800
Subtotal Division 11	\$1,190,440			

Division 13 - Special Construction				
Prefab Building (Materials and Install)	2950	SF	\$ 250	\$737,500
Underground Fiber Connection	330	FT	\$ 25	\$8,250
Fiber in WTP	80	FT	\$ 30	\$2,400
Pressure Transmitter	8	EA	\$ 1,000	\$8,000
Temperature Transmitters	2	EA	\$ 250	\$500
Pump Station SCADA Panels Modifications	2	EA	\$ 3,100	\$6,200
Modifying Existing SCADA	24	EA	\$ 150	\$3,600
Misc. Controls	1	LS	\$ 2,500	\$2,500
Testing & Startup	10	HRS	\$ 150	\$1,500
Subtotal Division 13 \$770,450				
Division 15 - HVAC & Plumbing				
Dehumidifier, Condenser, & Piping	1	EA	\$ 55,000	\$55,000
Dehumidifier Supply and Return Ductwork Stainless Steel	2070	LB	\$ 12	\$25,358
Wall Mounted dome fan for Filter Area - 1050 cfm	1	EA	\$ 1,850	\$1,850
Wall Mounted propellor exhaust fan for Electric Room	1	EA	\$ 500	\$500
Ceiling Hung 10Kw electric unit heaters PFAS area	4	EA	\$ 1,350	\$5,400
Ceiling hung 3 Kw electric unit heater in Electrical Room	1	EA	\$ 600	\$600
Makeup Air Louver and Control Damper in PFAS Area	1	EA	\$ 900	\$900
Makeup Wall Cap with Backdraft Damper in Electrical Room	1	EA	\$ 132	\$132
DH Startup and TAB	1	LS	\$ 2,500	\$2,500
2-inch Water Service	1	EA	\$ 700	\$700
Floor Drain with Trap primer	4	EA	\$ 3,000	\$12,000
Hydrant Exterior	2	EA	\$ 1,150	\$2,300
Hose Bibb - Interior	2	EA	\$ 93	\$186
Cast Iron Pipe - sanitary, waste & Vent	110	FT	\$ 53	\$5,830
Copper Pipe - domestic water	100	FT	\$ 31	\$3,100
Water Hammer Arrestor	4	EA	\$ 102	\$408
Pipe Insulation	100	FT	\$ 6	\$600
Reduced Pressure Zone Backflow Preventer	1	EA	\$ 1,825	\$1,825
Subtotal Division 15 \$119,189				
Division 16 - Electrical (Filed Sub-Bid)				
150A Underground Feeder	330	FT	\$ 110	\$36,300
150A Feeder in WTP	80	FT	\$ 40	\$3,200
225A Distribution Board	1	EA	\$ 11,000	\$11,000
Circuit Breakers	10	EA	\$ 650	\$6,500
15 KVA Transformer	1	EA	\$ 3,500	\$3,500
100A Lighting Panelboard	1	EA	\$ 4,600	\$4,600
MCC Circuit Breaker Bucker - Single Breaker	2	EA	\$ 2,100	\$4,200
225A Enclosed Circuit Breaker	1	EA	\$ 2,600	\$2,600
15HP VFD	1	EA	\$ 8,100	\$8,100
20HP VFD	1	EA	\$ 9,300	\$9,300
40A Pump Feeders	160	FT	\$ 15	\$2,400
Misc. Equipment Power Feeders	19	EA	\$ 1,300	\$24,700
HVAC LV Connections	8	EA	\$ 1,100	\$8,800
I/C Connections	16	EA	\$ 1,100	\$17,600
Receptacles	13	EA	\$ 225	\$2,925
Interior Lights	20	EA	\$ 425	\$8,500
Exterior Lights	2	EA	\$ 650	\$1,300
Emergency Battery Light Units	7	EA	\$ 525	\$3,675
Remote Emergency Heads	2	EA	\$ 300	\$600
Exit Signs	2	EA	\$ 525	\$1,050
Switches	6	EA	\$ 225	\$1,350
Security/Fire System	1	LS	\$ 18,500	\$18,500
Misc. Electrical	1	LS	\$ 7,500	\$7,500
Electrical Testing & Startup	40	HRs	\$ 120	\$4,800
Demolition	2	LS	\$ 2,500	\$5,000
Subtotal Division 16 \$198,000				
Subtotal	\$3,549,414			
Design Contingency (15%)	\$532,412			
Subtotal	\$4,081,826			
Permits and Bonds (3%)	\$122,455			
Contractor Overhead and Profit (18%)	\$734,729			
Construction Phase Services (Engineering)	\$650,000			
Total (Rounded)	\$5,590,000			