

HCMUD No. 136
Water Plant No. 1 - Estimated Conversion Costs - Priority Items - Phase One
10/9/2018

	Item	Quantity	Unit	Unit Price	Cost	Item Cost
Phase One - Priority Items						
1	Demolition					\$ 9,450
	a Remove Asphalt Pavement	400	SF	\$ 6	\$ 2,400	
	b Remove Motor Control Center	1	EA	\$ 2,800	\$ 2,800	
	c Remove Security System Electronics	1	LS	\$ 280	\$ 280	
	d Remove Electrical Building Wiring Devices	1	LS	\$ 2,100	\$ 2,100	
	e Remove Mini Power Center	1	EA	\$ 350	\$ 350	
	f Remove Wire Way	1	EA	\$ 280	\$ 280	
	g Remove Autodialer	1	LS	\$ 140	\$ 140	
	h Remove Panels and Transformers	1	LS	\$ 1,750	\$ 1,750	
	i Remove Miscellaneous Instrumentation Wiring	1	LS	\$ 1,750	\$ 1,750	
2	Mechanical					\$ 96,800
	a Install 30' x 10' Cinder Block Building	300	SQ FT	\$ 252	\$ 75,600	
	b Install HVAC Equipment for Electrical Building	1	LS	\$ 11,200	\$ 11,200	
	c Interconnect Charges during crossover	1	LS	\$ 10,000	\$ 10,000	
3	Architectural and Structural					\$ 29,540
	a Excavation	20	CY	\$ 35	\$ 700	
	b Backfill	20	CY	\$ 42	\$ 840	
	c Concrete Foundations	35	CY	\$ 800	\$ 28,000	
4	Electrical					\$ 182,220
	a Motor Control Center	1	EA	\$ 121,500	\$ 121,500	
	b Electrical Room Lights	1	LS	\$ 900	\$ 900	
	c Electrical Room Wiring Devices	1	LS	\$ 1,800	\$ 1,800	
	d 120V Panel	1	LS	\$ 5,250	\$ 5,250	
	e Autodialer	1	LS	\$ 5,040	\$ 5,040	
	f Transformers	1	LS	\$ 14,700	\$ 14,700	
	g Universal Process Controllers	1	LS	\$ 3,150	\$ 3,150	
	h UPS	1	LS	\$ 16,800	\$ 16,800	
	i Portable Heater	1	LS	\$ 480	\$ 480	
	j Surge Protection Device	1	LS	\$ 3,600	\$ 3,600	
	k Miscellaneous Instrumentation Wiring	1	LS	\$ 6,000	\$ 6,000	
	l Miscellaneous Costs	1	LS	\$ 3,000	\$ 3,000	
Subtotal						\$ 318,010
	Contractor Overheads and Costs (10%)					\$ 31,801
Subtotal						\$ 349,811
	Contingency (25%)					\$ 87,453
Total (Phase One - Priority Items)						\$ 437,264
Engineering						\$ 96,200
Construction Phase Services						\$ 43,000
Engineering and Construction Phase Services						\$ 139,200
Total (Phase One Construction, Engineering and Construction Phase Services)						\$ 576,464

HCMUD No. 136
Lift Station No. 1 - Estimated Conversion Costs
10/7/2018

	Item	Quantity	Unit	Unit Price	Cost	Item Cost
Phase One - Full Conversion						
1	Demolition					\$ 35,577
	a	Remove Power Panel/TVSS Enclosure	1	EA	\$ 280	\$ 280
	b	Remove Wireway	1	LS	\$ 42	\$ 42
	c	Remove Motor Starters	3	EA	\$ 70	\$ 210
	d	Remove Transformers	1	EA	\$ 105	\$ 105
	e	Remove Control Panels	1	EA	\$ 1,120	\$ 1,120
	f	Remove Level Transducer Cabinet	1	EA	\$ 140	\$ 140
	g	Remove Autodialer	1	EA	\$ 140	\$ 140
	h	Remove Miscellaneous Wire/Conduit	1	LS	\$ 2,800	\$ 2,800
	i	Remove Well Well & Dry Pit Access Hatches	1	LS	\$ 1,120	\$ 1,120
	j	Remove Piping and Valves	1	LS	\$ 8,400	\$ 8,400
	k	Remove Wet Well Ladder	1	LS	\$ 500	\$ 500
	l	Remove Lift Station Pump and Motor	3	EA	\$ 5,600	\$ 16,800
	m	Remove Wet Well Air Cell and Related Piping	1	LS	\$ 140	\$ 140
	n	Remove Staircase	1	LS	\$ 700	\$ 700
	o	Remove Dry Pit Light Fixtures	1	LS	\$ 280	\$ 280
	p	Remove Dry Pit Exhaust Fan and Exhaust Duct	1	LS	\$ 2,800	\$ 2,800
2	Mechanical					\$ 271,509
	a	Install Submersible Pumps	3	EA	\$ 28,000	\$ 84,000
	b	Install 10" Discharge Piping	100	LF	\$ 84	\$ 8,400
	c	Install 10" 90 Degree Elbow	3	EA	\$ 700	\$ 2,100
	d	Install 10" Flanged Coupling Adapter	3	EA	\$ 980	\$ 2,940
	e	Install 10" Check Valve	3	EA	\$ 22,400	\$ 67,200
	f	Install 10" Plug Valve	6	EA	\$ 4,200	\$ 25,200
	g	Install Pressure Gauge	6	EA	\$ 140	\$ 840
	h	Install 10" x 10" x 10" Tee	3	EA	\$ 1,113	\$ 3,339
	i	Install 4" x 10" 90 Degree Reducing Elbow	3	EA	\$ 700	\$ 2,100
	j	Install 10" Discharge Header	20	LF	\$ 84	\$ 1,680
	k	Install Air Release Valve	1	EA	\$ 560	\$ 560
	l	Install Pipe Supports	5	EA	\$ 910	\$ 4,550
	m	Install Access Hatches	3	EA	\$ 4,200	\$ 12,600
	n	Bypass Pumping During Construction	1	LS	\$ 56,000	\$ 56,000
3	Architectural and Structural					\$ 118,580
	a	Repair Cracks in Concrete Walls	1	LS	\$ 2,800	\$ 2,800
	b	Backfill	5	CY	\$ 56	\$ 280
	c	Concrete Floor Removal	1	LS	\$ 11,200	\$ 11,200
	d	Apply Coating to Dry Pit Walls	2800	SF	\$ 35	\$ 98,000
	e	Install Flowable Fill in Wet Well	100	CY	\$ 63	\$ 6,300
4	Electrical					\$ 166,985
	a	Autodialer	1	EA	\$ 3,120	\$ 3,120
	b	Main Circuit Breaker	1	EA	\$ 3,250	\$ 3,250
	c	Surge Protection Device	1	EA	\$ 3,250	\$ 3,250
	d	City of Houston Control Panel	1	EA	\$ 130,000	\$ 130,000
	e	Control Conduit/Wire	1	LS	\$ 9,750	\$ 9,750
	f	Miscellaneous Costs	1	LS	\$ 975	\$ 975
	g	Ground Rods	2	EA	\$ 163	\$ 325

HCMUD No. 136
Lift Station No. 1 - Estimated Conversion Costs
10/7/2018

	Item	Quantity	Unit	Unit Price	Cost	Item Cost
	h Grounding Conductor #4/0 Bare	50	LF	\$ 7	\$ 325	
	i City of Houston Junction Boxes	4	EA	\$ 1,560	\$ 6,240	
	j Branch Circuit Conduit/Wire	1	LS	\$ 9,750	\$ 9,750	
Subtotal						\$ 592,651
	Contractor Overheads and Costs (10%)					\$ 59,265
Subtotal						\$ 651,916
	Contingency (25%)					\$ 162,979
Total (Full Conversion)						\$ 814,895
	Engineering					\$ 147,000
	Construction Phase Services					\$ 81,500
	Engineering and Construction Phase Services					\$ 228,500

HCMUD No. 136
Lift Station No. 2 - Estimated Conversion Costs
10/7/2018

	Item	Quantity	Unit	Unit Price	Cost	Item Cost
Phase One - Full Conversion						
1	Demolition - Mechanical					\$ 25,627
	a Remove Power Panel/TVSS Enclosure	1	EA	\$ 280	\$ 280	
	b Remove Wireway	1	LS	\$ 42	\$ 42	
	c Remove Motor Starters	2	EA	\$ 70	\$ 140	
	d Remove Transformers	1	EA	\$ 105	\$ 105	
	e Remove Control Panels	1	EA	\$ 1,120	\$ 1,120	
	f Remove Level Tansducer Cabinet	1	EA	\$ 140	\$ 140	
	g Remove Autodialer	1	EA	\$ 140	\$ 140	
	h Remove Miscellaneous Wire/Conduit	1	LS	\$ 2,800	\$ 2,800	
	i Remove Well Well & Dry Pit Access Hatches	1	LS	\$ 1,120	\$ 1,120	
	j Remove Piping and Valves	1	LS	\$ 7,000	\$ 7,000	
	k Remove Wet Well Ladder	1	LS	\$ 420	\$ 420	
	l Remove Lift Station Pump and Motor	2	EA	\$ 4,200	\$ 8,400	
	m Remove Wet Well Air Cell and Related Piping	1	LS	\$ 140	\$ 140	
	n Remove Staircase	1	LS	\$ 700	\$ 700	
	o Remove Dry Pit Light Fixtures	1	LS	\$ 280	\$ 280	
	p Remove Dry Pit Exhaust Fan and Exhaust Duct	1	LS	\$ 2,800	\$ 2,800	
2	Mechanical					\$ 177,562
	a Install Submersible Pumps	2	EA	\$ 25,200	\$ 50,400	
	b Install 8" Discharge Piping	55	LF	\$ 70	\$ 3,850	
	c Install 8" 90 Degree Elbow	2	EA	\$ 406	\$ 812	
	d Install 8" Flanged Coupling Adapter	2	EA	\$ 742	\$ 1,484	
	e Install 10" Check Valve	2	EA	\$ 16,800	\$ 33,600	
	f Install 10" Plug Valve	5	EA	\$ 4,200	\$ 21,000	
	g Install Pressure Gauge	4	EA	\$ 140	\$ 560	
	h Install 8" x 8" x 8" Tee	2	EA	\$ 1,113	\$ 2,226	
	i Install 6" x 8" 90 Degree Reducing Elbow	2	EA	\$ 700	\$ 1,400	
	j Install 8" Discharge Header	20	LF	\$ 70	\$ 1,400	
	k Install Air Release Valve	1	EA	\$ 560	\$ 560	
	l Install 10" 90 Degree Elbow	1	EA	\$ 1,120	\$ 1,120	
	m Install Pipe Supports	5	EA	\$ 910	\$ 4,550	
	n Install Access Hatches	3	EA	\$ 4,200	\$ 12,600	
	o Bypass Pumping During Construction	1	LS	\$ 42,000	\$ 42,000	
3	Architectural and Structural					\$ 101,780
	a Repair Cracks in Concrete Walls	1	LS	\$ 2,800	\$ 2,800	
	b Backfill	5	CY	\$ 56	\$ 280	
	c Concrete Floor Removal	1	LS	\$ 8,400	\$ 8,400	
	d Apply Coating to Dry Pit Walls	2400	SF	\$ 35	\$ 84,000	
	e Install Flowable Fill in Wet Well	100	CY	\$ 63	\$ 6,300	
4	Electrical					\$ 147,485
	a Autodialer	1	EA	\$ 3,120	\$ 3,120	
	b Main Circuit Breaker	1	EA	\$ 3,250	\$ 3,250	
	c Surge Protection Device	1	EA	\$ 3,250	\$ 3,250	
	d City of Houston Control Panel	1	EA	\$ 110,500	\$ 110,500	
	e Control Conduit/Wire	1	LS	\$ 9,750	\$ 9,750	
	f Miscellaneous Costs	1	LS	\$ 975	\$ 975	
	g Ground Rods	2	EA	\$ 163	\$ 325	
	h Grounding Conductor #4/0 Bare	50	LF	\$ 7	\$ 325	
	i City of Houston Junction Boxes	4	EA	\$ 1,560	\$ 6,240	
	j Branch Circuit Conduit/Wire	1	LS	\$ 9,750	\$ 9,750	

HCMUD No. 136
Lift Station No. 2 - Estimated Conversion Costs
10/7/2018

	Item	Quantity	Unit	Unit Price	Cost	Item Cost
Subtotal						\$ 452,454
	Contractor Overheads and Costs (10%)					\$ 45,245
Subtotal						\$ 497,699
	Contingency (25%)					\$ 124,425
Total (Full Conversion)						\$ 622,124
	Engineering					\$ 112,000
	Construction Phase Services					\$ 62,000
Engineering and Construction Phase Services						\$ 174,000
Total (Construction, Engineering and Construction Phase Services)						\$ 796,124

HCMUD No. 136
Water Plant No. 1 - Estimated Conversion Costs -Secondary Items - Phase Two
10/7/2018

	Item	Quantity	Unit	Unit Price	Cost	Item Cost
Phase Two - Secondary Items						
1	Demolition					\$ 2,870
	a Remove Control Concrete Pad	1	LS	\$ 1,400	\$ 1,400	
	b Remove Main Circuit Breaker	1	EA	\$ 700	\$ 700	
	c Remove ATS	1	EA	\$ 1,120	\$ 1,120	
	d Remove Control Panel	1	EA	\$ 1,050	\$ 1,050	
2	Electrical					\$ 206,835
	a Main Circuit Breaker	1	EA	\$ 15,600	\$ 15,600	
	b Automatic Transfer Switch	1	EA	\$ 31,500	\$ 31,500	
	c Control Panel	1	LS	\$ 21,000	\$ 21,000	
	d Direct Current Alarms	1	LS	\$ 1,575	\$ 1,575	
	e Disinfection Control Panel	1	LS	\$ 25,200	\$ 25,200	
	f Interstitial Alarm System	1	LS	\$ 10,500	\$ 10,500	
	g Load Center	1	LS	\$ 1,680	\$ 1,680	
	h Water Well No. 1 Controls	1	LS	\$ 31,500	\$ 31,500	
	i Water Well No. 1 Motor Control Center	1	LS	\$ 63,000	\$ 63,000	
	j Panel AA	1	LS	\$ 5,280	\$ 5,280	
Subtotal						\$ 209,705
	Contractor Overheads and Costs (10%)					\$ 20,971
Subtotal						\$ 230,676
	Contingency (25%)					\$ 57,669
Total (Phase Two - Secondary Items)						\$ 288,344
Engineering						\$ 63,500
Construction Phase Services						\$ 28,800
Engineering and Construction Phase Services						\$ 92,300
Total (Phase Two Construction, Engineering and Construction Phase Services)						\$ 380,644