

**FAC 8434 WATER PUMP FACILITY, FIRE PROTECTION**

FY22 SUC: \$4.45 KG

Source: Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 8434 WATER PUMP FACILITY, FIRE PROTECTION

Release 2021 Qtr 3

Zip Code Prefix 222

Type MR

UM KG

Design Life 50

Average Size 3548.0

SUC \$4.45

Adjusted Occurences are the occurrences remaining after subtracting Repair/Replacement Overlaps. Overlap reduction removes a repair when it occurs the same year as a replacement.

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Replace fire pump / electric motor assembly 100 H.P.	25	2.00 Ea.	\$88,278.17	\$101,820.68	2.0000	2	2	\$203,641.36	\$203,641.36	
Maintenance and repair motor starter, 600 V	3	2.00 Ea.	\$1,377.57	\$1,692.07	16.6667	16	16	\$27,073.11	\$27,073.11	
Replace EMT conduit, 1" diameter	50	1.20 M.L.F.	\$10,910.11	\$13,271.94	1.0000	1	1	\$13,271.94	\$13,271.94	
Replace circuit breaker molded case, 600 V, 3 pole circuit breaker	50	2.00 Ea.	\$10,377.85	\$11,878.98	1.0000	1	1	\$11,878.98	\$11,878.98	
Replace safety switch, heavy duty 30 A	25	2.00 Ea.	\$1,152.70	\$1,380.88	2.0000	2	2	\$2,761.76	\$2,761.76	
Remove and replace fire hydrant	25	2.00 Ea.	\$16,166.03	\$18,656.69	2.0000	2	2	\$37,313.37	\$37,313.37	
Remove and replace post indicator valve	35	1.00 Ea.	\$7,612.79	\$8,758.80	1.4286	1	1	\$8,758.80	\$8,758.80	
Remove and replace 50 HP pump motor	25	2.00 Ea.	\$13,194.09	\$15,098.50	2.0000	2	2	\$30,197.00	\$30,197.00	
Replace gate valve, partial, 2" - 3" valves	20	2.00 Ea.	\$2,614.93	\$3,003.44	2.5000	2	2	\$6,006.89	\$6,006.89	
Rebuild 8" diameter reduced pressure backflow preventer	10	2.00 Ea.	\$1,907.72	\$2,251.13	5.0000	5	5	\$11,255.65	\$11,255.65	
			\$153,591.94	\$177,813.11				MR Subtotal	\$352,158.87	
									MR Per Year	\$7,043.18
									PM Total	\$8,744.67
									Subtotal	\$15,787.85
									Total Per Unit	\$4.45

FAC 8434 WATER PUMP FACILITY, FIRE PROTECTIONSUC \$4.45

Release 2021 Qtr 3UM KG

Zip Code Prefix 222Design Life 50

Type PMAverage Size 3548.0

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Backflow prevention device, up to 4", annualized	2.00	0.67	\$26.79	\$39.65	\$0.00	\$66.44	\$81.01	\$96.92
Fire pump, motor/engine driven, annualized	1.00	69.87	\$192.09	\$4,184.75	\$0.00	\$4,376.84	\$5,651.47	\$6,935.71
Circuit breaker, high voltage air, annualized	2.00	0.94	\$30.31	\$62.16	\$0.00	\$92.47	\$114.15	\$137.35
Switch, interrupt, high voltage, w/ aux fuses, air, annualized	2.00	0.73	\$30.31	\$47.66	\$0.00	\$77.97	\$95.30	\$114.14
Turbine well, annualized	2.00	11.70	\$251.37	\$569.50	\$0.00	\$820.87	\$1,016.86	\$1,225.41
Fire hydrant, annualized	1.00	0.64	\$26.46	\$31.02	\$0.00	\$57.48	\$69.44	\$82.72
Valve, post indicator, annualized	1.00	1.42	\$33.81	\$68.85	\$0.00	\$102.66	\$126.70	\$152.42
						\$5,594.73	\$7,154.92	\$8,744.67



# **FAC 8434 WATER PUMP FACILITY, FIRE PROTECTION**

## **Modeled Component List CostWorks Release 2021 Qtr 3**

### **D40 Fire Protection**

Fire Pump Electric Motor	2.0 Ea.
Fire Pump, Engine, annualized	1.0 Each

### **D50 Electrical**

Circuit Breaker, molded case, 600 V, 3 pole	2.0 Ea.
Safety Switch, Heavy Duty	2.0 Ea.

### **G30 Site Mechanical Utilities**

Fire Hydrants	2.0 Ea.
Post Indicator Valve	1.0 Ea.

### **D30 HVAC**

Valves	2.0 Ea.
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Sustainment by Year  
CostWorks Release 2021 Qtr 3

