

FAC 4424 CONTROLLED HUMIDITY STORAGE, INSTALLATION

FY22 SUC:	\$1.94 / SF
Source:	Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 4424 CONTROLLED HUMIDITY STORAGE, INSTALLATION

Release 2021 Qtr 3
Zip Code Prefix 222
Type MR

UM SF
Design Life 45
Average Size 20883.0

SUC \$1.94

Adjusted Occurrences 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 alarm bell, 6"	20	6.00 Ea.	\$1,169.77	\$1,411.65	2.2500	2	2	\$2,823.31	\$2,823.31
Minor repairs to fire alarm control panel	5	1.00 Ea.	\$149.71	\$182.27	9.0000	9	9	\$1,640.47	\$1,640.47
Maintenance and inspection fire alarm control panel	0.5	1.00 Ea.	\$43.18	\$54.10	90.0000	90	90	\$4,869.37	\$4,869.37
Replace fire alarm control panel	15	1.00 Ea.	\$1,953.46	\$2,391.92	3.0000	3	3	\$7,175.76	\$7,175.76
Repair 8" concrete block wall, 1st floor	25	650.00 S.F.	\$15,739.63	\$19,255.10	1.8000	1	1	\$19,255.10	\$19,255.10
Waterproof concrete block wall, 1st floor	10	35.00 C.S.F.	\$7,945.09	\$9,450.29	4.5000	4	4	\$37,801.17	\$37,801.17
Replace glass - 1st floor (1% of glass) - alum. window fixed	1	0.72 S.F.	\$8.68	\$10.20	45.0000	45	45	\$459.16	\$459.16
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	16.00 Ea.	\$2,315.79	\$2,761.74	2.2500	2	2	\$5,523.49	\$5,523.49
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	16.00 Ea.	\$7,810.11	\$9,256.39	0.9000	0	0	\$0.00	\$0.00
Replace tempered glass - (3% of glass) steel painted door	1	0.03 S.F.	\$0.68	\$0.81	45.0000	45	45	\$36.45	\$36.45
Prepare and refinish 3'-0" x 7'-0" steel painted. door	4	3.00 Ea.	\$240.24	\$297.01	11.2500	11	11	\$3,267.06	\$3,267.06
Replace 3'-0" x 7'-0" steel, with wire glass, door	45	3.00 Ea.	\$3,493.09	\$4,077.33	1.0000	1	1	\$4,077.33	\$4,077.33
Repair 12' x 12' steel roll-up door	10	6.00 Ea.	\$4,055.37	\$4,813.30	4.5000	4	4	\$19,253.20	\$19,253.20
Replace 12' x 12' steel roll-up door	35	6.00 Ea.	\$16,221.50	\$19,253.20	1.2857	1	1	\$19,253.20	\$19,253.20
Total EPDM roof replacement	25	208.00 Sq.	\$125,726.65	\$149,134.80	1.8000	1	1	\$149,134.80	\$149,134.80
Repair 8" concrete block wall - (2% of walls) painted	25	4.55 C.S.F.	\$4,957.93	\$5,953.02	1.8000	1	1	\$5,953.02	\$5,953.02
Refinish concrete block wall painted	4	10.00 C.S.F.	\$1,009.19	\$1,228.88	11.2500	11	11	\$13,517.70	\$13,517.70
Safety glass replacement, (3% of glass) steel painted interior door	1	1.89 S.F.	\$34.05	\$40.59	45.0000	45	45	\$1,826.64	\$1,826.64
Refinish, 3'-0" x 7'-0" steel w/ safety glass door	4	7.00 Ea.	\$368.10	\$453.50	11.2500	11	11	\$4,988.55	\$4,988.55
Replace 3'-0" x 7'-0" steel door w/ vision lite, & frame	60	7.00 Ea.	\$9,457.80	\$10,953.27	0.7500	0	0	\$0.00	\$0.00
Repair solid core wood door, interior	11	15.00 Ea.	\$4,401.78	\$5,123.46	4.0909	4	4	\$20,493.84	\$20,493.84
Replace 3'-0" x 7'-0" solid core wood door, interior	40	15.00 Ea.	\$7,341.41	\$8,487.15	1.1250	1	1	\$8,487.15	\$8,487.15
Repair 5/8" drywall - (2% of walls)	20	92.88 S.F.	\$155.61	\$189.33	2.2500	2	2	\$378.67	\$378.67
Refinish drywall	4	884.00 S.F.	\$548.95	\$675.30	11.2500	11	11	\$7,428.26	\$7,428.26
Replace 5/8" drywall	75	884.00 S.F.	\$2,060.26	\$2,521.35	0.6000	0	0	\$0.00	\$0.00
Office painting, 10' x 15', 10' high walls	5	5.00 Ea.	\$1,256.01	\$1,540.63	9.0000	9	9	\$13,865.64	\$13,865.64
Refinish concrete floor finished	25	21.00 C.S.F.	\$8,858.37	\$10,640.29	1.8000	1	1	\$10,640.29	\$10,640.29
Replace flush valve diaphragm tankless water closet	10	6.00 Ea.	\$157.32	\$195.22	4.5000	4	4	\$780.86	\$780.86
Rebuild flush valve tankless water closet	20	6.00 Ea.	\$1,082.60	\$1,304.74	2.2500	2	2	\$2,609.49	\$2,609.49
Unplug clogged line tankless water closet	5	6.00 Ea.	\$1,310.37	\$1,638.76	9.0000	9	9	\$14,748.85	\$14,748.85
Replace tankless flush valve	25	6.00 Ea.	\$1,513.29	\$1,776.66	1.8000	1	1	\$1,776.66	\$1,776.66

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Replace wax ring gasket for tankless water closet	5	6.00 Ea.	\$849.12	\$1,060.96	9.0000	9	9	\$9,548.63	\$9,548.63
Replace flush valve diaphragm for a urinal	7	5.00 Ea.	\$131.10	\$162.68	6.4286	6	6	\$976.08	\$976.08
Rebuild flush valve for a urinal	20	5.00 Ea.	\$902.17	\$1,087.29	2.2500	2	2	\$2,174.57	\$2,174.57
Unplug line urinal	5	5.00 Ea.	\$725.36	\$907.14	9.0000	9	9	\$8,164.26	\$8,164.26
Replace washer in spud connection lavatory, vitreous china	7	4.00 Ea.	\$65.85	\$80.32	6.4286	6	6	\$481.92	\$481.92
Replace washer in faucet lavatory, vitreous china	2	4.00 Ea.	\$51.54	\$64.21	22.5000	22	22	\$1,412.56	\$1,412.56
Replace faucets lavatory, vitreous china	10	4.00 Ea.	\$726.90	\$875.02	4.5000	4	4	\$3,500.09	\$3,500.09
Clean out strainer and P trap lavatory, vitreous china	2	4.00 Ea.	\$139.48	\$174.43	22.5000	22	22	\$3,837.50	\$3,837.50
Replace faucet washer sink, service/utility	2	2.00 Ea.	\$25.55	\$31.83	22.5000	22	22	\$700.30	\$700.30
Clean trap	3	2.00 Ea.	\$17.14	\$21.44	15.0000	15	15	\$321.56	\$321.56
Replace faucets sink, service/utility	10	2.00 Ea.	\$363.45	\$437.51	4.5000	4	4	\$1,750.04	\$1,750.04
Unstop sink	2	2.00 Ea.	\$83.64	\$104.60	22.5000	22	22	\$2,301.30	\$2,301.30
Replace sink, P.E.C.I. service/utility	35	2.00 Ea.	\$3,134.50	\$3,665.92	1.2857	1	1	\$3,665.92	\$3,665.92
Check / minor repairs drinking fountain	1	4.00 Ea.	\$195.53	\$244.53	45.0000	45	45	\$11,003.87	\$11,003.87
Repair internal leaks drinking fountain	4	4.00 Ea.	\$180.32	\$225.51	11.2500	11	11	\$2,480.62	\$2,480.62
Correct water pressure drinking fountain	2	4.00 Ea.	\$167.29	\$209.21	22.5000	22	22	\$4,602.60	\$4,602.60
Replace refrigerant drinking fountain	2	4.00 Ea.	\$130.73	\$153.08	22.5000	22	22	\$3,367.69	\$3,367.69
Repair drain leak drinking fountain	4	4.00 Ea.	\$135.66	\$162.14	11.2500	11	9	\$1,783.52	\$1,459.25
Replace fountain drinking fountain	10	4.00 Ea.	\$5,124.62	\$6,058.24	4.5000	4	4	\$24,232.94	\$24,232.94
Inspect / check pump / motor operation, lubricate circulation pump, 1/12 HP	0.5	2.00 Ea.	\$16.06	\$20.08	90.0000	90	90	\$1,807.08	\$1,807.08
Replace pump / motor assembly circulation pump, 1/12 HP	10	2.00 Ea.	\$2,201.15	\$2,579.99	4.5000	4	4	\$10,319.96	\$10,319.96
Unclog main drain pipe & fittings, cast iron	10	1.00 Ea.	\$46.17	\$57.74	4.5000	4	4	\$230.95	\$230.95
Unclog floor drain, PVC	20	1.00 Ea.	\$47.80	\$59.77	2.2500	2	2	\$119.55	\$119.55
General maintenance & repair drain: roof, scupper, area	1	12.00 Ea.	\$443.85	\$555.08	45.0000	45	45	\$24,978.78	\$24,978.78
Replace drain: roof, scupper, area	40	12.00 Ea.	\$9,443.19	\$10,948.32	1.1250	1	1	\$10,948.32	\$10,948.32
Repair fan coil unit, 20 ton	10	2.00 Ea.	\$2,559.61	\$2,974.92	4.5000	4	3	\$11,899.66	\$8,924.75
Replace fan coil unit, 20 ton	15	2.00 Ea.	\$17,068.96	\$20,057.01	3.0000	3	3	\$60,171.03	\$60,171.03
Replace roof mounted exhaust fan, 20,300 CFM exhaust fan	20	2.00 Ea.	\$22,511.56	\$26,157.57	2.2500	2	2	\$52,315.14	\$52,315.14
Maintenance and repair standard suspended heater	2	4.00 Ea.	\$438.18	\$517.11	22.5000	22	22	\$11,376.48	\$11,376.48
Maintenance and inspection standard suspended heater	0.5	4.00 Ea.	\$315.39	\$395.14	90.0000	90	90	\$35,562.52	\$35,562.52
Replace heater standard suspended heater	15	4.00 Ea.	\$2,485.91	\$2,889.07	3.0000	3	3	\$8,667.20	\$8,667.20
Repair single zone rooftop unit, 60 ton	10	1.00 Ea.	\$69,970.36	\$81,893.33	4.5000	4	3	\$327,573.32	\$245,679.99

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Replace single zone rooftop unit, 60 ton	15	1.00 Ea.	\$93,908.65	\$109,692.80	3.0000	3	3	\$329,078.39	\$329,078.39
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	45.0000	45	45	\$1,931.79	\$1,931.79
Replace sprinkler head	20	150.00 Ea.	\$12,828.42	\$15,778.43	2.2500	2	2	\$31,556.85	\$31,556.85
Rebuild double check 3" backflow preventer sprinkler system	1	1.00 Ea.	\$710.41	\$851.09	45.0000	45	45	\$38,299.22	\$38,299.22
Maintenance and repair motor starter, up to 600 V	5	4.00 Ea.	\$1,118.56	\$1,350.39	9.0000	9	9	\$12,153.53	\$12,153.53
Maintenance and inspection motor starter, up to 600 V	0.5	4.00 Ea.	\$215.92	\$270.52	90.0000	90	90	\$24,346.83	\$24,346.83
Replace starter motor starter, up to 600 V	18	4.00 Ea.	\$3,221.24	\$3,832.30	2.5000	2	2	\$7,664.59	\$7,664.59
Repair smoke detector	10	50.00 Ea.	\$2,819.38	\$3,485.70	4.5000	4	3	\$13,942.81	\$10,457.11
Check operation smoke detector	1	50.00 Ea.	\$809.71	\$1,014.45	45.0000	45	45	\$45,650.30	\$45,650.30
Replace smoke detector	15	50.00 Ea.	\$14,211.87	\$16,973.10	3.0000	3	3	\$50,919.29	\$50,919.29
Check and repair manual pull station	10	12.00 Ea.	\$1,052.36	\$1,293.96	4.5000	4	3	\$5,175.85	\$3,881.89
Replace manual pull station	15	12.00 Ea.	\$2,441.61	\$2,939.29	3.0000	3	3	\$8,817.88	\$8,817.88
			\$505,456.58	\$597,428.43				MR Subtotal	\$1,503,906.59
								MR Per Year	\$33,420.15
								PM Total	\$7,118.03
								Subtotal	\$40,538.18
								Total Per Unit	\$1.94

FAC 4424 CONTROLLED HUMIDITY STORAGE, INSTALLATION

SUC \$1.94

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 45

Type PM

Average Size 20883.0

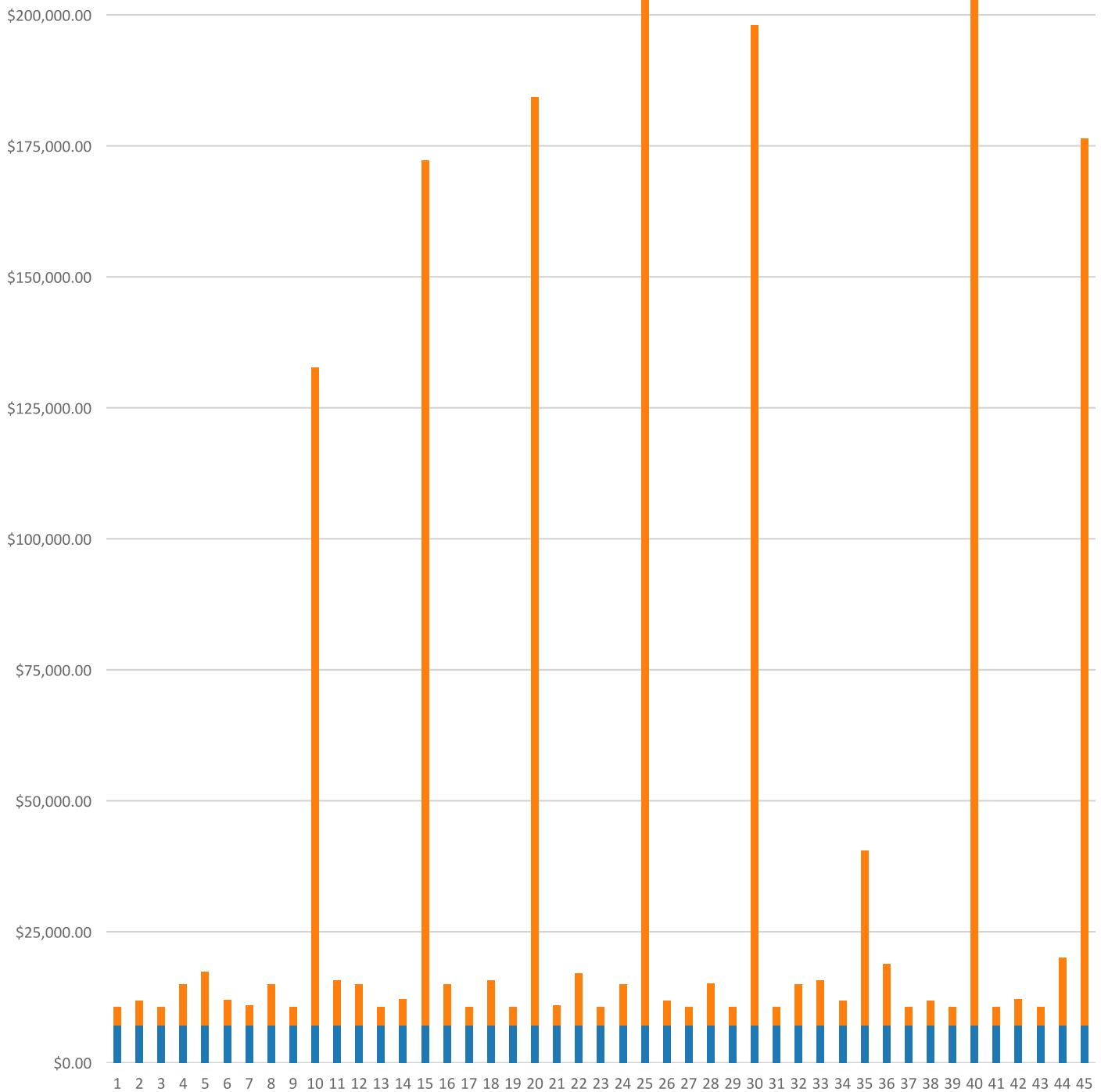
Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Door, overhead, electric, roll up, to 24' high x 25' wide, annualized	6.00	24.42	\$245.76	\$1,012.87	\$0.00	\$1,258.63	\$1,587.06	\$1,927.79
Urinals, annualized	5.00	1.14	\$31.59	\$57.27	\$0.00	\$88.86	\$109.20	\$131.12
Toilet (vacuum breaker type), annualized	8.00	1.42	\$67.53	\$71.18	\$0.00	\$138.72	\$166.83	\$198.31
Lavatories, annualized	5.00	1.74	\$29.82	\$103.52	\$0.00	\$133.34	\$167.38	\$202.91
Drink fountain, annualized	4.00	2.48	\$82.90	\$125.10	\$0.00	\$208.00	\$253.82	\$303.79
Fan coil unit, annualized	4.00	13.35	\$452.93	\$673.08	\$0.00	\$1,126.01	\$1,373.23	\$1,643.09
Package unit, air cooled, 25 thru 50 ton, annualized	1.00	3.25	\$176.92	\$195.58	\$0.00	\$372.51	\$448.87	\$534.09
Controls, central system, electro/pneumatic, annualized	1.00	1.92	\$70.77	\$115.41	\$0.00	\$186.18	\$227.88	\$273.12
Steam humidification system, annualized	2.00	5.08	\$51.56	\$304.83	\$0.00	\$356.39	\$452.99	\$552.17
Backflow prevention device, up to 4", annualized	1.00	0.33	\$13.40	\$19.82	\$0.00	\$33.22	\$40.50	\$48.46
Extinguishing system, wet pipe, annualized	1.00	11.34	\$68.24	\$678.37	\$0.00	\$746.61	\$956.95	\$1,170.70
Switch, interrupt, high voltage, fused air, annualized	1.00	0.36	\$15.16	\$23.83	\$0.00	\$38.98	\$47.65	\$57.07
Panelboard, 225 A and above, annualized	1.00	0.44	\$23.20	\$29.01	\$0.00	\$52.21	\$63.23	\$75.41
						\$4,739.66	\$5,895.60	\$7,118.03

FAC 4424 CONTROLLED HUMIDITY STORAGE, INSTALLATION

Modeled Component List CostWorks Release 2021 Qtr 3

D50 Electrical		
Fire Alarm Bell	6.0 Ea.	
Fire Alarm Control Panel	1.0 Ea.	
Motor Starter, Up To 600 V	4.0 Ea.	
Smoke Detector	50.0 Ea.	
Manual Pull Station	12.0 Ea.	
B20 Exterior Enclosure		
Aluminum Window, Fixed, 1st floor	16.0 Ea.	
Steel, Painted, w/ wire glass	3.0 Ea.	
Steel Single, Roll-Up	6.0 Ea.	
B30 Roofing		
EPDM Roof	208.0 Sq.	
C10 Interior Construction		
Concrete Block, Painted	10.0 C.S.F.	
Steel Painted Interior Doors, vision lite	7.0 Ea.	
Solid Core Interior Doors	15.0 Ea.	
C30 Interior Finishes		
Drywall	884.0 S.F.	
Concrete, Finished	21.0 C.S.F.	
D20 Plumbing		
Service/Utility Sink	2.0 Ea.	
Drinking Fountain	4.0 Ea.	
Circulation Pump, 1/12 HP	2.0 Ea.	
Drain: Roof, Scupper, Area	12.0 Ea.	
D30 HVAC		
Fan Coil, 20 ton	2.0 Ea.	
Exhaust Fan, roof mounted exhaust fan, 20300 CFM exhaust	2.0 Ea.	
Standard Suspended Heater	4.0 Ea.	
Single Zone Air Conditioner, 60 ton	1.0 Ea.	
D40 Fire Protection		
Sprinkler System, Fire Supression, sprinkler head	150.0 Ea.	
Sprinkler System, Fire Supression , 3" backflow preventer	1.0 Ea.	

FAC 4424 CONTROLLED HUMIDITY STORAGE, INSTALLATION
Sustainment by Year
CostWorks Release 2021 Qtr 3



PM Cost
MR Cost