

FAC 1452 MISSILE GUIDANCE FACILITY

FY22 SUC: \$8.18 / SF
Source: Calculated using R.S. Means CostWorks 2021 Qtr 3
component prices

FAC 1452 MISSILE GUIDANCE FACILITY

Release 2021 Qtr 3
Zip Code Prefix 222
Type MR

UM SF
Design Life 45
Average Size 3994.0

SUC \$8.18

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 manual pull station	15	3.00 Ea.	\$610.40	\$734.82	3.0000	3	3	\$2,204.47	\$2,204.47
Replace fire alarm bell, 6"	20	1.00 Ea.	\$194.96	\$235.28	2.2500	2	2	\$470.55	\$470.55
Replace EMS, Three Phase, 5 Meters	15	1.00 Ea.	\$15,802.46	\$18,399.79	3.0000	3	3	\$55,199.37	\$55,199.37
Replace EMS, Mech, BTU, 3 Meters, 3 Duct Sensors, 3 Space Sensors	20	1.00 Ea.	\$17,137.72	\$20,030.68	2.2500	2	2	\$40,061.35	\$40,061.35
Maintenance and inspection generator, diesel, 750 KW	0.08	1.00 Ea.	\$64.78	\$81.16	562.5000	562	562	\$45,609.73	\$45,609.73
Replace diesel generator component, 750 KW	25	1.00 Ea.	\$227,966.93	\$261,102.57	1.8000	1	1	\$261,102.57	\$261,102.57
Maintenance and repair transfer switch	5	1.00 Ea.	\$357.05	\$430.82	9.0000	9	9	\$3,877.37	\$3,877.37
Point and refinish painted concrete block wall, 1st floor	25	30.90 C.S.F.	\$14,516.11	\$17,915.98	1.8000	1	1	\$17,915.98	\$17,915.98
Replace glass - 1st floor (1% of glass) - alum. window fixed	1	1.90 S.F.	\$22.91	\$26.93	45.0000	45	45	\$1,211.67	\$1,211.67
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	32.00 Ea.	\$4,631.57	\$5,523.49	2.2500	2	2	\$11,046.97	\$11,046.97
Repair steel, painted, door	14	2.00 Ea.	\$1,250.15	\$1,488.01	3.2143	3	3	\$4,464.03	\$4,464.03
Refinish 3'-0" x 7'-0" steel, painted, door	4	2.00 Ea.	\$82.80	\$101.73	11.2500	11	11	\$1,119.06	\$1,119.06
Replace 3'-0" x 7'-0" steel, painted, door	45	2.00 Ea.	\$1,410.13	\$1,639.46	1.0000	1	1	\$1,639.46	\$1,639.46
Debris removal and visual inspection of built-up roofing	0.5	2.94 M.S.F.	\$110.72	\$135.04	90.0000	90	90	\$12,154.00	\$12,154.00
Non-destructive moisture inspection of built-up roofing	5	2.94 M.S.F.	\$343.56	\$419.04	9.0000	9	9	\$3,771.32	\$3,771.32
Replace drain: roof, scupper, area	40	1.00 Ea.	\$786.93	\$912.36	1.1250	1	1	\$912.36	\$912.36
Repair circulator pump, 1/12 - 3/4 H.P.	5	1.00 Ea.	\$98.13	\$115.73	9.0000	9	6	\$1,041.58	\$694.39
Replace circulator pump, 1/12 - 3/4 H.P.	15	1.00 Ea.	\$3,822.30	\$4,402.23	3.0000	3	3	\$13,206.68	\$13,206.68
Repair terminal reheat, 12" x 24" coil	10	1.00 Ea.	\$89.07	\$111.40	4.5000	4	3	\$445.59	\$334.19
Replace terminal reheat, 12" x 24" coil	15	1.00 Ea.	\$1,757.46	\$2,016.85	3.0000	3	3	\$6,050.54	\$6,050.54
Repair single zone rooftop unit, 10 ton	10	1.50 Ea.	\$32,325.10	\$37,388.62	4.5000	4	4	\$149,554.49	\$149,554.49
Replace single zone rooftop unit, 10 ton	15	1.50 Ea.	\$24,361.09	\$28,655.70	3.0000	3	3	\$85,967.09	\$85,967.09
Repair central station A.H.U., 1300 CFM	10	1.00 Ea.	\$498.49	\$594.57	4.5000	4	3	\$2,378.29	\$1,783.72
Replace central station A.H.U., 1300 CFM	15	1.00 Ea.	\$9,533.60	\$11,033.44	3.0000	3	3	\$33,100.31	\$33,100.31
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	42.00 Ea.	\$3,591.96	\$4,417.96	2.2500	2	2	\$8,835.92	\$8,835.92
Maintenance and inspection lighting panel, indoor	3	2.00 Ea.	\$81.29	\$101.84	15.0000	15	15	\$1,527.64	\$1,527.64
Repair failed breaker, enclosed, 600 V, 3 pole	4	4.00 Ea.	\$2,948.99	\$3,430.43	11.2500	11	11	\$37,734.78	\$37,734.78

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Maintenance and inspection circuit breaker, enclosed, 600 V, 3 pole	0.33	4.00 Ea.	\$129.55	\$162.31	136.3636	136	136	\$22,074.46	\$22,074.46
Replace circuit breaker enclosed, 600 V, 3 pole circuit breaker	50	4.00 Ea.	\$5,105.12	\$5,973.21	0.9000	0	0	\$0.00	\$0.00
Maintenance and repair incandescent lighting fixtures	10	1.00 Ea.	\$68.87	\$81.99	4.5000	4	4	\$327.94	\$327.94
Replace incandescent lighting fixture lamp	5	1.00 Ea.	\$11.48	\$13.87	9.0000	9	9	\$124.81	\$124.81
Replace fluorescent light fixture ballast, 80 W	10	25.00 Ea.	\$3,116.71	\$3,780.93	4.5000	4	4	\$15,123.72	\$15,123.72
Replace lamps (2 lamps), 4', 34 W energy saver	10	25.00 Ea.	\$630.35	\$789.47	4.5000	4	4	\$3,157.89	\$3,157.89
Repair smoke detector	10	8.00 Ea.	\$451.10	\$557.71	4.5000	4	3	\$2,230.85	\$1,673.14
Check operation smoke detector	1	8.00 Ea.	\$129.55	\$162.31	45.0000	45	45	\$7,304.05	\$7,304.05
Replace smoke detector	15	8.00 Ea.	\$2,273.90	\$2,715.70	3.0000	3	3	\$8,147.09	\$8,147.09
Check and repair manual pull station	10	3.00 Ea.	\$263.09	\$323.49	4.5000	4	3	\$1,293.96	\$970.47
Minor BUR membrane repairs, 2% of roof area	1	0.58 Sq.	\$280.80	\$333.22	45.0000	45	45	\$14,994.72	\$14,994.72
BUR flashing repairs, 2 S.F. per sq. repaired	1	1.60 S.F.	\$5.60	\$6.80	45.0000	45	45	\$305.92	\$305.92
Minor BUR membrane replacement, 25% of roof area	15	7.40 Sq.	\$5,955.43	\$7,069.32	3.0000	3	3	\$21,207.96	\$21,207.96
Total BUR roof replacement	28	42.00 Sq.	\$32,745.30	\$38,723.26	1.6071	1	1	\$38,723.26	\$38,723.26
Repair 8" concrete block wall - (2% of walls) painted	25	2.10 C.S.F.	\$2,288.27	\$2,747.55	1.8000	1	1	\$2,747.55	\$2,747.55
Refinish concrete block wall painted	4	5.00 C.S.F.	\$504.59	\$614.44	11.2500	11	11	\$6,758.85	\$6,758.85
Replace 8" concrete block wall painted	75	29.30 C.S.F.	\$33,943.03	\$40,832.87	0.6000	0	0	\$0.00	\$0.00
Repair steel painted interior door	14	3.00 Ea.	\$880.36	\$1,024.69	3.2143	3	3	\$3,074.08	\$3,074.08
Refinish 3'-0" x 7'-0" steel painted interior door	4	3.00 Ea.	\$157.76	\$194.36	11.2500	11	11	\$2,137.95	\$2,137.95
Replace 3'-0" x 7'-0" steel painted interior door	60	13.00 Ea.	\$15,834.45	\$18,357.08	0.7500	0	0	\$0.00	\$0.00
Repair solid core wood door, interior	11	25.00 Ea.	\$7,336.31	\$8,539.10	4.0909	4	4	\$34,156.40	\$34,156.40
Refinish 3'-0" x 7'-0" solid core wood door, interior	4	25.00 Ea.	\$1,084.12	\$1,331.24	11.2500	11	10	\$14,643.66	\$13,312.42
Replace 3'-0" x 7'-0" solid core wood door, interior	40	25.00 Ea.	\$12,235.68	\$14,145.25	1.1250	1	1	\$14,145.25	\$14,145.25
Repair concrete steps	15	7.00 S.F.	\$159.95	\$185.15	3.0000	3	3	\$555.46	\$555.46
Replace concrete steps	100	7.00 S.F.	\$374.21	\$456.35	0.4500	0	0	\$0.00	\$0.00
Refinish wood stair railing, interior	7	12.00 L.F.	\$24.85	\$30.80	6.4286	6	6	\$184.79	\$184.79
Replace wood stair railing, interior	40	12.00 L.F.	\$142.55	\$173.48	1.1250	1	1	\$173.48	\$173.48
Repair fabric wall finish fabric interior	9	110.00 S.Y.	\$3,341.38	\$4,007.31	5.0000	5	5	\$20,036.54	\$20,036.54
Refinish concrete floor finished	25	25.00 C.S.F.	\$10,545.68	\$12,667.01	1.8000	1	1	\$12,667.01	\$12,667.01
Replace vinyl tile flooring	18	16.40 S.Y.	\$810.22	\$994.99	2.5000	2	2	\$1,989.98	\$1,989.98
Terrazzo floor repairs - (2% of floors)	15	2.50 S.F.	\$40.66	\$48.69	3.0000	3	3	\$146.07	\$146.07
Replace terrazzo floor	75	1.20 C.S.F.	\$1,867.26	\$2,229.61	0.6000	0	0	\$0.00	\$0.00
Repair gypsum board ceiling - (2% of ceilings)	20	0.02 C.S.F.	\$7.24	\$8.89	2.2500	2	2	\$17.78	\$17.78

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Acoustic tile repairs - (2% of ceilings)	9	0.10 C.S.F.	\$90.77	\$105.49	5.0000	5	5	\$527.46	\$527.46
Replace flush valve diaphragm tankless water closet	10	4.00 Ea.	\$104.88	\$130.14	4.5000	4	4	\$520.57	\$520.57
Rebuild flush valve tankless water closet	20	4.00 Ea.	\$721.74	\$869.83	2.2500	2	2	\$1,739.66	\$1,739.66
Unplug clogged line tankless water closet	5	4.00 Ea.	\$873.58	\$1,092.51	9.0000	9	9	\$9,832.57	\$9,832.57
Replace tankless water closet	35	4.00 Ea.	\$5,144.88	\$5,953.98	1.2857	1	1	\$5,953.98	\$5,953.98
Replace tankless flush valve	25	4.00 Ea.	\$1,008.86	\$1,184.44	1.8000	1	1	\$1,184.44	\$1,184.44
Replace wax ring gasket for tankless water closet	5	4.00 Ea.	\$566.08	\$707.31	9.0000	9	9	\$6,365.75	\$6,365.75
Replace flush valve diaphragm for a urinal	7	2.00 Ea.	\$52.44	\$65.07	6.4286	6	6	\$390.43	\$390.43
Rebuild flush valve for a urinal	20	2.00 Ea.	\$360.87	\$434.91	2.2500	2	2	\$869.83	\$869.83
Unplug line urinal	5	2.00 Ea.	\$290.14	\$362.86	9.0000	9	9	\$3,265.70	\$3,265.70
Replace wall-hung urinal	35	2.00 Ea.	\$1,937.73	\$2,338.21	1.2857	1	1	\$2,338.21	\$2,338.21
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 lavatory, vitreous china	35	4.00 Ea.	\$2,690.30	\$3,232.88	1.2857	1	1	\$3,232.88	\$3,232.88
Replace faucet washer sink, iron enamel	2	1.00 Ea.	\$12.78	\$15.92	22.5000	22	22	\$350.15	\$350.15
Clean trap sink, iron enamel	3	1.00 Ea.	\$8.57	\$10.72	15.0000	15	15	\$160.78	\$160.78
Replace faucets sink, iron enamel	10	1.00 Ea.	\$181.73	\$218.76	4.5000	4	4	\$875.02	\$875.02
Unstop sink, iron enamel	2	1.00 Ea.	\$41.82	\$52.30	22.5000	22	22	\$1,150.65	\$1,150.65
Replace sink, P.E.C.I. sink, iron enamel kitchen	35	1.00 Ea.	\$636.70	\$757.51	1.2857	1	1	\$757.51	\$757.51
Check / minor repairs drinking fountain	1	2.00 Ea.	\$97.76	\$122.27	45.0000	45	45	\$5,501.93	\$5,501.93
Correct water pressure drinking fountain	2	2.00 Ea.	\$83.64	\$104.60	22.5000	22	22	\$2,301.30	\$2,301.30
Replace refrigerant drinking fountain	2	2.00 Ea.	\$65.37	\$76.54	22.5000	22	22	\$1,683.85	\$1,683.85
Repair drain leak drinking fountain	4	2.00 Ea.	\$67.83	\$81.07	11.2500	11	9	\$891.76	\$729.62
Replace fountain drinking fountain	10	2.00 Ea.	\$2,562.31	\$3,029.12	4.5000	4	4	\$12,116.47	\$12,116.47
Clean & service water heater, gas / oil, 70 gallon	1	1.00 Ea.	\$196.62	\$245.89	45.0000	45	45	\$11,065.00	\$11,065.00
Replace water heater, gas / oil, 70 gallon	12	1.00 Ea.	\$3,315.17	\$3,847.40	3.7500	3	3	\$11,542.21	\$11,542.21
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	1.00 Ea.	\$36.99	\$46.26	45.0000	45	45	\$2,081.56	\$2,081.56
Replace lamp emergency lighting fixture	2	5.00 Ea.	\$273.45	\$329.38	22.5000	22	22	\$7,246.32	\$7,246.32
Maintenance and repair exit light	20	5.00 Ea.	\$186.01	\$230.02	2.2500	2	2	\$460.03	\$460.03
Replace lamp exit light	5	5.00 Ea.	\$84.23	\$99.82	9.0000	9	9	\$898.36	\$898.36
Replace lighting fixture exit light	20	5.00 Ea.	\$955.17	\$1,148.80	2.2500	2	2	\$2,297.61	\$2,297.61

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Maintenance and inspection UPS battery	0.17	1.00 Ea.	\$64.78	\$81.16	264.7059	264	264	\$21,425.21	\$21,425.21	
Repair computer room A/C, chilled water, 5 ton	10	1.00 Ea.	\$7,987.62	\$9,348.50	4.5000	4	2	\$37,393.98	\$18,696.99	
Replace computer room A/C, chilled water, 5 ton	20	1.00 Ea.	\$26,191.59	\$30,049.22	2.2500	2	2	\$60,098.44	\$60,098.44	
Maintenance and repair of general wiring lightning protection system	1	1.00 M.L.F.	\$96.72	\$119.83	45.0000	45	45	\$5,392.19	\$5,392.19	
Maintenance and repair lightning ground rod	1	4.00 Ea.	\$351.56	\$439.15	45.0000	45	44	\$19,761.69	\$19,322.54	
Replace lightning ground rod	25	4.00 Ea.	\$904.36	\$1,121.16	1.8000	1	1	\$1,121.16	\$1,121.16	
			\$566,453.03	\$660,078.07				MR Subtotal	\$1,282,568.87	
									MR Per Year	\$28,501.53
									PM Total	\$4,165.75
									Subtotal	\$32,667.28
									Total Per Unit	\$8.18

FAC 1452 MISSILE GUIDANCE FACILITY

Release 2021 Qtr 3

Zip Code Prefix 222

Type PM

UM SF

Design Life 45

Average Size 3994.0

SUC \$8.18

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Door, emergency egress, swinging, annualized	2.00	0.52	\$29.18	\$21.50	\$0.00	\$50.68	\$60.05	\$70.88
Door, overhead, manual, up to 24' high x 25' wide, annualized	1.00	2.20	\$11.88	\$90.84	\$0.00	\$102.72	\$131.16	\$160.19
Fire doors, swinging, annualized	2.00	0.78	\$28.64	\$29.12	\$0.00	\$57.76	\$69.36	\$82.39
Urinals, annualized	2.00	0.46	\$12.64	\$22.91	\$0.00	\$35.54	\$43.68	\$52.45
Toilet (vacuum breaker type), annualized	4.00	0.71	\$33.77	\$35.59	\$0.00	\$69.36	\$83.41	\$99.16
Lavatories, annualized	4.00	1.39	\$23.86	\$82.81	\$0.00	\$106.67	\$133.90	\$162.33
Drink fountain, annualized	1.00	0.62	\$20.73	\$31.28	\$0.00	\$52.00	\$63.46	\$75.95
Air handling unit, 3 thru 24 tons, annualized	2.00	4.12	\$448.88	\$207.92	\$0.00	\$656.80	\$764.06	\$893.77
Fan, centrifugal, up to 5,000 CFM, annualized	1.00	1.08	\$35.89	\$54.18	\$0.00	\$90.07	\$109.92	\$131.55
Package unit, air cooled, 3 thru 24 ton, annualized	2.00	4.79	\$353.85	\$288.97	\$0.00	\$642.82	\$764.89	\$904.66
Extinguishing system, dry chemical, annualized	1.00	5.61	\$5.11	\$281.92	\$0.00	\$287.03	\$372.11	\$457.45
Switch, selector, high voltage, air, annually	1.00	0.41	\$15.16	\$26.94	\$0.00	\$42.09	\$51.69	\$62.04
Transformer, dry type 500 KVA and over, annually	1.00	0.77	\$15.16	\$50.76	\$0.00	\$65.92	\$82.66	\$100.17
Panelboard, 225 A and above, annualized	1.00	0.44	\$23.20	\$29.01	\$0.00	\$52.21	\$63.23	\$75.41
Motor control center, over 400 A, annualized	1.00	0.39	\$23.20	\$25.90	\$0.00	\$49.10	\$59.19	\$70.44
Security, intrusion alarm system, annually	1.00	0.96	\$162.90	\$56.46	\$0.00	\$219.36	\$252.59	\$293.96
Emergency diesel or gas generator, over 15 KVA, annually	1.00	2.11	\$86.09	\$124.32	\$0.00	\$210.41	\$256.31	\$306.52
Power stablizer, annualized	1.00	0.62	\$9.28	\$36.78	\$0.00	\$46.06	\$58.02	\$70.44
Light, emergency, hardwired system, annually	5.00	0.62	\$29.38	\$37.04	\$0.00	\$66.42	\$80.47	\$95.99
						\$2,903.01	\$3,500.16	\$4,165.75

FAC 1452 MISSILE GUIDANCE FACILITY

Modeled Component List

CostWorks Release 2021 Qtr 3

D50 Electrical

Manual Pull Station	3.0 Ea.
Fire Alarm Bell	1.0 Ea.
Generator, Diesel, 750 KW	1.0 Ea.
Load Center, 100 A, maintenance & inspection	2.0 Ea.
Circuit Breaker, enclosed, 600 V, 3 pole	4.0 Ea.
Smoke Detector	8.0 Ea.
Exit Light	5.0 Ea.
UPS Battery, maintenance & inspection	1.0 Ea.
Lightning Ground Rod	4.0 Ea.

B20 Exterior Enclosure

Steel, Painted	2.0 Ea.
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D20 Plumbing

Drain: Roof, Scupper, Area	1.0 Ea.
Tankless Water Closet	4.0 Ea.
Urinal	2.0 Ea.
Lavatory, Vitreous China	4.0 Ea.
Sink, Iron Enamel	1.0 Ea.
Drinking Fountain	2.0 Ea.
Water Heater, Gas / Oil, 70 Gallon	1.0 Ea.

D30 HVAC

Circulator Pump, 1/12 - 3/4 H.P.	1.0 Ea.
Terminal Reheat Coil, 12" x 24"	1.0 Ea.
Single Zone Air Conditioner, 10 ton	1.5 Ea.
Central Station Air Conditioning Air Handling Unit, 1300 CFM	1.0 Ea.
Computer Room A/C Units, Chilled Water, 5 ton	1.0 Ea.

D40 Fire Protection

Sprinkler System, Fire Suppression, sprinkler head	42.0 Ea.
Extinguishing system, dry chemical, annualized	1.0 Each

B30 Roofing

Built-Up Roofing	42.0 Sq.
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C10 Interior Construction

Concrete Block, Painted	5.0 C.S.F.
Steel Painted Interior Doors	13.0 Ea.
Solid Core Interior Doors	25.0 Ea.
Fire Doors, Swinging, annualized	2.0 Each

C20 Stairs

Concrete Steps	7.0 S.F.
Wood Interior Stair Railing	12.0 L.F.

C30 Interior Finishes

Concrete, Finished	25.0 C.S.F.
Vinyl	16.4 S.Y.
Terrazzo	1.2 C.S.F.

FAC 1452 MISSILE GUIDANCE FACILITY
Sustainment by Year
CostWorks Release 2021 Qtr 3

