

**FAC 1452 MISSILE GUIDANCE FACILITY**

FY24 SUC: \$7.55 / SF  
Source: Calculated using R.S. Means CostWorks 2023 Qtr 4 component prices

FAC 1452 MISSILE GUIDANCE FACILITY

SUC \$7.55

Release 2023 Qtr 4  
Zip Code Prefix 222  
Type MR

UM SF  
Design Life 45  
Average Size 4880.933333

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.	\$626.27	\$755.29	3.0000	3	3	\$2,265.87	\$2,265.87
Replace fire alarm bell, 6"	20	1.00 Ea.	\$180.61	\$219.77	2.2500	2	2	\$439.54	\$439.54
Replace EMS, Three Phase, 5 Meters	15	1.00 Ea.	\$14,235.56	\$16,617.08	3.0000	3	3	\$49,851.25	\$49,851.25
Replace EMS, Mech, BTU, 3 Meters, 3 Duct Sensors, 3 Space Sensors	20	1.00 Ea.	\$15,519.60	\$18,189.23	2.2500	2	2	\$36,378.45	\$36,378.45
Maintenance and inspection generator, diesel, 750 KW	0.08	1.00 Ea.	\$68.26	\$85.52	562.5000	562	562	\$48,059.58	\$48,059.58
Replace diesel generator component, 750 KW	25	1.00 Ea.	\$241,760.49	\$276,884.97	1.8000	1	1	\$276,884.97	\$276,884.97
Maintenance and repair transfer switch	5	1.00 Ea.	\$356.92	\$432.10	9.0000	9	9	\$3,888.89	\$3,888.89
Point and refinish painted concrete block wall, 1st floor	25	30.90 C.S.F.	\$15,973.13	\$19,686.78	1.8000	1	1	\$19,686.78	\$19,686.78
Replace glass - 1st floor (1% of glass) - alum. window fixed	1	1.90 S.F.	\$24.98	\$29.34	45.0000	45	45	\$1,320.16	\$1,320.16
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	32.00 Ea.	\$5,002.02	\$5,960.69	2.2500	2	2	\$11,921.37	\$11,921.37
Repair steel, painted, door	14	2.00 Ea.	\$1,404.67	\$1,668.39	3.2143	3	3	\$5,005.16	\$5,005.16
Refinish 3'-0" x 7'-0" steel, painted, door	4	2.00 Ea.	\$92.11	\$112.79	11.2500	11	11	\$1,240.72	\$1,240.72
Replace 3'-0" x 7'-0" steel, painted, door	45	2.00 Ea.	\$1,834.22	\$2,123.85	1.0000	1	1	\$2,123.85	\$2,123.85
Debris removal and visual inspection of built-up roofing	0.5	2.94 M.S.F.	\$119.13	\$145.30	90.0000	90	90	\$13,077.34	\$13,077.34
Non-destructive moisture inspection of built-up roofing	5	2.94 M.S.F.	\$371.17	\$452.72	9.0000	9	9	\$4,074.44	\$4,074.44
Replace drain: roof, scupper, area	40	1.00 Ea.	\$1,130.37	\$1,303.85	1.1250	1	1	\$1,303.85	\$1,303.85
Repair circulator pump, 1/12 - 3/4 H.P.	5	1.00 Ea.	\$103.47	\$122.05	9.0000	9	6	\$1,098.47	\$732.31
Replace circulator pump, 1/12 - 3/4 H.P.	15	1.00 Ea.	\$3,796.05	\$4,376.03	3.0000	3	3	\$13,128.10	\$13,128.10
Repair terminal reheat, 12" x 24" coil	10	1.00 Ea.	\$93.39	\$116.91	4.5000	4	3	\$467.63	\$350.72
Replace terminal reheat, 12" x 24" coil	15	1.00 Ea.	\$1,989.29	\$2,281.38	3.0000	3	3	\$6,844.13	\$6,844.13
Repair single zone rooftop unit, 10 ton	10	2.00 Ea.	\$49,135.74	\$56,766.29	4.5000	4	4	\$227,065.17	\$227,065.17
Replace single zone rooftop unit, 10 ton	15	2.00 Ea.	\$29,837.62	\$35,282.15	3.0000	3	3	\$105,846.44	\$105,846.44
Repair central station A.H.U., 1300 CFM	10	1.00 Ea.	\$597.15	\$708.33	4.5000	4	3	\$2,833.30	\$2,124.98
Replace central station A.H.U., 1300 CFM	15	1.00 Ea.	\$10,552.72	\$12,201.19	3.0000	3	3	\$36,603.57	\$36,603.57
Inspect sprinkler system	1	1.00 Ea.	\$36.17	\$45.28	45.0000	45	45	\$2,037.80	\$2,037.80
Replace sprinkler head	20	42.00 Ea.	\$3,681.21	\$4,542.38	2.2500	2	2	\$9,084.76	\$9,084.76
Maintenance and inspection lighting panel, indoor	3	2.00 Ea.	\$84.69	\$106.10	15.0000	15	15	\$1,591.53	\$1,591.53
Repair failed breaker, enclosed, 600 V, 3 pole	4	6.00 Ea.	\$6,499.96	\$7,511.77	11.2500	11	11	\$82,629.42	\$82,629.42

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.	\$136.51	\$171.03	136.3636	136	136	\$23,260.15	\$23,260.15
Replace circuit breaker enclosed, 600 V, 3 pole circuit breaker	50	4.00 Ea.	\$4,118.86	\$4,861.15	0.9000	0	0	\$0.00	\$0.00
Maintenance and repair incandescent lighting fixtures	10	1.00 Ea.	\$67.33	\$80.45	4.5000	4	4	\$321.79	\$321.79
Replace incandescent lighting fixture lamp	5	1.00 Ea.	\$12.84	\$15.45	9.0000	9	9	\$139.08	\$139.08
Replace fluorescent light fixture ballast, 80 W	10	25.00 Ea.	\$2,615.15	\$3,224.77	4.5000	4	4	\$12,899.08	\$12,899.08
Replace lamps (2 lamps), 4', 34 W energy saver	10	25.00 Ea.	\$662.14	\$829.22	4.5000	4	4	\$3,316.89	\$3,316.89
Repair smoke detector	10	8.00 Ea.	\$464.08	\$574.66	4.5000	4	3	\$2,298.64	\$1,723.98
Check operation smoke detector	1	8.00 Ea.	\$136.01	\$170.40	45.0000	45	45	\$7,667.87	\$7,667.87
Replace smoke detector	15	8.00 Ea.	\$2,420.42	\$2,889.75	3.0000	3	3	\$8,669.24	\$8,669.24
Check and repair manual pull station	10	3.00 Ea.	\$269.65	\$332.24	4.5000	4	3	\$1,328.96	\$996.72
Minor BUR membrane repairs, 2% of roof area	1	0.58 Sq.	\$308.57	\$365.86	45.0000	45	45	\$16,463.92	\$16,463.92
BUR flashing repairs, 2 S.F. per sq. repaired	1	1.60 S.F.	\$6.06	\$7.36	45.0000	45	45	\$331.17	\$331.17
Minor BUR membrane replacement, 25% of roof area	15	7.40 Sq.	\$6,771.56	\$8,019.23	3.0000	3	3	\$24,057.70	\$24,057.70
Total BUR roof replacement	28	42.00 Sq.	\$36,758.43	\$43,399.79	1.6071	1	1	\$43,399.79	\$43,399.79
Repair 8" concrete block wall - (2% of walls) painted	25	2.10 C.S.F.	\$2,404.32	\$2,891.89	1.8000	1	1	\$2,891.89	\$2,891.89
Refinish concrete block wall painted	4	5.00 C.S.F.	\$593.45	\$717.47	11.2500	11	11	\$7,892.13	\$7,892.13
Replace 8" concrete block wall painted	75	29.30 C.S.F.	\$35,689.67	\$43,008.91	0.6000	0	0	\$0.00	\$0.00
Repair steel painted interior door	14	3.00 Ea.	\$836.97	\$977.05	3.2143	3	3	\$2,931.14	\$2,931.14
Refinish 3'-0" x 7'-0" steel painted interior door	4	3.00 Ea.	\$172.95	\$212.63	11.2500	11	11	\$2,338.95	\$2,338.95
Replace 3'-0" x 7'-0" steel painted interior door	60	13.00 Ea.	\$16,634.13	\$19,290.93	0.7500	0	0	\$0.00	\$0.00
Repair solid core wood door, interior	11	25.00 Ea.	\$6,974.71	\$8,142.05	4.0909	4	4	\$32,568.22	\$32,568.22
Refinish 3'-0" x 7'-0" solid core wood door, interior	4	25.00 Ea.	\$1,100.37	\$1,355.94	11.2500	11	10	\$14,915.39	\$13,559.45
Replace 3'-0" x 7'-0" solid core wood door, interior	40	25.00 Ea.	\$14,163.76	\$16,352.44	1.1250	1	1	\$16,352.44	\$16,352.44
Repair concrete steps	15	7.00 S.F.	\$218.92	\$252.35	3.0000	3	3	\$757.05	\$757.05
Replace concrete steps	100	7.00 S.F.	\$400.33	\$488.31	0.4500	0	0	\$0.00	\$0.00
Refinish wood stair railing, interior	7	12.00 L.F.	\$27.92	\$34.45	6.4286	6	6	\$206.71	\$206.71
Replace wood stair railing, interior	40	12.00 L.F.	\$153.03	\$186.16	1.1250	1	1	\$186.16	\$186.16
Repair fabric wall finish fabric interior	9	110.00 S.Y.	\$3,464.49	\$4,164.82	5.0000	5	5	\$20,824.10	\$20,824.10
Refinish concrete floor finished	25	25.00 C.S.F.	\$10,414.43	\$12,565.47	1.8000	1	1	\$12,565.47	\$12,565.47
Replace vinyl tile flooring	18	16.40 S.Y.	\$837.86	\$1,031.10	2.5000	2	2	\$2,062.19	\$2,062.19
Terrazzo floor repairs - (2% of floors)	15	2.50 S.F.	\$42.75	\$51.24	3.0000	3	3	\$153.73	\$153.73
Replace terrazzo floor	75	1.20 C.S.F.	\$1,965.69	\$2,349.05	0.6000	0	0	\$0.00	\$0.00
Repair gypsum board ceiling - (2% of ceilings)	20	0.02 C.S.F.	\$7.68	\$9.44	2.2500	2	2	\$18.87	\$18.87

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.	\$92.38	\$107.47	5.0000	5	5	\$537.37	\$537.37
Replace flush valve diaphragm tankless water closet	10	4.00 Ea.	\$109.06	\$135.42	4.5000	4	4	\$541.70	\$541.70
Rebuild flush valve tankless water closet	20	4.00 Ea.	\$767.52	\$925.08	2.2500	2	2	\$1,850.15	\$1,850.15
Unplug clogged line tankless water closet	5	4.00 Ea.	\$919.72	\$1,151.33	9.0000	9	9	\$10,361.94	\$10,361.94
Replace tankless water closet	35	4.00 Ea.	\$5,666.22	\$6,553.28	1.2857	1	1	\$6,553.28	\$6,553.28
Replace tankless flush valve	25	4.00 Ea.	\$1,080.97	\$1,268.87	1.8000	1	1	\$1,268.87	\$1,268.87
Replace wax ring gasket for tankless water closet	5	4.00 Ea.	\$596.66	\$746.21	9.0000	9	9	\$6,715.93	\$6,715.93
Replace flush valve diaphragm for a urinal	7	2.00 Ea.	\$54.53	\$67.71	6.4286	6	6	\$406.27	\$406.27
Rebuild flush valve for a urinal	20	2.00 Ea.	\$383.76	\$462.54	2.2500	2	2	\$925.08	\$925.08
Unplug line urinal	5	2.00 Ea.	\$305.28	\$382.16	9.0000	9	9	\$3,439.47	\$3,439.47
Replace wall-hung urinal	35	2.00 Ea.	\$2,175.04	\$2,616.09	1.2857	1	1	\$2,616.09	\$2,616.09
Replace washer in spud connection lavatory, vitreous china	7	4.00 Ea.	\$69.29	\$84.56	6.4286	6	6	\$507.38	\$507.38
Replace washer in faucet lavatory, vitreous china	2	4.00 Ea.	\$54.27	\$67.67	22.5000	22	22	\$1,488.71	\$1,488.71
Replace faucets lavatory, vitreous china	10	4.00 Ea.	\$781.89	\$940.49	4.5000	4	4	\$3,761.94	\$3,761.94
Clean out strainer and P trap lavatory, vitreous china	2	4.00 Ea.	\$147.27	\$184.36	22.5000	22	22	\$4,055.98	\$4,055.98
Replace lavatory, vitreous china	35	4.00 Ea.	\$2,874.89	\$3,453.62	1.2857	1	1	\$3,453.62	\$3,453.62
Replace faucet washer sink, iron enamel	2	1.00 Ea.	\$13.45	\$16.77	22.5000	22	22	\$368.93	\$368.93
Clean trap sink, iron enamel	3	1.00 Ea.	\$9.01	\$11.27	15.0000	15	15	\$169.11	\$169.11
Replace faucets sink, iron enamel	10	1.00 Ea.	\$195.47	\$235.12	4.5000	4	4	\$940.49	\$940.49
Unstop sink, iron enamel	2	1.00 Ea.	\$44.01	\$55.09	22.5000	22	22	\$1,212.06	\$1,212.06
Replace sink, P.E.C.I. sink, iron enamel kitchen	35	1.00 Ea.	\$1,208.43	\$1,409.28	1.2857	1	1	\$1,409.28	\$1,409.28
Check / minor repairs drinking fountain	1	2.00 Ea.	\$103.05	\$129.00	45.0000	45	45	\$5,805.01	\$5,805.01
Correct water pressure drinking fountain	2	2.00 Ea.	\$88.02	\$110.19	22.5000	22	22	\$2,424.13	\$2,424.13
Replace refrigerant drinking fountain	2	2.00 Ea.	\$70.81	\$82.86	22.5000	22	22	\$1,822.91	\$1,822.91
Repair drain leak drinking fountain	4	2.00 Ea.	\$58.19	\$70.38	11.2500	11	9	\$774.17	\$633.41
Replace fountain drinking fountain	10	2.00 Ea.	\$3,241.63	\$3,808.60	4.5000	4	4	\$15,234.41	\$15,234.41
Clean & service water heater, gas / oil, 70 gallon	1	1.00 Ea.	\$206.10	\$258.00	45.0000	45	45	\$11,610.02	\$11,610.02
Replace water heater, gas / oil, 70 gallon	12	1.00 Ea.	\$3,214.32	\$3,737.78	3.7500	3	3	\$11,213.35	\$11,213.35
Unclog floor drain, PVC	20	1.00 Ea.	\$50.45	\$63.16	2.2500	2	2	\$126.31	\$126.31
General maintenance & repair drain: roof, scupper, area	1	1.00 Ea.	\$39.18	\$49.05	45.0000	45	45	\$2,207.11	\$2,207.11
Replace lamp emergency lighting fixture	2	5.00 Ea.	\$272.46	\$329.28	22.5000	22	22	\$7,244.06	\$7,244.06
Maintenance and repair exit light	20	5.00 Ea.	\$192.45	\$238.35	2.2500	2	2	\$476.71	\$476.71
Replace lamp exit light	5	5.00 Ea.	\$81.73	\$97.19	9.0000	9	9	\$874.74	\$874.74
Replace lighting fixture exit light	20	5.00 Ea.	\$880.32	\$1,067.54	2.2500	2	2	\$2,135.07	\$2,135.07

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.	\$68.26	\$85.52	264.7059	264	264	\$22,576.03	\$22,576.03	
Repair computer room A/C, chilled water, 5 ton	10	1.00 Ea.	\$8,542.57	\$9,995.14	4.5000	4	2	\$39,980.54	\$19,990.27	
Replace computer room A/C, chilled water, 5 ton	20	1.00 Ea.	\$27,777.49	\$31,867.75	2.2500	2	2	\$63,735.51	\$63,735.51	
Maintenance and repair of general wiring lightning protection system	1	1.00 M.L.F.	\$109.50	\$134.89	45.0000	45	45	\$6,069.90	\$6,069.90	
Maintenance and repair lightning ground rod	1	4.00 Ea.	\$369.13	\$461.29	45.0000	45	44	\$20,757.88	\$20,296.59	
Replace lightning ground rod	25	4.00 Ea.	\$982.42	\$1,214.69	1.8000	1	1	\$1,214.69	\$1,214.69	
			\$619,855.23	\$722,425.64				MR Subtotal	\$1,472,390.90	
									MR Per Year	\$32,719.80
									PM Total	\$4,136.69
									Subtotal	\$36,856.49
									Total Per Unit	\$7.55

FAC 1452 MISSILE GUIDANCE FACILITY

Release 2023 Qtr 4

Zip Code Prefix 222

Type PM

UM SF

Design Life 45

Average Size 4880.933333

SUC \$7.55

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	\$33.53	\$22.97	\$0.00	\$56.49	\$66.74	\$78.66
Door, overhead, manual, up to 24' high x 25' wide, annualized	1.00	2.20	\$8.51	\$97.14	\$0.00	\$105.65	\$135.64	\$166.06
Fire doors, swinging, annualized	2.00	0.78	\$31.33	\$30.91	\$0.00	\$62.24	\$74.65	\$88.62
Urinals, annualized	2.00	0.46	\$13.26	\$24.33	\$0.00	\$37.59	\$46.21	\$55.50
Toilet (vacuum breaker type), annualized	4.00	0.71	\$35.42	\$37.84	\$0.00	\$73.26	\$88.16	\$104.83
Lavatories, annualized	4.00	1.39	\$31.17	\$87.20	\$0.00	\$118.37	\$147.65	\$178.48
Drink fountain, annualized	1.00	0.62	\$37.44	\$33.14	\$0.00	\$70.58	\$84.27	\$99.82
Air handling unit, 3 thru 24 tons, annualized	2.00	4.12	\$319.79	\$219.74	\$0.00	\$539.54	\$637.44	\$751.33
Fan, centrifugal, up to 5,000 CFM, annualized	1.00	1.08	\$31.88	\$57.99	\$0.00	\$89.87	\$110.45	\$132.63
Package unit, air cooled, 3 thru 24 ton, annualized	2.00	4.79	\$333.96	\$303.46	\$0.00	\$637.42	\$761.85	\$902.98
Extinguishing system, dry chemical, annualized	1.00	5.61	\$4.33	\$300.84	\$0.00	\$305.17	\$395.86	\$486.76
Switch, selector, high voltage, air, annually	1.00	0.41	\$13.83	\$28.35	\$0.00	\$42.18	\$52.07	\$62.65
Transformer, dry type 500 KVA and over, annually	1.00	0.77	\$13.83	\$53.61	\$0.00	\$67.44	\$84.91	\$103.07
Panelboard, 225 A and above, annualized	1.00	0.44	\$22.00	\$30.41	\$0.00	\$52.42	\$63.74	\$76.16
Motor control center, over 400 A, annualized	1.00	0.39	\$22.00	\$26.81	\$0.00	\$48.81	\$59.05	\$70.39
Security, intrusion alarm system, annually	1.00	0.96	\$149.07	\$60.83	\$0.00	\$209.90	\$243.05	\$283.66
Emergency diesel or gas generator, over 15 KVA, annually	1.00	2.11	\$83.06	\$133.00	\$0.00	\$216.06	\$264.27	\$316.63
Power stablizer, annualized	1.00	0.62	\$9.16	\$39.69	\$0.00	\$48.85	\$61.68	\$74.96
Light, emergency, hardwired system, annually	5.00	0.62	\$32.33	\$39.44	\$0.00	\$71.76	\$86.83	\$103.51
						\$2,853.60	\$3,464.50	\$4,136.69



# FAC 1452 MISSILE GUIDANCE FACILITY

## Modeled Component List

### CostWorks Release 2023 Qtr 4

#### 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	2.0 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 2023 Qtr 4

