

**FAC 2151 WEAPON MAINTENANCE SHOP**

FY22SUC: \$3.41 / SF  
Source: Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 2151 WEAPON MAINTENANCE SHOP

Release 2021 Qtr 3  
Zip Code Prefix 222  
Type MR

UM SF  
Design Life 50  
Average Size 9664.723

SUC \$3.41

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 flush valve diaphragm for a urinal	7	3.00 Ea.	\$78.66	\$97.61	7.1429	7	7	\$683.25	\$683.25
Rebuild flush valve for a urinal	20	3.00 Ea.	\$541.30	\$652.37	2.5000	2	2	\$1,304.74	\$1,304.74
Unplug line urinal	5	3.00 Ea.	\$435.22	\$544.28	10.0000	10	10	\$5,442.84	\$5,442.84
Replace wall-hung urinal	35	3.00 Ea.	\$2,906.59	\$3,507.32	1.4286	1	1	\$3,507.32	\$3,507.32
Replace washer in spud connection lavatory, vitreous china	7	4.00 Ea.	\$65.85	\$80.32	7.1429	7	7	\$562.24	\$562.24
Replace washer in faucet lavatory, vitreous china	2	4.00 Ea.	\$51.54	\$64.21	25.0000	25	25	\$1,605.18	\$1,605.18
Replace faucets lavatory, vitreous china	10	4.00 Ea.	\$726.90	\$875.02	5.0000	5	5	\$4,375.11	\$4,375.11
Clean out strainer and P trap lavatory, vitreous china	2	4.00 Ea.	\$139.48	\$174.43	25.0000	25	25	\$4,360.79	\$4,360.79
Replace lavatory, vitreous china	35	4.00 Ea.	\$2,690.30	\$3,232.88	1.4286	1	1	\$3,232.88	\$3,232.88
Replace faucet washer sink, iron enamel	2	1.00 Ea.	\$12.78	\$15.92	25.0000	25	25	\$397.90	\$397.90
Clean trap sink, iron enamel	3	1.00 Ea.	\$8.57	\$10.72	16.6667	16	16	\$171.50	\$171.50
Replace faucets sink, iron enamel	10	1.00 Ea.	\$181.73	\$218.76	5.0000	5	5	\$1,093.78	\$1,093.78
Unstop sink, iron enamel	2	1.00 Ea.	\$41.82	\$52.30	25.0000	25	25	\$1,307.56	\$1,307.56
Replace sink, P.E.C.I. sink, iron enamel kitchen	35	1.00 Ea.	\$636.70	\$757.51	1.4286	1	1	\$757.51	\$757.51
Inspect / clean shower head fiberglass	3	2.00 Ea.	\$98.79	\$123.54	16.6667	16	16	\$1,976.67	\$1,976.67
Replace mixing valve barrel shower, fiberglass	2	2.00 Ea.	\$565.18	\$664.64	25.0000	25	25	\$16,615.97	\$16,615.97
Replace mixing valve shower, fiberglass	10	2.00 Ea.	\$551.76	\$671.11	5.0000	5	5	\$3,355.55	\$3,355.55
Replace shower and fittings, fiberglass	20	2.00 Ea.	\$1,933.28	\$2,312.32	2.5000	2	2	\$4,624.64	\$4,624.64
Check / minor repairs drinking fountain	1	1.00 Ea.	\$48.88	\$61.13	50.0000	50	50	\$3,056.63	\$3,056.63
Repair internal leaks drinking fountain	4	1.00 Ea.	\$45.08	\$56.38	12.5000	12	12	\$676.53	\$676.53
Correct water pressure drinking fountain	2	1.00 Ea.	\$41.82	\$52.30	25.0000	25	25	\$1,307.56	\$1,307.56
Replace refrigerant drinking fountain	2	1.00 Ea.	\$32.68	\$38.27	25.0000	25	25	\$956.73	\$956.73
Repair drain leak drinking fountain	4	1.00 Ea.	\$33.92	\$40.53	12.5000	12	10	\$486.42	\$405.35
Replace fountain drinking fountain	10	1.00 Ea.	\$1,281.16	\$1,514.56	5.0000	5	5	\$7,572.79	\$7,572.79
Inspect and clean spray heads, emergency eye wash	3	1.00 Ea.	\$49.39	\$61.77	16.6667	16	16	\$988.34	\$988.34
Replace eye wash station, emergency eye wash	25	1.00 Ea.	\$1,114.34	\$1,325.00	2.0000	2	2	\$2,649.99	\$2,649.99
Drain and flush water heater, electric, 120 gallon	7	1.00 Ea.	\$294.38	\$368.15	7.1429	7	7	\$2,577.08	\$2,577.08
Check operation water heater, electric, 120 gallon	3	1.00 Ea.	\$2.59	\$3.23	16.6667	16	16	\$51.73	\$51.73
Replace water heater, electric, 120 gallon	15	1.00 Ea.	\$14,632.58	\$16,736.89	3.3333	3	3	\$50,210.67	\$50,210.67

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Unclog floor drain, PVC	20	1.00 Ea.	\$47.80	\$59.77	2.5000	2	2	\$119.55	\$119.55
General maintenance & repair drain: roof, scupper, area	1	2.00 Ea.	\$73.98	\$92.51	50.0000	50	50	\$4,625.70	\$4,625.70
Replace drain: roof, scupper, area	40	2.00 Ea.	\$1,573.86	\$1,824.72	1.2500	1	1	\$1,824.72	\$1,824.72
Repair boiler, gas, 250 MBH	7	2.00 Ea.	\$4,062.11	\$4,780.90	7.1429	7	7	\$33,466.31	\$33,466.31
Replace boiler, gas, 250 MBH	30	2.00 Ea.	\$18,796.09	\$22,420.25	1.6667	1	1	\$22,420.25	\$22,420.25
Replace metal flue, all fuel SS, 6" diameter metal flue / chimney	15	1.00 L.F.	\$129.05	\$149.45	3.3333	3	3	\$448.36	\$448.36
Repair fan coil unit, 10 ton	10	2.00 Ea.	\$1,638.94	\$1,922.62	5.0000	5	4	\$9,613.12	\$7,690.49
Replace fan coil unit, 10 ton	15	2.00 Ea.	\$11,171.29	\$13,094.25	3.3333	3	3	\$39,282.75	\$39,282.75
Repair single zone rooftop unit, 25 ton	10	1.00 Ea.	\$47,397.42	\$54,623.55	5.0000	5	4	\$273,117.75	\$218,494.20
Replace single zone rooftop unit, 25 ton	15	1.00 Ea.	\$51,343.17	\$59,585.52	3.3333	3	3	\$178,756.56	\$178,756.56
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	50.0000	50	50	\$2,146.43	\$2,146.43
Replace sprinkler head	20	98.00 Ea.	\$8,381.23	\$10,308.57	2.5000	2	2	\$20,617.14	\$20,617.14
Maintenance and repair motor starter, up to 600 V	5	3.00 Ea.	\$838.92	\$1,012.79	10.0000	10	10	\$10,127.94	\$10,127.94
Replace starter motor starter, up to 600 V	18	3.00 Ea.	\$2,415.93	\$2,874.22	2.7778	2	2	\$5,748.45	\$5,748.45
Maintenance and inspection lighting panel, indoor	3	2.24 Ea.	\$90.86	\$113.83	16.6667	16	16	\$1,821.27	\$1,821.27
Maintenance and repair safety switch, 3 pole safety switch, heavy duty	8	1.00 Ea.	\$40.64	\$50.92	6.2500	6	6	\$305.53	\$305.53
Maintenance and inspection safety switch, 3 pole, heavy duty	1	1.00 Ea.	\$40.64	\$50.92	50.0000	50	50	\$2,546.07	\$2,546.07
Replace safety switch, heavy duty 30 A	25	1.00 Ea.	\$576.35	\$690.44	2.0000	2	2	\$1,380.88	\$1,380.88
Replace metal halide ballast, 400 W	10	44.71 Ea.	\$7,866.44	\$9,406.62	5.0000	5	5	\$47,033.10	\$47,033.10
Replace metal halide fixture lamp, 400 W	5	44.71 Ea.	\$2,968.09	\$3,567.97	10.0000	10	10	\$35,679.72	\$35,679.72
Check and repair manual pull station	10	4.00 Ea.	\$350.79	\$431.32	5.0000	5	4	\$2,156.61	\$1,725.28
Replace manual pull station	15	4.00 Ea.	\$813.87	\$979.76	3.3333	3	3	\$2,939.29	\$2,939.29
Minor repairs to fire alarm control panel	5	1.00 Ea.	\$149.71	\$182.27	10.0000	10	10	\$1,822.75	\$1,822.75
Maintenance and inspection fire alarm control panel	0.5	1.00 Ea.	\$43.18	\$54.10	100.0000	100	100	\$5,410.41	\$5,410.41
Replace fire alarm control panel	15	1.00 Ea.	\$1,953.46	\$2,391.92	3.3333	3	3	\$7,175.76	\$7,175.76
Replace fire alarm bell, 6"	20	2.00 Ea.	\$389.92	\$470.55	2.5000	2	2	\$941.10	\$941.10
Point and refinish painted concrete block wall, 1st floor	25	40.01 C.S.F.	\$18,797.44	\$23,200.06	2.0000	2	2	\$46,400.12	\$46,400.12
Replace glass - 1st floor (1% of glass) - steel frame window	1	2.00 S.F.	\$24.12	\$28.34	50.0000	50	50	\$1,417.16	\$1,417.16
Repair 3'-9" x 5'-5" steel frame window - 1st floor.	20	11.00 Ea.	\$3,281.34	\$3,854.60	2.5000	2	2	\$7,709.20	\$7,709.20
Refinish 3'-9" x 5'-5" steel frame window - 1st floor.	5	11.00 Ea.	\$880.91	\$1,092.81	10.0000	10	10	\$10,928.14	\$10,928.14
Replace 3'-9" x 5'-5" steel frame window - 1st floor.	45	11.00 Ea.	\$18,225.44	\$20,985.48	1.1111	1	1	\$20,985.48	\$20,985.48
Finish new 3'-9" x 5'-5" steel frame window - 1st floor.	45	11.00 Ea.	\$764.31	\$947.82	1.1111	1	1	\$947.82	\$947.82
Repair steel, painted, door	14	2.00 Ea.	\$1,250.15	\$1,488.01	3.5714	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	12.5000	12	12	\$1,220.79	\$1,220.79

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Replace 3'-0" x 7'-0" steel, painted, door	45	2.00 Ea.	\$1,410.13	\$1,639.46	1.1111	1	1	\$1,639.46	\$1,639.46	
Refinish 12' x 24' steel double roll-up door	5	2.00 Ea.	\$815.72	\$999.15	10.0000	10	10	\$9,991.53	\$9,991.53	
Replace 12' x 24' steel double roll-up door	35	2.00 Ea.	\$10,814.33	\$12,835.47	1.4286	1	1	\$12,835.47	\$12,835.47	
Total EPDM roof replacement	25	96.12 Sq.	\$58,101.38	\$68,918.86	2.0000	2	2	\$137,837.72	\$137,837.72	
Replace insulating glass (3% of glass) fully glazed wooden doors	1	2.60 S.F.	\$147.13	\$171.04	50.0000	50	50	\$8,551.83	\$8,551.83	
Repair fully glazed wood door	10	2.00 Ea.	\$586.90	\$683.13	5.0000	5	5	\$3,415.64	\$3,415.64	
Refinish 3'-0" x 7'-0" fully glazed wood door	4	2.00 Ea.	\$140.71	\$174.38	12.5000	12	12	\$2,092.51	\$2,092.51	
Replace 3'-0" x 7'-0" fully glazed wood door	40	2.00 Ea.	\$2,277.72	\$2,647.81	1.2500	1	1	\$2,647.81	\$2,647.81	
Repair steel painted interior door	14	11.00 Ea.	\$3,227.97	\$3,757.20	3.5714	3	3	\$11,271.61	\$11,271.61	
Refinish 3'-0" x 7'-0" steel painted interior door	4	11.00 Ea.	\$578.44	\$712.65	12.5000	12	12	\$8,551.80	\$8,551.80	
Replace 3'-0" x 7'-0" steel painted interior door	60	11.00 Ea.	\$13,398.38	\$15,532.91	0.8333	0	0	\$0.00	\$0.00	
Refinish concrete floor finished	25	71.20 C.S.F.	\$30,034.10	\$36,075.63	2.0000	2	2	\$72,151.27	\$72,151.27	
Acoustic tile repairs - (2% of ceilings)	9	1.93 C.S.F.	\$1,755.15	\$2,039.81	5.5556	5	5	\$10,199.06	\$10,199.06	
Replace flush valve diaphragm tankless water closet	10	4.00 Ea.	\$104.88	\$130.14	5.0000	5	5	\$650.72	\$650.72	
Rebuild flush valve tankless water closet	20	4.00 Ea.	\$721.74	\$869.83	2.5000	2	2	\$1,739.66	\$1,739.66	
Unplug clogged line tankless water closet	5	4.00 Ea.	\$873.58	\$1,092.51	10.0000	10	10	\$10,925.07	\$10,925.07	
Replace tankless water closet	35	4.00 Ea.	\$5,144.88	\$5,953.98	1.4286	1	1	\$5,953.98	\$5,953.98	
Replace tankless flush valve	25	4.00 Ea.	\$1,008.86	\$1,184.44	2.0000	2	2	\$2,368.88	\$2,368.88	
Replace wax ring gasket for tankless water closet	5	4.00 Ea.	\$566.08	\$707.31	10.0000	10	10	\$7,073.06	\$7,073.06	
			\$367,445.92	\$433,320.76				MR Subtotal	\$1,184,348.68	
									MR Per Year	\$23,591.36
									PM Total	\$9,360.58
									Subtotal	\$32,951.94
									Total Per Unit	\$3.41

FAC 2151 WEAPON MAINTENANCE SHOP

SUC \$3.41

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 50

Type PM

Average Size 9664.723

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	2.00	4.39	\$23.76	\$181.68	\$0.00	\$205.44	\$262.32	\$320.38
Urinals, annualized	1.00	0.23	\$6.32	\$11.45	\$0.00	\$17.77	\$21.84	\$26.22
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
Showers, annualized	2.00	0.46	\$25.78	\$27.22	\$0.00	\$53.00	\$63.75	\$75.78
Drink fountain, annualized	1.00	0.62	\$20.73	\$31.28	\$0.00	\$52.00	\$63.46	\$75.95
Boiler, hot water, oil, gas, or comb. fired, 120 - 500 MBH, annualized	2.00	31.76	\$154.68	\$1,894.15	\$0.00	\$2,048.83	\$2,632.55	\$3,223.99
Fan coil unit, annualized	3.00	10.01	\$339.70	\$504.81	\$0.00	\$844.51	\$1,029.92	\$1,232.32
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
Extinguishing system, FM200, annualized	2.00	18.52	\$1,223.31	\$925.05	\$0.00	\$2,148.36	\$2,548.21	\$3,009.22
Panelboard, 225 A and above, annualized	2.00	0.88	\$46.39	\$58.02	\$0.00	\$104.41	\$126.46	\$150.82
Crane, electric bridge, up to 5 ton, annualized	1.00	2.92	\$171.90	\$102.86	\$0.00	\$274.76	\$322.80	\$379.44
						\$6,348.31	\$7,797.54	\$9,360.58



# FAC 2151 WEAPON MAINTENANCE SHOP

## Modeled Component List

### CostWorks Release 2021 Qtr 3

#### D20 Plumbing

Urinal	3.0 Ea.
Lavatory, Vitreous China	4.0 Ea.
Sink, Iron Enamel	1.0 Ea.
Shower, Fiberglass	2.0 Ea.
Drinking Fountain	1.0 Ea.
Emergency Eye Wash	1.0 Ea.
Water Heater, Electric, 120 Gallon	1.0 Ea.
Drain: Roof, Scupper, Area	2.0 Ea.
Tankless Water Closet	4.0 Ea.

#### D30 HVAC

Boiler, Gas, 250 MBH	2.0 Ea.
Metal Flue / Chimney, 6" diameter	1.0 L.F.
Fan Coil, 10 ton	2.0 Ea.
Single Zone Air Conditioner, 25 ton	1.0 Ea.

#### D40 Fire Protection

Sprinkler System, Fire Supression, sprinkler head	98.0 Ea.
Extinguishing system, FM200	2.0 Each

#### D50 Electrical

Motor Starter, Up To 600 V	3.0 Ea.
Load Center, 100 A, maintenance & inspection	2.2353933156007866 Ea.
Safety Switch, Heavy Duty	1.0 Ea.
Manual Pull Station	4.0 Ea.
Fire Alarm Control Panel	1.0 Ea.
Fire Alarm Bell	2.0 Ea.

#### B20 Exterior Enclosure

Steel Frame, Operating, 1st floor	11.0 Ea.
Steel, Painted	2.0 Ea.
Steel Double, Roll-Up	2.0 Ea.

#### B30 Roofing

EPDM Roof	96.12191257083383 Sq.
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#### C10 Interior Construction

Fully Glazed Wooden Doors	2.0 Ea.
Steel Painted Interior Doors	11.0 Ea.

#### C30 Interior Finishes

Concrete, Finished	71.2 C.S.F.
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#### E10 Equipment

Crane, Electric, up to 5 ton, annualized	1.0 Each
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FAC 2151 WEAPON MAINTENANCE SHOP  
Sustainment by Year  
CostWorks Release 2021 Qtr 3

