

**FAC 3151      Weapons RDT&E Facility**

RUC:            \$240.43 SF

Source:        Equated to FAC 3101  
In V12, Tri-Service and USACE PAX Newsletter values were updated while  
all other values were inflated only.

SUC:            \$3.00 SF

Source:        Cost Works model, inflated to FY-09 using Green Book Table 5-6 (O&M  
less DHP)  
In V12, values were inflated only.

Model follows:

Chart:         A chart showing relative annual sustainment requirements  
follows:

**FAC 3151-Weapons RDT&E Facility**  
**CostWorks 2008 Quarter 2**

Design Life= 55  
Average S.F= 8,276

C.S.F=100 S.F; MSF=1000 S.F  
Sq=100 S.F; M.L.F=1000 L.F

This spreadsheet was  
exported from R.S Means  
CostWorks

Terminal Cutoff is the removal of a single task occurrence if that task occurs within  
10% of the end of the design life and if the frequency of the task exceeds 20% of  
the design life. This prevents scheduling major work near the end of the design life

Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Release	Occurrences in Design Life	Adjusted Occurrences	Terminal Cutoff
Repair brick wall - 1st floor	25	1 Bric	534.300	S.F.	19,769.10	24,022.13	2008 Qtr 2	2	1	\$ 24,022.13
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	1 Carp	62.000	Ea.	7,127.52	8,444.40	2008 Qtr 2	2	2	\$ 16,888.80
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	1 Carp	62.000	Ea.	27,193.20	31,805.38	2008 Qtr 2	1	0	\$ -
Replace glass - 1st floor (1% of glass)	1	1 Carp	3.720	S.F.	33.67	39.51	2008 Qtr 2	55	55	\$ 2,172.85
Replace glass - 1st floor (1% of glass)	1	1 Carp	17.040	S.F.	154.21	180.96	2008 Qtr 2	55	55	\$ 9,953.06
Repair 3'-9" x 5'-5" steel frame window - 1st flr.	20	1 Carp	71.000	Ea.	18,673.71	21,811.91	2008 Qtr 2	2	2	\$ 43,623.82
Refinish 3'-9" x 5'-5" st. frame window - 1st flr.	5	1 Pord	71.000	Ea.	4,778.30	5,897.97	2008 Qtr 2	11	11	\$ 64,877.67
Replace 3'-9" x 5'-5" st. frame window - 1st flr.	45	1 Carp	71.000	Ea.	110,235.31	126,832.98	2008 Qtr 2	1	1	\$ 126,832.98
Finish new 3'-9" x 5'-5" st. fr. window - 1st flr.	45	1 Pord	71.000	Ea.	4,151.37	5,118.39	2008 Qtr 2	1	1	\$ 5,118.39
Repair 12' x 12' steel roll-up door	10	1 Carp	2.000	Ea.	1,665.22	1,929.08	2008 Qtr 2	5	5	\$ 9,645.40
Refinish 12' x 12' steel roll-up door	5	1 Pord	2.000	Ea.	337.66	411.08	2008 Qtr 2	11	11	\$ 4,521.88
Replace 12' x 12' steel roll-up door	35	2 Carp	2.000	Ea.	6,650.54	7,699.10	2008 Qtr 2	1	1	\$ 7,699.10
Repair steel, painted, door	14	1 Carp	3.000	Ea.	1,747.32	2,059.08	2008 Qtr 2	3	3	\$ 6,177.24
Refinish 3'-0" x 7'-0" steel, painted, door	4	1 Pord	3.000	Ea.	98.73	120.93	2008 Qtr 2	13	13	\$ 1,572.09
Replace 3'-0" x 7'-0" steel, painted, door	45	1 Carp	3.000	Ea.	1,596.24	1,860.12	2008 Qtr 2	1	1	\$ 1,860.12
Replace tempered glass - (3% of glass)	1	1 Carp	1.890	S.F.	36.48	43.39	2008 Qtr 2	55	55	\$ 2,386.69
Debris removal and visual inspection built-up roofing	1	2 Rofc	8.276	M.S.F.	242.82	292.56	2008 Qtr 2	55	55	\$ 16,090.61
Non-destructive moisture inspection built-up roofing	5	2 Rofc	8.276	M.S.F.	751.30	908.70	2008 Qtr 2	11	11	\$ 9,995.75
Flashing repairs - (2 S.F. per sq. repaired) built-up roofing	5	2 Rofc	3.310	S.F.	11.12	13.24	2008 Qtr 2	11	11	\$ 145.64
Minor membrane repairs - (2% of roof area) built-up roofing	5	G5	1.655	Sq.	570.18	673.65	2008 Qtr 2	11	11	\$ 7,410.16
Minor membrane replacement - (25% of roof area) built-up roofing	20	G5	20.690	Sq.	12,298.76	14,670.87	2008 Qtr 2	2	2	\$ 29,341.73
Total roof replacement built-up roofing	28	G1	82.760	Sq.	47,237.75	55,941.62	2008 Qtr 2	1	1	\$ 55,941.62
Repair steel painted interior door	14	1 Carp	3.000	Ea.	503.25	594.42	2008 Qtr 2	3	3	\$ 1,783.26
Refinish 3'-0" x 7'-0" steel painted interior door	4	1 Pord	3.000	Ea.	148.20	182.46	2008 Qtr 2	13	13	\$ 2,371.98
Replace 3'-0" x 7'-0" steel painted interior door	60	1 Carp	3.000	Ea.	2,812.62	3,269.88	2008 Qtr 2	0	0	\$ -
Safety glass repl., (3% of glass) steel painted interior door	1	1 Carp	1.890	S.F.	32.00	38.05	2008 Qtr 2	55	55	\$ 2,092.51
Repair solid core wood door interior	11	1 Carp	5.000	Ea.	838.75	990.70	2008 Qtr 2	5	5	\$ 4,953.50
Refinish 3'-0" x 7'-0" solid core wood door interior	4	1 Pord	5.000	Ea.	211.10	259.90	2008 Qtr 2	13	13	\$ 3,378.70
Replace 3'-0" x 7'-0" solid core wood door interior	40	1 Carp	5.000	Ea.	1,833.50	2,125.60	2008 Qtr 2	1	1	\$ 2,125.60
Refinish drywall	8	1 Pord	1,399.000	S.F.	839.40	1,035.26	2008 Qtr 2	6	6	\$ 6,211.56
Replace 5/8" drywall	75	2 Carp	1,399.000	S.F.	3,119.77	3,763.31	2008 Qtr 2	0	0	\$ -
Repair 5/8" drywall - (2% of walls)	20	1 Carp	27.980	S.F.	44.49	53.44	2008 Qtr 2	2	2	\$ 106.88
Replace carpet	12	2 Tilf	81.780	S.Y.	3,690.73	4,264.01	2008 Qtr 2	4	4	\$ 17,056.04
Refinish concrete floor finished	25	2 Cefi	72.190	C.S.F.	25,226.07	30,369.61	2008 Qtr 2	2	1	\$ 30,369.61
Replace vinyl floor	18	1 Tilf	35.780	S.Y.	1,708.50	2,085.97	2008 Qtr 2	3	2	\$ 4,171.95
Replace acoustic tile ceiling, fire-rated	20	1 Carp	10.570	C.S.F.	4,261.30	5,063.03	2008 Qtr 2	2	2	\$ 10,126.06

**FAC 3151-Weapons RDT&E Facility**  
**CostWorks 2008 Quarter 2**

Design Life= 55  
Average S.F= 8,276

C.S.F=100 S.F; MSF=1000 S.F  
Sq=100 S.F; M.L.F=1000 L.F

This spreadsheet was  
exported from R.S Means  
CostWorks

Terminal Cutoff is the removal of a single task occurrence if that task occurs within  
10% of the end of the design life and if the frequency of the task exceeds 20% of  
the design life. This prevents scheduling major work near the end of the design life

Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Release	Occurrences in Design Life	Adjusted Occurrences	Terminal Cutoff
Check / minor repairs drinking fountain	1	1 Plum	3.000	Ea.	112.74	142.02	2008 Qtr 2	55	55	\$ 7,811.10
Repair internal leaks drinking fountain	4	1 Plum	3.000	Ea.	105.42	130.29	2008 Qtr 2	13	13	\$ 1,693.77
Correct water pressure drinking fountain	2	1 Plum	3.000	Ea.	96.63	121.50	2008 Qtr 2	27	27	\$ 3,280.50
Replace refrigerant drinking fountain	2	1 Plum	3.000	Ea.	47.52	56.58	2008 Qtr 2	27	27	\$ 1,527.66
Repair drain leak drinking fountain	4	1 Plum	3.000	Ea.	67.89	81.09	2008 Qtr 2	13	13	\$ 1,054.17
Replace fountain drinking fountain	10	2 Plum	3.000	Ea.	3,017.52	3,580.71	2008 Qtr 2	5	5	\$ 17,903.55
Inspect and clean spray heads, emergency eye wash	3	1 Plum	2.000	Ea.	75.60	94.88	2008 Qtr 2	18	18	\$ 1,707.84
Replace eye wash station, emergency eye wash	25	2 Plum	2.000	Ea.	1,147.84	1,391.76	2008 Qtr 2	2	1	\$ 1,391.76
Inspect and clean shower head emergency shower station	3	1 Plum	2.000	Ea.	75.60	94.88	2008 Qtr 2	18	18	\$ 1,707.84
Replace shower emergency shower station	25	2 Plum	2.000	Ea.	1,452.78	1,747.16	2008 Qtr 2	2	1	\$ 1,747.16
Replace washer in spud connection lavatory, vitreous china	7	1 Plum	13.000	Ea.	312.13	368.29	2008 Qtr 2	7	7	\$ 2,578.03
Replace washer in faucet lavatory, vitreous china	2	1 Plum	13.000	Ea.	128.05	159.77	2008 Qtr 2	27	27	\$ 4,313.79
Replace faucets lavatory, vitreous china	10	1 Plum	13.000	Ea.	1,605.37	1,937.78	2008 Qtr 2	5	5	\$ 9,688.90
Clean out strainer and P trap lavatory, vitreous china	2	1 Plum	13.000	Ea.	351.52	436.41	2008 Qtr 2	27	27	\$ 11,783.07
Replace lavatory, vitreous china	35	2 Plum	13.000	Ea.	6,892.47	8,264.10	2008 Qtr 2	1	1	\$ 8,264.10
Replace faucet washer sink, iron enamel	2	1 Plum	1.000	Ea.	9.79	12.19	2008 Qtr 2	27	27	\$ 329.13
Clean trap sink, iron enamel	3	1 Plum	1.000	Ea.	6.60	8.25	2008 Qtr 2	18	18	\$ 148.50
Replace faucets sink, iron enamel	10	1 Plum	1.000	Ea.	123.49	149.06	2008 Qtr 2	5	5	\$ 745.30
Unstop sink sink, iron enamel	2	1 Plum	1.000	Ea.	32.21	40.50	2008 Qtr 2	27	27	\$ 1,093.50
Replace sink, P.E.C.I. sink, iron enamel	35	2 Plum	1.000	Ea.	552.72	657.69	2008 Qtr 2	1	1	\$ 657.69
Replace flush valve diaphragm tankless water closet	10	1 Plum	7.000	Ea.	495.18	581.42	2008 Qtr 2	5	5	\$ 2,907.10
Rebuild flush valve tankless water closet	20	1 Plum	7.000	Ea.	923.86	1,120.07	2008 Qtr 2	2	2	\$ 2,240.14
Unplug clogged line tankless water closet	5	1 Plum	7.000	Ea.	1,177.82	1,471.26	2008 Qtr 2	11	11	\$ 16,183.86
Replace tankless water closet	35	2 Plum	7.000	Ea.	3,836.00	4,538.52	2008 Qtr 2	1	1	\$ 4,538.52
Replace tankless flush valve	25	1 Plum	7.000	Ea.	1,466.50	1,717.59	2008 Qtr 2	2	1	\$ 1,717.59
Replace wax ring gasket tankless water closet	5	1 Plum	7.000	Ea.	766.99	960.40	2008 Qtr 2	11	11	\$ 10,564.40
Replace flush valve diaphragm urinal	7	1 Plum	3.000	Ea.	212.22	249.18	2008 Qtr 2	7	7	\$ 1,744.26
Rebuild flush valve urinal	20	1 Plum	3.000	Ea.	395.94	480.03	2008 Qtr 2	2	2	\$ 960.06
Unplug line urinal	5	1 Plum	3.000	Ea.	336.42	419.73	2008 Qtr 2	11	11	\$ 4,617.03
Replace wall-hung urinal	35	2 Plum	3.000	Ea.	2,524.89	3,019.71	2008 Qtr 2	1	1	\$ 3,019.71
Inspect / check pump / motor operation, lub. circulation pump, 1/12 HP	0.5	1 Plum	1.000	Ea.	6.19	7.72	2008 Qtr 2	110	110	\$ 849.20
Replace pump / motor assembly circulation pump, 1/12 HP	10	2 Plum	1.000	Ea.	736.33	863.29	2008 Qtr 2	5	5	\$ 4,316.45
Resolder joint pipe & fittings, copper	10	1 Plum	2.000	Ea.	65.70	80.90	2008 Qtr 2	5	5	\$ 404.50
Replace pipe and fittings, copper 3/4"	20	2 Plum	16.000	L.F.	283.52	343.68	2008 Qtr 2	2	2	\$ 687.36
Replace pipe and fittings, copper 2"	25	2 Plum	16.000	L.F.	652.96	785.76	2008 Qtr 2	2	1	\$ 785.76
Remove old insulation & replace with new, pipe 3/4", wall 1"	15	1 Plum	16.000	L.F.	112.16	136.64	2008 Qtr 2	3	3	\$ 409.92

**FAC 3151-Weapons RDT&E Facility**  
**CostWorks 2008 Quarter 2**

Design Life= 55  
Average S.F= 8,276

C.S.F=100 S.F; MSF=1000 S.F  
Sq=100 S.F; M.L.F=1000 L.F

This spreadsheet was  
exported from R.S Means  
CostWorks

Terminal Cutoff is the removal of a single task occurrence if that task occurs within  
10% of the end of the design life and if the frequency of the task exceeds 20% of  
the design life. This prevents scheduling major work near the end of the design life

Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Release	Occurrences in Design Life	Adjusted Occurrences	Terminal Cutoff
Overhaul water heater, gas / oil, 70 gallon	5	1 Plum	1.000	Ea.	126.58	158.02	2008 Qtr 2	11	11	\$ 1,738.22
Clean & service water heater, gas / oil, 70 gallon	1	1 Plum	1.000	Ea.	151.28	188.37	2008 Qtr 2	55	55	\$ 10,360.35
Replace water heater, gas / oil, 70 gallon	12	2 Plum	1.000	Ea.	2,468.08	2,857.11	2008 Qtr 2	4	4	\$ 11,428.44
Unclog main drain pipe & fittings, cast iron	10	1 Plum	1.000	Ea.	35.62	44.41	2008 Qtr 2	5	5	\$ 222.05
Replace pipe & fittings, cast iron	40	2 Plum	16.000	L.F.	670.40	811.20	2008 Qtr 2	1	1	\$ 811.20
Unclog floor drain, PVC	20	1 Plum	1.000	Ea.	37.09	45.87	2008 Qtr 2	2	2	\$ 91.74
Repair joint pipe and fittings, PVC	10	1 Plum	1.000	Ea.	115.94	144.14	2008 Qtr 2	5	5	\$ 720.70
Replace pipe, 4" pipe and fittings, PVC	30	2 Plum	16.000	L.F.	947.20	1,171.04	2008 Qtr 2	1	1	\$ 1,171.04
General maintenance & repair drain: roof, scupper, area	1	1 Plum	3.000	Ea.	85.05	107.01	2008 Qtr 2	55	55	\$ 5,885.55
Replace drain: roof, scupper, area	40	1 Plum	3.000	Ea.	1,195.02	1,404.42	2008 Qtr 2	1	1	\$ 1,404.42
Install new 4" gasket, 1 per M.L.F. natural gas, steel/iron	30	1 Stpi	1.000	Ea.	157.52	195.63	2008 Qtr 2	1	1	\$ 195.63
Replace 10' of buried 4" diam steel pipe/M.L.F. natural gas	12	B35	1.000	Ea.	796.82	957.19	2008 Qtr 2	4	4	\$ 3,828.76
Replace roof mounted exhaust fan, 800 CFM exhaust fan	20	Q20	2.000	Ea.	1,812.02	2,155.12	2008 Qtr 2	2	2	\$ 4,310.24
Repair single zone rooftop unit, 25 ton	10	Q6	0.500	Ea.	12,910.55	14,961.45	2008 Qtr 2	5	5	\$ 74,807.23
Replace single zone rooftop unit, 25 ton	15	Q7	1.000	Ea.	34,098.40	39,677.60	2008 Qtr 2	3	3	\$ 119,032.80
Minor repairs to fire alarm control panel	5	1 Elec	1.000	Ea.	107.84	130.97	2008 Qtr 2	11	11	\$ 1,440.67
Maintenance and inspection fire alarm control panel	0.5	1 Elec	1.000	Ea.	30.54	38.17	2008 Qtr 2	110	110	\$ 4,198.70
Replace fire alarm control panel	15	1 Elec	1.000	Ea.	2,615.62	3,107.84	2008 Qtr 2	3	3	\$ 9,323.52
Replace sprinkler head	20	1 Plum	48.000	Ea.	3,056.64	3,766.08	2008 Qtr 2	2	2	\$ 7,532.16
Inspect sprinkler system	1	1 Plum	1.000	Ea.	26.55	32.89	2008 Qtr 2	55	55	\$ 1,808.95
Rebuild double check 3" backflow preventer sprinkler system	1	1 Plum	1.000	Ea.	598.06	715.83	2008 Qtr 2	55	55	\$ 39,370.65
Replace fire alarm bell, 6"	20	1 Elec	2.000	Ea.	284.56	343.02	2008 Qtr 2	2	2	\$ 686.04
Maintenance and repair safety switch gen., 2 pole	8	1 Elec	1.000	Ea.	28.50	35.63	2008 Qtr 2	6	6	\$ 213.78
Maintenance and inspection safety switch, 2 pole	1	1 Elec	1.000	Ea.	28.50	35.63	2008 Qtr 2	55	55	\$ 1,959.65
Replace safety switch 240 V, 2 pole	25	2 Elec	1.000	Ea.	353.98	421.38	2008 Qtr 2	2	1	\$ 421.38
Repair switchgear 1200 A mainframe	5	1 Elec	1.000	Ea.	1,694.09	1,975.10	2008 Qtr 2	11	11	\$ 21,726.10
Maintenance and inspection switchgear, mainframe	1	1 Elec	1.000	Ea.	45.81	57.01	2008 Qtr 2	55	55	\$ 3,135.55
Replace switchgear 1200 A mainframe	20	3 Elec	1.000	Ea.	4,052.28	4,808.24	2008 Qtr 2	2	2	\$ 9,616.48
Replace lamp emergency lighting fixture	2	1 Elec	6.000	Ea.	324.00	384.84	2008 Qtr 2	27	27	\$ 10,390.68
Replace emergency lighting fixture	20	1 Elec	6.000	Ea.	5,059.50	5,829.60	2008 Qtr 2	2	2	\$ 11,659.20
Maintenance and repair exit light	20	1 Elec	6.000	Ea.	196.98	239.22	2008 Qtr 2	2	2	\$ 478.44
Replace lamp exit light	5	1 Elec	6.000	Ea.	74.10	87.72	2008 Qtr 2	11	11	\$ 964.92
Replace fluor. ballast for fluorescent lighting fixture, 80 W	10	1 Elec	110.000	Ea.	10,953.80	13,208.80	2008 Qtr 2	5	5	\$ 66,044.00
Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	10	1 Elec	110.000	Ea.	2,798.40	3,429.80	2008 Qtr 2	5	5	\$ 17,149.00
Maintenance and repair receptacles and plugs	20	1 Elec	103.000	Ea.	3,202.27	3,989.19	2008 Qtr 2	2	2	\$ 7,978.38
Replace receptacle/plug receptacles and plugs	20	1 Elec	103.000	Ea.	5,434.28	6,635.26	2008 Qtr 2	2	2	\$ 13,270.52

FAC 3151-Weapons RDT&E Facility  
CostWorks 2008 Quarter 2

Design Life= 55  
Average S.F= 8,276

C.S.F=100 S.F; MSF=1000 S.F  
Sq=100 S.F; M.L.F=1000 L.F

This spreadsheet was  
exported from R.S Means  
CostWorks

Terminal Cutoff is the removal of a single task occurrence if that task occurs within  
10% of the end of the design life and if the frequency of the task exceeds 20% of  
the design life. This prevents scheduling major work near the end of the design life

Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Release	Occurrences in Design Life	Adjusted Occurrences	Terminal Cutoff
Maintenance and repair wiring devices, switches	10	1 Elec	26.000	Ea.	808.34	1,006.98	2008 Qtr 2	5	5	\$ 5,034.90
Replace switch wiring devices, switches	15	1 Elec	26.000	Ea.	1,331.46	1,621.10	2008 Qtr 2	3	3	\$ 4,863.30
Check and repair manual pull station	10	1 Elec	2.000	Ea.	138.42	169.74	2008 Qtr 2	5	5	\$ 848.70
Replace manual pull station	15	1 Elec	2.000	Ea.	251.48	303.78	2008 Qtr 2	3	3	\$ 911.34
Repair smoke detector	10	1 Elec	29.000	Ea.	1,107.51	1,363.00	2008 Qtr 2	5	5	\$ 6,815.00
Check operation smoke detector	1	1 Elec	29.000	Ea.	330.60	414.70	2008 Qtr 2	55	55	\$ 22,808.50
Replace smoke detector	15	1 Elec	29.000	Ea.	5,496.95	6,582.71	2008 Qtr 2	3	3	\$ 19,748.13
					\$446,875.37	\$526,736.31				
									MR Subtotal	\$ 1,192,805.63
									MR Per Year	\$ 21,687.38
									PM Per Year	\$ 3,953.61
									Subtotal	\$ 25,640.99
									Total Per Unit	\$ 3.10

**CostWorks 2009 Quarter 1 - FAC 3151-Weapons RDT&E Facility**

Qty	Assembly Number	Description	Total In-House	Total Incl. O&P	Zip Code	Prefix	Type	Release
2.000	B2035 410 1950	Door, overhead, electric, roll up, to 24' high x 25' w	480.32	580.24	200		FMR	2008 Qtr 2
8.000	B2035 225 1950	Door, emergency egress, swinging, annualized	396.08	460.08	200		FMR	2008 Qtr 2
3.000	C1025 110 1950	Fire doors, swinging, annualized	74.67	89.58	200		FMR	2008 Qtr 2
3.000	D2015 100 1950	Urinals, annualized	38.79	48.45	200		FMR	2008 Qtr 2
7.000	D2015 100 2950	Toilet (vacuum breaker type), annualized	90.51	113.05	200		FMR	2008 Qtr 2
13.000	D2015 100 4950	Lavatories, annualized	320.84	391.04	200		FMR	2008 Qtr 2
3.000	D2015 800 1950	Drink fountain, annualized	148.50	178.08	200		FMR	2008 Qtr 2
1.000	D2025 260 1950	Water heater, gas, to 120 gal., annualized	156.50	189.02	200		FMR	2008 Qtr 2
6.000	D3045 160 1950	VAV Boxes, annualized	367.86	456.00	200		FMR	2008 Qtr 2
2.000	D3045 210 1950	Fan, axial, up to 5,000 CFM, annualized	141.10	172.40	200		FMR	2008 Qtr 2
1.000	D3055 210 1950	Package unit, air cooled, 3 thru 24 ton, annualized	207.71	251.03	200		FMR	2008 Qtr 2
1.000	D4015 100 1950	Backflow prevention device, up to 4", annualized	18.89	23.42	200		FMR	2008 Qtr 2
1.000	D4015 150 1950	Extinguishing system, wet pipe, annualized	806.79	983.35	200		FMR	2008 Qtr 2
1.000	D5095 250 1950	Light, emergency, hardwired system, annualized	14.25	17.87	200		FMR	2008 Qtr 2
			<b>\$3,262.81</b>	<b>\$3,953.61</b>				

# FAC 3151 Sustainment by Year - Terminal Cutoff Applied

