

FAC 4241 Battery Storage, Weapon Related

RUC: \$171.32 SF

Source: USACE PAX Newsletter (FY-06)
CatCode 43211
Inflated to FY-08 using actual inflation; projected to FY-09 with Green Book
In V12, Tri-Service and USACE PAX Newsletter values were updated while all
other values were inflated only.

SUC: \$4.52 SF

Source: Cost Works model in \$FY-08, 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:

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CostWorks 2008 Quarter 2

	Design Life= 45	C.S.F.=100 S.F; MSF=1000 S.F	This spreadsheet was exported		Terminal Cutoff is the removal of a single task occurrence if that task occurs within					
	Average S.F= 2,488	Sq=100 S.F; M.L.F=1000 L.F	from R.S. Means CostWorks		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 Occurences	Terminal Cutoff
Repair 8" concrete block wall - 1st floor	25	1 Bric	2,219.000	S.F.	44,513.14	54,143.60	2008 Qtr 2	1	1 \$	54,143.60
Replace 8" concrete block wall - 1st floor	60	2 Bric	22.100	C.S.F.	21,986.63	26,466.30	2008 Qtr 2	0	0 \$	-
Replace 8" concrete block wall - 2nd floor	60	2 Bric	23.900	C.S.F.	25,361.96	30,556.15	2008 Qtr 2	0	0 \$	-
Replace glass - 1st floor (1% of glass)	1	1 Carp	0.100	S.F.	0.91	1.06	2008 Qtr 2	45	45 \$	47.79
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	1 Carp	2.000	Ea.	229.92	272.40	2008 Qtr 2	2	2 \$	544.80
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	1 Carp	2.000	Ea.	877.20	1,025.98	2008 Qtr 2	0	0 \$	-
Repair 12' x 12' steel roll-up door	10	1 Carp	2.000	Ea.	1,665.22	1,929.08	2008 Qtr 2	4	4 \$	7,716.32
Refinish 12' x 12' steel roll-up door	5	1 Pord	2.000	Ea.	337.66	411.08	2008 Qtr 2	9	9 \$	3,699.72
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	1.000	Ea.	582.44	686.36	2008 Qtr 2	3	2 \$	1,372.72
Refinish 3'-0" x 7'-0" steel, painted, door	4	1 Pord	1.000	Ea.	32.91	40.31	2008 Qtr 2	11	11 \$	443.41
Replace 3'-0" x 7'-0" steel, painted, door	45	1 Carp	1.000	Ea.	532.08	620.04	2008 Qtr 2	1	0 \$	-
Debris removal and visual inspection built-up roofing	0.5	2 Rofc	2.400	M.S.F.	70.42	84.84	2008 Qtr 2	90	90 \$	7,635.60
Non-destructive moisture inspection built-up roofing	5	2 Rofc	2.400	M.S.F.	217.87	263.52	2008 Qtr 2	9	9 \$	2,371.68
Minor membrane repairs - (2% of roof area) built-up roofing	1	G5	0.400	Sq.	137.81	162.82	2008 Qtr 2	45	45 \$	7,326.72
Flashing repairs - (2 S.F. per sq. repaired) built-up roofing	1	2 Rofc	0.900	S.F.	3.02	3.60	2008 Qtr 2	45	45 \$	162.00
Repair steel painted interior door	14	1 Carp	2.000	Ea.	335.50	396.28	2008 Qtr 2	3	2 \$	792.56
Refinish 3'-0" x 7'-0" steel painted interior door	4	1 Pord	2.000	Ea.	98.80	121.64	2008 Qtr 2	11	11 \$	1,338.04
Replace 3'-0" x 7'-0" steel painted interior door	60	1 Carp	2.000	Ea.	1,875.08	2,179.92	2008 Qtr 2	0	0 \$	-
Repair solid core wood door interior	11	1 Carp	4.000	Ea.	671.00	792.56	2008 Qtr 2	4	3 \$	2,377.68
Refinish 3'-0" x 7'-0" solid core wood door interior	4	1 Pord	4.000	Ea.	168.88	207.92	2008 Qtr 2	11	11 \$	2,287.12
Replace 3'-0" x 7'-0" solid core wood door interior	40	1 Carp	4.000	Ea.	1,466.80	1,700.48	2008 Qtr 2	1	1 \$	1,700.48
Repair 8" concrete block wall - (2% of walls) painted	25	1 Bric	1.100	C.S.F.	1,112.33	1,335.42	2008 Qtr 2	1	1 \$	1,335.42
Refinish concrete block wall painted	4	1 Pord	55.300	C.S.F.	5,373.50	6,532.59	2008 Qtr 2	11	11 \$	71,858.48
Replace 8" concrete block wall painted	75	2 Bric	55.300	C.S.F.	59,602.89	71,679.31	2008 Qtr 2	0	0 \$	-
Repair 5/8" drywall - (2% of walls)	20	1 Carp	22.500	S.F.	35.78	42.98	2008 Qtr 2	2	2 \$	85.95
Replace 5/8" drywall	75	2 Carp	1,129.000	S.F.	2,517.67	3,037.01	2008 Qtr 2	0	0 \$	-
Replace carpet	8	2 Tilf	22.100	S.Y.	997.37	1,152.29	2008 Qtr 2	5	5 \$	5,761.47
Refinish concrete floor finished	25	2 Cefi	21.900	C.S.F.	7,652.74	9,213.11	2008 Qtr 2	1	1 \$	9,213.11
Replace vinyl floor	18	1 Tilf	10.300	S.Y.	491.83	600.49	2008 Qtr 2	2	2 \$	1,200.98
Acoustic tile repairs - (2% of ceilings)	9	1 Carp	3.900	C.S.F.	1,742.05	2,073.51	2008 Qtr 2	5	5 \$	10,367.57
Replace acoustic tile ceiling, fire-rated	20	1 Carp	1.900	C.S.F.	765.99	910.10	2008 Qtr 2	2	2 \$	1,820.20
Repair sheetrock ceiling - (2% of ceilings)	20	1 Carp	1.800	C.S.F.	628.65	767.29	2008 Qtr 2	2	2 \$	1,534.57
Replace sheetrock ceiling	40	2 Carp	0.900	C.S.F.	322.50	393.76	2008 Qtr 2	1	1 \$	393.76
Check / minor repairs drinking fountain	1	1 Plum	1.000	Ea.	37.58	47.34	2008 Qtr 2	45	45 \$	2,130.30
Repair internal leaks drinking fountain	4	1 Plum	1.000	Ea.	35.14	43.43	2008 Qtr 2	11	11 \$	477.73
Correct water pressure drinking fountain	2	1 Plum	1.000	Ea.	32.21	40.50	2008 Qtr 2	22	22 \$	891.00
Replace refrigerant drinking fountain	2	1 Plum	1.000	Ea.	15.84	18.86	2008 Qtr 2	22	22 \$	414.92
Repair drain leak drinking fountain	4	1 Plum	1.000	Ea.	22.63	27.03	2008 Qtr 2	11	11 \$	297.33

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Design Life= 45
Average S.F= 2,488

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
Replace fountain drinking fountain	10	2 Plum	1.000	Ea.	1,005.84	1,193.57 2008 Qtr 2		4	4 \$	4,774.28
Inspect and clean spray heads, emergency eye wash	3	1 Plum	1.000	Ea.	37.80	47.44 2008 Qtr 2		15	15 \$	711.60
Replace eye wash station, emergency eye wash	25	2 Plum	1.000	Ea.	573.92	695.88 2008 Qtr 2		1	1 \$	695.88
Inspect and clean shower head emergency shower station	3	1 Plum	1.000	Ea.	37.80	47.44 2008 Qtr 2		15	15 \$	711.60
Replace shower emergency shower station	25	2 Plum	1.000	Ea.	726.39	873.58 2008 Qtr 2		1	1 \$	873.58
Replace washer in spud connection lavatory, vitreous china	7	1 Plum	2.000	Ea.	48.02	56.66 2008 Qtr 2		6	6 \$	339.96
Replace washer in faucet lavatory, vitreous china	2	1 Plum	2.000	Ea.	19.70	24.58 2008 Qtr 2		22	22 \$	540.76
Replace faucets lavatory, vitreous china	10	1 Plum	2.000	Ea.	246.98	298.12 2008 Qtr 2		4	4 \$	1,192.48
Clean out strainer and P trap lavatory, vitreous china	2	1 Plum	2.000	Ea.	54.08	67.14 2008 Qtr 2		22	22 \$	1,477.08
Replace lavatory, vitreous china	35	2 Plum	2.000	Ea.	1,060.38	1,271.40 2008 Qtr 2		1	1 \$	1,271.40
Replace faucet washer sink, iron enamel	2	1 Plum	1.000	Ea.	9.79	12.19 2008 Qtr 2		22	22 \$	268.18
Clean trap sink, iron enamel	3	1 Plum	1.000	Ea.	6.60	8.25 2008 Qtr 2		15	15 \$	123.75
Replace faucets sink, iron enamel	10	1 Plum	1.000	Ea.	123.49	149.06 2008 Qtr 2		4	4 \$	596.24
Unstop sink sink, iron enamel	2	1 Plum	1.000	Ea.	32.21	40.50 2008 Qtr 2		22	22 \$	891.00
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	2.000	Ea.	141.48	166.12 2008 Qtr 2		4	4 \$	664.48
Rebuild flush valve tankless water closet	20	1 Plum	2.000	Ea.	263.96	320.02 2008 Qtr 2		2	2 \$	640.04
Unplug clogged line tankless water closet	5	1 Plum	2.000	Ea.	336.52	420.36 2008 Qtr 2		9	9 \$	3,783.24
Replace tankless water closet	35	2 Plum	2.000	Ea.	1,096.00	1,296.72 2008 Qtr 2		1	1 \$	1,296.72
Replace tankless flush valve	25	1 Plum	2.000	Ea.	419.00	490.74 2008 Qtr 2		1	1 \$	490.74
Replace wax ring gasket tankless water closet	5	1 Plum	2.000	Ea.	219.14	274.40 2008 Qtr 2		9	9 \$	2,469.60
Replace flush valve diaphragm urinal	7	1 Plum	1.000	Ea.	70.74	83.06 2008 Qtr 2		6	6 \$	498.36
Rebuild flush valve urinal	20	1 Plum	1.000	Ea.	131.98	160.01 2008 Qtr 2		2	2 \$	320.02
Unplug line urinal	5	1 Plum	1.000	Ea.	112.14	139.91 2008 Qtr 2		9	9 \$	1,259.19
Replace wall-hung urinal	35	2 Plum	1.000	Ea.	841.63	1,006.57 2008 Qtr 2		1	1 \$	1,006.57
Repair circulator pump, 1/12 - 3/4 H.P.	5	1 Stpi	1.000	Ea.	70.99	84.25 2008 Qtr 2		9	9 \$	758.25
Replace circulator pump, 1/12 - 3/4 H.P.	15	Q1	1.000	Ea.	2,484.44	2,870.47 2008 Qtr 2		3	2 \$	5,740.94
Repair damaged pipe insulation, fiberglass 3/4"	5	Q14	4.000	Ea.	62.88	76.72 2008 Qtr 2		9	9 \$	690.48
Replace pipe insulation, fiberglass 3/4"	5	Q14	0.900	M.L.F.	5,660.17	6,895.17 2008 Qtr 2		9	9 \$	62,056.53
Replace pipe and fittings, copper 3/4"	20	2 Plum	32.000	L.F.	567.04	687.36 2008 Qtr 2		2	2 \$	1,374.72
Drain and flush water heater, electric, 120 gallon	7	1 Plum	1.000	Ea.	226.43	283.04 2008 Qtr 2		6	6 \$	1,698.24
Check operation water heater, electric, 120 gallon	3	1 Plum	1.000	Ea.	1.98	2.48 2008 Qtr 2		15	15 \$	37.20
Replace water heater, electric, 120 gallon	15	2 Plum	1.000	Ea.	9,192.45	10,543.79 2008 Qtr 2		3	2 \$	21,087.58
Unclog main drain pipe & fittings, cast iron	10	1 Plum	1.000	Ea.	35.62	44.41 2008 Qtr 2		4	4 \$	177.64
Replace pipe & fittings, cast iron	40	2 Plum	200.000	L.F.	8,380.00	10,140.00 2008 Qtr 2		1	1 \$	10,140.00
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	2.000	Ea.	231.88	288.28 2008 Qtr 2		4	4 \$	1,153.12
Replace pipe, 4" pipe and fittings, PVC	30	2 Plum	200.000	L.F.	11,840.00	14,638.00 2008 Qtr 2		1	1 \$	14,638.00
General maintenance & repair drain: roof, scupper, area	1	1 Plum	1.000	Ea.	28.35	35.67 2008 Qtr 2		45	45 \$	1,605.15

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Average S.F= 2,488		Sq=100 S.F; M.L.F=1000 L.F		from R.S. Means CostWorks		of the end of the design life and if the frequency of the task exceeds 20% of the design				
						llife. 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
Replace drain: roof, scupper, area	40	1 Plum	1.000	Ea.	398.34	468.14 2008 Qtr 2		1	1 \$	468.14
Repair single zone rt. unit, 5 ton	10	2 Stpi	1.000	Ea.	1,929.71	2,314.56 2008 Qtr 2		4	4 \$	9,258.24
Replace single zone rt. unit, 5 ton	15	Q5	1.000	Ea.	7,276.88	8,588.60 2008 Qtr 2		3	2 \$	17,177.20
Inspect sprinkler system	1	1 Plum	1.000	Ea.	26.55	32.89 2008 Qtr 2		45	45 \$	1,480.05
Replace sprinkler head	20	1 Plum	26.000	Ea.	1,655.68	2,039.96 2008 Qtr 2		2	2 \$	4,079.92
Replace fire alarm bell, 6"	20	1 Elec	1.000	Ea.	142.28	171.51 2008 Qtr 2		2	2 \$	343.02
Repair failed breaker, 3 pole circuit breaker	4	1 Elec	1.000	Ea.	525.04	607.28 2008 Qtr 2		11	11 \$	6,680.08
Maintenance and inspection C.B., 3 pole circuit breaker	0.33	1 Elec	1.000	Ea.	22.91	28.50 2008 Qtr 2		136	136 \$	3,876.00
Replace C.B. enclosed, 600 V, 3 pole circuit breaker	12	1 Elec	1.000	Ea.	993.60	1,158.09 2008 Qtr 2		3	3 \$	3,474.27
Maintenance and inspection lighting panel, indoor	3	1 Elec	1.000	Ea.	28.50	35.63 2008 Qtr 2		15	15 \$	534.45
Maintenance and repair motor starter, up to 600 V	5	1 Elec	2.000	Ea.	341.50	415.00 2008 Qtr 2		9	9 \$	3,735.00
Maintenance and inspection motor starter, up to 600 V	0.5	1 Elec	2.000	Ea.	76.34	95.70 2008 Qtr 2		90	90 \$	8,613.00
Replace starter motor starter, up to 600 V	18	1 Elec	2.000	Ea.	1,056.36	1,260.82 2008 Qtr 2		2	2 \$	2,521.64
Replace fluor. ballast for fluorescent lighting fixture, 80 W	10	1 Elec	38.000	Ea.	3,784.04	4,563.04 2008 Qtr 2		4	4 \$	18,252.16
Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	10	1 Elec	38.000	Ea.	966.72	1,184.84 2008 Qtr 2		4	4 \$	4,739.36
Replace fixture fluorescent lighting fixture, 80 W	20	1 Elec	38.000	Ea.	6,767.04	8,174.18 2008 Qtr 2		2	2 \$	16,348.36
Maintenance and repair receptacles and plugs	20	1 Elec	44.000	Ea.	1,367.96	1,704.12 2008 Qtr 2		2	2 \$	3,408.24
Replace receptacle/plug receptacles and plugs	20	1 Elec	44.000	Ea.	2,321.44	2,834.48 2008 Qtr 2		2	2 \$	5,668.96
Maintenance and repair wiring devices, switches	10	1 Elec	11.000	Ea.	341.99	426.03 2008 Qtr 2		4	4 \$	1,704.12
Replace switch wiring devices, switches	15	1 Elec	11.000	Ea.	563.31	685.85 2008 Qtr 2		3	2 \$	1,371.70
Check and repair manual pull station	10	1 Elec	1.000	Ea.	69.21	84.87 2008 Qtr 2		4	4 \$	339.48
Replace manual pull station	15	1 Elec	1.000	Ea.	125.74	151.89 2008 Qtr 2		3	2 \$	303.78
Repair smoke detector	10	1 Elec	5.000	Ea.	190.95	235.00 2008 Qtr 2		4	4 \$	940.00
Check operation smoke detector	1	1 Elec	5.000	Ea.	57.00	71.50 2008 Qtr 2		45	45 \$	3,217.50
Replace smoke detector	15	1 Elec	5.000	Ea.	947.75	1,134.95 2008 Qtr 2		3	2 \$	2,269.90
					\$268,166.95	\$322,584.40				
									MR Subtotal	\$ 479,050.73
									MR Per Year	\$ 10,645.57
									PM Per Year	\$ 983.04
									Subtotal	\$ 11,628.61
									Total Per Unit	\$ 4.67

CostWorks 2009 Quarter 1 - FAC 4241 Battery Storage, Weapon Related

Qty	Assembly Number	Description	Total In-House	Total Incl. O&P	Zip Code Prefix	Type	Release
2.000	D3045 160 1950	VAV Boxes, annualized	122.62	152.00	200	FMR	2008 Qtr 2
1.000	A1033 000 0000	Slab on Grade	0.00	0.00	200	FMR	2008 Qtr 2
1.000	B2035 225 1950	Door, emergency egress, swinging, annualized	49.51	57.51	200	FMR	2008 Qtr 2
2.000	B2035 400 1950	Door, overhead, manual, up to 24' high x 25' wide,	269.48	325.10	200	FMR	2008 Qtr 2
6.000	C1025 110 1950	Fire doors, swinging, annualized	149.34	179.16	200	FMR	2008 Qtr 2
1.000	D2015 800 1950	Drink fountain, annualized	49.50	59.36	200	FMR	2008 Qtr 2
2.000	D2015 100 4950	Lavatories, annualized	49.36	60.16	200	FMR	2008 Qtr 2
2.000	D2015 100 2950	Toilet (vacuum breaker type), annualized	25.86	32.30	200	FMR	2008 Qtr 2
1.000	D2015 100 1950	Urinals, annualized	12.93	16.15	200	FMR	2008 Qtr 2
1.000	D5015 220 1950	Circuit breaker, high voltage air, annualized	26.98	33.59	200	FMR	2008 Qtr 2
1.000	D5015 260 1950	Panelboard, 225 A and above, annualized	56.96	67.71	200	FMR	2008 Qtr 2
			\$812.54	\$983.04			

FAC 4241 Sustainment by Year - Terminal Cutoff Applied

