

**FAC 3711     RDT&E Range Building**

RUC:            \$160.61 SF

Source:        USACE PAX Newsletter 3.2.2 dated 20 Mar 09  
CC 17122  
Deflated to FY-09 using Appendix C of newsletter  
In V12, Tri-Service and USACE PAX Newsletter values were updated  
while all other values were inflated only.

SUC:            \$2.25 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  
appears below:

**FAC 3711 RDT&E Range Building**  
**CostWorks 2008 Quarter 2**

Design Life= 40  
Average S.F= 1,868

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  
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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 aluminum siding - 1st floor	35	1 Carp	40.200	C.S.F.	18,257.63	21,915.43	2008 Qtr 2	1	1	\$ 21,915.43
Refinish aluminum siding - 1st floor	20	1 Pord	40.200	C.S.F.	6,075.02	7,490.87	2008 Qtr 2	2	1	\$ 7,490.87
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	1 Carp	8.000	Ea.	919.68	1,089.60	2008 Qtr 2	2	1	\$ 1,089.60
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	1 Carp	8.000	Ea.	3,508.80	4,103.92	2008 Qtr 2	0	0	\$ -
Replace glass - 1st floor (1% of glass)	1	1 Carp	0.480	S.F.	4.34	5.10	2008 Qtr 2	40	40	\$ 203.90
Repair 12' x 12' steel roll-up door	10	1 Carp	1.000	Ea.	832.61	964.54	2008 Qtr 2	4	3	\$ 2,893.62
Refinish 12' x 12' steel roll-up door	5	1 Pord	1.000	Ea.	168.83	205.54	2008 Qtr 2	8	8	\$ 1,644.32
Replace 12' x 12' steel roll-up door	35	2 Carp	1.000	Ea.	3,325.27	3,849.55	2008 Qtr 2	1	1	\$ 3,849.55
Repair steel, painted, door	14	1 Carp	1.000	Ea.	582.44	686.36	2008 Qtr 2	2	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	10	10	\$ 403.10
Replace 3'-0" x 7'-0" steel, painted, door	45	1 Carp	1.000	Ea.	532.08	620.04	2008 Qtr 2	0	0	\$ -
Debris removal by hand & visual inspection metal steep roofing	1	2 Rofc	1.868	M.S.F.	33.16	39.98	2008 Qtr 2	40	40	\$ 1,599.01
Total metal panel replacement metal steep roofing	30	2 Rofc	18.680	Sq.	12,372.32	14,710.69	2008 Qtr 2	1	1	\$ 14,710.69
Minor finish repairs - (2% of roof area) metal steep roofing	5	2 Rofc	37.360	S.F.	101.25	120.30	2008 Qtr 2	8	8	\$ 962.39
Flashing replacement - (2 S.F. per sq. repaired) metal steep roofing	5	2 Rofc	0.747	S.F.	10.79	12.95	2008 Qtr 2	8	8	\$ 103.56
Minor replacement - (2.5% of roof area) metal steep roofing	20	2 Rofc	46.700	S.F.	417.50	495.95	2008 Qtr 2	2	1	\$ 495.95
Repair steel painted interior door	14	1 Carp	2.000	Ea.	335.50	396.28	2008 Qtr 2	2	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	10	10	\$ 1,216.40
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	3.000	Ea.	503.25	594.42	2008 Qtr 2	3	3	\$ 1,783.26
Refinish 3'-0" x 7'-0" solid core wood door interior	4	1 Pord	3.000	Ea.	126.66	155.94	2008 Qtr 2	10	10	\$ 1,559.40
Replace 3'-0" x 7'-0" solid core wood door interior	40	1 Carp	3.000	Ea.	1,100.10	1,275.36	2008 Qtr 2	1	0	\$ -
Refinish drywall	8	1 Pord	978.000	S.F.	586.80	723.72	2008 Qtr 2	5	5	\$ 3,618.60
Replace 5/8" drywall	75	2 Carp	978.000	S.F.	2,180.94	2,630.82	2008 Qtr 2	0	0	\$ -
Repair 5/8" drywall - (2% of walls)	20	1 Carp	19.560	S.F.	31.10	37.36	2008 Qtr 2	2	1	\$ 37.36
Replace vinyl floor	18	1 Tilf	24.330	S.Y.	1,161.76	1,418.44	2008 Qtr 2	2	2	\$ 2,836.88
Replace acoustic tile ceiling, fire-rated	20	1 Carp	1.490	C.S.F.	600.69	713.71	2008 Qtr 2	2	1	\$ 713.71
Refinish sheetrock ceiling	20	1 Pord	0.700	C.S.F.	87.97	108.70	2008 Qtr 2	2	1	\$ 108.70
Replace sheetrock ceiling	40	2 Carp	0.700	C.S.F.	250.83	306.26	2008 Qtr 2	1	0	\$ -
Repair sheetrock ceiling - (2% of ceilings)	20	1 Carp	0.014	C.S.F.	4.89	5.97	2008 Qtr 2	2	1	\$ 5.97
Replace washer in spud connection lavatory, vitreous china	7	1 Plum	1.000	Ea.	24.01	28.33	2008 Qtr 2	5	5	\$ 141.65
Replace washer in faucet lavatory, vitreous china	2	1 Plum	1.000	Ea.	9.85	12.29	2008 Qtr 2	20	20	\$ 245.80
Replace faucets lavatory, vitreous china	10	1 Plum	1.000	Ea.	123.49	149.06	2008 Qtr 2	4	3	\$ 447.18
Clean out strainer and P trap lavatory, vitreous china	2	1 Plum	1.000	Ea.	27.04	33.57	2008 Qtr 2	20	20	\$ 671.40
Replace lavatory, vitreous china	35	2 Plum	1.000	Ea.	530.19	635.70	2008 Qtr 2	1	1	\$ 635.70
Replace faucet washer sink, iron enamel	2	1 Plum	1.000	Ea.	9.79	12.19	2008 Qtr 2	20	20	\$ 243.80

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Clean trap sink, iron enamel	3	1 Plum	1.000	Ea.	6.60	8.25	2008 Qtr 2	13	13	\$ 107.25
Replace faucets sink, iron enamel	10	1 Plum	1.000	Ea.	123.49	149.06	2008 Qtr 2	4	3	\$ 447.18
Unstop sink sink, iron enamel	2	1 Plum	1.000	Ea.	32.21	40.50	2008 Qtr 2	20	20	\$ 810.00
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 urinal	7	1 Plum	1.000	Ea.	70.74	83.06	2008 Qtr 2	5	5	\$ 415.30
Rebuild flush valve urinal	20	1 Plum	1.000	Ea.	131.98	160.01	2008 Qtr 2	2	1	\$ 160.01
Unplug line urinal	5	1 Plum	1.000	Ea.	112.14	139.91	2008 Qtr 2	8	8	\$ 1,119.28
Replace wall-hung urinal	35	2 Plum	1.000	Ea.	841.63	1,006.57	2008 Qtr 2	1	1	\$ 1,006.57
Resolder joint pipe & fittings, copper	10	1 Plum	1.000	Ea.	32.85	40.45	2008 Qtr 2	4	3	\$ 121.35
Replace pipe and fittings, copper 3/4"	20	2 Plum	8.000	L.F.	141.76	171.84	2008 Qtr 2	2	1	\$ 171.84
Remove old insulation & replace with new, pipe 3/4", wall 1"	15	1 Plum	8.000	L.F.	56.08	68.32	2008 Qtr 2	2	2	\$ 136.64
Unclog main drain pipe & fittings, cast iron	10	1 Plum	1.000	Ea.	35.62	44.41	2008 Qtr 2	4	3	\$ 133.23
Replace pipe & fittings, cast iron	40	2 Plum	8.000	L.F.	335.20	405.60	2008 Qtr 2	1	0	\$ -
General maintenance & repair distribution: gutters, pipe	1	1 Plum	0.020	M.L.F.	4.65	5.81	2008 Qtr 2	40	40	\$ 232.33
Replace pipe or gutter distribution	20	1 Plum	16.000	L.F.	715.52	877.28	2008 Qtr 2	2	1	\$ 877.28
Maintenance and repair baseboard heating units	2	1 Elec	1.000	Ea.	33.67	41.97	2008 Qtr 2	20	20	\$ 839.40
Maintenance and inspection baseboard heating units	0.5	1 Elec	1.000	Ea.	62.46	78.08	2008 Qtr 2	80	80	\$ 6,246.40
Replace baseboard heater units	20	1 Elec	1.000	Ea.	205.16	249.93	2008 Qtr 2	2	1	\$ 249.93
Repair failed breaker, 3 pole circuit breaker	10	1 Elec	1.000	Ea.	342.23	400.69	2008 Qtr 2	4	3	\$ 1,202.07
Maintenance and inspection C.B., 3 pole circuit breaker	0.33	1 Elec	1.000	Ea.	22.91	28.50	2008 Qtr 2	121	121	\$ 3,448.50
Replace C.B. molded case, 600 V, 3 pole circuit breaker	50	1 Elec	1.000	Ea.	3,157.74	3,611.55	2008 Qtr 2	0	0	\$ -
Maintenance and inspection lighting panel, indoor	3	1 Elec	1.000	Ea.	28.50	35.63	2008 Qtr 2	13	13	\$ 463.19
Replace fluor. ballast for fluorescent lighting fixture, 80 W	10	1 Elec	14.000	Ea.	1,394.12	1,681.12	2008 Qtr 2	4	3	\$ 5,043.36
Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	10	1 Elec	14.000	Ea.	356.16	436.52	2008 Qtr 2	4	3	\$ 1,309.56
Maintenance and repair receptacles and plugs	20	1 Elec	10.000	Ea.	310.90	387.30	2008 Qtr 2	2	1	\$ 387.30
Replace receptacle/plug receptacles and plugs	20	1 Elec	10.000	Ea.	527.60	644.20	2008 Qtr 2	2	1	\$ 644.20
Maintenance and repair wiring devices, switches	10	1 Elec	10.000	Ea.	310.90	387.30	2008 Qtr 2	4	3	\$ 1,161.90
Replace switch wiring devices, switches	15	1 Elec	10.000	Ea.	512.10	623.50	2008 Qtr 2	2	2	\$ 1,247.00
Repair smoke detector	10	1 Elec	2.000	Ea.	76.38	94.00	2008 Qtr 2	4	3	\$ 282.00
Check operation smoke detector	1	1 Elec	2.000	Ea.	22.80	28.60	2008 Qtr 2	40	40	\$ 1,144.00
Replace smoke detector	15	1 Elec	2.000	Ea.	379.10	453.98	2008 Qtr 2	2	2	\$ 907.96
Refinish concrete floor finished	25	2 Cefi	0.165	C.S.F.	57.66	69.41	2008 Qtr 2	1	1	\$ 69.41

**\$67,836.95      \$81,001.84**

MR Subtotal    \$ 104,835.22

MR Per Year    \$    2,620.88

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PM Per Year \$ 1,734.18

Subtotal \$ 4,355.06

Total Per Unit \$ 2.33

**CostWorks 2009 Quarter 1 - FAC 3711 RDT&E Range Building**

Qty	Assembly Number	Description	Total In-House	Total Incl. O&P	Zip Code Prefix	Type	Release
1.000	B2035 410 1950	Door, overhead, electric, roll up, to 24' high x 25' w	240.16	290.12	200	FMR	2008 Qtr 2
4.000	B2035 225 1950	Door, emergency egress, swinging, annualized	198.04	230.04	200	FMR	2008 Qtr 2
2.000	C1025 110 1950	Fire doors, swinging, annualized	49.78	59.72	200	FMR	2008 Qtr 2
1.000	D2015 100 1950	Urinals, annualized	12.93	16.15	200	FMR	2008 Qtr 2
1.000	D2015 100 4950	Lavatories, annualized	24.68	30.08	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	D4015 100 1950	Backflow prevention device, up to 4", annualized	18.89	23.42	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
			<b>\$1,435.21</b>	<b>\$1,734.18</b>			

FAC 3711 Sustainment by Year - Terminal Cutoff Applied

