

FAC 3141 Tank and Automotive 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: \$2.36 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 3141 Tank and Automotive RDT&E Facility
CostWorks 2008 Quarter 2

Design Life= 55
Average S.F= 15,142

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	722.800	S.F.	26,743.60	32,497.09	2008 Qtr 2	2	1	\$ 32,497.09
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	1 Carp	84.000	Ea.	9,656.64	11,440.80	2008 Qtr 2	2	2	\$ 22,881.60
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	1 Carp	84.000	Ea.	36,842.40	43,091.16	2008 Qtr 2	1	0	\$ -
Replace glass - 1st floor (1% of glass)	1	1 Carp	5.040	S.F.	45.61	53.52	2008 Qtr 2	55	55	\$ 2,943.86
Repair 3'-9" x 5'-5" steel frame window - 1st flr.	20	1 Carp	95.000	Ea.	24,985.95	29,184.95	2008 Qtr 2	2	2	\$ 58,369.90
Refinish 3'-9" x 5'-5" st. frame window - 1st flr.	5	1 Pord	95.000	Ea.	6,393.50	7,891.65	2008 Qtr 2	11	11	\$ 86,808.15
Replace 3'-9" x 5'-5" st. frame window - 1st flr.	45	1 Carp	95.000	Ea.	147,497.95	169,706.10	2008 Qtr 2	1	1	\$ 169,706.10
Finish new 3'-9" x 5'-5" st. fr. window - 1st flr.	45	1 Pord	95.000	Ea.	5,554.65	6,848.55	2008 Qtr 2	1	1	\$ 6,848.55
Replace glass - 1st floor (1% of glass)	1	1 Carp	22.920	S.F.	207.43	243.41	2008 Qtr 2	55	55	\$ 13,387.57
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
Debris removal and visual inspection built-up roofing	1	2 Rofc	15.142	M.S.F.	444.27	535.27	2008 Qtr 2	55	55	\$ 29,439.83
Non-destructive moisture inspection built-up roofing	5	2 Rofc	15.142	M.S.F.	1,374.59	1,662.59	2008 Qtr 2	11	11	\$ 18,288.51
Total roof replacement built-up roofing	28	G1	151.420	Sq.	86,427.51	102,352.35	2008 Qtr 2	1	1	\$ 102,352.35
Minor membrane repairs - (2% of roof area) built-up roofing	5	G5	3.028	Sq.	1,043.21	1,232.52	2008 Qtr 2	11	11	\$ 13,557.69
Flashing repairs - (2 S.F. per sq. repaired) built-up roofing	5	2 Rofc	6.057	S.F.	20.35	24.23	2008 Qtr 2	11	11	\$ 266.51
Minor membrane replacement - (25% of roof area) built-up roofing	20	G5	37.860	Sq.	22,505.12	26,845.77	2008 Qtr 2	2	2	\$ 53,691.54
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	\$ -
Repair solid core wood door interior	11	1 Carp	7.000	Ea.	1,174.25	1,386.98	2008 Qtr 2	5	5	\$ 6,934.90
Refinish 3'-0" x 7'-0" solid core wood door interior	4	1 Pord	7.000	Ea.	295.54	363.86	2008 Qtr 2	13	13	\$ 4,730.18
Replace 3'-0" x 7'-0" solid core wood door interior	40	1 Carp	7.000	Ea.	2,566.90	2,975.84	2008 Qtr 2	1	1	\$ 2,975.84
Refinish drywall	8	1 Pord	1,893.000	S.F.	1,135.80	1,400.82	2008 Qtr 2	6	6	\$ 8,404.92
Replace 5/8" drywall	75	2 Carp	1,893.000	S.F.	4,221.39	5,092.17	2008 Qtr 2	0	0	\$ -
Repair 5/8" drywall - (2% of walls)	20	1 Carp	37.860	S.F.	60.20	72.31	2008 Qtr 2	2	2	\$ 144.63
Replace carpet	12	2 Tilf	149.600	S.Y.	6,751.45	7,800.14	2008 Qtr 2	4	4	\$ 31,200.58
Refinish concrete floor finished	25	2 Cefi	132.070	C.S.F.	46,150.54	55,560.53	2008 Qtr 2	2	1	\$ 55,560.53
Replace vinyl floor	18	1 Tilf	65.440	S.Y.	3,124.76	3,815.15	2008 Qtr 2	3	2	\$ 7,630.30
Replace acoustic tile ceiling, fire-rated	20	1 Carp	19.350	C.S.F.	7,800.95	9,268.65	2008 Qtr 2	2	2	\$ 18,537.30
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

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Terminal Cutoff is the removal of a single task occurrence if that task occurs
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Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Release	Occurrences in Design Life	Adjusted Occurrences	Terminal Cutoff
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	18.000	Ea.	432.18	509.94	2008 Qtr 2	7	7	\$ 3,569.58
Replace washer in faucet lavatory, vitreous china	2	1 Plum	18.000	Ea.	177.30	221.22	2008 Qtr 2	27	27	\$ 5,972.94
Replace faucets lavatory, vitreous china	10	1 Plum	18.000	Ea.	2,222.82	2,683.08	2008 Qtr 2	5	5	\$ 13,415.40
Clean out strainer and P trap lavatory, vitreous china	2	1 Plum	18.000	Ea.	486.72	604.26	2008 Qtr 2	27	27	\$ 16,315.02
Replace lavatory, vitreous china	35	2 Plum	18.000	Ea.	9,543.42	11,442.60	2008 Qtr 2	1	1	\$ 11,442.60
Replace faucet washer sink, iron enamel	2	1 Plum	2.000	Ea.	19.58	24.38	2008 Qtr 2	27	27	\$ 658.26
Clean trap sink, iron enamel	3	1 Plum	2.000	Ea.	13.20	16.50	2008 Qtr 2	18	18	\$ 297.00
Replace faucets sink, iron enamel	10	1 Plum	2.000	Ea.	246.98	298.12	2008 Qtr 2	5	5	\$ 1,490.60
Unstop sink sink, iron enamel	2	1 Plum	2.000	Ea.	64.42	81.00	2008 Qtr 2	27	27	\$ 2,187.00
Replace sink, P.E.C.I. sink, iron enamel	35	2 Plum	2.000	Ea.	1,105.44	1,315.38	2008 Qtr 2	1	1	\$ 1,315.38
Replace flush valve diaphragm tankless water closet	10	1 Plum	10.000	Ea.	707.40	830.60	2008 Qtr 2	5	5	\$ 4,153.00
Rebuild flush valve tankless water closet	20	1 Plum	10.000	Ea.	1,319.80	1,600.10	2008 Qtr 2	2	2	\$ 3,200.20
Unplug clogged line tankless water closet	5	1 Plum	10.000	Ea.	1,682.60	2,101.80	2008 Qtr 2	11	11	\$ 23,119.80
Replace tankless water closet	35	2 Plum	10.000	Ea.	5,480.00	6,483.60	2008 Qtr 2	1	1	\$ 6,483.60
Replace tankless flush valve	25	1 Plum	10.000	Ea.	2,095.00	2,453.70	2008 Qtr 2	2	1	\$ 2,453.70
Replace wax ring gasket tankless water closet	5	1 Plum	10.000	Ea.	1,095.70	1,372.00	2008 Qtr 2	11	11	\$ 15,092.00
Replace flush valve diaphragm urinal	7	1 Plum	4.000	Ea.	282.96	332.24	2008 Qtr 2	7	7	\$ 2,325.68
Rebuild flush valve urinal	20	1 Plum	4.000	Ea.	527.92	640.04	2008 Qtr 2	2	2	\$ 1,280.08
Unplug line urinal	5	1 Plum	4.000	Ea.	448.56	559.64	2008 Qtr 2	11	11	\$ 6,156.04
Replace wall-hung urinal	35	2 Plum	4.000	Ea.	3,366.52	4,026.28	2008 Qtr 2	1	1	\$ 4,026.28
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	8.000	L.F.	326.48	392.88	2008 Qtr 2	2	1	\$ 392.88
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
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

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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
Replace pipe & fittings, cast iron	40	2 Plum	16.000	L.F.	670.40	811.20	2008 Qtr 2	1	1	\$ 811.20
Unclog main drain pipe & fittings, cast iron	10	1 Plum	1.000	Ea.	35.62	44.41	2008 Qtr 2	5	5	\$ 222.05
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	8.000	L.F.	473.60	585.52	2008 Qtr 2	1	1	\$ 585.52
General maintenance & repair drain: roof, scupper, area	1	1 Plum	5.000	Ea.	141.75	178.35	2008 Qtr 2	55	55	\$ 9,809.25
Replace drain: roof, scupper, area	40	1 Plum	5.000	Ea.	1,991.70	2,340.70	2008 Qtr 2	1	1	\$ 2,340.70
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	1.000	Ea.	906.01	1,077.56	2008 Qtr 2	2	2	\$ 2,155.12
Repair single zone rooftop unit, 60 ton	10	Q6	0.500	Ea.	19,835.09	23,476.18	2008 Qtr 2	5	5	\$ 117,380.88
Replace single zone rooftop unit, 60 ton	15	Q7	1.000	Ea.	70,810.00	82,892.60	2008 Qtr 2	3	3	\$ 248,677.80
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	88.000	Ea.	5,603.84	6,904.48	2008 Qtr 2	2	2	\$ 13,808.96
Rebuild double check 3" backflow preventer sprinkler system	5	1 Plum	1.000	Ea.	598.06	715.83	2008 Qtr 2	11	11	\$ 7,874.13
Inspect sprinkler system	1	1 Plum	1.000	Ea.	26.55	32.89	2008 Qtr 2	55	55	\$ 1,808.95
Replace fire alarm bell, 6"	20	1 Elec	4.000	Ea.	569.12	686.04	2008 Qtr 2	2	2	\$ 1,372.08
Maintenance and repair safety switch gen., 2 pole	8	1 Elec	3.000	Ea.	85.50	106.89	2008 Qtr 2	6	6	\$ 641.34
Maintenance and inspection safety switch, 2 pole	1	1 Elec	3.000	Ea.	85.50	106.89	2008 Qtr 2	55	55	\$ 5,878.95
Replace safety switch 240 V, 2 pole	25	2 Elec	3.000	Ea.	1,061.94	1,264.14	2008 Qtr 2	2	1	\$ 1,264.14
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	8.000	Ea.	432.00	513.12	2008 Qtr 2	27	27	\$ 13,854.24
Replace emergency lighting fixture	20	1 Elec	8.000	Ea.	6,746.00	7,772.80	2008 Qtr 2	2	2	\$ 15,545.60
Maintenance and repair exit light	20	1 Elec	8.000	Ea.	262.64	318.96	2008 Qtr 2	2	2	\$ 637.92
Replace lamp exit light	5	1 Elec	8.000	Ea.	98.80	116.96	2008 Qtr 2	11	11	\$ 1,286.56
Replace fluor. ballast for fluorescent lighting fixture, 80 W	10	1 Elec	202.000	Ea.	20,115.16	24,256.16	2008 Qtr 2	5	5	\$ 121,280.80
Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	10	1 Elec	202.000	Ea.	5,138.88	6,298.36	2008 Qtr 2	5	5	\$ 31,491.80
Maintenance and repair receptacles and plugs	20	1 Elec	139.000	Ea.	4,321.51	5,383.47	2008 Qtr 2	2	2	\$ 10,766.94
Replace receptacle/plug receptacles and plugs	20	1 Elec	139.000	Ea.	7,333.64	8,954.38	2008 Qtr 2	2	2	\$ 17,908.76
Maintenance and repair wiring devices, switches	10	1 Elec	35.000	Ea.	1,088.15	1,355.55	2008 Qtr 2	5	5	\$ 6,777.75
Replace switch wiring devices, switches	15	1 Elec	35.000	Ea.	1,792.35	2,182.25	2008 Qtr 2	3	3	\$ 6,546.75

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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	54.000	Ea.	2,062.26	2,538.00	2008 Qtr 2	5	5	\$ 12,690.00
Check operation smoke detector	1	1 Elec	54.000	Ea.	615.60	772.20	2008 Qtr 2	55	55	\$ 42,471.00
Replace smoke detector	15	1 Elec	54.000	Ea.	10,235.70	12,257.46	2008 Qtr 2	3	3	\$ 36,772.38
					\$673,559.52	\$795,415.55				
								MR Subtotal	\$ 1,766,855.78	
								MR Per Year	\$ 32,124.65	
								PM Per Year	\$ 4,838.68	
								Subtotal	\$ 36,963.33	
								Total Per Unit	\$ 2.44	

CostWorks 2009 Quarter 1 - FAC 3141 Tank and Automotive 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
10.000	B2035 225 1950	Door, emergency egress, swinging, annualized	495.10	575.10	200		FMR	2008 Qtr 2
3.000	C1025 110 1950	Fire doors, swinging, annualized	74.67	89.58	200		FMR	2008 Qtr 2
4.000	D2015 100 1950	Urinals, annualized	51.72	64.60	200		FMR	2008 Qtr 2
10.000	D2015 100 2950	Toilet (vacuum breaker type), annualized	129.30	161.50	200		FMR	2008 Qtr 2
18.000	D2015 100 4950	Lavatories, annualized	444.24	541.44	200		FMR	2008 Qtr 2
3.000	D2015 800 1950	Drink fountain, annualized	148.50	178.08	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
8.000	D3045 160 1950	VAV Boxes, annualized	490.48	608.00	200		FMR	2008 Qtr 2
1.000	D3055 210 2950	Package unit, air cooled, 25 thru 50 ton, annualized	284.94	341.10	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
1.000	E1095 122 3950	Crane, electric bridge, over 15 tons, annualized	409.54	502.00	200		FMR	2008 Qtr 2
			\$3,989.84	\$4,838.68				

FAC 3141 Sustainment by Year - Terminal Cutoff Applied

