

**FAC 1722    Physiological Training Facility**

RUC:            \$106.05 SF

Source:        AFCESA Cost Handbook (FY-06)  
CatCode 171214  
Inflated to FY-08 using actual inflation; projected to FY-09 using Green Book  
In V12, Tri-Service and USACE PAX Newsletter values were updated while all  
other values were inflated only.

SUC:            \$2.55 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:

**FAC 1722 Physiological Training Facility**  
**CostWorks 2008 Quarter 2**

|  | Design Life= 50<br>Average S.F.= 9,160 | C.S.F=100 S.F; MSF=1000 S.F<br>Sq=100 S.F; M.L.F=1000 L.F | This spreadsheet was exported from<br>R.S. Means CostWorks | Terminal Cutoff is the removal of a single task occurrence if that task occurs within<br>10% of the end of the design life and if the frequency of the task exceeds 20% of the<br>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<br>Design Life | Adjusted<br>Occurrences | Terminal Cutoff |
| Repair brick wall - 1st floor  | 25                                     | 1 Bric  | 57.200   | S.F.  | 2,116.40       | 2,571.71        | 2008 Qtr 2 | 2                             | 1                       | \$ 2,571.71     |
| Replace brick wall - 2nd floor   | 75                                     | 2 Bric  | 5.720  | C.S.F.  | 11,700.77      | 14,040.25       | 2008 Qtr 2 | 0                             | 0                       | \$ -            |
| Repair 8" concrete block wall - 1st floor                              | 25                                     | 1 Bric  | 344.600  | S.F.  | 6,912.68       | 8,408.24        | 2008 Qtr 2 | 2                             | 1                       | \$ 8,408.24     |
| Replace 8" concrete block wall - 2nd floor                             | 60                                     | 2 Bric  | 31.900   | C.S.F.  | 33,851.32      | 40,784.15       | 2008 Qtr 2 | 0                             | 0                       | \$ -            |
| Repair 2'-0" x 3'-0" aluminum window - 1st floor                       | 20                                     | 1 Carp  | 3.800  | Ea.   | 436.85         | 517.56          | 2008 Qtr 2 | 2                             | 2                       | \$ 1,035.12     |
| Replace 2'-0" x 3'-0" aluminum window - 1st floor                      | 50                                     | 1 Carp  | 38.000   | Ea.   | 16,666.80      | 19,493.62       | 2008 Qtr 2 | 1                             | 0                       | \$ -            |
| Replace glass - 1st floor (1% of glass)                                | 1                                      | 1 Carp  | 2.200  | S.F.  | 19.91          | 23.36           | 2008 Qtr 2 | 50                            | 50                      | \$ 1,168.20     |
| Replace glass - 2nd floor (1% of glass)                                | 1                                      | 1 Carp  | 2.200  | S.F.  | 192.28         | 235.51          | 2008 Qtr 2 | 50                            | 50                      | \$ 11,775.50    |
| Repair 2'-0" x 3'-0" aluminum window - 2nd floor                       | 20                                     | 1 Carp  | 3.800  | Ea.   | 584.06         | 700.80          | 2008 Qtr 2 | 2                             | 2                       | \$ 1,401.59     |
| Replace 2'-0" x 3'-0" aluminum window - 2nd floor                      | 50                                     | 1 Carp  | 38.000   | Ea.   | 18,139.30      | 21,325.98       | 2008 Qtr 2 | 1                             | 0                       | \$ -            |
| Replace tempered glass - (3% of glass)                                 | 1                                      | 1 Carp  | 0.060  | S.F.  | 1.16           | 1.38            | 2008 Qtr 2 | 50                            | 50                      | \$ 68.88        |
| Prepare and refinish 3'-0" x 7'-0" steel ptd. door                     | 4                                      | 1 Pord  | 1.000  | Ea.   | 65.21          | 80.74           | 2008 Qtr 2 | 12                            | 12                      | \$ 968.88       |
| Replace 3'-0" x 7'-0" steel, w/ wire glass, ptd. door                  | 45                                     | 1 Carp  | 1.000  | Ea.   | 939.96         | 1,095.60        | 2008 Qtr 2 | 1                             | 1                       | \$ 1,095.60     |
| Repair steel, painted, door  | 14                                     | 1 Carp  | 2.000  | Ea.   | 1,164.88       | 1,372.72        | 2008 Qtr 2 | 3                             | 3                       | \$ 4,118.16     |
| Refinish 3'-0" x 7'-0" steel, painted, door                            | 4                                      | 1 Pord  | 2.000  | Ea.   | 65.82          | 80.62           | 2008 Qtr 2 | 12                            | 12                      | \$ 967.44       |
| Replace 3'-0" x 7'-0" steel, painted, door                             | 45                                     | 1 Carp  | 2.000  | Ea.   | 1,064.16       | 1,240.08        | 2008 Qtr 2 | 1                             | 1                       | \$ 1,240.08     |
| Debris removal and visual inspection built-up roofing                  | 1                                      | 2 Rofc  | 6.800  | M.S.F.  | 199.51         | 240.38          | 2008 Qtr 2 | 50                            | 50                      | \$ 12,019.00    |
| Non-destructive moisture inspection built-up roofing                   | 5                                      | 2 Rofc  | 6.800  | M.S.F.  | 617.30         | 746.64          | 2008 Qtr 2 | 10                            | 10                      | \$ 7,466.40     |
| Minor membrane repairs - (2% of roof area) built-up roofing            | 5                                      | G5  | 1.300  | Sq.   | 447.88         | 529.15          | 2008 Qtr 2 | 10                            | 10                      | \$ 5,291.52     |
| Flashing repairs - (2 S.F. per sq. repaired) built-up roofing          | 5                                      | 2 Rofc  | 2.700  | S.F.  | 9.07           | 10.80           | 2008 Qtr 2 | 10                            | 10                      | \$ 108.00       |
| Minor membrane replacement - (25% of roof area) built-up roofing       | 20                                     | G5  | 17.100   | Sq.   | 10,164.75      | 12,125.27       | 2008 Qtr 2 | 2                             | 2                       | \$ 24,250.54    |
| Total roof replacement built-up roofing                                | 28                                     | G1  | 68.700   | Sq.   | 39,212.59      | 46,437.77       | 2008 Qtr 2 | 1                             | 1                       | \$ 46,437.77    |
| Debris removal by hand & visual inspection,modified bitum/thermoplastc | 1                                      | 2 Rofc  | 1.100  | M.S.F.  | 32.27          | 38.89           | 2008 Qtr 2 | 50                            | 50                      | \$ 1,944.25     |
| Non-destructive moisture inspection,modified bitum/thermoplastic       | 5                                      | 2 Rofc  | 1.100  | M.S.F.  | 99.86          | 120.78          | 2008 Qtr 2 | 10                            | 10                      | \$ 1,207.80     |
| Minor membrane repairs-(2% of roof area),modified bitum/thermoplastic  | 1                                      | G5  | 0.200  | Sq.   | 53.36          | 62.95           | 2008 Qtr 2 | 50                            | 50                      | \$ 3,147.40     |
| Flashing repairs-(2 S.F. per sq. repaired),modified bitum/thermoplastc | 1                                      | 2 Rofc  | 0.400  | S.F.  | 1.33           | 1.56            | 2008 Qtr 2 | 50                            | 50                      | \$ 78.20        |
| Membrane replacement-(25% of roof area),modified bitum/thermoplastic   | 20                                     | G5  | 2.800  | Sq.   | 1,782.90       | 2,113.72        | 2008 Qtr 2 | 2                             | 2                       | \$ 4,227.44     |
| Total roof replacement,modified bituminous / thermoplastic             | 25                                     | G1  | 11.400   | Sq.   | 5,549.98       | 6,560.81        | 2008 Qtr 2 | 2                             | 1                       | \$ 6,560.81     |
| 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                     | 8                                      | 1 Pord  | 3.000  | Ea.   | 148.20         | 182.46          | 2008 Qtr 2 | 6                             | 6                       | \$ 1,094.76     |
| 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  | 10.000   | Ea.   | 1,677.50       | 1,981.40        | 2008 Qtr 2 | 4                             | 4                       | \$ 7,925.60     |
| Refinish 3'-0" x 7'-0" solid core wood door interior                   | 4                                      | 1 Pord  | 20.000   | Ea.   | 844.40         | 1,039.60        | 2008 Qtr 2 | 12                            | 12                      | \$ 12,475.20    |
| Replace 3'-0" x 7'-0" solid core wood door interior                    | 40                                     | 1 Carp  | 20.000   | Ea.   | 7,334.00       | 8,502.40        | 2008 Qtr 2 | 1                             | 1                       | \$ 8,502.40     |
| Repair concrete steps  | 15                                     | 1 Cefi  | 1.700  | S.F.  | 28.88          | 33.63           | 2008 Qtr 2 | 3                             | 3                       | \$ 100.88       |
| Replace concrete steps   | 100                                    | 2 Cefi  | 17.000   | S.F.  | 841.67         | 1,021.53        | 2008 Qtr 2 | 0                             | 0                       | \$ -            |
| Refinish metal stair railing interior                                  | 7                                      | 1 Pord  | 13.000   | S.F.  | 17.81          | 22.10           | 2008 Qtr 2 | 7                             | 7                       | \$ 154.70       |
| Replace metal stair railing interior                                   | 45                                     | 2 Sswk  | 13.000   | L.F.  | 466.31         | 538.72          | 2008 Qtr 2 | 1                             | 1                       | \$ 538.72       |
| Repair 4" x 4" thin set ceramic tile - (2% of walls)                   | 10                                     | 1 Tilf  | 0.080  | C.S.F.  | 60.33          | 72.99           | 2008 Qtr 2 | 5                             | 5                       | \$ 364.94       |
| Replace 4" x 4" thin set ceramic tile                                  | 75                                     | 1 Tilf  | 4.000  | C.S.F.  | 3,282.76       | 3,978.12        | 2008 Qtr 2 | 0                             | 0                       | \$ -            |
| Repair 8" concrete block wall - (2% of walls) painted                  | 25                                     | 1 Bric  | 1.600  | C.S.F.  | 1,617.94       | 1,942.43        | 2008 Qtr 2 | 2                             | 1                       | \$ 1,942.43     |
| Refinish concrete block wall painted                                   | 8                                      | 1 Pord  | 81.700   | C.S.F.  | 7,938.79       | 9,651.22        | 2008 Qtr 2 | 6                             | 6                       | \$ 57,907.33    |

**FAC 1722 Physiological Training Facility**  
**CostWorks 2008 Quarter 2**

Design Life= 50  
Average S.F= 9,160

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<br>Design Life | Adjusted<br>Occurrences | Terminal Cutoff |
|--|-----------|--------|-----------|--------|----------------|-----------------|------------|-------------------------------|-------------------------|-----------------|
| Replace 8" concrete block wall painted                     | 75        | 2 Bric | 81.700    | C.S.F. | 88,057.08      | 105,898.72      | 2008 Qtr 2 | 0                             | 0 \$                    | -               |
| Repair fabric wall finish fabric interior                  | 9         | 1 Pord | 12.200    | S.Y.   | 307.32         | 372.22          | 2008 Qtr 2 | 5                             | 5 \$                    | 1,861.11        |
| Replace fabric wall finish fabric interior                 | 50        | 1 Pord | 122.500   | S.Y.   | 17,214.93      | 21,003.85       | 2008 Qtr 2 | 1                             | 0 \$                    | -               |
| Repair 5/8" drywall - (2% of walls)                        | 20        | 1 Carp | 153.200   | S.F.   | 243.59         | 292.61          | 2008 Qtr 2 | 2                             | 2 \$                    | 585.22          |
| Replace 5/8" drywall                                       | 75        | 2 Carp | 7,663.000 | S.F.   | 17,088.49      | 20,613.47       | 2008 Qtr 2 | 0                             | 0 \$                    | -               |
| Replace carpet   | 12        | 2 Tilf | 251.800   | S.Y.   | 11,363.73      | 13,128.85       | 2008 Qtr 2 | 4                             | 3 \$                    | 39,386.56       |
| Refinish concrete floor finished                           | 25        | 2 Cefi | 62.600    | C.S.F. | 21,874.94      | 26,335.19       | 2008 Qtr 2 | 2                             | 1 \$                    | 26,335.19       |
| Terrazzo floor repairs - (2% of floors)                    | 15        | 1 Mstz | 6.100     | S.F.   | 91.62          | 109.43          | 2008 Qtr 2 | 3                             | 3 \$                    | 328.30          |
| Replace terrazzo floor                                     | 75        | 2 Mstz | 3.000     | C.S.F. | 4,319.82       | 5,115.81        | 2008 Qtr 2 | 0                             | 0 \$                    | -               |
| Replace vinyl floor  | 18        | 1 Tilf | 35.000    | S.Y.   | 1,671.25       | 2,040.50        | 2008 Qtr 2 | 2                             | 2 \$                    | 4,081.00        |
| Acoustic tile repairs - (2% of ceilings)                   | 9         | 1 Carp | 0.500     | C.S.F. | 223.34         | 265.84          | 2008 Qtr 2 | 5                             | 5 \$                    | 1,329.18        |
| Replace acoustic tile ceiling, fire-rated                  | 20        | 1 Carp | 26.300    | C.S.F. | 10,602.85      | 12,597.70       | 2008 Qtr 2 | 2                             | 2 \$                    | 25,195.40       |
| Repair sheetrock ceiling - (2% of ceilings)                | 20        | 1 Carp | 0.090     | C.S.F. | 31.43          | 38.36           | 2008 Qtr 2 | 2                             | 2 \$                    | 76.73           |
| Refinish sheetrock ceiling                                 | 20        | 1 Pord | 4.600     | C.S.F. | 578.08         | 714.33          | 2008 Qtr 2 | 2                             | 2 \$                    | 1,428.67        |
| Replace sheetrock ceiling                                  | 40        | 2 Carp | 4.600     | C.S.F. | 1,648.32       | 2,012.55        | 2008 Qtr 2 | 1                             | 1 \$                    | 2,012.55        |
| Check / minor repairs drinking fountain                    | 1         | 1 Plum | 2.000     | Ea.    | 75.16          | 94.68           | 2008 Qtr 2 | 50                            | 50 \$                   | 4,734.00        |
| Repair internal leaks drinking fountain                    | 4         | 1 Plum | 2.000     | Ea.    | 70.28          | 86.86           | 2008 Qtr 2 | 12                            | 12 \$                   | 1,042.32        |
| Correct water pressure drinking fountain                   | 2         | 1 Plum | 2.000     | Ea.    | 64.42          | 81.00           | 2008 Qtr 2 | 25                            | 25 \$                   | 2,025.00        |
| Replace refrigerant drinking fountain                      | 2         | 1 Plum | 2.000     | Ea.    | 31.68          | 37.72           | 2008 Qtr 2 | 25                            | 25 \$                   | 943.00          |
| Repair drain leak drinking fountain                        | 4         | 1 Plum | 2.000     | Ea.    | 45.26          | 54.06           | 2008 Qtr 2 | 12                            | 12 \$                   | 648.72          |
| Replace fountain drinking fountain                         | 10        | 2 Plum | 2.000     | Ea.    | 2,011.68       | 2,387.14        | 2008 Qtr 2 | 5                             | 5 \$                    | 11,935.70       |
| Replace washer in spud connection lavatory, vitreous china | 7         | 1 Plum | 4.000     | Ea.    | 96.04          | 113.32          | 2008 Qtr 2 | 7                             | 7 \$                    | 793.24          |
| Replace washer in faucet lavatory, vitreous china          | 2         | 1 Plum | 4.000     | Ea.    | 39.40          | 49.16           | 2008 Qtr 2 | 25                            | 25 \$                   | 1,229.00        |
| Replace faucets lavatory, vitreous china                   | 10        | 1 Plum | 4.000     | Ea.    | 493.96         | 596.24          | 2008 Qtr 2 | 5                             | 5 \$                    | 2,981.20        |
| Clean out strainer and P trap lavatory, vitreous china     | 2         | 1 Plum | 4.000     | Ea.    | 108.16         | 134.28          | 2008 Qtr 2 | 25                            | 25 \$                   | 3,357.00        |
| Replace lavatory, vitreous china                           | 35        | 2 Plum | 4.000     | Ea.    | 2,120.76       | 2,542.80        | 2008 Qtr 2 | 1                             | 1 \$                    | 2,542.80        |
| Replace faucet washer sink, iron enamel                    | 2         | 1 Plum | 1.000     | Ea.    | 9.79           | 12.19           | 2008 Qtr 2 | 25                            | 25 \$                   | 304.75          |
| Clean trap sink, iron enamel                               | 3         | 1 Plum | 1.000     | Ea.    | 6.60           | 8.25            | 2008 Qtr 2 | 16                            | 16 \$                   | 132.00          |
| 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 | 25                            | 25 \$                   | 1,012.50        |
| 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 | 4.000     | Ea.    | 282.96         | 332.24          | 2008 Qtr 2 | 5                             | 5 \$                    | 1,661.20        |
| Rebuild flush valve tankless water closet                  | 20        | 1 Plum | 4.000     | Ea.    | 527.92         | 640.04          | 2008 Qtr 2 | 2                             | 2 \$                    | 1,280.08        |
| Unplug clogged line tankless water closet                  | 5         | 1 Plum | 4.000     | Ea.    | 673.04         | 840.72          | 2008 Qtr 2 | 10                            | 10 \$                   | 8,407.20        |
| Replace tankless water closet                              | 35        | 2 Plum | 4.000     | Ea.    | 2,192.00       | 2,593.44        | 2008 Qtr 2 | 1                             | 1 \$                    | 2,593.44        |
| Replace tankless flush valve                               | 25        | 1 Plum | 4.000     | Ea.    | 838.00         | 981.48          | 2008 Qtr 2 | 2                             | 1 \$                    | 981.48          |
| Replace wax ring gasket tankless water closet              | 5         | 1 Plum | 4.000     | Ea.    | 438.28         | 548.80          | 2008 Qtr 2 | 10                            | 10 \$                   | 5,488.00        |
| 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 | 10                            | 10 \$                   | 4,197.30        |
| Replace wall-hung urinal                                   | 35        | 2 Plum | 3.000     | Ea.    | 2,524.89       | 3,019.71        | 2008 Qtr 2 | 1                             | 1 \$                    | 3,019.71        |
| 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        |

**FAC 1722 Physiological Training Facility**  
**CostWorks 2008 Quarter 2**

|   |           | Design Life= 50    | 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 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. |         |                            |                      |                 |
|---|-----------|--------------------|-----------------------------|-------------------------------|----------------|---|---------|----------------------------|----------------------|-----------------|
|   |           | Average S.F= 9,160 | Sq=100 S.F; M.L.F=1000 L.F  | from R.S. Means CostWorks     |                |   |         |                            |                      |                 |
| Description   | Frequency | Crew               | Qty                         | Unit                          | Total In-House | Total Incl. O&P   | Release | Occurrences In Design Life | Adjusted Occurrences | Terminal Cutoff |
| Replace pipe and fittings, copper 2"                          | 25        | 2 Plum             | 16.000                      | L.F.                          | 652.96         | 785.76 2008 Qtr 2   |         | 2                          | 1 \$                 | 785.76          |
| Repair damaged pipe insulation, fiberglass 3/4"               | 5         | Q14                | 4.000                       | Ea.                           | 62.88          | 76.72 2008 Qtr 2  |         | 10                         | 10 \$                | 767.20          |
| Repair damaged pipe insulation, fiberglass 2"                 | 5         | Q14                | 2.000                       | Ea.                           | 36.92          | 45.06 2008 Qtr 2  |         | 10                         | 10 \$                | 450.60          |
| Replace pipe insulation, fiberglass 3/4"                      | 5         | Q14                | 0.030                       | M.L.F.                        | 188.67         | 229.84 2008 Qtr 2   |         | 10                         | 10 \$                | 2,298.39        |
| Replace pipe insulation, fiberglass 2"                        | 5         | Q14                | 0.010                       | M.L.F.                        | 74.26          | 90.69 2008 Qtr 2  |         | 10                         | 10 \$                | 906.91          |
| Drain and flush water heater, electric, 120 gallon            | 7         | 1 Plum             | 1.000                       | Ea.                           | 226.43         | 283.04 2008 Qtr 2   |         | 7                          | 7 \$                 | 1,981.28        |
| Check operation water heater, electric, 120 gallon            | 3         | 1 Plum             | 1.000                       | Ea.                           | 1.98           | 2.48 2008 Qtr 2   |         | 16                         | 16 \$                | 39.68           |
| Replace water heater, electric, 120 gallon                    | 15        | 2 Plum             | 1.000                       | Ea.                           | 9,192.45       | 10,543.79 2008 Qtr 2  |         | 3                          | 3 \$                 | 31,631.37       |
| 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   |         | 5                          | 5 \$                 | 1,441.40        |
| Replace pipe, 4" pipe and fittings, PVC                       | 30        | 2 Plum             | 400.000                     | L.F.                          | 23,680.00      | 29,276.00 2008 Qtr 2  |         | 1                          | 1 \$                 | 29,276.00       |
| General maintenance & repair drain: roof, scupper, area       | 1         | 1 Plum             | 2.000                       | Ea.                           | 56.70          | 71.34 2008 Qtr 2  |         | 50                         | 50 \$                | 3,567.00        |
| Replace drain: roof, scupper, area                            | 40        | 1 Plum             | 2.000                       | Ea.                           | 796.68         | 936.28 2008 Qtr 2   |         | 1                          | 1 \$                 | 936.28          |
| Replace fan & motor, propeller exh., 1000 CFM exhaust fan     | 15        | Q20                | 2.000                       | Ea.                           | 1,729.08       | 2,020.66 2008 Qtr 2   |         | 3                          | 3 \$                 | 6,061.98        |
| Replace roof mounted exhaust fan, 8500 CFM exhaust fan        | 20        | Q20                | 1.000                       | Ea.                           | 2,619.48       | 3,050.64 2008 Qtr 2   |         | 2                          | 2 \$                 | 6,101.28        |
| Repair single zone rooftop unit, 25 ton                       | 10        | Q6                 | 1.000                       | Ea.                           | 25,821.09      | 29,922.89 2008 Qtr 2  |         | 5                          | 5 \$                 | 149,614.45      |
| Replace single zone rooftop unit, 25 ton                      | 15        | Q7                 | 0.500                       | Ea.                           | 17,049.20      | 19,838.80 2008 Qtr 2  |         | 3                          | 3 \$                 | 59,516.40       |
| Repair fan coil unit, 1 ton                                   | 10        | 1 Stpi             | 3.000                       | Ea.                           | 1,107.66       | 1,323.06 2008 Qtr 2   |         | 5                          | 5 \$                 | 6,615.30        |
| Replace fan coil unit, 1 ton                                  | 15        | Q5                 | 3.000                       | Ea.                           | 3,294.90       | 3,886.68 2008 Qtr 2   |         | 3                          | 3 \$                 | 11,660.04       |
| Inspect sprinkler system                                      | 1         | 1 Plum             | 1.000                       | Ea.                           | 26.55          | 32.89 2008 Qtr 2  |         | 50                         | 50 \$                | 1,644.50        |
| Replace sprinkler head  | 20        | 1 Plum             | 84.000                      | Ea.                           | 5,349.12       | 6,590.64 2008 Qtr 2   |         | 2                          | 2 \$                 | 13,181.28       |
| 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 inspection lighting panel, indoor             | 3         | 1 Elec             | 3.000                       | Ea.                           | 85.50          | 106.89 2008 Qtr 2   |         | 16                         | 16 \$                | 1,710.24        |
| Maintenance and repair motor starter, up to 600 V             | 5         | 1 Elec             | 4.000                       | Ea.                           | 683.00         | 830.00 2008 Qtr 2   |         | 10                         | 10 \$                | 8,300.00        |
| Maintenance and inspection motor starter, up to 600 V         | 0.5       | 1 Elec             | 4.000                       | Ea.                           | 152.68         | 191.40 2008 Qtr 2   |         | 100                        | 100 \$               | 19,140.00       |
| Replace starter motor starter, up to 600 V                    | 18        | 1 Elec             | 4.000                       | Ea.                           | 2,112.72       | 2,521.64 2008 Qtr 2   |         | 2                          | 2 \$                 | 5,043.28        |
| Replace lamp emergency lighting fixture                       | 2         | 1 Elec             | 4.000                       | Ea.                           | 216.00         | 256.56 2008 Qtr 2   |         | 25                         | 25 \$                | 6,414.00        |
| Replace emergency lighting fixture                            | 20        | 1 Elec             | 4.000                       | Ea.                           | 3,373.00       | 3,886.40 2008 Qtr 2   |         | 2                          | 2 \$                 | 7,772.80        |
| Maintenance and inspection battery, dry                       | 1         | 1 Elec             | 8.000                       | Ea.                           | 228.00         | 285.04 2008 Qtr 2   |         | 50                         | 50 \$                | 14,252.00       |
| Replace battery, dry  | 5         | 1 Elec             | 8.000                       | Ea.                           | 1,448.48       | 1,665.92 2008 Qtr 2   |         | 10                         | 10 \$                | 16,659.20       |
| Replace fluor. ballast for fluorescent lighting fixture, 80 W | 10        | 1 Elec             | 168.000                     | Ea.                           | 16,729.44      | 20,173.44 2008 Qtr 2  |         | 5                          | 5 \$                 | 100,867.20      |
| Replace lamps (2 lamps) fluorescent lighting fixture, 80 W    | 10        | 1 Elec             | 168.000                     | Ea.                           | 4,273.92       | 5,238.24 2008 Qtr 2   |         | 5                          | 5 \$                 | 26,191.20       |
| Replace fixture fluorescent lighting fixture, 80 W            | 20        | 1 Elec             | 0.000                       | Ea.                           | 0.00           | 0.00 2008 Qtr 2   |         | 2                          | 2 \$                 | -               |
| Maintenance and repair incandescent lighting fixtures         | 10        | 1 Elec             | 4.000                       | Ea.                           | 189.12         | 225.56 2008 Qtr 2   |         | 5                          | 5 \$                 | 1,127.80        |
| Replace lamp incandescent lighting fixtures                   | 5         | 1 Elec             | 4.000                       | Ea.                           | 27.92          | 34.08 2008 Qtr 2  |         | 10                         | 10 \$                | 340.80          |
| Replace lighting fixture incandescent                         | 20        | 1 Elec             | 4.000                       | Ea.                           | 477.68         | 571.40 2008 Qtr 2   |         | 2                          | 2 \$                 | 1,142.80        |
| Maintenance and repair receptacles and plugs                  | 20        | 1 Elec             | 201.000                     | Ea.                           | 6,249.09       | 7,784.73 2008 Qtr 2   |         | 2                          | 2 \$                 | 15,569.46       |
| Replace receptacle/plug receptacles and plugs                 | 20        | 1 Elec             | 201.000                     | Ea.                           | 10,604.76      | 12,948.42 2008 Qtr 2  |         | 2                          | 2 \$                 | 25,896.84       |
| Maintenance and repair wiring devices, switches               | 10        | 1 Elec             | 71.000                      | Ea.                           | 2,207.39       | 2,749.83 2008 Qtr 2   |         | 5                          | 5 \$                 | 13,749.15       |
| Replace switch wiring devices, switches                       | 15        | 1 Elec             | 71.000                      | Ea.                           | 3,635.91       | 4,426.85 2008 Qtr 2   |         | 3                          | 3 \$                 | 13,280.55       |
| Check and repair manual pull station                          | 10        | 1 Elec             | 4.000                       | Ea.                           | 276.84         | 339.48 2008 Qtr 2   |         | 5                          | 5 \$                 | 1,697.40        |

FAC 1722 Physiological Training Facility  
CostWorks 2008 Quarter 2

Design Life= 50  
Average S.F= 9,160

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 manual pull station    | 15        | 1 Elec | 4.000  | Ea.  | 502.96         | 607.56 2008 Qtr 2   |         | 3                          | 3 \$                 | 1,822.68        |
| Repair smoke detector          | 10        | 1 Elec | 18.000 | Ea.  | 687.42         | 846.00 2008 Qtr 2   |         | 5                          | 5 \$                 | 4,230.00        |
| Check operation smoke detector | 1         | 1 Elec | 18.000 | Ea.  | 205.20         | 257.40 2008 Qtr 2   |         | 50                         | 50 \$                | 12,870.00       |
| Replace smoke detector         | 15        | 1 Elec | 18.000 | Ea.  | 3,411.90       | 4,085.82 2008 Qtr 2 |         | 3                          | 3 \$                 | 12,257.46       |
|                                |           |        |        |      | \$520,437.95   | \$622,229.17        |         |                            |                      |                 |
|                                |           |        |        |      |                |                     |         |                            | MR Subtotal          | \$ 1,050,036.10 |
|                                |           |        |        |      |                |                     |         |                            | MR Per Year          | \$ 21,000.72    |
|                                |           |        |        |      |                |                     |         |                            | PM Per Year          | \$ 3,079.25     |
|                                |           |        |        |      |                |                     |         |                            | Subtotal             | \$ 24,079.97    |
|                                |           |        |        |      |                |                     |         |                            | Total Per Unit       | \$ 2.63         |

**CostWorks 2009 Quarter 1 - FAC 1722 Physiological Training Facility**

| 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 |
| 3.000  | B2035 225 1950  | Door, emergency egress, swinging, annualized   | 148.53            | 172.53            | 200      |        | FMR  | 2008 Qtr 2 |
| 23.000 | C1025 110 1950  | Fire doors, swinging, annualized               | 572.47            | 686.78            | 200      |        | FMR  | 2008 Qtr 2 |
| 2.000  | D2015 800 1950  | Drink fountain, annualized                     | 99.00             | 118.72            | 200      |        | FMR  | 2008 Qtr 2 |
| 4.000  | D2015 100 4950  | Lavatories, annualized                         | 98.72             | 120.32            | 200      |        | FMR  | 2008 Qtr 2 |
| 4.000  | D2015 100 2950  | Toilet (vacuum breaker type), annualized       | 51.72             | 64.60             | 200      |        | FMR  | 2008 Qtr 2 |
| 3.000  | D2015 100 1950  | Urinals, annualized                            | 38.79             | 48.45             | 200      |        | FMR  | 2008 Qtr 2 |
| 3.000  | D3045 120 1950  | Fan coil unit, annualized                      | 647.13            | 799.80            | 200      |        | FMR  | 2008 Qtr 2 |
| 3.000  | D5015 260 1950  | Panelboard, 225 A and above, annualized        | 170.88            | 203.13            | 200      |        | FMR  | 2008 Qtr 2 |
| 4.000  | D5095 250 1950  | Light, emergency, hardwired system, annualized | 57.00             | 71.48             | 200      |        | FMR  | 2008 Qtr 2 |
| 8.000  | D5095 250 2950  | Light, emergency, dry cell, annualized         | 547.04            | 641.44            | 200      |        | FMR  | 2008 Qtr 2 |
|        |                 |  | <b>\$2,553.90</b> | <b>\$3,079.25</b> |          |        |      |            |

FAC 1722 Sustainment by Year - Terminal Cutoff Applied

