

**FAC 7383 AIR RAID-FALLOUT-STORM SHELTER**

FY22 SUC: \$3.95 / SF  
Source: Calculated using R.S. Means CostWorks 2021 Qtr 3  
component prices

FAC 7383 AIR RAID-FALLOUT-STORM SHELTER

Release 2021 Qtr 3  
Zip Code Prefix 222  
Type MR

UM SF  
Design Life 45  
Average Size 3189.0

SUC \$3.95

Adjusted Occurrences are the occurrences remaining after subtracting Repair/Replacement Overlaps. Overlap reduction removes a repair when it occurs the same year as a replacement.

| Description  | Frequency | Qty Unit     | Total In-House | Total Incl OP | Design Life/Frequency | Occurrences in Design Life | Adjusted Occurrences | Life Cost   | Adjusted Cost |
|--|-----------|--------------|----------------|---------------|-----------------------|----------------------------|----------------------|-------------|---------------|
| Refinish concrete block wall painted                                   | 4         | 20.00 C.S.F. | \$2,018.37     | \$2,457.76    | 11.2500               | 11                         | 11                   | \$27,035.40 | \$27,035.40   |
| Replace axial flow fan, 6400 CFM exhaust fan                           | 10        | 2.00 Ea.     | \$6,274.28     | \$7,335.88    | 4.5000                | 4                          | 4                    | \$29,343.51 | \$29,343.51   |
| Replace heater explosionproof industrial heater                        | 15        | 2.00 Ea.     | \$9,087.06     | \$10,400.19   | 3.0000                | 3                          | 3                    | \$31,200.57 | \$31,200.57   |
| Replace mixing valve barrel shower, fiberglass                         | 2         | 8.00 Ea.     | \$2,260.72     | \$2,658.56    | 22.5000               | 22                         | 22                   | \$58,488.21 | \$58,488.21   |
| Replace single zone rooftop unit, 5 ton                                | 15        | 1.00 Ea.     | \$8,500.58     | \$10,094.10   | 3.0000                | 3                          | 3                    | \$30,282.30 | \$30,282.30   |
| Replace fountain drinking fountain                                     | 10        | 4.00 Ea.     | \$5,124.62     | \$6,058.24    | 4.5000                | 4                          | 4                    | \$24,232.94 | \$24,232.94   |
| Refinish concrete floor finished                                       | 25        | 32.00 C.S.F. | \$13,498.47    | \$16,213.77   | 1.8000                | 1                          | 1                    | \$16,213.77 | \$16,213.77   |
| Replace shower and fittings, fiberglass                                | 20        | 8.00 Ea.     | \$7,733.11     | \$9,249.28    | 2.2500                | 2                          | 2                    | \$18,498.55 | \$18,498.55   |
| Maintenance and inspection circuit breaker, molded case, 480 V, 1 pole | 0.5       | 6.00 Ea.     | \$194.33       | \$243.47      | 90.0000               | 90                         | 90                   | \$21,912.15 | \$21,912.15   |
| Replace fluorescent light fixture ballast, 80 W                        | 10        | 32.00 Ea.    | \$3,989.39     | \$4,839.59    | 4.5000                | 4                          | 2                    | \$19,358.37 | \$9,679.18    |
| Unplug clogged line tankless water closet                              | 5         | 8.00 Ea.     | \$1,747.16     | \$2,185.01    | 9.0000                | 9                          | 9                    | \$19,665.13 | \$19,665.13   |
| Replace fluorescent fixture, lay-in, recess mtd, 2' x 4', two 40 W     | 20        | 32.00 Ea.    | \$7,277.98     | \$8,877.29    | 2.2500                | 2                          | 2                    | \$17,754.57 | \$17,754.57   |
| Maintenance and inspection explosionproof industrial heater            | 0.5       | 2.00 Ea.     | \$157.70       | \$197.57      | 90.0000               | 90                         | 90                   | \$17,781.26 | \$17,781.26   |
| Replace mixing valve shower, fiberglass                                | 10        | 8.00 Ea.     | \$2,207.06     | \$2,684.44    | 4.5000                | 4                          | 4                    | \$10,737.77 | \$10,737.77   |
| Repair single zone rooftop unit, 5 ton                                 | 10        | 1.00 Ea.     | \$2,372.90     | \$2,849.79    | 4.5000                | 4                          | 4                    | \$11,399.16 | \$11,399.16   |
| Replace wax ring gasket for tankless water closet                      | 5         | 8.00 Ea.     | \$1,132.15     | \$1,414.61    | 9.0000                | 9                          | 9                    | \$12,731.50 | \$12,731.50   |
| Check / minor repairs drinking fountain                                | 1         | 4.00 Ea.     | \$195.53       | \$244.53      | 45.0000               | 45                         | 45                   | \$11,003.87 | \$11,003.87   |
| Maintenance and repair explosionproof industrial heater                | 2         | 2.00 Ea.     | \$405.39       | \$473.69      | 22.5000               | 22                         | 21                   | \$10,421.13 | \$9,947.44    |
| Replace tankless water closet  | 35        | 8.00 Ea.     | \$10,289.77    | \$11,907.96   | 1.2857                | 1                          | 1                    | \$11,907.96 | \$11,907.96   |
| Clean out strainer and P trap lavatory, vitreous china                 | 2         | 8.00 Ea.     | \$278.95       | \$348.86      | 22.5000               | 22                         | 22                   | \$7,674.99  | \$7,674.99    |
| Inspect / clean shower head fiberglass                                 | 3         | 8.00 Ea.     | \$395.14       | \$494.17      | 15.0000               | 15                         | 15                   | \$7,412.53  | \$7,412.53    |
| Replace lavatory, vitreous china                                       | 35        | 8.00 Ea.     | \$5,380.60     | \$6,465.77    | 1.2857                | 1                          | 1                    | \$6,465.77  | \$6,465.77    |
| Replace faucets lavatory, vitreous china                               | 10        | 8.00 Ea.     | \$1,453.81     | \$1,750.04    | 4.5000                | 4                          | 4                    | \$7,000.17  | \$7,000.17    |
| Unplug line urinal   | 5         | 4.00 Ea.     | \$580.29       | \$725.71      | 9.0000                | 9                          | 9                    | \$6,531.41  | \$6,531.41    |
| Repair steel, painted, door  | 14        | 2.00 Ea.     | \$1,250.15     | \$1,488.01    | 3.2143                | 3                          | 3                    | \$4,464.03  | \$4,464.03    |
| Replace lamps (2 lamps), 4', 34 W energy saver                         | 10        | 32.00 Ea.    | \$806.85       | \$1,010.53    | 4.5000                | 4                          | 4                    | \$4,042.10  | \$4,042.10    |
| Replace wall-hung urinal   | 35        | 4.00 Ea.     | \$3,875.45     | \$4,676.42    | 1.2857                | 1                          | 1                    | \$4,676.42  | \$4,676.42    |
| Correct water pressure drinking fountain                               | 2         | 4.00 Ea.     | \$167.29       | \$209.21      | 22.5000               | 22                         | 22                   | \$4,602.60  | \$4,602.60    |

| Description  | Frequency | Qty Unit     | Total In-House | Total Incl OP | Design Life/Frequency | Occurrences in Design Life | Adjusted Occurrences | Life Cost   | Adjusted Cost |
|--|-----------|--------------|----------------|---------------|-----------------------|----------------------------|----------------------|-------------|---------------|
| Rebuild flush valve tankless water closet                          | 20        | 8.00 Ea.     | \$1,443.47     | \$1,739.66    | 2.2500                | 2                          | 2                    | \$3,479.31  | \$3,479.31    |
| Replace sprinkler head   | 20        | 16.00 Ea.    | \$1,368.36     | \$1,683.03    | 2.2500                | 2                          | 2                    | \$3,366.06  | \$3,366.06    |
| Rebuild 4" diameter reduced pressure backflow preventer            | 10        | 1.00 Ea.     | \$664.67       | \$779.78      | 4.5000                | 4                          | 4                    | \$3,119.13  | \$3,119.13    |
| Repair hollow core wood door, interior                             | 7         | 2.00 Ea.     | \$586.90       | \$683.13      | 6.4286                | 6                          | 6                    | \$4,098.77  | \$4,098.77    |
| Replace refrigerant drinking fountain                              | 2         | 4.00 Ea.     | \$130.73       | \$153.08      | 22.5000               | 22                         | 22                   | \$3,367.69  | \$3,367.69    |
| Replace washer in faucet lavatory, vitreous china                  | 2         | 8.00 Ea.     | \$103.08       | \$128.41      | 22.5000               | 22                         | 22                   | \$2,825.12  | \$2,825.12    |
| Replace tankless flush valve                                       | 25        | 8.00 Ea.     | \$2,017.72     | \$2,368.88    | 1.8000                | 1                          | 1                    | \$2,368.88  | \$2,368.88    |
| Repair internal leaks drinking fountain                            | 4         | 4.00 Ea.     | \$180.32       | \$225.51      | 11.2500               | 11                         | 11                   | \$2,480.62  | \$2,480.62    |
| Unstop sink, iron enamel   | 2         | 2.00 Ea.     | \$83.64        | \$104.60      | 22.5000               | 22                         | 22                   | \$2,301.30  | \$2,301.30    |
| Repair drain leak drinking fountain                                | 4         | 4.00 Ea.     | \$135.66       | \$162.14      | 11.2500               | 11                         | 9                    | \$1,783.52  | \$1,459.25    |
| Repair 8" concrete block wall - (2% of walls) painted              | 25        | 1.40 C.S.F.  | \$1,525.52     | \$1,831.70    | 1.8000                | 1                          | 1                    | \$1,831.70  | \$1,831.70    |
| Inspect sprinkler system   | 1         | 1.00 Ea.     | \$34.33        | \$42.93       | 45.0000               | 45                         | 45                   | \$1,931.79  | \$1,931.79    |
| Replace 3'-0" x 7'-0" steel, painted, door                         | 45        | 2.00 Ea.     | \$1,410.13     | \$1,639.46    | 1.0000                | 1                          | 1                    | \$1,639.46  | \$1,639.46    |
| Rebuild flush valve for a urinal                                   | 20        | 4.00 Ea.     | \$721.74       | \$869.83      | 2.2500                | 2                          | 2                    | \$1,739.66  | \$1,739.66    |
| Replace faucets sink, iron enamel                                  | 10        | 2.00 Ea.     | \$363.45       | \$437.51      | 4.5000                | 4                          | 4                    | \$1,750.04  | \$1,750.04    |
| Refinish 3'-0" x 7'-0" steel painted interior door                 | 4         | 2.00 Ea.     | \$105.17       | \$129.57      | 11.2500               | 11                         | 11                   | \$1,425.30  | \$1,425.30    |
| Replace sink, P.E.C.I. sink, iron enamel kitchen                   | 35        | 2.00 Ea.     | \$1,273.40     | \$1,515.02    | 1.2857                | 1                          | 1                    | \$1,515.02  | \$1,515.02    |
| Repair steel painted interior door                                 | 14        | 2.00 Ea.     | \$586.90       | \$683.13      | 3.2143                | 3                          | 3                    | \$2,049.38  | \$2,049.38    |
| Maintenance and inspection lighting panel, indoor                  | 3         | 2.00 Ea.     | \$81.29        | \$101.84      | 15.0000               | 15                         | 15                   | \$1,527.64  | \$1,527.64    |
| Refinish 3'-0" x 7'-0" hollow core wood door, interior             | 4         | 2.00 Ea.     | \$86.73        | \$106.50      | 11.2500               | 11                         | 11                   | \$1,171.49  | \$1,171.49    |
| Replace flush valve diaphragm tankless water closet                | 10        | 8.00 Ea.     | \$209.76       | \$260.29      | 4.5000                | 4                          | 4                    | \$1,041.15  | \$1,041.15    |
| Refinish 3'-0" x 7'-0" steel, painted, door                        | 4         | 2.00 Ea.     | \$82.80        | \$101.73      | 11.2500               | 11                         | 11                   | \$1,119.06  | \$1,119.06    |
| Maintenance and repair breaker, molded case, 480 V, 1 pole         | 20        | 6.00 Ea.     | \$430.58       | \$539.45      | 2.2500                | 2                          | 2                    | \$1,078.90  | \$1,078.90    |
| Replace washer in spud connection lavatory, vitreous china         | 7         | 8.00 Ea.     | \$131.70       | \$160.64      | 6.4286                | 6                          | 6                    | \$963.84    | \$963.84      |
| Replace 3'-0" x 7'-0" hollow core wood door, interior              | 30        | 2.00 Ea.     | \$603.98       | \$711.79      | 1.5000                | 1                          | 1                    | \$711.79    | \$711.79      |
| Replace flush valve diaphragm for a urinal                         | 7         | 4.00 Ea.     | \$104.88       | \$130.14      | 6.4286                | 6                          | 6                    | \$780.86    | \$780.86      |
| Replace faucet washer sink, iron enamel                            | 2         | 2.00 Ea.     | \$25.55        | \$31.83       | 22.5000               | 22                         | 22                   | \$700.30    | \$700.30      |
| Clean trap sink, iron enamel                                       | 3         | 2.00 Ea.     | \$17.14        | \$21.44       | 15.0000               | 15                         | 15                   | \$321.56    | \$321.56      |
| Replace 8" concrete block wall painted                             | 75        | 75.00 C.S.F. | \$86,884.90    | \$104,520.99  | 0.6000                | 0                          | 0                    | \$0.00      | \$0.00        |
| Replace 3'-0" x 7'-0" steel painted interior door                  | 60        | 2.00 Ea.     | \$2,436.07     | \$2,824.17    | 0.7500                | 0                          | 0                    | \$0.00      | \$0.00        |
| Replace circuit breaker molded case, 480 V, 1 pole circuit breaker | 50        | 6.00 Ea.     | \$3,289.73     | \$3,832.23    | 0.9000                | 0                          | 0                    | \$0.00      | \$0.00        |
|  |           |              | \$205,775.40   | \$246,074.86  |                       |                            |                      | MR Subtotal | \$494,850.39  |
|  |           |              |                |               |                       |                            |                      | MR Per Year | \$10,996.68   |

| Description | Frequency | Qty Unit | Total In-House | Total Incl OP | Design<br>Life/Frequency | Occurrences<br>in Design<br>Life | Adjusted<br>Occurrences | Life Cost      | Adjusted Cost |
|-------------|-----------|----------|----------------|---------------|--------------------------|----------------------------------|-------------------------|----------------|---------------|
|             |           |          |                |               |                          |                                  |                         | PM Total       | \$1,607.20    |
|             |           |          |                |               |                          |                                  |                         | Subtotal       | \$12,603.88   |
|             |           |          |                |               |                          |                                  |                         | Total Per Unit | \$3.95        |

FAC 7383 AIR RAID-FALLOUT-STORM SHELTER

SUC \$3.95

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 45

Type PM

Average Size 3189.0

| Description   | Qty  | Labor Hours | Bare Mat | Bare Labor | Bare Equip | Bare Total | Total In-House | Total Incl OP |
|---|------|-------------|----------|------------|------------|------------|----------------|---------------|
| Urinals, annualized                                 | 4.00 | 0.91        | \$25.27  | \$45.81    | \$0.00     | \$71.09    | \$87.36        | \$104.89      |
| Toilet (vacuum breaker type), annualized            | 8.00 | 1.42        | \$67.53  | \$71.18    | \$0.00     | \$138.72   | \$166.83       | \$198.31      |
| Lavatories, annualized                              | 8.00 | 2.78        | \$47.72  | \$165.63   | \$0.00     | \$213.35   | \$267.81       | \$324.65      |
| Showers, annualized                                 | 8.00 | 1.82        | \$103.12 | \$108.89   | \$0.00     | \$212.01   | \$254.99       | \$303.13      |
| Fan, axial, 5,000 to 10,000 CFM, annualized         | 1.00 | 1.29        | \$35.89  | \$64.75    | \$0.00     | \$100.64   | \$123.66       | \$148.47      |
| Package unit, air cooled, 3 thru 24 ton, annualized | 1.00 | 2.40        | \$176.92 | \$144.48   | \$0.00     | \$321.41   | \$382.45       | \$452.33      |
| Panelboard, 225 A and above, annualized             | 1.00 | 0.44        | \$23.20  | \$29.01    | \$0.00     | \$52.21    | \$63.23        | \$75.41       |
|   |      |             |          |            |            | \$1,109.43 | \$1,346.32     | \$1,607.20    |



# FAC 7383 AIR RAID-FALLOUT-STORM SHELTER

## Modeled Component List CostWorks Release 2021 Qtr 3

|  |             |
|--|-------------|
| C10 Interior Construction                          |             |
| Concrete Block, Painted                            | 20.0 C.S.F. |
| Hollow Core Interior Doors                         | 2.0 Ea.     |
| Steel Painted Interior Doors                       | 2.0 Ea.     |
| D30 HVAC   |             |
| Exhaust Fan, axial flow, 6400 CFM                  | 2.0 Ea.     |
| Explosionproof Industrial Heater                   | 2.0 Ea.     |
| Single Zone Air Conditioner, 5 ton                 | 1.0 Ea.     |
| D20 Plumbing                                       |             |
| Drinking Fountain                                  | 4.0 Ea.     |
| Shower, Fiberglass                                 | 8.0 Ea.     |
| Tankless Water Closet                              | 8.0 Ea.     |
| Lavatory, Vitreous China                           | 8.0 Ea.     |
| Urinal   | 4.0 Ea.     |
| Sink, Iron Enamel                                  | 2.0 Ea.     |
| C30 Interior Finishes                              |             |
| Concrete, Finished                                 | 32.0 C.S.F. |
| D50 Electrical                                     |             |
| Fluorescent Lighting Fixture                       | 32.0 Ea.    |
| Load Center, 100 A, maintenance & inspection       | 2.0 Ea.     |
| Circuit Breaker, molded case, 480 V, 1 pole        | 6.0 Ea.     |
| D40 Fire Protection                                |             |
| Sprinkler System, Fire Suppression, sprinkler head | 16.0 Ea.    |
| Backflow Preventer                                 | 1.0 Ea.     |
| B20 Exterior Enclosure                             |             |
| Steel, Painted                                     | 2.0 Ea.     |

FAC 7383 AIR RAID-FALLOUT-STORM SHELTER  
Sustainment by Year  
CostWorks Release 2021 Qtr 3

