

**FAC 2136 NUCLEAR REPAIR SHOP**

FY24 SUC: \$5.10 / SF  
Source: Calculated using R.S. Means CostWorks 2023 Qtr 4 component prices

FAC 2136 NUCLEAR REPAIR SHOP

SUC \$5.10

Release 2023 Qtr 4  
Zip Code Prefix 222  
Type MR

UM SF  
Design Life 50  
Average Size 18648.0

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 |
|--|-----------|--------------|----------------|---------------|-----------------------|----------------------------|----------------------|--------------|---------------|
| Repair 2'-0" x 3'-0" aluminum window - 1st floor                       | 20        | 22.00 Ea.    | \$3,438.89     | \$4,097.97    | 2.5000                | 2                          | 2                    | \$8,195.94   | \$8,195.94    |
| Replace 2'-0" x 3'-0" aluminum window - 1st floor                      | 50        | 22.00 Ea.    | \$14,905.89    | \$17,496.67   | 1.0000                | 1                          | 1                    | \$17,496.67  | \$17,496.67   |
| Repair steel, painted, door  | 14        | 1.00 Ea.     | \$702.33       | \$834.19      | 3.5714                | 3                          | 3                    | \$2,502.58   | \$2,502.58    |
| Refinish 3'-0" x 7'-0" steel, painted, door                            | 4         | 1.00 Ea.     | \$46.05        | \$56.40       | 12.5000               | 12                         | 12                   | \$676.75     | \$676.75      |
| Replace 3'-0" x 7'-0" steel, painted, door                             | 45        | 1.00 Ea.     | \$917.11       | \$1,061.93    | 1.1111                | 1                          | 1                    | \$1,061.93   | \$1,061.93    |
| Repair 12' x 12' steel roll-up door                                    | 10        | 1.00 Ea.     | \$701.12       | \$833.22      | 5.0000                | 5                          | 5                    | \$4,166.12   | \$4,166.12    |
| Replace 12' x 12' steel roll-up door                                   | 35        | 1.00 Ea.     | \$2,804.46     | \$3,332.89    | 1.4286                | 1                          | 1                    | \$3,332.89   | \$3,332.89    |
| Refinish 12' x 24' steel double roll-up door                           | 5         | 4.00 Ea.     | \$1,846.39     | \$2,251.89    | 10.0000               | 10                         | 10                   | \$22,518.93  | \$22,518.93   |
| Replace 12' x 24' steel double roll-up door                            | 35        | 4.00 Ea.     | \$22,435.72    | \$26,663.15   | 1.4286                | 1                          | 1                    | \$26,663.15  | \$26,663.15   |
| Debris removal, by hand and visual inspection, metal panel roofing     | 1         | 22.00 M.S.F. | \$539.90       | \$658.52      | 50.0000               | 50                         | 50                   | \$32,926.12  | \$32,926.12   |
| Minor metal roof finish repairs, 2% of roof area, metal panel roofing  | 5         | 440.00 S.F.  | \$2,033.71     | \$2,416.90    | 10.0000               | 10                         | 10                   | \$24,169.02  | \$24,169.02   |
| Metal roof flashing replacement, 2 SF/sq repaired, metal panel roofing | 1         | 19.80 S.F.   | \$501.08       | \$598.88      | 50.0000               | 50                         | 50                   | \$29,943.85  | \$29,943.85   |
| Minor metal roof panel replacement, 2.5% of roof area                  | 20        | 550.70 S.F.  | \$7,091.92     | \$8,407.09    | 2.5000                | 2                          | 2                    | \$16,814.18  | \$16,814.18   |
| Total metal roof panel replacement                                     | 30        | 220.28 Sq.   | \$194,934.15   | \$231,091.81  | 1.6667                | 1                          | 1                    | \$231,091.81 | \$231,091.81  |
| Repair 8" concrete block wall - (2% of walls) painted                  | 25        | 1.70 C.S.F.  | \$1,946.35     | \$2,341.06    | 2.0000                | 2                          | 2                    | \$4,682.11   | \$4,682.11    |
| Refinish concrete block wall painted                                   | 4         | 89.70 C.S.F. | \$10,646.53    | \$12,871.34   | 12.5000               | 12                         | 12                   | \$154,456.06 | \$154,456.06  |
| Replace insulating glass (3% of glass) fully glazed wooden doors       | 1         | 0.30 S.F.    | \$15.01        | \$17.53       | 50.0000               | 50                         | 50                   | \$876.48     | \$876.48      |
| Repair fully glazed wood door  | 10        | 2.00 Ea.     | \$557.98       | \$651.36      | 5.0000                | 5                          | 5                    | \$3,256.82   | \$3,256.82    |
| Refinish 3'-0" x 7'-0" fully glazed wood door                          | 4         | 2.00 Ea.     | \$147.56       | \$183.07      | 12.5000               | 12                         | 12                   | \$2,196.82   | \$2,196.82    |
| Replace 3'-0" x 7'-0" fully glazed wood door                           | 40        | 2.00 Ea.     | \$2,308.07     | \$2,686.51    | 1.2500                | 1                          | 1                    | \$2,686.51   | \$2,686.51    |
| Repair steel painted interior door                                     | 14        | 12.00 Ea.    | \$3,347.86     | \$3,908.19    | 3.5714                | 3                          | 3                    | \$11,724.56  | \$11,724.56   |
| Refinish 3'-0" x 7'-0" steel painted interior door                     | 4         | 12.00 Ea.    | \$691.82       | \$850.53      | 12.5000               | 12                         | 12                   | \$10,206.33  | \$10,206.33   |
| Replace 3'-0" x 7'-0" steel painted interior door                      | 60        | 12.00 Ea.    | \$15,354.58    | \$17,807.01   | 0.8333                | 0                          | 0                    | \$0.00       | \$0.00        |
| Repair solid core wood door, interior                                  | 11        | 2.00 Ea.     | \$557.98       | \$651.36      | 4.5455                | 4                          | 4                    | \$2,605.46   | \$2,605.46    |
| Refinish 3'-0" x 7'-0" solid core wood door, interior                  | 4         | 2.00 Ea.     | \$88.03        | \$108.48      | 12.5000               | 12                         | 11                   | \$1,301.71   | \$1,193.23    |
| Replace 3'-0" x 7'-0" solid core wood door, interior                   | 40        | 2.00 Ea.     | \$1,133.10     | \$1,308.20    | 1.2500                | 1                          | 1                    | \$1,308.20   | \$1,308.20    |
| Repair concrete steps  | 15        | 58.00 S.F.   | \$1,813.92     | \$2,090.90    | 3.3333                | 3                          | 3                    | \$6,272.69   | \$6,272.69    |
| Replace concrete steps   | 100       | 58.00 S.F.   | \$3,317.05     | \$4,045.98    | 0.5000                | 0                          | 0                    | \$0.00       | \$0.00        |

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| Refinish metal stair railing, interior                     | 7         | 24.00 S.F.   | \$38.23        | \$47.05       | 7.1429                | 7                          | 7                    | \$329.35    | \$329.35      |
| Replace metal stair railing, interior                      | 45        | 24.00 L.F.   | \$1,119.39     | \$1,309.93    | 1.1111                | 1                          | 1                    | \$1,309.93  | \$1,309.93    |
| Repair 5/8" drywall - (2% of walls)                        | 20        | 0.10 S.F.    | \$0.17         | \$0.20        | 2.5000                | 2                          | 2                    | \$0.41      | \$0.41        |
| Replace 5/8" drywall                                       | 75        | 574.00 S.F.  | \$1,356.26     | \$1,665.50    | 0.6667                | 0                          | 0                    | \$0.00      | \$0.00        |
| Refinish concrete floor finished                           | 25        | 87.50 C.S.F. | \$36,450.51    | \$43,979.13   | 2.0000                | 2                          | 2                    | \$87,958.26 | \$87,958.26   |
| Replace vinyl tile flooring                                | 18        | 20.00 S.Y.   | \$1,021.78     | \$1,257.43    | 2.7778                | 2                          | 2                    | \$2,514.87  | \$2,514.87    |
| Replace carpet   | 8         | 45.70 S.Y.   | \$2,467.64     | \$2,853.62    | 6.2500                | 6                          | 6                    | \$17,121.73 | \$17,121.73   |
| Refinish plaster ceiling                                   | 10        | 429.50 S.Y.  | \$5,496.64     | \$6,760.96    | 5.0000                | 5                          | 5                    | \$33,804.82 | \$33,804.82   |
| Acoustic tile repairs - (2% of ceilings)                   | 9         | 0.60 C.S.F.  | \$554.27       | \$644.84      | 5.5556                | 5                          | 5                    | \$3,224.19  | \$3,224.19    |
| Replace acoustic tile ceiling, fire-rated                  | 20        | 30.40 C.S.F. | \$15,836.21    | \$18,717.20   | 2.5000                | 2                          | 2                    | \$37,434.40 | \$37,434.40   |
| Replace flush valve diaphragm tankless water closet        | 10        | 9.00 Ea.     | \$245.38       | \$304.70      | 5.0000                | 5                          | 5                    | \$1,523.52  | \$1,523.52    |
| Rebuild flush valve tankless water closet                  | 20        | 9.00 Ea.     | \$1,726.93     | \$2,081.42    | 2.5000                | 2                          | 2                    | \$4,162.84  | \$4,162.84    |
| Unplug clogged line tankless water closet                  | 5         | 9.00 Ea.     | \$2,069.36     | \$2,590.49    | 10.0000               | 10                         | 10                   | \$25,904.85 | \$25,904.85   |
| Replace tankless water closet                              | 35        | 9.00 Ea.     | \$12,748.99    | \$14,744.89   | 1.4286                | 1                          | 1                    | \$14,744.89 | \$14,744.89   |
| Replace tankless flush valve                               | 25        | 9.00 Ea.     | \$2,432.18     | \$2,854.96    | 2.0000                | 2                          | 2                    | \$5,709.92  | \$5,709.92    |
| Replace wax ring gasket for tankless water closet          | 5         | 9.00 Ea.     | \$1,342.48     | \$1,678.98    | 10.0000               | 10                         | 10                   | \$16,789.81 | \$16,789.81   |
| Replace flush valve diaphragm for a urinal                 | 7         | 2.00 Ea.     | \$54.53        | \$67.71       | 7.1429                | 7                          | 7                    | \$473.98    | \$473.98      |
| Rebuild flush valve for a urinal                           | 20        | 2.00 Ea.     | \$383.76       | \$462.54      | 2.5000                | 2                          | 2                    | \$925.08    | \$925.08      |
| Unplug line urinal   | 5         | 2.00 Ea.     | \$305.28       | \$382.16      | 10.0000               | 10                         | 10                   | \$3,821.63  | \$3,821.63    |
| Replace wall-hung urinal                                   | 35        | 2.00 Ea.     | \$2,175.04     | \$2,616.09    | 1.4286                | 1                          | 1                    | \$2,616.09  | \$2,616.09    |
| Replace washer in spud connection lavatory, vitreous china | 7         | 7.00 Ea.     | \$121.25       | \$147.99      | 7.1429                | 7                          | 7                    | \$1,035.90  | \$1,035.90    |
| Replace washer in faucet lavatory, vitreous china          | 2         | 7.00 Ea.     | \$94.97        | \$118.42      | 25.0000               | 25                         | 25                   | \$2,960.51  | \$2,960.51    |
| Replace faucets lavatory, vitreous china                   | 10        | 7.00 Ea.     | \$1,368.30     | \$1,645.85    | 5.0000                | 5                          | 5                    | \$8,229.25  | \$8,229.25    |
| Clean out strainer and P trap lavatory, vitreous china     | 2         | 7.00 Ea.     | \$257.73       | \$322.63      | 25.0000               | 25                         | 25                   | \$8,065.87  | \$8,065.87    |
| Replace lavatory, vitreous china                           | 35        | 7.00 Ea.     | \$5,031.06     | \$6,043.84    | 1.4286                | 1                          | 1                    | \$6,043.84  | \$6,043.84    |
| Replace faucet washer sink, iron enamel                    | 2         | 2.00 Ea.     | \$26.90        | \$33.54       | 25.0000               | 25                         | 25                   | \$838.47    | \$838.47      |
| Clean trap sink, iron enamel                               | 3         | 2.00 Ea.     | \$18.01        | \$22.55       | 16.6667               | 16                         | 16                   | \$360.77    | \$360.77      |
| Replace faucets sink, iron enamel                          | 10        | 2.00 Ea.     | \$390.94       | \$470.24      | 5.0000                | 5                          | 5                    | \$2,351.21  | \$2,351.21    |
| Unstop sink, iron enamel                                   | 2         | 2.00 Ea.     | \$88.02        | \$110.19      | 25.0000               | 25                         | 25                   | \$2,754.69  | \$2,754.69    |
| Replace sink, P.E.C.I. sink, iron enamel kitchen           | 35        | 2.00 Ea.     | \$2,416.86     | \$2,818.55    | 1.4286                | 1                          | 1                    | \$2,818.55  | \$2,818.55    |
| Inspect / clean shower head fiberglass                     | 3         | 2.00 Ea.     | \$103.07       | \$129.03      | 16.6667               | 16                         | 16                   | \$2,064.43  | \$2,064.43    |
| Replace mixing valve barrel shower, fiberglass             | 2         | 2.00 Ea.     | \$596.45       | \$701.66      | 25.0000               | 25                         | 25                   | \$17,541.60 | \$17,541.60   |
| Replace mixing valve shower, fiberglass                    | 10        | 2.00 Ea.     | \$586.79       | \$713.86      | 5.0000                | 5                          | 5                    | \$3,569.30  | \$3,569.30    |
| Replace shower and fittings, fiberglass                    | 20        | 2.00 Ea.     | \$2,198.16     | \$2,620.61    | 2.5000                | 2                          | 2                    | \$5,241.23  | \$5,241.23    |
| Check / minor repairs drinking fountain                    | 1         | 2.00 Ea.     | \$103.05       | \$129.00      | 50.0000               | 50                         | 50                   | \$6,450.01  | \$6,450.01    |

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| Repair internal leaks drinking fountain                      | 4         | 2.00 Ea.     | \$95.54        | \$119.59      | 12.5000               | 12                         | 12                   | \$1,435.13   | \$1,435.13    |
| Correct water pressure drinking fountain                     | 2         | 2.00 Ea.     | \$88.02        | \$110.19      | 25.0000               | 25                         | 25                   | \$2,754.69   | \$2,754.69    |
| Replace refrigerant drinking fountain                        | 2         | 2.00 Ea.     | \$70.81        | \$82.86       | 25.0000               | 25                         | 25                   | \$2,071.49   | \$2,071.49    |
| Repair drain leak drinking fountain                          | 4         | 2.00 Ea.     | \$58.19        | \$70.38       | 12.5000               | 12                         | 10                   | \$844.54     | \$703.79      |
| Replace fountain drinking fountain                           | 10        | 2.00 Ea.     | \$3,241.63     | \$3,808.60    | 5.0000                | 5                          | 5                    | \$19,043.01  | \$19,043.01   |
| Point and refinish painted concrete block wall, 1st floor    | 25        | 36.40 C.S.F. | \$18,816.24    | \$23,190.90   | 2.0000                | 2                          | 2                    | \$46,381.80  | \$46,381.80   |
| Repair clay brick wall, 1st floor                            | 25        | 657.00 S.F.  | \$29,728.68    | \$36,541.31   | 2.0000                | 2                          | 2                    | \$73,082.63  | \$73,082.63   |
| Replace aluminum siding, 2nd floor                           | 35        | 19.00 C.S.F. | \$14,437.62    | \$17,490.79   | 1.4286                | 1                          | 1                    | \$17,490.79  | \$17,490.79   |
| Refinish aluminum siding, 2nd floor                          | 20        | 19.00 C.S.F. | \$5,997.69     | \$7,391.86    | 2.5000                | 2                          | 2                    | \$14,783.71  | \$14,783.71   |
| Replace glass - 2nd floor (1% of glass) - steel frame window | 1         | 8.80 S.F.    | \$997.13       | \$1,230.93    | 50.0000               | 50                         | 50                   | \$61,546.44  | \$61,546.44   |
| Repair 3'-9" x 5'-5" steel frame window - 2nd floor.         | 20        | 34.00 Ea.    | \$12,715.59    | \$15,043.87   | 2.5000                | 2                          | 2                    | \$30,087.75  | \$30,087.75   |
| Refinish 3'-9" x 5'-5" steel frame window - 2nd floor.       | 5         | 34.00 Ea.    | \$5,401.09     | \$6,700.43    | 10.0000               | 10                         | 10                   | \$67,004.29  | \$67,004.29   |
| Replace 3'-9" x 5'-5" steel frame window - 2nd floor.        | 45        | 34.00 Ea.    | \$63,111.81    | \$72,802.85   | 1.1111                | 1                          | 1                    | \$72,802.85  | \$72,802.85   |
| Finish new 3'-9" x 5'-5" steel frame window - 2nd floor.     | 45        | 34.00 Ea.    | \$5,018.44     | \$6,224.53    | 1.1111                | 1                          | 1                    | \$6,224.53   | \$6,224.53    |
| Replace glass - 1st floor (1% of glass) - alum. window fixed | 1         | 1.50 S.F.    | \$19.72        | \$23.16       | 50.0000               | 50                         | 50                   | \$1,158.04   | \$1,158.04    |
| Inspect and clean sprayheads, emergency eye wash             | 3         | 1.00 Ea.     | \$51.54        | \$64.51       | 16.6667               | 16                         | 16                   | \$1,032.22   | \$1,032.22    |
| Replace eye wash station, emergency eye wash                 | 25        | 1.00 Ea.     | \$785.91       | \$955.55      | 2.0000                | 2                          | 2                    | \$1,911.10   | \$1,911.10    |
| Replace pipe and fittings, copper 3/4"                       | 20        | 32.00 L.F.   | \$799.91       | \$969.47      | 2.5000                | 2                          | 2                    | \$1,938.94   | \$1,938.94    |
| Replace pipe and fittings, copper 2"                         | 25        | 16.00 L.F.   | \$838.84       | \$1,008.95    | 2.0000                | 2                          | 2                    | \$2,017.90   | \$2,017.90    |
| Drain and flush water heater, electric, 120 gallon           | 7         | 2.00 Ea.     | \$618.30       | \$774.00      | 7.1429                | 7                          | 7                    | \$5,418.01   | \$5,418.01    |
| Check operation water heater, electric, 120 gallon           | 3         | 2.00 Ea.     | \$5.43         | \$6.80        | 16.6667               | 16                         | 16                   | \$108.79     | \$108.79      |
| Replace water heater, electric, 120 gallon                   | 15        | 2.00 Ea.     | \$32,954.28    | \$37,679.82   | 3.3333                | 3                          | 3                    | \$113,039.45 | \$113,039.45  |
| Unclog floor drain, PVC                                      | 20        | 1.00 Ea.     | \$50.45        | \$63.16       | 2.5000                | 2                          | 2                    | \$126.31     | \$126.31      |
| Repair joint pipe and fittings, PVC                          | 10        | 2.00 Ea.     | \$336.32       | \$416.45      | 5.0000                | 5                          | 5                    | \$2,082.27   | \$2,082.27    |
| Replace pipe, 4" pipe and fittings, PVC                      | 30        | 257.00 L.F.  | \$21,316.26    | \$26,311.00   | 1.6667                | 1                          | 1                    | \$26,311.00  | \$26,311.00   |
| General maintenance & repair drain: roof, scupper, area      | 1         | 4.00 Ea.     | \$156.72       | \$196.19      | 50.0000               | 50                         | 50                   | \$9,809.39   | \$9,809.39    |
| Replace drain: roof, scupper, area                           | 40        | 4.00 Ea.     | \$4,521.49     | \$5,215.40    | 1.2500                | 1                          | 1                    | \$5,215.40   | \$5,215.40    |
| Resolder joint pipe & fittings, oxygen                       | 12        | 2.00 Ea.     | \$165.79       | \$203.89      | 4.1667                | 4                          | 4                    | \$815.58     | \$815.58      |
| Replace pipe and fittings, oxygen                            | 25        | 85.00 L.F.   | \$2,115.63     | \$2,563.74    | 2.0000                | 2                          | 2                    | \$5,127.47   | \$5,127.47    |
| Repair boiler, gas, 2000 MBH                                 | 7         | 1.00 Ea.     | \$5,734.80     | \$6,685.15    | 7.1429                | 7                          | 7                    | \$46,796.03  | \$46,796.03   |
| Replace boiler, gas, 2000 MBH                                | 30        | 1.00 Ea.     | \$40,588.94    | \$47,558.43   | 1.6667                | 1                          | 1                    | \$47,558.43  | \$47,558.43   |
| Repair fan coil unit, 1 ton                                  | 10        | 3.00 Ea.     | \$1,353.25     | \$1,618.84    | 5.0000                | 5                          | 4                    | \$8,094.19   | \$6,475.36    |
| Replace fan coil unit, 1 ton                                 | 15        | 3.00 Ea.     | \$4,030.53     | \$4,706.20    | 3.3333                | 3                          | 3                    | \$14,118.59  | \$14,118.59   |

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| Replace roof mounted exhaust fan, 20,300 CFM exhaust fan               | 20        | 1.00 Ea.    | \$12,316.51    | \$14,302.94   | 2.5000                | 2                          | 2                    | \$28,605.87  | \$28,605.87   |
| Repair circulator pump, 1/12 - 3/4 H.P.                                | 5         | 2.00 Ea.    | \$206.95       | \$244.10      | 10.0000               | 10                         | 7                    | \$2,441.04   | \$1,708.73    |
| Replace circulator pump, 1/12 - 3/4 H.P.                               | 15        | 2.00 Ea.    | \$7,592.09     | \$8,752.06    | 3.3333                | 3                          | 3                    | \$26,256.19  | \$26,256.19   |
| Repair circulator pump, 1 H.P.   | 5         | 1.00 Ea.    | \$103.70       | \$122.33      | 10.0000               | 10                         | 7                    | \$1,223.34   | \$856.34      |
| Replace circulator. pump, 1 H.P.                                       | 15        | 1.00 Ea.    | \$5,632.83     | \$6,463.28    | 3.3333                | 3                          | 3                    | \$19,389.85  | \$19,389.85   |
| Repair damaged pipe insulation, fiberglass 3/4"                        | 5         | 4.00 Ea.    | \$88.60        | \$108.27      | 10.0000               | 10                         | 10                   | \$1,082.70   | \$1,082.70    |
| Repair damaged pipe insulation, fiberglass 2"                          | 5         | 2.00 Ea.    | \$52.78        | \$64.34       | 10.0000               | 10                         | 10                   | \$643.41     | \$643.41      |
| Replace pipe insulation, fiberglass 3/4"                               | 5         | 0.03 M.L.F. | \$271.79       | \$330.79      | 10.0000               | 10                         | 10                   | \$3,307.88   | \$3,307.88    |
| Replace pipe insulation, fiberglass 2"                                 | 5         | 0.01 M.L.F. | \$108.69       | \$131.92      | 10.0000               | 10                         | 10                   | \$1,319.20   | \$1,319.20    |
| Repair terminal reheat, 36" x 36" coil                                 | 10        | 1.00 Ea.    | \$171.75       | \$215.00      | 5.0000                | 5                          | 5                    | \$1,075.00   | \$1,075.00    |
| Replace terminal reheat, 36" x 36" coil                                | 15        | 1.00 Ea.    | \$3,873.89     | \$4,495.97    | 3.3333                | 3                          | 3                    | \$13,487.91  | \$13,487.91   |
| Repair single zone rooftop unit, 60 ton                                | 10        | 1.00 Ea.    | \$79,616.79    | \$93,003.20   | 5.0000                | 5                          | 4                    | \$465,016.02 | \$372,012.81  |
| Replace single zone rooftop unit, 60 ton                               | 15        | 1.00 Ea.    | \$95,941.66    | \$112,197.55  | 3.3333                | 3                          | 3                    | \$336,592.65 | \$336,592.65  |
| Repair central station A.H.U., 33,500 CFM                              | 10        | 1.00 Ea.    | \$6,542.79     | \$7,502.78    | 5.0000                | 5                          | 4                    | \$37,513.91  | \$30,011.13   |
| Replace central station A.H.U., 33,500 CFM                             | 15        | 1.00 Ea.    | \$157,049.48   | \$180,532.06  | 3.3333                | 3                          | 3                    | \$541,596.19 | \$541,596.19  |
| Inspect sprinkler system   | 1         | 1.00 Ea.    | \$36.17        | \$45.28       | 50.0000               | 50                         | 50                   | \$2,264.22   | \$2,264.22    |
| Replace sprinkler head   | 20        | 60.00 Ea.   | \$5,258.87     | \$6,489.11    | 2.5000                | 2                          | 2                    | \$12,978.23  | \$12,978.23   |
| Replace fire pump / electric motor assembly 100 H.P.                   | 25        | 1.00 Ea.    | \$48,011.97    | \$55,351.32   | 2.0000                | 2                          | 2                    | \$110,702.65 | \$110,702.65  |
| Maintenance and repair motor starter, up to 600 V                      | 5         | 4.00 Ea.    | \$1,051.28     | \$1,277.98    | 10.0000               | 10                         | 10                   | \$12,779.77  | \$12,779.77   |
| Maintenance and inspection motor starter, up to 600 V                  | 0.5       | 4.00 Ea.    | \$227.52       | \$285.05      | 100.0000              | 100                        | 100                  | \$28,505.09  | \$28,505.09   |
| Replace starter motor starter, up to 600 V                             | 18        | 4.00 Ea.    | \$3,364.09     | \$4,002.99    | 2.7778                | 2                          | 2                    | \$8,005.97   | \$8,005.97    |
| Maintenance and inspection lighting panel, indoor                      | 3         | 3.00 Ea.    | \$127.03       | \$159.15      | 16.6667               | 16                         | 16                   | \$2,546.45   | \$2,546.45    |
| Maintenance and repair safety switch, 3 pole safety switch, heavy duty | 8         | 2.00 Ea.    | \$84.69        | \$106.10      | 6.2500                | 6                          | 6                    | \$636.61     | \$636.61      |
| Maintenance and inspection safety switch, 3 pole, heavy duty           | 1         | 2.00 Ea.    | \$84.69        | \$106.10      | 50.0000               | 50                         | 50                   | \$5,305.11   | \$5,305.11    |
| Replace safety switch, heavy duty 30 A                                 | 25        | 2.00 Ea.    | \$1,353.26     | \$1,612.47    | 2.0000                | 2                          | 2                    | \$3,224.94   | \$3,224.94    |
| Maintenance and repair receptacles and plugs                           | 20        | 103.00 Ea.  | \$4,536.45     | \$5,663.13    | 2.5000                | 2                          | 2                    | \$11,326.26  | \$11,326.26   |
| Replace receptacle/plug receptacles and plugs                          | 20        | 103.00 Ea.  | \$7,707.55     | \$9,503.55    | 2.5000                | 2                          | 2                    | \$19,007.10  | \$19,007.10   |
| Maintenance and repair wiring devices, switches                        | 10        | 34.00 Ea.   | \$1,497.47     | \$1,869.38    | 5.0000                | 5                          | 5                    | \$9,346.91   | \$9,346.91    |
| Replace wiring devices, switches                                       | 15        | 34.00 Ea.   | \$2,267.16     | \$2,822.23    | 3.3333                | 3                          | 3                    | \$8,466.70   | \$8,466.70    |
| Replace fluorescent light fixture ballast, 80 W                        | 10        | 146.00 Ea.  | \$15,272.50    | \$18,832.66   | 5.0000                | 5                          | 3                    | \$94,163.29  | \$56,497.97   |

| Description  | Frequency | Qty Unit    | Total In-House | Total Incl OP  | Design Life/Frequency | Occurrences in Design Life | Adjusted Occurrences | Life Cost   | Adjusted Cost  |             |
|--|-----------|-------------|----------------|----------------|-----------------------|----------------------------|----------------------|-------------|----------------|-------------|
| Replace lamps (2 lamps), 4', 34 W energy saver                       | 10        | 146.00 Ea.  | \$3,866.91     | \$4,842.66     | 5.0000                | 5                          | 5                    | \$24,213.32 | \$24,213.32    |             |
| Replace fluorescent fixture, lay-in, recess mtd, 2' x 4', two 40 W   | 20        | 146.00 Ea.  | \$36,153.12    | \$44,001.00    | 2.5000                | 2                          | 2                    | \$88,002.00 | \$88,002.00    |             |
| Replace metal halide ballast, 175 W                                  | 10        | 55.00 Ea.   | \$9,178.78     | \$10,987.04    | 5.0000                | 5                          | 3                    | \$54,935.22 | \$32,961.13    |             |
| Replace metal halide fixture lamp, 175 W                             | 5         | 55.00 Ea.   | \$3,140.33     | \$3,822.04     | 10.0000               | 10                         | 10                   | \$38,220.36 | \$38,220.36    |             |
| Replace metal halide fixture, 175 W                                  | 20        | 55.00 Ea.   | \$40,630.09    | \$47,897.41    | 2.5000                | 2                          | 2                    | \$95,794.81 | \$95,794.81    |             |
| Repair smoke detector  | 10        | 16.00 Ea.   | \$928.16       | \$1,149.32     | 5.0000                | 5                          | 4                    | \$5,746.60  | \$4,597.28     |             |
| Check operation smoke detector                                       | 1         | 16.00 Ea.   | \$272.01       | \$340.79       | 50.0000               | 50                         | 50                   | \$17,039.71 | \$17,039.71    |             |
| Replace smoke detector   | 15        | 16.00 Ea.   | \$4,840.84     | \$5,779.49     | 3.3333                | 3                          | 3                    | \$17,338.48 | \$17,338.48    |             |
| Check and repair manual pull station                                 | 10        | 5.00 Ea.    | \$449.42       | \$553.73       | 5.0000                | 5                          | 4                    | \$2,768.67  | \$2,214.94     |             |
| Replace manual pull station  | 15        | 5.00 Ea.    | \$1,043.79     | \$1,258.81     | 3.3333                | 3                          | 3                    | \$3,776.44  | \$3,776.44     |             |
| Minor repairs to fire alarm control panel                            | 5         | 1.00 Ea.    | \$149.42       | \$182.60       | 10.0000               | 10                         | 10                   | \$1,825.95  | \$1,825.95     |             |
| Maintenance and inspection fire alarm control panel                  | 0.5       | 1.00 Ea.    | \$45.50        | \$57.01        | 100.0000              | 100                        | 100                  | \$5,701.02  | \$5,701.02     |             |
| Replace fire alarm control panel                                     | 15        | 1.00 Ea.    | \$2,196.12     | \$2,675.47     | 3.3333                | 3                          | 3                    | \$8,026.42  | \$8,026.42     |             |
| Replace fire alarm bell, 6"  | 20        | 8.00 Ea.    | \$1,444.85     | \$1,758.17     | 2.5000                | 2                          | 2                    | \$3,516.35  | \$3,516.35     |             |
| Maintenance and repair building structure ground                     | 7         | 1.00 M.L.F. | \$92.28        | \$115.32       | 7.1429                | 7                          | 7                    | \$807.25    | \$807.25       |             |
| Replace building structure ground                                    | 50        | 1.00 M.L.F. | \$5,386.63     | \$6,531.10     | 1.0000                | 1                          | 1                    | \$6,531.10  | \$6,531.10     |             |
| Maintenance and repair of general wiring lightning protection system | 1         | 1.00 M.L.F. | \$109.50       | \$134.89       | 50.0000               | 50                         | 50                   | \$6,744.34  | \$6,744.34     |             |
| Replace lightning protection general wiring system                   | 25        | 1.00 M.L.F. | \$12,548.36    | \$14,875.43    | 2.0000                | 2                          | 2                    | \$29,750.85 | \$29,750.85    |             |
| Maintenance and repair lightning ground rod                          | 1         | 1.00 Ea.    | \$92.28        | \$115.32       | 50.0000               | 50                         | 48                   | \$5,766.08  | \$5,535.43     |             |
| Replace lightning ground rod   | 25        | 1.00 Ea.    | \$245.60       | \$303.67       | 2.0000                | 2                          | 2                    | \$607.34    | \$607.34       |             |
| Maintenance and repair computer ground system                        | 4         | 1.00 Ea.    | \$22.69        | \$28.43        | 12.5000               | 12                         | 12                   | \$341.11    | \$341.11       |             |
| Replace computer ground system                                       | 50        | 1.00 M.L.F. | \$2,425.55     | \$2,923.14     | 1.0000                | 1                          | 1                    | \$2,923.14  | \$2,923.14     |             |
| Replace lamp emergency lighting fixture                              | 2         | 42.00 Ea.   | \$2,288.70     | \$2,765.91     | 25.0000               | 25                         | 25                   | \$69,147.80 | \$69,147.80    |             |
| Replace emergency lighting fixture                                   | 20        | 42.00 Ea.   | \$24,141.84    | \$28,554.70    | 2.5000                | 2                          | 2                    | \$57,109.39 | \$57,109.39    |             |
| Maintenance and repair exit light                                    | 20        | 42.00 Ea.   | \$1,616.60     | \$2,002.16     | 2.5000                | 2                          | 2                    | \$4,004.33  | \$4,004.33     |             |
| Replace lamp exit light  | 5         | 42.00 Ea.   | \$686.56       | \$816.42       | 10.0000               | 10                         | 10                   | \$8,164.22  | \$8,164.22     |             |
|  |           |             | \$1,286,720.68 | \$1,519,265.77 |                       |                            |                      | MR Subtotal | \$3,864,628.97 |             |
|  |           |             |                |                |                       |                            |                      |             | MR Per Year    | \$77,158.88 |
|  |           |             |                |                |                       |                            |                      |             | PM Total       | \$17,923.07 |
|  |           |             |                |                |                       |                            |                      |             | Subtotal       | \$95,081.95 |
|  |           |             |                |                |                       |                            |                      |             | Total Per Unit | \$5.10      |

FAC 2136 NUCLEAR REPAIR SHOP

SUC \$5.10

Release 2023 Qtr 4

UM SF

Zip Code Prefix 222

Design Life 50

Type PM

Average Size 18648.0

| Description  | Qty   | Labor Hours | Bare Mat | Bare Labor | Bare Equip | Bare Total  | Total In-House | Total Incl OP |
|--|-------|-------------|----------|------------|------------|-------------|----------------|---------------|
| Door, emergency egress, swinging, annualized                           | 1.00  | 0.26        | \$16.76  | \$11.48    | \$0.00     | \$28.25     | \$33.37        | \$39.33       |
| Door, overhead, manual, up to 24' high x 25' wide, annualized          | 5.00  | 10.98       | \$42.56  | \$485.69   | \$0.00     | \$528.24    | \$678.20       | \$830.29      |
| Fire doors, swinging, annualized                                       | 16.00 | 6.27        | \$250.65 | \$247.30   | \$0.00     | \$497.94    | \$597.20       | \$708.98      |
| Urinals, annualized  | 2.00  | 0.46        | \$13.26  | \$24.33    | \$0.00     | \$37.59     | \$46.21        | \$55.50       |
| Toilet (vacuum breaker type), annualized                               | 9.00  | 1.59        | \$79.70  | \$85.15    | \$0.00     | \$164.85    | \$198.36       | \$235.86      |
| Lavatories, annualized   | 7.00  | 2.44        | \$54.55  | \$152.60   | \$0.00     | \$207.15    | \$258.38       | \$312.34      |
| Showers, annualized  | 2.00  | 0.46        | \$27.02  | \$28.69    | \$0.00     | \$55.71     | \$67.02        | \$79.68       |
| Drink fountain, annualized   | 2.00  | 1.24        | \$74.89  | \$66.27    | \$0.00     | \$141.16    | \$168.53       | \$199.65      |
| Boiler, hot water, oil, gas, or comb. fired, 500 -1000 MBH, annualized | 1.00  | 17.38       | \$88.55  | \$1,090.00 | \$0.00     | \$1,178.55  | \$1,514.40     | \$1,854.69    |
| Chiller, recip., air cooled, over 25 tons, annualized                  | 1.00  | 12.89       | \$95.63  | \$815.32   | \$0.00     | \$910.95    | \$1,165.11     | \$1,424.05    |
| Air handling unit, over 50 tons, annualized                            | 1.00  | 3.28        | \$268.18 | \$174.40   | \$0.00     | \$442.58    | \$521.72       | \$614.27      |
| Fan coil unit, annualized  | 3.00  | 10.01       | \$245.92 | \$536.28   | \$0.00     | \$782.20    | \$967.67       | \$1,165.44    |
| Controls, central system, electro/pneumatic, annualized                | 1.00  | 1.92        | \$169.00 | \$121.21   | \$0.00     | \$290.21    | \$343.47       | \$405.19      |
| Fire pump, electric motor driven, annualized                           | 1.00  | 47.75       | \$37.44  | \$2,986.60 | \$0.00     | \$3,024.04  | \$3,923.77     | \$4,825.37    |
| Extinguishing system, foam pump electric, annualized                   | 1.00  | 17.72       | \$328.90 | \$959.20   | \$0.00     | \$1,288.10  | \$1,608.75     | \$1,945.85    |
| Extinguishing system, FM200, annualized                                | 1.00  | 9.26        | \$642.62 | \$492.68   | \$0.00     | \$1,135.30  | \$1,347.37     | \$1,591.56    |
| Panelboard, 225 A and above, annualized                                | 3.00  | 1.32        | \$66.00  | \$91.24    | \$0.00     | \$157.25    | \$191.22       | \$228.49      |
| Crane, electric bridge, up to 5 ton, annualized                        | 1.00  | 2.92        | \$206.82 | \$107.79   | \$0.00     | \$314.61    | \$367.63       | \$430.99      |
| Crane, electric bridge, over 15 tons, annualized                       | 1.00  | 8.27        | \$388.40 | \$306.28   | \$0.00     | \$694.68    | \$825.40       | \$975.55      |
|  |       |             |          |            |            | \$11,879.35 | \$14,823.79    | \$17,923.07   |

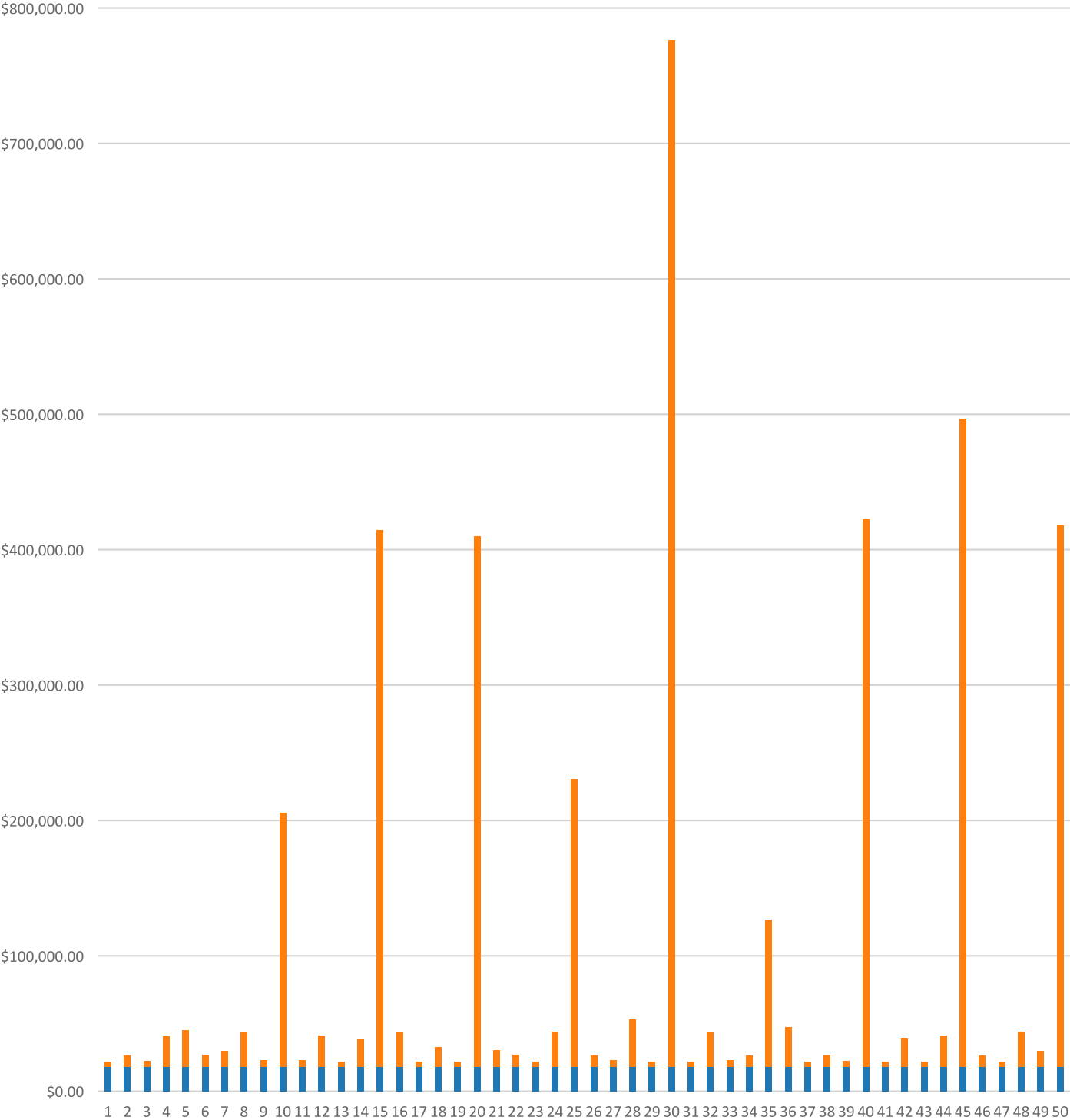


**FAC 2136 NUCLEAR REPAIR SHOP**  
**Modeled Component List**  
**CostWorks Release 2023 Qtr 4**

|  |             |
|--|-------------|
| <b>B20 Exterior Enclosure</b>                                  |             |
| Aluminum Window, Fixed, 1st floor                              | 22.0 Ea.    |
| Steel, Painted   | 1.0 Ea.     |
| Steel Single, Roll-Up  | 1.0 Ea.     |
| Steel Double, Roll-Up  | 4.0 Ea.     |
| Aluminum Siding, 2nd floor                                     | 19.0 C.S.F. |
| Steel Frame, Operating, 2nd floor                              | 34.0 Ea.    |
| <b>B30 Roofing</b>   |             |
| Metal Steep Roofing  | 220.28 Sq.  |
| <b>C10 Interior Construction</b>                               |             |
| Concrete Block, Painted  | 89.7 C.S.F. |
| Fully Glazed Wooden Doors                                      | 2.0 Ea.     |
| Steel Painted Interior Doors                                   | 12.0 Ea.    |
| Solid Core Interior Doors                                      | 2.0 Ea.     |
| Fire Doors, Swinging, annualized                               | 16.0 Each   |
| <b>C20 Stairs</b>  |             |
| Concrete Steps   | 58.0 S.F.   |
| Metal Interior Stair Railing                                   | 24.0 L.F.   |
| <b>C30 Interior Finishes</b>                                   |             |
| Drywall  | 574.0 S.F.  |
| Concrete, Finished   | 87.5 C.S.F. |
| Vinyl  | 20.0 S.Y.   |
| Carpet   | 45.7 S.Y.   |
| Acoustic Tile, fire-rated                                      | 30.4 C.S.F. |
| <b>D20 Plumbing</b>  |             |
| Tankless Water Closet  | 9.0 Ea.     |
| Urinal   | 2.0 Ea.     |
| Lavatory, Vitreous China                                       | 7.0 Ea.     |
| Sink, Iron Enamel  | 2.0 Ea.     |
| Shower, Fiberglass   | 2.0 Ea.     |
| Drinking Fountain  | 2.0 Ea.     |
| Emergency Eye Wash   | 1.0 Ea.     |
| Water Heater, Electric, 120 Gallon                             | 2.0 Ea.     |
| Drain: Roof, Scupper, Area                                     | 4.0 Ea.     |
| <b>D30 HVAC</b>  |             |
| Boiler, Gas, 2000 MBH  | 1.0 Ea.     |
| Fan Coil, 1 ton  | 3.0 Ea.     |
| Exhaust Fan, roof mounted exhaust fan, 20300 CFM exhaust       | 1.0 Ea.     |
| Circulator Pump, 1/12 - 3/4 H.P.                               | 2.0 Ea.     |
| Circulator Pump, 1 H.P.  | 1.0 Ea.     |
| Terminal Reheat Coil, 36" x 36"                                | 1.0 Ea.     |
| Single Zone Air Conditioner, 60 ton                            | 1.0 Ea.     |
| Central Station Air Conditioning Air Handling Unit, 33,500 CFM | 1.0 Ea.     |
| <b>D40 Fire Protection</b>                                     |             |
| Sprinkler System, Fire Suppression, sprinkler head             | 60.0 Ea.    |
| Fire Pump Electric Motor                                       | 1.0 Ea.     |
| Fire Pump, Electric, annualized                                | 1.0 Each    |
| Extinguishing system, FM200                                    | 1.0 Each    |
| <b>D50 Electrical</b>  |             |
| Motor Starter, Up To 600 V                                     | 4.0 Ea.     |
| Load Center, 100 A, maintenance & inspection                   | 3.0 Ea.     |
| Safety Switch, Heavy Duty                                      | 2.0 Ea.     |

|  |            |
|--|------------|
| Fluorescent Lighting Fixture             | 146.0 Ea.  |
| Metal Halide Fixture                     | 55.0 Ea.   |
| Smoke Detector                           | 16.0 Ea.   |
| Manual Pull Station                      | 5.0 Ea.    |
| Fire Alarm Control Panel                 | 1.0 Ea.    |
| Fire Alarm Bell                          | 8.0 Ea.    |
| Building Structure Ground                | 1.0 M.L.F. |
| Lightning Protection System              | 1.0 M.L.F. |
| Lightning Ground Rod                     | 1.0 Ea.    |
| Computer Ground System                   | 1.0 M.L.F. |
| Emergency Lighting Fixture               | 42.0 Ea.   |
| E10 Equipment                            |            |
| Crane, Electric, up to 5 ton, annualized | 1.0 Each   |
| Crane, Electric, over 15 ton, annualized | 1.0 Each   |

FAC 2136 NUCLEAR REPAIR SHOP  
Sustainment by Year  
CostWorks Release 2023 Qtr 4



PM Cost  
MR Cost