

FAC 2126 INTERCONTINENTAL BALLISTIC MISSILE PROCESSING FACILITY

FY22 SUC: \$35.25 / SF
Source: Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 2126 INTERCONTINENTAL BALLISTIC MISSILE PROCESSING FACILITY SUC \$35.25

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 31

Type MR

Average Size 33337.0

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 metal stairs	15	2,080.00 S.F.	\$209,509.99	\$241,049.92	2.0667	2	2	\$482,099.84	\$482,099.84
Replace metal stairs	40	2,080.00 S.F.	\$550,308.32	\$630,703.52	0.7750	0	0	\$0.00	\$0.00
Replace metal hand rail	30	728.00 L.F.	\$55,097.53	\$63,752.90	1.0333	1	1	\$63,752.90	\$63,752.90
Refinish metal hand rail	7	728.00 L.F.	\$1,501.83	\$1,851.14	4.4286	4	4	\$7,404.57	\$7,404.57
Refinish fire escape ladder	7	180.00 V.L.F.	\$750.27	\$913.00	4.4286	4	4	\$3,651.99	\$3,651.99
Replace fire escape ladder	25	180.00 V.L.F.	\$21,598.22	\$25,485.95	1.2400	1	1	\$25,485.95	\$25,485.95
Point and refinish painted concrete block wall, 1st floor	25	1,400.00 C.S.F.	\$657,687.81	\$811,727.27	1.2400	1	1	\$811,727.27	\$811,727.27
Point and refinish painted concrete block wall, 2nd floor	25	1,400.00 C.S.F.	\$770,401.78	\$951,381.36	1.2400	1	1	\$951,381.36	\$951,381.36
Replace steel siding - 1st floor	35	320.00 C.S.F.	\$178,278.78	\$215,079.01	0.8857	0	0	\$0.00	\$0.00
Replace steel siding - 2nd floor	35	320.00 C.S.F.	\$220,389.59	\$267,372.62	0.8857	0	0	\$0.00	\$0.00
Refinish steel louver, 1st floor	5	4.00 Ea.	\$388.15	\$481.62	6.2000	6	6	\$2,889.74	\$2,889.74
Replace steel louver, 1st floor	40	4.00 Ea.	\$1,941.26	\$2,282.40	0.7750	0	0	\$0.00	\$0.00
Refinish steel louver, 2nd floor	5	6.00 Ea.	\$825.07	\$1,024.41	6.2000	6	6	\$6,146.48	\$6,146.48
Repair 3' x 4' aluminum window - 1st floor	20	54.00 Ea.	\$14,142.46	\$16,648.28	1.5500	1	1	\$16,648.28	\$16,648.28
Repair 3' x 4' aluminum window - 2nd floor	20	54.00 Ea.	\$16,657.93	\$19,772.01	1.5500	1	1	\$19,772.01	\$19,772.01
Refinish 3'-0" x 4'-0" aluminum frame storm window - 1st floor.	10	54.00 Ea.	\$4,825.92	\$5,994.22	3.1000	3	3	\$17,982.66	\$17,982.66
Replace 3'-0" x 4'-0" aluminum frame storm window - 1st floor.	50	54.00 Ea.	\$13,432.94	\$15,853.77	0.6200	0	0	\$0.00	\$0.00
Refinish 3'-0" x 4'-0" aluminum frame storm window - 2nd floor.	10	54.00 Ea.	\$7,011.51	\$8,712.04	3.1000	3	3	\$26,136.11	\$26,136.11
Replace 3'-0" x 4'-0" aluminum frame storm window - 2nd floor.	50	54.00 Ea.	\$15,948.41	\$18,977.50	0.6200	0	0	\$0.00	\$0.00
Repair aluminum storefront door	12	2.00 Ea.	\$926.84	\$1,109.03	2.5833	2	2	\$2,218.06	\$2,218.06
Repair aluminum, insulated, door	12	4.00 Ea.	\$2,500.30	\$2,976.02	2.5833	2	2	\$5,952.05	\$5,952.05
Replace 3'-0" x 7'-0" aluminum, insulated, door	50	4.00 Ea.	\$7,422.53	\$8,516.60	0.6200	0	0	\$0.00	\$0.00
Repair steel, painted, door	14	10.00 Ea.	\$6,250.74	\$7,440.06	2.2143	2	2	\$14,880.11	\$14,880.11
Refinish 3'-0" x 7'-0" steel, painted, door	4	10.00 Ea.	\$414.00	\$508.66	7.7500	7	7	\$3,560.64	\$3,560.64
Replace 3'-0" x 7'-0" steel, painted, door	45	10.00 Ea.	\$7,050.64	\$8,197.31	0.6889	0	0	\$0.00	\$0.00
Repair 12' x 12' steel roll-up door	10	4.00 Ea.	\$2,703.58	\$3,208.87	3.1000	3	3	\$9,626.60	\$9,626.60
Replace 12' x 12' steel roll-up door	35	4.00 Ea.	\$10,814.33	\$12,835.47	0.8857	0	0	\$0.00	\$0.00
Refinish 12' x 24' steel double roll-up door	5	4.00 Ea.	\$1,631.44	\$1,998.31	6.2000	6	6	\$11,989.84	\$11,989.84
Replace brass door hinge	60	10.00 Ea.	\$1,888.36	\$2,271.94	0.5167	0	0	\$0.00	\$0.00
Replace brass door lockset exterior	30	10.00 Ea.	\$4,742.01	\$5,484.84	1.0333	1	1	\$5,484.84	\$5,484.84
Replace brass door closer	15	10.00 Ea.	\$2,452.06	\$2,892.95	2.0667	2	2	\$5,785.91	\$5,785.91
Automatic door opener on existing door	7	10.00 Ea.	\$59,635.14	\$69,400.53	4.4286	4	4	\$277,602.12	\$277,602.12
Debris removal, by hand and visual inspection, thermosetting	1	33.34 M.S.F.	\$1,255.46	\$1,531.28	31.0000	31	31	\$47,469.83	\$47,469.83
Non - destructive moisture inspection, thermosetting	5	33.34 M.S.F.	\$3,895.61	\$4,751.49	6.2000	6	6	\$28,508.92	\$28,508.92

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Minor membrane repairs, 2% of roof area, thermoset	1	6.70 Sq.	\$2,273.91	\$2,708.04	31.0000	31	31	\$83,949.25	\$83,949.25
Flashing repairs, 2 S.F. per sq. repaired, thermoset	1	164.00 S.F.	\$398.67	\$484.67	31.0000	31	31	\$15,024.79	\$15,024.79
Minor replacement, 25% of roof area, thermoset	10	84.00 Sq.	\$34,569.48	\$40,821.21	3.1000	3	3	\$122,463.64	\$122,463.64
Total thermoset roof replacement	20	331.00 Sq.	\$261,441.84	\$308,604.49	1.5500	1	1	\$308,604.49	\$308,604.49
Replace 8" concrete block wall painted	75	90.00 C.S.F.	\$104,261.88	\$125,425.19	0.4133	0	0	\$0.00	\$0.00
Repair steel painted interior door	14	10.00 Ea.	\$2,934.52	\$3,415.64	2.2143	2	2	\$6,831.28	\$6,831.28
Refinish 3'-0" x 7'-0" steel painted interior door	4	10.00 Ea.	\$525.85	\$647.86	7.7500	7	7	\$4,535.04	\$4,535.04
Replace 3'-0" x 7'-0" steel painted interior door	60	10.00 Ea.	\$12,180.34	\$14,120.83	0.5167	0	0	\$0.00	\$0.00
Repair solid core wood door, interior	11	35.00 Ea.	\$10,270.83	\$11,954.74	2.8182	2	2	\$23,909.48	\$23,909.48
Refinish 3'-0" x 7'-0" solid core wood door, interior	4	35.00 Ea.	\$1,517.77	\$1,863.74	7.7500	7	7	\$13,046.17	\$13,046.17
Replace 3'-0" x 7'-0" solid core wood door, interior	40	35.00 Ea.	\$17,129.96	\$19,803.36	0.7750	0	0	\$0.00	\$0.00
Replace 1 1/2 pair brass hinges	60	45.00 Ea.	\$14,799.62	\$17,410.49	0.5167	0	0	\$0.00	\$0.00
Replace brass lockset interior	30	45.00 Ea.	\$14,813.58	\$17,168.15	1.0333	1	1	\$17,168.15	\$17,168.15
Replace brass door closer	15	45.00 Ea.	\$10,253.26	\$12,061.15	2.0667	2	2	\$24,122.29	\$24,122.29
Replace panic bar	25	6.00 Ea.	\$7,119.20	\$8,179.74	1.2400	1	1	\$8,179.74	\$8,179.74
Replace toilet partitions, painted metal-overhead braced, per stall	20	12.00 Ea.	\$7,534.58	\$8,866.91	1.5500	1	1	\$8,866.91	\$8,866.91
Replace epoxy flooring	15	211.00 C.S.F.	\$237,068.59	\$283,682.07	2.0667	2	2	\$567,364.13	\$567,364.13
Replace carpet	8	501.00 S.Y.	\$27,563.19	\$31,831.99	3.8750	3	3	\$95,495.96	\$95,495.96
Refinish acoustic tile ceiling and grid (occupied area)	5	9.00 C.S.F.	\$221.00	\$274.80	6.2000	6	6	\$1,648.82	\$1,648.82
Replace acoustic tile ceiling, fire-rated	20	90.00 C.S.F.	\$47,180.57	\$55,609.75	1.5500	1	1	\$55,609.75	\$55,609.75
Replace flush valve diaphragm tankless water closet	10	12.00 Ea.	\$314.64	\$390.43	3.1000	3	3	\$1,171.29	\$1,171.29
Rebuild flush valve tankless water closet	20	12.00 Ea.	\$2,165.21	\$2,609.49	1.5500	1	1	\$2,609.49	\$2,609.49
Unplug clogged line tankless water closet	5	12.00 Ea.	\$2,620.74	\$3,277.52	6.2000	6	6	\$19,665.13	\$19,665.13
Replace tankless water closet	35	12.00 Ea.	\$15,434.65	\$17,861.94	0.8857	0	0	\$0.00	\$0.00
Replace tankless flush valve	25	12.00 Ea.	\$3,026.58	\$3,553.33	1.2400	1	1	\$3,553.33	\$3,553.33
Replace wax ring gasket for tankless water closet	5	12.00 Ea.	\$1,698.23	\$2,121.92	6.2000	6	6	\$12,731.50	\$12,731.50
Replace flush valve diaphragm for a urinal	7	6.00 Ea.	\$157.32	\$195.22	4.4286	4	4	\$780.86	\$780.86
Rebuild flush valve for a urinal	20	6.00 Ea.	\$1,082.60	\$1,304.74	1.5500	1	1	\$1,304.74	\$1,304.74
Unplug line urinal	5	6.00 Ea.	\$870.43	\$1,088.57	6.2000	6	6	\$6,531.41	\$6,531.41
Replace wall-hung urinal	35	6.00 Ea.	\$5,813.18	\$7,014.64	0.8857	0	0	\$0.00	\$0.00
Replace washer in spud connection lavatory, iron, enamel	7	12.00 Ea.	\$141.89	\$171.35	4.4286	4	4	\$685.40	\$685.40
Replace washer in faucet lavatory, iron, enamel	2	12.00 Ea.	\$153.32	\$190.99	15.5000	15	15	\$2,864.87	\$2,864.87
Replace faucets lavatory, iron, enamel	10	12.00 Ea.	\$2,180.71	\$2,625.06	3.1000	3	3	\$7,875.19	\$7,875.19
Clean out strainer and P trap lavatory, iron, enamel	2	12.00 Ea.	\$418.43	\$523.29	15.5000	15	15	\$7,849.42	\$7,849.42
Replace lavatory, iron, enamel	40	12.00 Ea.	\$8,604.97	\$10,143.97	0.7750	0	0	\$0.00	\$0.00

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Replace faucet washer sink, service/utility	2	4.00 Ea.	\$51.11	\$63.66	15.5000	15	15	\$954.96	\$954.96
Clean trap	3	4.00 Ea.	\$34.28	\$42.87	10.3333	10	10	\$428.74	\$428.74
Replace faucets sink, service/utility	10	4.00 Ea.	\$726.90	\$875.02	3.1000	3	3	\$2,625.06	\$2,625.06
Unstop sink	2	4.00 Ea.	\$167.29	\$209.21	15.5000	15	15	\$3,138.14	\$3,138.14
Replace sink, P.E.C.I. service/utility	35	4.00 Ea.	\$6,268.99	\$7,331.85	0.8857	0	0	\$0.00	\$0.00
Inspect / clean shower head fiberglass	3	8.00 Ea.	\$395.14	\$494.17	10.3333	10	10	\$4,941.69	\$4,941.69
Replace mixing valve shower, fiberglass	10	8.00 Ea.	\$2,207.06	\$2,684.44	3.1000	3	3	\$8,053.32	\$8,053.32
Replace shower and fittings, fiberglass	20	8.00 Ea.	\$7,733.11	\$9,249.28	1.5500	1	1	\$9,249.28	\$9,249.28
Check / minor repairs drinking fountain	1	4.00 Ea.	\$195.53	\$244.53	31.0000	31	31	\$7,580.44	\$7,580.44
Repair internal leaks drinking fountain	4	4.00 Ea.	\$180.32	\$225.51	7.7500	7	7	\$1,578.58	\$1,578.58
Correct water pressure drinking fountain	2	4.00 Ea.	\$167.29	\$209.21	15.5000	15	15	\$3,138.14	\$3,138.14
Replace refrigerant drinking fountain	2	4.00 Ea.	\$130.73	\$153.08	15.5000	15	15	\$2,296.15	\$2,296.15
Repair drain leak drinking fountain	4	4.00 Ea.	\$135.66	\$162.14	7.7500	7	6	\$1,134.97	\$972.83
Replace fountain drinking fountain	10	4.00 Ea.	\$5,124.62	\$6,058.24	3.1000	3	3	\$18,174.71	\$18,174.71
Inspect and clean shower head emergency shower station	3	4.00 Ea.	\$197.57	\$247.08	10.3333	10	10	\$2,470.84	\$2,470.84
Replace shower emergency shower station	25	4.00 Ea.	\$3,767.86	\$4,516.46	1.2400	1	1	\$4,516.46	\$4,516.46
Inspect and clean spray heads, emergency eye wash	3	4.00 Ea.	\$197.57	\$247.08	10.3333	10	10	\$2,470.84	\$2,470.84
Replace eye wash station, emergency eye wash	25	4.00 Ea.	\$4,457.36	\$5,299.99	1.2400	1	1	\$5,299.99	\$5,299.99
Replace storage tank, glass lined, P.E., 80 gal.	50	2.00 Ea.	\$9,540.22	\$10,870.20	0.6200	0	0	\$0.00	\$0.00
Replace pump / motor assembly circulation pump, bronze 1 HP	20	2.00 Ea.	\$11,536.96	\$13,227.58	1.5500	1	1	\$13,227.58	\$13,227.58
General maintenance & repair drain: roof, scupper, area	1	3.00 Ea.	\$110.96	\$138.77	31.0000	31	31	\$4,301.90	\$4,301.90
Replace drain: roof, scupper, area	40	3.00 Ea.	\$2,360.80	\$2,737.08	0.7750	0	0	\$0.00	\$0.00
Insp/chk pump/mtr oper, lub, chk align, rainwater sump pump	1	1.00 Ea.	\$11.95	\$14.94	31.0000	31	31	\$463.25	\$463.25
Replace rainwater sump pump / motor assembly	20	1.00 Ea.	\$632.43	\$747.09	1.5500	1	1	\$747.09	\$747.09
Repair boiler, gas, 2000 MBH	7	2.00 Ea.	\$11,571.63	\$13,467.49	4.4286	4	4	\$53,869.96	\$53,869.96
Replace boiler, gas, 2000 MBH	30	2.00 Ea.	\$79,676.28	\$93,240.42	1.0333	1	1	\$93,240.42	\$93,240.42
Repair boiler blowoff system	10	2.00 Ea.	\$148.82	\$186.11	3.1000	3	3	\$558.34	\$558.34
Replace boiler blowoff system	15	2.00 Ea.	\$16,846.39	\$19,270.45	2.0667	2	2	\$38,540.90	\$38,540.90
Repair chemical feed system	15	2.00 Ea.	\$1,686.89	\$2,016.38	2.0667	2	2	\$4,032.76	\$4,032.76
Replace chemical feed system	15	2.00 Ea.	\$1,824.01	\$2,114.69	2.0667	2	2	\$4,229.37	\$4,229.37
Repair feed water supply pump	15	2.00 Ea.	\$7,129.69	\$8,262.14	2.0667	2	2	\$16,524.28	\$16,524.28
Replace feed water pump	15	2.00 Ea.	\$49,936.03	\$57,266.71	2.0667	2	2	\$114,533.42	\$114,533.42
Repair deaerator	10	2.00 Ea.	\$148.82	\$186.11	3.1000	3	3	\$558.34	\$558.34
Replace deaerator	20	2.00 Ea.	\$103,610.36	\$120,911.06	1.5500	1	1	\$120,911.06	\$120,911.06
Replace metal flue, all fuel SS, 6" diameter metal flue / chimney	15	2.00 L.F.	\$258.10	\$298.91	2.0667	2	2	\$597.81	\$597.81

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Repair cooling tower, 100 ton	10	4.00 Ea.	\$18,436.94	\$21,886.37	3.1000	3	2	\$65,659.11	\$43,772.74
Replace cooling tower, 100 ton	15	4.00 Ea.	\$89,730.83	\$103,324.51	2.0667	2	2	\$206,649.02	\$206,649.02
Repair water cooled chiller, 100 ton, reciprocating	10	4.00 Ea.	\$251,303.71	\$293,618.85	3.1000	3	2	\$880,856.56	\$587,237.71
Replace chiller, water cooled, 100 ton, reciprocating	20	4.00 Ea.	\$354,778.17	\$412,687.95	1.5500	1	1	\$412,687.95	\$412,687.95
Replace roof mounted exhaust fan, 800 CFM exhaust fan	20	4.00 Ea.	\$6,936.12	\$8,112.45	1.5500	1	1	\$8,112.45	\$8,112.45
Replace roof mounted exhaust fan, 8500 CFM exhaust fan	20	2.00 Ea.	\$7,879.67	\$9,146.83	1.5500	1	1	\$9,146.83	\$9,146.83
Replace axial flow fan, 3800 CFM exhaust fan	10	2.00 Ea.	\$4,346.09	\$5,109.15	3.1000	3	3	\$15,327.44	\$15,327.44
Repack gate valve gland, 2" - 3" valves	10	4.00 Ea.	\$148.15	\$177.24	3.1000	3	3	\$531.71	\$531.71
Repair computer room A/C, chilled water, 5 ton	10	2.00 Ea.	\$15,975.24	\$18,696.99	3.1000	3	2	\$56,090.97	\$37,393.98
Replace computer room A/C, chilled water, 5 ton	20	2.00 Ea.	\$52,383.18	\$60,098.44	1.5500	1	1	\$60,098.44	\$60,098.44
Repair central station A.H.U., 8000 CFM	10	4.00 Ea.	\$5,208.29	\$6,061.23	3.1000	3	2	\$18,183.68	\$12,122.45
Replace central station A.H.U., 8000 CFM	15	4.00 Ea.	\$145,727.19	\$168,068.69	2.0667	2	2	\$336,137.38	\$336,137.38
Repair central station A.H.U., 33,500 CFM	10	4.00 Ea.	\$16,701.54	\$19,235.42	3.1000	3	2	\$57,706.25	\$38,470.83
Replace central station A.H.U., 33,500 CFM	15	4.00 Ea.	\$564,431.80	\$649,218.13	2.0667	2	2	\$1,298,436.25	\$1,298,436.25
Rebuild 4" diameter reduced pressure backflow preventer	10	2.00 Ea.	\$1,329.34	\$1,559.57	3.1000	3	3	\$4,678.70	\$4,678.70
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	31.0000	31	31	\$1,330.79	\$1,330.79
Replace sprinkler head	20	150.00 Ea.	\$12,828.42	\$15,778.43	1.5500	1	1	\$15,778.43	\$15,778.43
Repair switchgear 1200 A mainframe	5	4.00 Ea.	\$7,618.15	\$8,910.30	6.2000	6	5	\$53,461.79	\$44,551.49
Maintenance and inspection switchgear, mainframe	1	4.00 Ea.	\$259.11	\$324.62	31.0000	31	31	\$10,063.36	\$10,063.36
Replace switchgear 1200 A mainframe	20	4.00 Ea.	\$17,400.48	\$20,901.91	1.5500	1	1	\$20,901.91	\$20,901.91
Repair switchgear, - (5% of total C.B.), indoor, less than 600 V	10	4.00 Ea.	\$2,156.22	\$2,508.55	3.1000	3	3	\$7,525.64	\$7,525.64
Maintenance and inspection switchgear, indoor, less than 600 V	3	4.00 Ea.	\$162.58	\$203.69	10.3333	10	10	\$2,036.86	\$2,036.86
Replace switchgear, 225 A	30	4.00 Ea.	\$23,790.08	\$27,691.72	1.0333	1	1	\$27,691.72	\$27,691.72
Maintenance and repair inverter	1	2.00 Ea.	\$1,618.10	\$1,933.44	31.0000	31	31	\$59,936.70	\$59,936.70
Maintenance and inspection inverter	0.25	2.00 Ea.	\$259.11	\$324.62	124.0000	124	124	\$40,253.42	\$40,253.42
Replace 1 KVA inverter	20	2.00 Ea.	\$8,449.21	\$9,641.03	1.5500	1	1	\$9,641.03	\$9,641.03
Maintenance and repair rectifier, up to 600 V	2	2.00 Ea.	\$1,373.59	\$1,636.36	15.5000	15	14	\$24,545.41	\$22,909.05
Maintenance and inspection rectifier, up to 600 V	0.33	2.00 Ea.	\$259.11	\$324.62	93.9394	93	93	\$30,190.07	\$30,190.07
Replace rectifier, up to 600 V	20	2.00 Ea.	\$2,540.55	\$2,926.64	1.5500	1	1	\$2,926.64	\$2,926.64
Maintenance and repair motor starter, up to 600 V	5	10.00 Ea.	\$2,796.39	\$3,375.98	6.2000	6	6	\$20,255.88	\$20,255.88
Maintenance and inspection motor starter, up to 600 V	0.5	10.00 Ea.	\$539.81	\$676.30	62.0000	62	62	\$41,930.65	\$41,930.65

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Replace starter motor starter, up to 600 V	18	10.00 Ea.	\$8,053.11	\$9,580.74	1.7222	1	1	\$9,580.74	\$9,580.74
Maintenance and repair secondary transformer, dry	10	2.00 Ea.	\$464.88	\$556.53	3.1000	3	2	\$1,669.60	\$1,113.07
Maintenance and inspection secondary transformer, dry	0.5	2.00 Ea.	\$161.31	\$202.09	62.0000	62	62	\$12,529.86	\$12,529.86
Replace transformer 500 KVA	30	2.00 Ea.	\$55,546.22	\$64,178.41	1.0333	1	1	\$64,178.41	\$64,178.41
Maintenance and inspection lighting panel, indoor	3	4.00 Ea.	\$162.58	\$203.69	10.3333	10	10	\$2,036.86	\$2,036.86
Maintenance and repair breaker, molded case, 480 V, 1 pole	20	168.00 Ea.	\$12,056.13	\$15,104.58	1.5500	1	1	\$15,104.58	\$15,104.58
Maintenance and inspection circuit breaker, molded case, 480 V, 1 pole	0.5	168.00 Ea.	\$5,441.26	\$6,817.11	62.0000	62	62	\$422,660.95	\$422,660.95
Replace circuit breaker molded case, 480 V, 1 pole circuit breaker	50	168.00 Ea.	\$92,112.52	\$107,302.46	0.6200	0	0	\$0.00	\$0.00
Maintenance and repair breaker, molded case, 480 V, 3 pole	20	4.00 Ea.	\$287.05	\$359.63	1.5500	1	1	\$359.63	\$359.63
Maintenance and inspection circuit breaker, molded case, 480 V, 3 pole	0.5	4.00 Ea.	\$129.55	\$162.31	62.0000	62	62	\$10,063.36	\$10,063.36
Replace circuit breaker molded case, 480 V, 3 pole circuit breaker	50	4.00 Ea.	\$5,512.33	\$6,364.49	0.6200	0	0	\$0.00	\$0.00
Maintenance and repair safety switch, 3 pole safety switch, heavy duty	8	1.00 Ea.	\$40.64	\$50.92	3.8750	3	3	\$152.76	\$152.76
Maintenance and inspection safety switch, 3 pole, heavy duty	1	1.00 Ea.	\$40.64	\$50.92	31.0000	31	31	\$1,578.57	\$1,578.57
Replace safety switch, heavy duty 30 A	25	14.00 Ea.	\$8,068.87	\$9,666.15	1.2400	1	1	\$9,666.15	\$9,666.15
Replace fluorescent light fixture ballast, 80 W	10	90.00 Ea.	\$11,220.16	\$13,611.35	3.1000	3	3	\$40,834.05	\$40,834.05
Replace lamps (2 lamps), 4', 34 W energy saver	10	90.00 Ea.	\$2,269.26	\$2,842.10	3.1000	3	3	\$8,526.31	\$8,526.31
Replace metal halide ballast, 175 W	10	52.00 Ea.	\$7,721.20	\$9,271.65	3.1000	3	3	\$27,814.95	\$27,814.95
Replace metal halide fixture lamp, 175 W	5	52.00 Ea.	\$2,599.34	\$3,179.99	6.2000	6	6	\$19,079.94	\$19,079.94
Inspect camera and monitor	0.5	12.00 Ea.	\$785.25	\$983.80	62.0000	62	62	\$60,995.78	\$60,995.78
Replace camera and monitor	12	12.00 Ea.	\$16,965.88	\$20,217.37	2.5833	2	2	\$40,434.75	\$40,434.75
Repair smoke detector	10	75.00 Ea.	\$4,229.07	\$5,228.55	3.1000	3	2	\$15,685.66	\$10,457.11
Replace smoke detector	15	75.00 Ea.	\$21,317.80	\$25,459.64	2.0667	2	2	\$50,919.29	\$50,919.29
Repair heat detector	10	75.00 Ea.	\$4,603.32	\$5,653.84	3.1000	3	3	\$16,961.53	\$16,961.53
Replace heat detector	15	75.00 Ea.	\$12,822.31	\$15,678.06	2.0667	2	2	\$31,356.11	\$31,356.11
Minor repairs to fire alarm control panel	5	6.00 Ea.	\$898.23	\$1,093.65	6.2000	6	6	\$6,561.90	\$6,561.90
Maintenance and inspection fire alarm control panel	0.5	6.00 Ea.	\$259.11	\$324.62	62.0000	62	62	\$20,126.71	\$20,126.71
Replace fire alarm control panel	15	6.00 Ea.	\$11,720.79	\$14,351.52	2.0667	2	2	\$28,703.05	\$28,703.05
Minor repairs to annunciation panel	5	1.00 Ea.	\$149.71	\$182.27	6.2000	6	6	\$1,093.65	\$1,093.65
Replace fire alarm bell, 6"	20	30.00 Ea.	\$5,848.86	\$7,058.26	1.5500	1	1	\$7,058.26	\$7,058.26
Replace electrical service ground	50	1.00 M.L.F.	\$3,767.30	\$4,634.72	0.6200	0	0	\$0.00	\$0.00
Maintenance and repair of general wiring lightning protection system	1	1.00 M.L.F.	\$96.72	\$119.83	31.0000	31	31	\$3,714.62	\$3,714.62

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Replace lightning protection general wiring system	25	1.00 M.L.F.	\$11,009.12	\$13,095.99	1.2400	1	1	\$13,095.99	\$13,095.99	
Maintenance and repair lightning ground rod	1	6.00 Ea.	\$527.33	\$658.72	31.0000	31	30	\$20,420.41	\$19,761.69	
Replace lightning ground rod	25	6.00 Ea.	\$1,356.54	\$1,681.74	1.2400	1	1	\$1,681.74	\$1,681.74	
Maintenance and repair computer ground system	4	1.00 Ea.	\$21.59	\$27.05	7.7500	7	7	\$189.36	\$189.36	
Replace computer ground system	50	1.00 M.L.F.	\$1,865.81	\$2,278.85	0.6200	0	0	\$0.00	\$0.00	
Maintenance and repair special ground system	4	1.00 Ea.	\$21.59	\$27.05	7.7500	7	7	\$189.36	\$189.36	
Replace special ground system	50	1.00 M.L.F.	\$1,865.81	\$2,278.85	0.6200	0	0	\$0.00	\$0.00	
Maintenance and inspection generator, diesel, 750 KW	0.08	2.00 Ea.	\$129.55	\$162.31	387.5000	387	387	\$62,814.82	\$62,814.82	
Replace diesel generator component, 750 KW	25	2.00 Ea.	\$455,933.87	\$522,205.15	1.2400	1	1	\$522,205.15	\$522,205.15	
Maintenance and repair transfer switch	5	2.00 Ea.	\$714.10	\$861.64	6.2000	6	6	\$5,169.82	\$5,169.82	
Maintenance and inspection transfer switch	0.5	2.00 Ea.	\$81.29	\$101.84	62.0000	62	62	\$6,314.26	\$6,314.26	
Replace transfer switch	18	2.00 Ea.	\$52,585.01	\$60,200.55	1.7222	1	1	\$60,200.55	\$60,200.55	
Maintenance and repair exit light	20	30.00 Ea.	\$1,116.05	\$1,380.09	1.5500	1	1	\$1,380.09	\$1,380.09	
Replace lamp exit light	5	30.00 Ea.	\$505.40	\$598.90	6.2000	6	6	\$3,593.42	\$3,593.42	
Replace lighting fixture exit light	20	30.00 Ea.	\$5,731.04	\$6,892.82	1.5500	1	1	\$6,892.82	\$6,892.82	
Maintenance and inspection battery, wet	0.02	8.00 Ea.	\$325.15	\$407.37	1,550.0000	1550	1550	\$631,426.25	\$631,426.25	
Replace battery, wet	10	8.00 Ea.	\$5,654.38	\$6,455.26	3.1000	3	3	\$19,365.77	\$19,365.77	
Maintenance and repair battery charger	2	8.00 Ea.	\$2,413.46	\$2,974.57	15.5000	15	15	\$44,618.51	\$44,618.51	
Maintenance and inspection battery charger	0.25	8.00 Ea.	\$1,036.43	\$1,298.50	124.0000	124	124	\$161,013.69	\$161,013.69	
Replace battery charger	20	8.00 Ea.	\$8,600.23	\$9,939.88	1.5500	1	1	\$9,939.88	\$9,939.88	
Maintenance and inspection UPS battery	0.17	36.00 Ea.	\$2,331.97	\$2,921.62	182.3529	182	182	\$531,734.74	\$531,734.74	
Replace motor generator UPS battery	15	36.00 Ea.	\$39,634.75	\$46,850.51	2.0667	2	2	\$93,701.03	\$93,701.03	
Maintenance and repair voice/data outlet	10	46.00 Ea.	\$2,359.49	\$2,946.67	3.1000	3	3	\$8,840.02	\$8,840.02	
Replace voice/data outlet	20	46.00 Ea.	\$1,191.95	\$1,451.41	1.5500	1	1	\$1,451.41	\$1,451.41	
Replace patch panel	15	2.00 Ea.	\$1,647.06	\$1,985.05	2.0667	2	2	\$3,970.11	\$3,970.11	
			\$6,553,602.89	\$7,747,840.22				MR Subtotal	\$11,378,768.27	
									MR Per Year	\$366,622.61
									PM Total	\$220,896.33
									Subtotal	\$587,518.94
									Total Per Unit	\$17.62
									Nuclear Certification Factor	2
									Total Per Unit	\$35.25

FAC 2126 INTERCONTINENTAL BALLISTIC MISSILE PROCESSING FACILITY SUC \$35.25

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 31

Type PM

Average Size 33337.0

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Security, intrusion alarm system, annualized	2.00	7.66	\$325.80	\$453.77	\$0.00	\$779.56	\$948.27	\$1,133.27
Emergency diesel generator, turbine, annualized	2.00	33.27	\$268.06	\$1,968.40	\$0.00	\$2,236.46	\$2,853.79	\$3,484.52
Power stablizer, annualized	4.00	2.50	\$37.12	\$147.11	\$0.00	\$184.23	\$232.07	\$281.77
Uninterrupted power system, 200 KVA to 800 KVA, annualized	6.00	468.35	\$1,738.27	\$27,661.20	\$0.00	\$29,399.47	\$37,871.65	\$46,430.75
Battery system and charger, annualized	2.00	17.46	\$39.90	\$1,036.00	\$0.00	\$1,075.90	\$1,390.69	\$1,707.47
Light, emergency, wet cell, annualized	2.00	0.78	\$68.05	\$45.58	\$0.00	\$113.63	\$134.11	\$157.99
Hydraulic lift, loading dock, annualized	4.00	6.53	\$98.56	\$222.46	\$0.00	\$321.01	\$397.60	\$479.12
Crane, electric bridge, up to 5 ton, annualized	4.00	11.67	\$687.60	\$411.42	\$0.00	\$1,099.02	\$1,291.21	\$1,517.78
Crane, electric bridge, over 15 tons, annualized	4.00	33.06	\$1,297.27	\$1,160.12	\$0.00	\$2,457.39	\$2,935.16	\$3,477.78
Hoist, pneumatic, annualized	2.00	2.62	\$307.13	\$92.09	\$0.00	\$399.22	\$457.56	\$531.26
Electric slide gate, annualized	2.00	9.53	\$35.43	\$460.70	\$0.00	\$496.13	\$637.88	\$781.40
Fuel oil storage tank, above ground, annualized	2.00	6.55	\$40.57	\$317.90	\$0.00	\$358.47	\$457.90	\$559.36
Cathodic protection system, annualized	1.00	1.46	\$19.33	\$79.05	\$0.00	\$98.38	\$124.03	\$150.64
Door, emergency egress, swinging, annualized	10.00	2.60	\$145.92	\$107.49	\$0.00	\$253.41	\$300.25	\$354.39
Door, overhead, electric, roll up, to 24' high x 25' wide, annualized	4.00	16.28	\$163.84	\$675.24	\$0.00	\$839.08	\$1,058.04	\$1,285.19
Fire doors, swinging, annualized	6.00	2.35	\$85.93	\$87.34	\$0.00	\$173.27	\$208.07	\$247.16
Elevator, cable, electric, passenger / freight, annualized	6.00	287.37	\$24,409.80	\$24,211.35	\$0.00	\$48,621.15	\$58,325.54	\$69,250.41
Wheelchair lift, annualized	2.00	2.42	\$52.72	\$203.39	\$0.00	\$256.11	\$322.40	\$391.33
Dumbwaiter, electric, annualized	2.00	1.27	\$114.60	\$106.36	\$0.00	\$220.96	\$264.33	\$313.43
Pneumatic Tube System, annualized	2.00	2.81	\$121.48	\$179.14	\$0.00	\$300.61	\$366.50	\$438.46
Urinals, annualized	6.00	1.37	\$37.91	\$68.72	\$0.00	\$106.63	\$131.04	\$157.34
Toilet (vacuum breaker type), annualized	12.00	2.12	\$101.30	\$106.78	\$0.00	\$208.08	\$250.24	\$297.47
Lavatories, annualized	12.00	4.18	\$71.58	\$248.44	\$0.00	\$320.02	\$401.71	\$486.98
Drink fountain, annualized	4.00	2.48	\$82.90	\$125.10	\$0.00	\$208.00	\$253.82	\$303.79
Boiler, hot water, oil, gas, or comb. fired, over 1000 MBH, annualized	2.00	39.40	\$154.68	\$2,378.70	\$0.00	\$2,533.38	\$3,262.46	\$3,999.27
Water cooling tower, 50 thru 500 tons, annualized	4.00	39.65	\$630.86	\$2,396.32	\$0.00	\$3,027.18	\$3,809.17	\$4,622.69
Chiller, centrif., water cooled, up to 100 tons, annualized	4.00	107.08	\$333.63	\$6,431.30	\$0.00	\$6,764.93	\$8,727.68	\$10,707.12
Air handling unit, over 50 tons, annualized	4.00	13.10	\$1,597.38	\$658.99	\$0.00	\$2,256.37	\$2,613.80	\$3,051.11
Air handling unit, computer room, annualized	2.00	6.83	\$254.77	\$343.59	\$0.00	\$598.36	\$726.92	\$868.21
Fan coil unit, annualized	6.00	20.03	\$679.39	\$1,009.63	\$0.00	\$1,689.02	\$2,059.84	\$2,464.64
Air filter, electrostatic, annualized	12.00	91.22	\$121.93	\$4,598.82	\$0.00	\$4,720.75	\$6,112.59	\$7,510.52
VAV Boxes, annualized	45.00	42.03	\$432.20	\$2,537.28	\$0.00	\$2,969.48	\$3,773.89	\$4,599.90
Fire dampers, annualized	10.00	11.57	\$91.50	\$695.99	\$0.00	\$787.49	\$1,005.43	\$1,227.95
Fan, axial, 5,000 to 10,000 CFM, annualized	4.00	5.16	\$143.56	\$259.01	\$0.00	\$402.58	\$494.64	\$593.87
Package unit, computer room, annualized	2.00	8.67	\$297.23	\$521.55	\$0.00	\$818.79	\$1,004.98	\$1,206.03
Controls, central system, electro/pneumatic, annualized	4.00	7.68	\$283.08	\$461.64	\$0.00	\$744.72	\$911.53	\$1,092.48
Air compressor, centrifugal, over 40 H.P., annualized	2.00	29.78	\$177.94	\$1,806.05	\$0.00	\$1,983.99	\$2,543.59	\$3,112.10
Backflow prevention device, up to 4", annualized	1.00	0.33	\$13.40	\$19.82	\$0.00	\$33.22	\$40.50	\$48.46
Extinguishing system, wet pipe, annualized	1.00	11.34	\$68.24	\$678.37	\$0.00	\$746.61	\$956.95	\$1,170.70
Fire pump, electric motor driven, annualized	2.00	95.50	\$106.15	\$5,682.45	\$0.00	\$5,788.60	\$7,503.96	\$9,224.61
Fire pump, motor/engine driven, annualized	2.00	139.73	\$384.18	\$8,369.50	\$0.00	\$8,753.68	\$11,302.95	\$13,871.43
Extinguishing system, foam pump electric, annualized	2.00	35.44	\$657.15	\$1,762.00	\$0.00	\$2,419.15	\$3,013.47	\$3,640.64
Extinguishing system, FM200, annualized	4.00	37.04	\$2,446.62	\$1,850.10	\$0.00	\$4,296.72	\$5,096.41	\$6,018.43
Switchboard, with air circuit breaker, annually	2.00	8.52	\$34.33	\$563.58	\$0.00	\$597.92	\$770.42	\$944.65
Switchboard, with air circuit breaker, annualized	2.00	26.64	\$34.33	\$1,750.84	\$0.00	\$1,785.17	\$2,313.86	\$2,844.26
Circuit breaker, high voltage air, annualized	2.00	0.94	\$30.31	\$62.16	\$0.00	\$92.47	\$114.15	\$137.35
Switch, selector, high voltage, air, annualized	1.00	0.41	\$15.16	\$26.94	\$0.00	\$42.09	\$51.69	\$62.04
Switch, automatic transfer, annualized	2.00	10.63	\$30.31	\$704.48	\$0.00	\$734.79	\$949.17	\$1,165.06
Transformer, dry type 500 KVA and over, annualized	4.00	3.08	\$60.62	\$203.06	\$0.00	\$263.68	\$330.66	\$400.67

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Panelboard, 225 A and above, annualized	10.00	4.41	\$231.97	\$290.08	\$0.00	\$522.05	\$632.28	\$754.10
Motor control center, over 400 A, annualized	1.00	0.39	\$23.20	\$25.90	\$0.00	\$49.10	\$59.19	\$70.44
Fire alarm annunciator system, annualized	1.00	11.05	\$179.39	\$652.68	\$0.00	\$832.07	\$1,045.82	\$1,268.53
						\$146,780.58	\$182,841.84	\$220,896.33

FAC 2126 INTERCONTINENTAL BALLISTIC MISSILE PROCESSING FACILITY

Modeled Component List CostWorks Release 2021 Qtr 3

B10 Superstructure	
Metal Stairs	2080.0 S.F.
Railing, Metal	728.0 L.F.
Metal Fire Escapes	180.0 V.L.F.
B20 Exterior Enclosure	
Steel Louver, 1st floor	4.0 Ea.
Aluminum Frame Storm Window, 1st floor	54.0 Ea.
Aluminum Frame Storm Window, 2nd floor	54.0 Ea.
Steel, Painted	10.0 Ea.
Steel Single, Roll-Up	4.0 Ea.
Hinges, Brass	10.0 Ea.
Lockset, Brass	10.0 Ea.
Door Closer, Brass	10.0 Ea.
B30 Roofing	
Thermosetting	331.0 Sq.
C10 Interior Construction	
Steel Painted Interior Doors	10.0 Ea.
Solid Core Interior Doors	35.0 Ea.
Hinges, Brass	45.0 Ea.
Lockset, Brass	45.0 Ea.
Door Closer, Brass	45.0 Ea.
Panic Bar	6.0 Ea.
Toilet Partitions, painted metal	12.0 Ea.
Fire Doors, Swinging, annualized	6.0 Each
C30 Interior Finishes	
Epoxy Flooring	211.0 C.S.F.
Carpet	501.0 S.Y.
Acoustic Tile, fire-rated	90.0 C.S.F.
D20 Plumbing	
Tankless Water Closet	12.0 Ea.
Urinal	6.0 Ea.
Lavatory, Iron, Enamel	12.0 Ea.
Service/Utility Sink	4.0 Ea.
Shower, Fiberglass	8.0 Ea.
Drinking Fountain	4.0 Ea.
Emergency Shower Station	4.0 Ea.
Emergency Eye Wash	4.0 Ea.
Storage Tank, Domestic Hot Water	2.0 Ea.
Circulation Pump, Bronze 1 HP	2.0 Ea.
Drain: Roof, Scupper, Area	3.0 Ea.
Rainwater Sump Pump	1.0 Ea.
D30 HVAC	
Boiler, Gas, 2000 MBH	2.0 Ea.
Blowoff System	2.0 Ea.
Chemical Feed System	2.0 Ea.
Feed Water Supply	2.0 Ea.
Deaerator	2.0 Ea.
Metal Flue / Chimney, 6" diameter	2.0 L.F.
Cooling Tower, 100 ton	4.0 Ea.
Chiller, Water Cooled, Reciprocating, 100 ton	4.0 Ea.
Exhaust Fan, roof mounted exhaust fan, 800 CFM exhaust	4.0 Ea.
Exhaust Fan, roof mounted exhaust fan, 8500 CFM exhaust	2.0 Ea.

Exhaust Fan, axial flow, 3800 CFM	2.0 Ea.
Computer Room A/C Units, Chilled Water, 5 ton	2.0 Ea.
Central Station Air Conditioning Air Handling Unit, 8000 CFM	4.0 Ea.
Central Station Air Conditioning Air Handling Unit, 33,500 CFM	4.0 Ea.
VAV Box	45.0 Each
D40 Fire Protection	
Backflow Preventer	2.0 Ea.
Sprinkler System, Fire Suppression, sprinkler head	150.0 Ea.
Fire Pump, Electric, annualized	2.0 Each
Fire Pump, Engine, annualized	2.0 Each
Extinguishing system, FM200	4.0 Each
D50 Electrical	
Switchgear, Mainframe	4.0 Ea.
Switchgear, Indoor, Less Than 600 V	4.0 Ea.
Inverter	2.0 Ea.
Rectifier, Up To 600 V	2.0 Ea.
Motor Starter, Up To 600 V	10.0 Ea.
Secondary Transformer, Dry, 500 KVA	2.0 Ea.
Load Center, 100 A, maintenance & inspection	4.0 Ea.
Circuit Breaker, molded case, 480 V, 1 pole	168.0 Ea.
Circuit Breaker, molded case, 480 V, 3 pole	4.0 Ea.
Safety Switch, Heavy Duty	14.0 Ea.
Smoke Detector	75.0 Ea.
Heat Detector	75.0 Ea.
Fire Alarm Control Panel	6.0 Ea.
Fire Alarm Bell	30.0 Ea.
Electrical Service Ground	1.0 M.L.F.
Lightning Protection System	1.0 M.L.F.
Lightning Ground Rod	6.0 Ea.
Computer Ground System	1.0 M.L.F.
Special Ground System	1.0 M.L.F.
Generator, Diesel, 750 KW	2.0 Ea.
Transfer Switch	2.0 Ea.
Exit Light	30.0 Ea.
Battery Charger	8.0 Ea.
UPS Battery, maintenance & inspection	36.0 Ea.
UPS Battery, replace motor	36.0 Ea.
UPS, 200 KVA to 800 KVA, annualized	6.0 Each
E10 Equipment	
Hydraulic Lift, Loading Dock, annualized	4.0 Each
Crane, Electric, up to 5 ton, annualized	4.0 Each
Crane, Electric, over 15 ton, annualized	4.0 Each
Hoist, pneumatic, annualized	2.0 Each
G20 Site Improvements	
Gate, Electric slide, annualized	2.0 Each
G30 Site Mechanical Utilities	
Fuel Oil Storage Tank, annualized	2.0 Each
G40 Site Electrical Utilities	
Cathodic Protection, annualized	1.0 Each
D10 Conveying	
Elevator, cable annualized	6.0 Each
Wheelchair lift, annualized	2.0 Each
Dumbwaiter, electric annualized	2.0 Each
Pneumatic Tube System, annualized	2.0 Each

FAC 2126 INTERCONTINENTAL BALLISTIC MISSILE PROCESSING FACILITY
Sustainment by Year
CostWorks Release 2021 Qtr 3

