

**FAC 7213 STUDENT BARRACKS**

FY22 SUC: \$4.47 / SF  
Source: Calculated using R.S. Means CostWorks 2021 Qtr 3  
component prices

FAC 7213 STUDENT BARRACKS

Release 2021 Qtr 3  
Zip Code Prefix 222  
Type MR

UM SF  
Design Life 55  
Average Size 37400.0

SUC \$4.47

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 clay brick wall, 1st floor	25	1,097.00 S.F.	\$47,145.35	\$57,860.68	2.2000	2	2	\$115,721.36	\$115,721.36
Replace clay brick wall, 2nd floor	75	30.90 C.S.F.	\$69,814.98	\$84,943.94	0.7333	0	0	\$0.00	\$0.00
Replace glass - 1st floor. (1% of glass) - alum. window	1	9.50 S.F.	\$114.55	\$134.63	55.0000	55	55	\$7,404.67	\$7,404.67
Repair 3' x 4' aluminum window - 1st floor	20	148.00 Ea.	\$38,760.82	\$45,628.61	2.7500	2	2	\$91,257.21	\$91,257.21
Replace 3' x 4' aluminum window - 1st floor	50	148.00 Ea.	\$120,588.57	\$140,559.19	1.1000	1	1	\$140,559.19	\$140,559.19
Replace glass - 2nd floor. (1% of glass) - alum. window	1	10.10 S.F.	\$169.42	\$202.29	55.0000	55	55	\$11,125.89	\$11,125.89
Repair 3' x 4' aluminum window - 2nd floor	20	148.00 Ea.	\$45,655.07	\$54,189.95	2.7500	2	2	\$108,379.90	\$108,379.90
Replace 3' x 4' aluminum window - 2nd floor	50	148.00 Ea.	\$127,482.82	\$149,120.53	1.1000	1	1	\$149,120.53	\$149,120.53
Repair aluminum storefront door	12	2.00 Ea.	\$926.84	\$1,109.03	4.5833	4	4	\$4,436.12	\$4,436.12
Replace 3'-0" x 7'-0" aluminum storefront doors	50	2.00 Ea.	\$4,091.53	\$4,838.20	1.1000	1	1	\$4,838.20	\$4,838.20
Repair steel, painted, door	14	7.00 Ea.	\$4,375.52	\$5,208.04	3.9286	3	3	\$15,624.12	\$15,624.12
Refinish 3'-0" x 7'-0" steel, painted, door	4	7.00 Ea.	\$289.80	\$356.06	13.7500	13	13	\$4,628.83	\$4,628.83
Replace 3'-0" x 7'-0" steel, painted, door	45	7.00 Ea.	\$4,935.45	\$5,738.12	1.2222	1	1	\$5,738.12	\$5,738.12
Repair 12' x 12' steel roll-up door	10	2.00 Ea.	\$1,351.79	\$1,604.43	5.5000	5	5	\$8,022.17	\$8,022.17
Replace 12' x 12' steel roll-up door	35	2.00 Ea.	\$5,407.17	\$6,417.73	1.5714	1	1	\$6,417.73	\$6,417.73
Debris removal, by hand and visual inspection, metal panel roofing	1	10.00 M.S.F.	\$227.84	\$277.90	55.0000	55	55	\$15,284.37	\$15,284.37
Minor metal roof finish repairs, 2% of roof area, metal panel roofing	5	467.00 S.F.	\$1,631.27	\$1,957.18	11.0000	11	11	\$21,528.98	\$21,528.98
Metal roof flashing replacement, 2 SF/sq repaired, metal panel roofing	1	19.00 S.F.	\$347.70	\$421.28	55.0000	55	55	\$23,170.23	\$23,170.23
Minor metal roof panel replacement, 2.5% of roof area	20	467.00 S.F.	\$5,336.69	\$6,338.16	2.7500	2	2	\$12,676.32	\$12,676.32
Total metal roof panel replacement	30	187.00 Sq.	\$158,042.42	\$187,190.04	1.8333	1	1	\$187,190.04	\$187,190.04
Repair 8" concrete block wall - (2% of walls) painted	25	0.50 C.S.F.	\$544.83	\$654.18	2.2000	2	2	\$1,308.36	\$1,308.36
Refinish concrete block wall painted	4	26.10 C.S.F.	\$2,633.98	\$3,207.38	13.7500	13	13	\$41,695.96	\$41,695.96
Replace 8" concrete block wall painted	75	26.10 C.S.F.	\$30,235.94	\$36,373.30	0.7333	0	0	\$0.00	\$0.00
Repair hollow core wood door, interior	7	120.00 Ea.	\$35,214.27	\$40,987.68	7.8571	7	7	\$286,913.78	\$286,913.78
Refinish 3'-0" x 7'-0" hollow core wood door, interior	4	120.00 Ea.	\$5,203.77	\$6,389.96	13.7500	13	13	\$83,069.49	\$83,069.49
Replace 3'-0" x 7'-0" hollow core wood door, interior	30	120.00 Ea.	\$36,238.51	\$42,707.22	1.8333	1	1	\$42,707.22	\$42,707.22
Repair solid core wood door, interior	11	79.00 Ea.	\$23,182.73	\$26,983.56	5.0000	5	5	\$134,917.79	\$134,917.79

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Refinish 3'-0" x 7'-0" solid core wood door, interior	4	79.00 Ea.	\$3,425.81	\$4,206.72	13.7500	13	12	\$54,687.41	\$50,480.69
Replace 3'-0" x 7'-0" solid core wood door, interior	40	79.00 Ea.	\$38,664.76	\$44,699.00	1.3750	1	1	\$44,699.00	\$44,699.00
Repair concrete steps	15	295.00 S.F.	\$6,740.77	\$7,802.95	3.6667	3	3	\$23,408.84	\$23,408.84
Replace concrete steps	100	295.00 S.F.	\$15,770.35	\$19,231.70	0.5500	0	0	\$0.00	\$0.00
Refinish metal stair railing, interior	7	112.00 S.F.	\$163.69	\$201.83	7.8571	7	7	\$1,412.79	\$1,412.79
Replace metal stair railing, interior	45	112.00 L.F.	\$4,811.04	\$5,631.34	1.2222	1	1	\$5,631.34	\$5,631.34
Repair 5/8" drywall - (2% of walls)	20	1,133.50 S.F.	\$1,899.00	\$2,310.62	2.7500	2	2	\$4,621.25	\$4,621.25
Refinish drywall	4	26,600.00 S.F.	\$16,518.11	\$20,320.01	13.7500	13	13	\$264,160.13	\$264,160.13
Replace 5/8" drywall	75	26,600.00 S.F.	\$61,994.17	\$75,868.68	0.7333	0	0	\$0.00	\$0.00
Refinish concrete floor finished	25	11.00 C.S.F.	\$4,640.10	\$5,573.48	2.2000	2	2	\$11,146.97	\$11,146.97
Ceramic tile floor repairs - (2% of floors)	15	0.40 C.S.F.	\$253.12	\$315.60	3.6667	3	3	\$946.81	\$946.81
Replace 2" x 2" thin set ceramic tile floor	50	17.60 C.S.F.	\$21,536.12	\$25,996.84	1.1000	1	1	\$25,996.84	\$25,996.84
Replace carpet	8	2,121.60 S.Y.	\$116,722.67	\$134,799.89	6.8750	6	6	\$808,799.35	\$808,799.35
Repair gypsum board ceiling - (2% of ceilings)	20	4.40 C.S.F.	\$1,593.57	\$1,956.35	2.7500	2	2	\$3,912.69	\$3,912.69
Refinish gypsum board ceiling, up to 12' high	20	119.00 C.S.F.	\$15,362.20	\$18,990.42	2.7500	2	1	\$37,980.84	\$18,990.42
Replace gypsum board ceiling, up to 12' high	40	119.00 C.S.F.	\$44,184.65	\$54,258.57	1.3750	1	1	\$54,258.57	\$54,258.57
Replace flush valve diaphragm tankless water closet	10	32.00 Ea.	\$839.05	\$1,041.15	5.5000	5	5	\$5,205.74	\$5,205.74
Rebuild flush valve tankless water closet	20	32.00 Ea.	\$5,773.88	\$6,958.63	2.7500	2	2	\$13,917.26	\$13,917.26
Unplug clogged line tankless water closet	5	32.00 Ea.	\$6,988.65	\$8,740.06	11.0000	11	11	\$96,140.64	\$96,140.64
Replace tankless water closet	35	32.00 Ea.	\$41,159.08	\$47,631.85	1.5714	1	1	\$47,631.85	\$47,631.85
Replace tankless flush valve	25	32.00 Ea.	\$8,070.88	\$9,475.54	2.2000	2	2	\$18,951.07	\$18,951.07
Rebuild flush valve for a urinal	20	6.00 Ea.	\$1,082.60	\$1,304.74	2.7500	2	2	\$2,609.49	\$2,609.49
Replace wall-hung urinal	35	6.00 Ea.	\$5,813.18	\$7,014.64	1.5714	1	1	\$7,014.64	\$7,014.64
Replace washer in spud connection lavatory, vitreous china	7	32.00 Ea.	\$526.80	\$642.56	7.8571	7	7	\$4,497.93	\$4,497.93
Replace washer in faucet lavatory, vitreous china	2	32.00 Ea.	\$412.32	\$513.66	27.5000	27	27	\$13,868.77	\$13,868.77
Replace faucets lavatory, vitreous china	10	32.00 Ea.	\$5,815.23	\$7,000.17	5.5000	5	5	\$35,000.86	\$35,000.86
Clean out strainer and P trap lavatory, vitreous china	2	32.00 Ea.	\$1,115.82	\$1,395.45	27.5000	27	27	\$37,677.24	\$37,677.24
Replace lavatory, vitreous china	35	32.00 Ea.	\$21,522.39	\$25,863.07	1.5714	1	1	\$25,863.07	\$25,863.07
Replace faucet washer sink, iron enamel	2	3.00 Ea.	\$38.33	\$47.75	27.5000	27	27	\$1,289.19	\$1,289.19
Clean trap sink, iron enamel	3	3.00 Ea.	\$25.71	\$32.16	18.3333	18	18	\$578.80	\$578.80
Replace faucets sink, iron enamel	10	3.00 Ea.	\$545.18	\$656.27	5.5000	5	5	\$3,281.33	\$3,281.33
Unstop sink, iron enamel	2	3.00 Ea.	\$125.46	\$156.91	27.5000	27	27	\$4,236.49	\$4,236.49
Replace sink, P.E.C.I. sink, iron enamel kitchen	10	3.00 Ea.	\$1,910.10	\$2,272.53	5.5000	5	5	\$11,362.65	\$11,362.65
Inspect / clean shower head fiberglass	3	32.00 Ea.	\$1,580.57	\$1,976.67	18.3333	18	18	\$35,580.15	\$35,580.15
Replace mixing valve barrel shower, fiberglass	2	32.00 Ea.	\$9,042.89	\$10,634.22	27.5000	27	27	\$287,123.94	\$287,123.94

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Replace mixing valve shower, fiberglass	10	32.00 Ea.	\$8,828.23	\$10,737.77	5.5000	5	5	\$53,688.83	\$53,688.83
Replace shower and fittings, fiberglass	20	32.00 Ea.	\$30,932.43	\$36,997.11	2.7500	2	2	\$73,994.22	\$73,994.22
Check / minor repairs drinking fountain	1	3.00 Ea.	\$146.65	\$183.40	55.0000	55	55	\$10,086.88	\$10,086.88
Repair internal leaks drinking fountain	4	3.00 Ea.	\$135.24	\$169.13	13.7500	13	13	\$2,198.74	\$2,198.74
Correct water pressure drinking fountain	2	3.00 Ea.	\$125.46	\$156.91	27.5000	27	27	\$4,236.49	\$4,236.49
Replace refrigerant drinking fountain	2	3.00 Ea.	\$98.05	\$114.81	27.5000	27	27	\$3,099.81	\$3,099.81
Repair drain leak drinking fountain	4	3.00 Ea.	\$101.75	\$121.60	13.7500	13	11	\$1,580.85	\$1,337.64
Replace fountain drinking fountain	10	3.00 Ea.	\$3,843.47	\$4,543.68	5.5000	5	5	\$22,718.38	\$22,718.38
Replace pipe and fittings, copper 3/4"	20	2.00 L.F.	\$52.11	\$62.77	2.7500	2	2	\$125.53	\$125.53
Replace pipe and fittings, copper 2"	25	2.00 L.F.	\$122.97	\$146.29	2.2000	2	2	\$292.58	\$292.58
Minor repairs, adjustments water heater, gas / oil, 1150 GPH	2	1.00 Ea.	\$98.31	\$122.94	27.5000	27	25	\$3,319.50	\$3,073.61
Clean & service water heater, gas / oil, 1150 GPH	2	1.00 Ea.	\$586.59	\$733.59	27.5000	27	27	\$19,806.96	\$19,806.96
Replace water heater, gas / oil, 1150 GPH	20	1.00 Ea.	\$41,525.47	\$47,777.51	2.7500	2	2	\$95,555.02	\$95,555.02
Insp/chk pump/mtr oper, lub, chk align circulation pump, CI 1-1/2 HP	0.5	5.00 Ea.	\$59.75	\$74.72	110.0000	110	110	\$8,218.94	\$8,218.94
Replace pump / motor assembly circulation pump, CI 1-1/2 HP	20	5.00 Ea.	\$15,775.22	\$18,219.89	2.7500	2	2	\$36,439.78	\$36,439.78
Replace pipe, 4" pipe and fittings, PVC	30	200.00 L.F.	\$16,317.79	\$20,076.83	1.8333	1	1	\$20,076.83	\$20,076.83
General maintenance & repair drain: roof, scupper, area	1	2.00 Ea.	\$73.98	\$92.51	55.0000	55	55	\$5,088.27	\$5,088.27
Replace drain: roof, scupper, area	40	2.00 Ea.	\$1,573.86	\$1,824.72	1.3750	1	1	\$1,824.72	\$1,824.72
Install new 4" gasket, 1 per M.L.F. natural gas, steel/iron	30	2.00 Ea.	\$421.91	\$523.37	1.8333	1	1	\$523.37	\$523.37
Replace 1000 L.F. of hung 4" diam steel pipe natural gas	75	0.80 M.L.F.	\$69,686.80	\$84,231.63	0.7333	0	0	\$0.00	\$0.00
Repair boiler, gas, 2000 MBH	7	1.00 Ea.	\$5,785.82	\$6,733.75	7.8571	7	7	\$47,136.22	\$47,136.22
Replace boiler, gas, 2000 MBH	30	1.00 Ea.	\$39,838.14	\$46,620.21	1.8333	1	1	\$46,620.21	\$46,620.21
Repair chemical feed system	15	1.00 Ea.	\$843.44	\$1,008.19	3.6667	3	3	\$3,024.57	\$3,024.57
Replace chemical feed system	15	1.00 Ea.	\$912.01	\$1,057.34	3.6667	3	3	\$3,172.03	\$3,172.03
Repair hermetic centrifugal chiller, 100 ton	10	1.00 Ea.	\$47,236.55	\$55,117.53	5.5000	5	3	\$275,587.66	\$165,352.60
Replace hermetic centrifugal chiller, 100 ton	20	1.00 Ea.	\$129,411.72	\$149,773.48	2.7500	2	2	\$299,546.96	\$299,546.96
Repair condenser, air cooled, 100 ton	10	1.00 Ea.	\$4,883.70	\$5,726.44	5.5000	5	5	\$28,632.18	\$28,632.18
Replace condenser, air cooled, 100 ton	15	1.00 Ea.	\$75,857.34	\$87,879.99	3.6667	3	3	\$263,639.97	\$263,639.97
Repair circulator pump, 1/12 - 3/4 H.P.	5	6.00 Ea.	\$588.80	\$694.39	11.0000	11	11	\$7,638.27	\$7,638.27
Refill expansion tank	5	2.00 Ea.	\$29.66	\$37.09	11.0000	11	11	\$407.96	\$407.96
Replace expansion tank, 60 gal capacity	50	2.00 Ea.	\$5,803.89	\$6,654.89	1.1000	1	1	\$6,654.89	\$6,654.89

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Repair damaged pipe insulation, fiberglass 3/4"	5	4.00 Ea.	\$75.76	\$93.26	11.0000	11	11	\$1,025.90	\$1,025.90
Repair damaged pipe insulation, fiberglass 2"	5	2.00 Ea.	\$48.01	\$58.68	11.0000	11	11	\$645.44	\$645.44
Replace pipe insulation, fiberglass 3/4"	5	0.40 M.L.F.	\$3,022.64	\$3,711.08	11.0000	11	11	\$40,821.91	\$40,821.91
Replace pipe insulation, fiberglass 2"	5	0.80 M.L.F.	\$7,838.13	\$9,541.47	11.0000	11	11	\$104,956.20	\$104,956.20
Repair central station A.H.U., 16,000 CFM	10	4.00 Ea.	\$6,011.28	\$6,984.14	5.5000	5	4	\$34,920.71	\$27,936.57
Replace central station A.H.U., 16,000 CFM	15	4.00 Ea.	\$267,758.60	\$308,180.31	3.6667	3	3	\$924,540.94	\$924,540.94
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	55.0000	55	55	\$2,361.08	\$2,361.08
Replace sprinkler head	20	150.00 Ea.	\$12,828.42	\$15,778.43	2.7500	2	2	\$31,556.85	\$31,556.85
Replace fire pump / electric motor assembly 100 H.P.	25	2.00 Ea.	\$88,278.17	\$101,820.68	2.2000	2	2	\$203,641.36	\$203,641.36
Maintenance and repair motor starter, up to 600 V	5	3.00 Ea.	\$838.92	\$1,012.79	11.0000	11	11	\$11,140.74	\$11,140.74
Maintenance and inspection motor starter, up to 600 V	0.5	3.00 Ea.	\$161.94	\$202.89	110.0000	110	110	\$22,317.93	\$22,317.93
Replace starter motor starter, up to 600 V	18	3.00 Ea.	\$2,415.93	\$2,874.22	3.0556	3	3	\$8,622.67	\$8,622.67
Maintenance and repair motor starter, 600 V	3	2.00 Ea.	\$1,377.57	\$1,692.07	18.3333	18	18	\$30,457.25	\$30,457.25
Maintenance and inspection motor starter, 600 V	0.25	2.00 Ea.	\$107.96	\$135.26	220.0000	220	220	\$29,757.24	\$29,757.24
Replace starter motor starter, 600 V	18	2.00 Ea.	\$8,682.33	\$10,184.10	3.0556	3	3	\$30,552.31	\$30,552.31
Maintenance and inspection lighting panel, indoor	3	3.00 Ea.	\$121.93	\$152.76	18.3333	18	18	\$2,749.76	\$2,749.76
Maintenance and repair safety switch, 3 pole safety switch, heavy duty	8	3.00 Ea.	\$121.93	\$152.76	6.8750	6	6	\$916.59	\$916.59
Maintenance and inspection safety switch, 3 pole, heavy duty	1	3.00 Ea.	\$121.93	\$152.76	55.0000	55	55	\$8,402.04	\$8,402.04
Replace safety switch, heavy duty 30 A	25	3.00 Ea.	\$1,729.04	\$2,071.32	2.2000	2	2	\$4,142.64	\$4,142.64
Replace fluorescent light fixture ballast, 80 W	10	180.00 Ea.	\$22,440.32	\$27,222.70	5.5000	5	5	\$136,113.51	\$136,113.51
Replace lamps (2 lamps), 4', 34 W energy saver	10	260.00 Ea.	\$6,555.64	\$8,210.52	5.5000	5	5	\$41,052.62	\$41,052.62
Repair smoke detector	10	180.00 Ea.	\$10,149.77	\$12,548.53	5.5000	5	4	\$62,742.66	\$50,194.13
Check operation smoke detector	1	180.00 Ea.	\$2,914.96	\$3,652.02	55.0000	55	55	\$200,861.34	\$200,861.34
Replace smoke detector	15	180.00 Ea.	\$51,162.72	\$61,103.15	3.6667	3	3	\$183,309.44	\$183,309.44
Repair heat detector	10	180.00 Ea.	\$11,047.97	\$13,569.22	5.5000	5	5	\$67,846.11	\$67,846.11
Check operation heat detector	1	180.00 Ea.	\$2,914.96	\$3,652.02	55.0000	55	55	\$200,861.34	\$200,861.34
Replace heat detector	15	180.00 Ea.	\$30,773.53	\$37,627.34	3.6667	3	3	\$112,882.01	\$112,882.01
Check and repair manual pull station	10	30.00 Ea.	\$2,630.91	\$3,234.91	5.5000	5	4	\$16,174.54	\$12,939.63
Replace manual pull station	15	30.00 Ea.	\$6,104.03	\$7,348.23	3.6667	3	3	\$22,044.70	\$22,044.70
Minor repairs to fire alarm control panel	5	1.00 Ea.	\$149.71	\$182.27	11.0000	11	11	\$2,005.02	\$2,005.02
Maintenance and inspection fire alarm control panel	0.5	1.00 Ea.	\$43.18	\$54.10	110.0000	110	110	\$5,951.45	\$5,951.45
Replace fire alarm control panel	15	1.00 Ea.	\$1,953.46	\$2,391.92	3.6667	3	3	\$7,175.76	\$7,175.76
Minor repairs to annunciation panel	5	1.00 Ea.	\$149.71	\$182.27	11.0000	11	11	\$2,005.02	\$2,005.02

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Maintenance and inspection annunciation panel	0.5	1.00 Ea.	\$43.18	\$54.10	110.0000	110	110	\$5,951.45	\$5,951.45	
Replace annunciation panel	15	1.00 Ea.	\$1,126.52	\$1,354.55	3.6667	3	3	\$4,063.66	\$4,063.66	
Replace fire alarm bell, 6"	20	5.00 Ea.	\$974.81	\$1,176.38	2.7500	2	2	\$2,352.75	\$2,352.75	
			\$2,291,025.14	\$2,703,541.96				MR Subtotal	\$7,272,401.16	
									MR Per Year	\$132,103.04
									PM Total	\$35,156.89
									Subtotal	\$167,259.93
									Total Per Unit	\$4.47

## FAC 7213 STUDENT BARRACKS

SUC \$4.47

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 55

Type PM

Average Size 37400.0

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Door, emergency egress, swinging, annualized	8.00	2.08	\$116.74	\$86.00	\$0.00	\$202.73	\$240.20	\$283.51
Door, overhead, manual, up to 24' high x 25' wide, annualized	2.00	4.39	\$23.76	\$181.68	\$0.00	\$205.44	\$262.32	\$320.38
Fire doors, swinging, annualized	16.00	6.27	\$229.14	\$232.92	\$0.00	\$462.06	\$554.85	\$659.10
Elevator, hydraulic, passenger / freight, annualized	2.00	20.45	\$2,979.60	\$1,726.05	\$0.00	\$4,705.65	\$5,521.43	\$6,486.18
Urinals, annualized	4.00	0.91	\$25.27	\$45.81	\$0.00	\$71.09	\$87.36	\$104.89
Toilet (vacuum breaker type), annualized	32.00	5.66	\$270.14	\$284.74	\$0.00	\$554.88	\$667.31	\$793.26
Lavatories, annualized	32.00	11.14	\$190.88	\$662.51	\$0.00	\$853.39	\$1,071.23	\$1,298.62
Showers, annualized	32.00	7.30	\$412.49	\$435.57	\$0.00	\$848.05	\$1,019.97	\$1,212.52
Drink fountain, annualized	3.00	1.86	\$62.18	\$93.83	\$0.00	\$156.00	\$190.37	\$227.84
Boiler, steam, oil, gas, or comb. fired, over 1000 MBH, annualized	1.00	22.45	\$88.97	\$1,343.53	\$0.00	\$1,432.49	\$1,844.45	\$2,260.85
Water cooling tower, 50 thru 500 tons, annualized	1.00	9.91	\$157.72	\$599.08	\$0.00	\$756.80	\$952.29	\$1,155.67
Chiller, centrif., water cooled, up to 100 tons, annualized	1.00	26.77	\$83.41	\$1,607.83	\$0.00	\$1,691.23	\$2,181.92	\$2,676.78
Air handling unit, over 50 tons, annualized	2.00	6.55	\$798.69	\$329.49	\$0.00	\$1,128.18	\$1,306.90	\$1,525.55
VAV Boxes, annualized	64.00	59.78	\$614.69	\$3,608.58	\$0.00	\$4,223.26	\$5,367.31	\$6,542.08
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
Panelboard, 225 A and above, annualized	3.00	1.32	\$69.59	\$87.02	\$0.00	\$156.62	\$189.68	\$226.23
Storage tank, ground level, annualized	2.00	1.45	\$36.75	\$70.55	\$0.00	\$107.30	\$132.14	\$158.82
						\$23,343.78	\$29,093.68	\$35,156.89



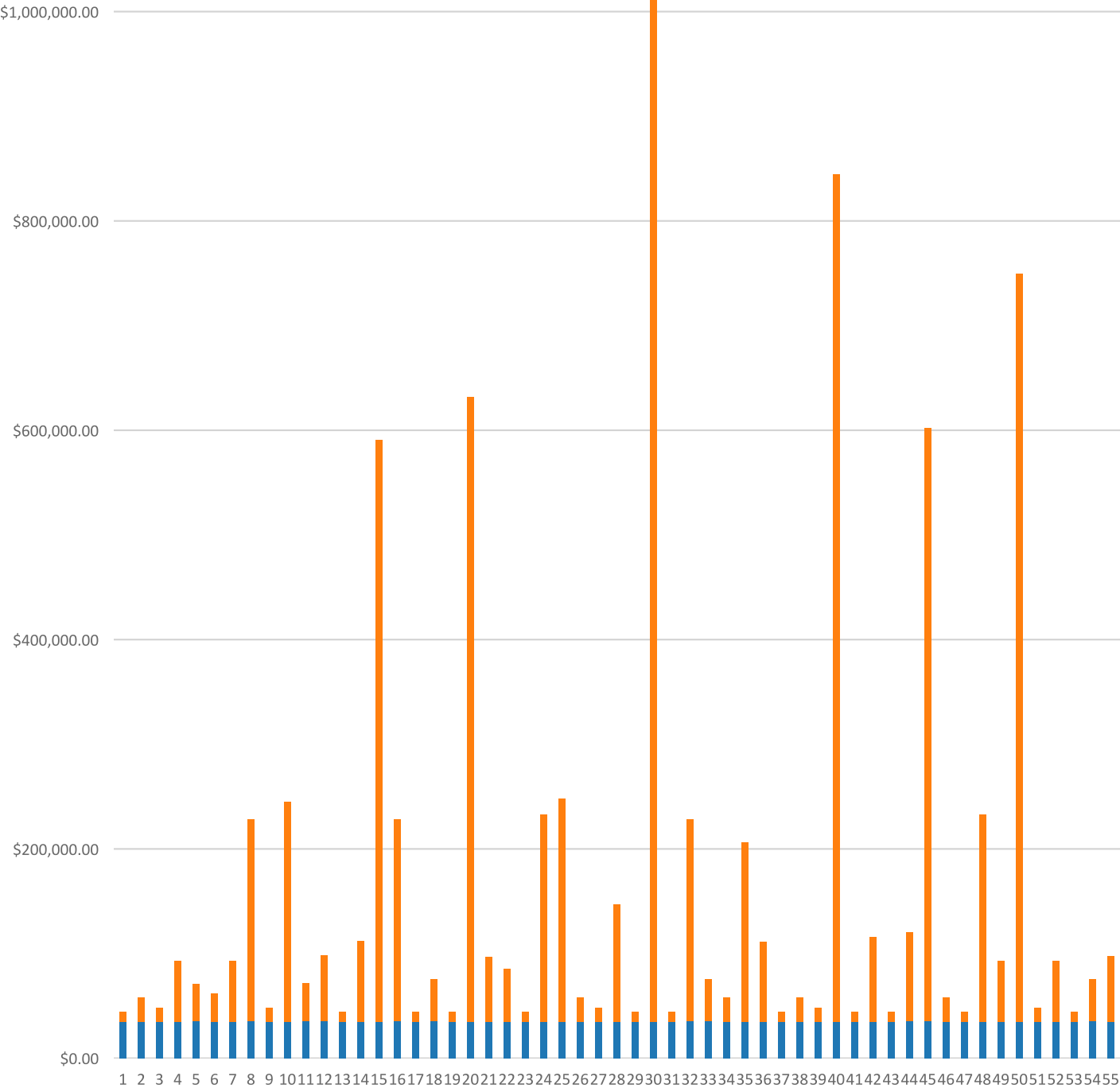


**FAC 7213 STUDENT BARRACKS**  
**Modeled Component List**  
**CostWorks Release 2021 Qtr 3**

<b>B20 Exterior Enclosure</b>		
Aluminum Window, Operating, 1st floor	148.0	Ea.
Aluminum Window, Operating, 2nd floor	148.0	Ea.
Glazed Aluminum	2.0	Ea.
Steel, Painted	7.0	Ea.
Steel Single, Roll-Up	2.0	Ea.
<b>B30 Roofing</b>		
Metal Steep Roofing	187.0	Sq.
<b>C10 Interior Construction</b>		
Concrete Block, Painted	26.1	C.S.F.
Hollow Core Interior Doors	120.0	Ea.
Solid Core Interior Doors	79.0	Ea.
Fire Doors, Swinging, annualized	16.0	Each
<b>C20 Stairs</b>		
Concrete Steps	295.0	S.F.
Metal Interior Stair Railing	112.0	L.F.
<b>C30 Interior Finishes</b>		
Drywall	26600.0	S.F.
Concrete, Finished	11.0	C.S.F.
Carpet	2121.6	S.Y.
Gypsum Wall Board	119.0	C.S.F.
<b>D20 Plumbing</b>		
Tankless Water Closet	32.0	Ea.
Urinal	6.0	Ea.
Lavatory, Vitreous China	32.0	Ea.
Sink, Iron Enamel	3.0	Ea.
Shower, Fiberglass	32.0	Ea.
Drinking Fountain	3.0	Ea.
Water Heater, Gas / Oil, 1150 GPH	1.0	Ea.
Circulation Pump, C.I. 1-1/2 HP	5.0	Ea.
Drain: Roof, Scupper, Area	2.0	Ea.
<b>D30 HVAC</b>		
Boiler, Gas, 2000 MBH	1.0	Ea.
Chemical Feed System	1.0	Ea.
Chiller, Hermetic Centrifugal, 100 ton	1.0	Ea.
Air Cooled Condenser, 100 ton	1.0	Ea.
Expansion Tank	2.0	Ea.
Central Station Air Conditioning Air Handling Unit, 16,000 CFM	4.0	Ea.
VAV Box	64.0	Each
<b>D40 Fire Protection</b>		
Sprinkler System, Fire Suppression, sprinkler head	150.0	Ea.
Fire Pump Electric Motor	2.0	Ea.
Fire Pump, Electric, annualized	2.0	Each
<b>D50 Electrical</b>		
Motor Starter, Up To 600 V	3.0	Ea.
Motor Starter, 600 V	2.0	Ea.
Load Center, 100 A, maintenance & inspection	3.0	Ea.
Safety Switch, Heavy Duty	3.0	Ea.
Smoke Detector	180.0	Ea.
Heat Detector	180.0	Ea.
Manual Pull Station	30.0	Ea.
Fire Alarm Control Panel	1.0	Ea.

Annunciation Panel	1.0 Ea.
Fire Alarm Bell	5.0 Ea.
D10 Conveying	
Elevator, hydraulic annualized	2.0 Each
G30 Site Mechanical Utilities	
Storage Tank Ground Level, annualized	2.0 Each

FAC 7213 STUDENT BARRACKS  
Sustainment by Year  
CostWorks Release 2021 Qtr 3



PM Cost  
MR Cost