

FAC 7215 UNACCOMPANIED HOUSING FOR WOUNDED WARRIORS

FY22 SUC: \$3.65 / SF
Source: Calculated using R.S. Means CostWorks 2021 Qtr 3
component prices

FAC 7215 UNACCOMPANIED HOUSING FOR WOUNDED WARRIORS **SUC \$3.65**
Release 2021 Qtr 3 UM SF
Zip Code Prefix 222 Design Life 55
Type MR Average Size 63600.0

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 concrete stairs	30	340.00 S.F.	\$11,221.48	\$12,976.33	1.8333	1	1	\$12,976.33	\$12,976.33
Replace concrete stairs	75	340.00 S.F.	\$29,560.11	\$36,313.31	0.7333	0	0	\$0.00	\$0.00
Replace metal hand rail	30	60.00 L.F.	\$4,541.01	\$5,254.36	1.8333	1	1	\$5,254.36	\$5,254.36
Refinish metal hand rail	7	60.00 L.F.	\$123.78	\$152.57	7.8571	7	7	\$1,067.97	\$1,067.97
Repair clay brick wall, 1st floor	25	104.00 S.F.	\$4,469.57	\$5,485.42	2.2000	2	2	\$10,970.85	\$10,970.85
Point clay brick wall, 1st floor	25	104.00 C.S.F.	\$84,043.87	\$103,707.47	2.2000	2	2	\$207,414.94	\$207,414.94
Replace clay brick wall, 2nd floor	75	104.00 C.S.F.	\$234,975.98	\$285,895.45	0.7333	0	0	\$0.00	\$0.00
Waterproof clay brick wall, 2nd floor	10	104.00 C.S.F.	\$79,699.22	\$95,087.15	5.5000	5	5	\$475,435.74	\$475,435.74
Point clay brick wall, 3rd floor	25	124.00 C.S.F.	\$105,015.16	\$129,609.63	2.2000	2	2	\$259,219.25	\$259,219.25
Waterproof clay brick wall, 3rd floor	10	124.00 C.S.F.	\$95,647.66	\$114,095.03	5.5000	5	5	\$570,475.15	\$570,475.15
Replace glass - 1st floor (1% of glass) - alum. window fixed	1	16.00 S.F.	\$192.92	\$226.75	55.0000	55	55	\$12,471.02	\$12,471.02
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	131.00 Ea.	\$18,960.51	\$22,611.77	2.7500	2	2	\$45,223.54	\$45,223.54
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	131.00 Ea.	\$63,945.25	\$75,786.67	1.1000	1	1	\$75,786.67	\$75,786.67
Repair 2'-0" x 3'-0" aluminum window - 2nd floor	20	131.00 Ea.	\$25,062.85	\$30,189.72	2.7500	2	2	\$60,379.44	\$60,379.44
Repair 2'-0" x 3'-0" aluminum window - 3rd floor	20	131.00 Ea.	\$31,292.32	\$37,925.54	2.7500	2	2	\$75,851.07	\$75,851.07
Repair steel, painted, door	14	23.50 Ea.	\$14,689.25	\$17,484.13	3.9286	3	3	\$52,452.40	\$52,452.40
Refinish 3'-0" x 7'-0" steel, painted, door	4	67.00 Ea.	\$2,773.81	\$3,408.04	13.7500	13	13	\$44,304.50	\$44,304.50
Replace 3'-0" x 7'-0" steel, painted, door	45	67.00 Ea.	\$47,239.27	\$54,921.98	1.2222	1	1	\$54,921.98	\$54,921.98
Debris removal, by hand and visual inspection, metal panel roofing	1	14.00 M.S.F.	\$318.98	\$389.06	55.0000	55	55	\$21,398.12	\$21,398.12
Minor metal roof finish repairs, 2% of roof area, metal panel roofing	5	280.00 S.F.	\$978.07	\$1,173.47	11.0000	11	11	\$12,908.17	\$12,908.17
Metal roof flashing replacement, 2 SF/sq repaired, metal panel roofing	1	6.00 S.F.	\$109.80	\$133.03	55.0000	55	55	\$7,316.92	\$7,316.92
Minor metal roof panel replacement, 2.5% of roof area	20	350.00 S.F.	\$3,999.66	\$4,750.23	2.7500	2	2	\$9,500.46	\$9,500.46
Total metal roof panel replacement	30	636.00 Sq.	\$537,513.25	\$636,646.33	1.8333	1	1	\$636,646.33	\$636,646.33
Replace galvanized smoke hatch single unit 4' x 4'	40	2.00 Ea.	\$4,389.57	\$5,034.85	1.3750	1	1	\$5,034.85	\$5,034.85
Repair 8" concrete block wall - (2% of walls) painted	25	28.80 C.S.F.	\$31,382.04	\$37,680.64	2.2000	2	2	\$75,361.27	\$75,361.27
Refinish concrete block wall painted	4	362.00 C.S.F.	\$36,532.56	\$44,485.53	13.7500	13	13	\$578,311.84	\$578,311.84
Repair steel painted interior door	14	10.00 Ea.	\$2,934.52	\$3,415.64	3.9286	3	3	\$10,246.92	\$10,246.92
Refinish 3'-0" x 7'-0" steel painted interior door	4	10.00 Ea.	\$525.85	\$647.86	13.7500	13	13	\$8,422.22	\$8,422.22
Replace 3'-0" x 7'-0" steel painted interior door	60	10.00 Ea.	\$12,180.34	\$14,120.83	0.9167	0	0	\$0.00	\$0.00

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Repair solid core wood door, interior	11	103.00 Ea.	\$30,225.58	\$35,181.09	5.0000	5	5	\$175,905.47	\$175,905.47
Refinish 3'-0" x 7'-0" solid core wood door, interior	4	103.00 Ea.	\$4,466.57	\$5,484.72	13.7500	13	13	\$71,301.31	\$71,301.31
Replace brass lockset interior	30	103.00 Ea.	\$33,906.63	\$39,296.00	1.8333	1	1	\$39,296.00	\$39,296.00
Repair 5/8" drywall - (2% of walls)	20	547.00 S.F.	\$916.41	\$1,115.05	2.7500	2	2	\$2,230.10	\$2,230.10
Refinish drywall	4	8,421.00 S.F.	\$5,229.28	\$6,432.89	13.7500	13	13	\$83,627.54	\$83,627.54
Ceramic tile floor repairs - (2% of floors)	15	11.75 C.S.F.	\$7,435.52	\$9,270.82	3.6667	3	3	\$27,812.45	\$27,812.45
Replace 2" x 2" thin set ceramic tile floor	50	11.75 C.S.F.	\$14,377.81	\$17,355.85	1.1000	1	1	\$17,355.85	\$17,355.85
Replace ceramic trim	50	893.00 L.F.	\$12,790.34	\$15,488.96	1.1000	1	1	\$15,488.96	\$15,488.96
Terrazzo floor repairs - (2% of floors)	15	1,040.00 S.F.	\$16,915.09	\$20,255.01	3.6667	3	3	\$60,765.04	\$60,765.04
Replace terrazzo floor	75	104.00 C.S.F.	\$161,828.95	\$193,233.14	0.7333	0	0	\$0.00	\$0.00
Acoustic tile repairs - (2% of ceilings)	9	8.00 C.S.F.	\$7,261.63	\$8,439.37	6.1111	6	6	\$50,636.23	\$50,636.23
Replace flush valve diaphragm tankless water closet	10	103.00 Ea.	\$2,700.68	\$3,351.19	5.5000	5	5	\$16,755.97	\$16,755.97
Rebuild flush valve tankless water closet	20	103.00 Ea.	\$18,584.68	\$22,398.09	2.7500	2	2	\$44,796.18	\$44,796.18
Unplug clogged line tankless water closet	5	103.00 Ea.	\$22,494.70	\$28,132.06	11.0000	11	11	\$309,452.70	\$309,452.70
Replace washer in spud connection lavatory, vitreous china	7	103.00 Ea.	\$1,695.65	\$2,068.24	7.8571	7	7	\$14,477.70	\$14,477.70
Replace washer in faucet lavatory, vitreous china	2	103.00 Ea.	\$1,327.15	\$1,653.34	27.5000	27	27	\$44,640.11	\$44,640.11
Replace faucets lavatory, vitreous china	10	103.00 Ea.	\$18,717.76	\$22,531.81	5.5000	5	5	\$112,659.03	\$112,659.03
Clean out strainer and P trap lavatory, vitreous china	2	103.00 Ea.	\$3,591.54	\$4,491.62	27.5000	27	27	\$121,273.61	\$121,273.61
Clean trap	3	4.00 Ea.	\$34.28	\$42.87	18.3333	18	18	\$771.74	\$771.74
Replace faucets sink, service/utility	10	4.00 Ea.	\$726.90	\$875.02	5.5000	5	5	\$4,375.11	\$4,375.11
Unstop sink	2	4.00 Ea.	\$167.29	\$209.21	27.5000	27	27	\$5,648.65	\$5,648.65
Replace sink, P.E.C.I. service/utility	35	4.00 Ea.	\$6,268.99	\$7,331.85	1.5714	1	1	\$7,331.85	\$7,331.85
Inspect / clean shower head shower, terrazzo	3	97.00 Ea.	\$4,791.10	\$5,991.80	18.3333	18	18	\$107,852.32	\$107,852.32
Replace mixing valve barrel shower, terrazzo	2	97.00 Ea.	\$27,411.27	\$32,234.98	27.5000	27	27	\$870,344.46	\$870,344.46
Replace mixing valve shower, terrazzo	10	97.00 Ea.	\$26,760.57	\$32,548.85	5.5000	5	5	\$162,744.26	\$162,744.26
Replace terrazzo shower surface	30	97.00 Ea.	\$125,522.28	\$151,137.63	1.8333	1	1	\$151,137.63	\$151,137.63
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, 1/2 HP	1	1.00 Ea.	\$11.95	\$14.94	55.0000	55	55	\$821.89	\$821.89
Replace pump / motor assembly, partial circulation pump, 1/2 HP	20	1.00 Ea.	\$3,822.30	\$4,402.23	2.7500	2	2	\$8,804.46	\$8,804.46
Repair boiler, gas, 2000 MBH	7	2.00 Ea.	\$11,571.63	\$13,467.49	7.8571	7	7	\$94,272.44	\$94,272.44
Replace boiler, gas, 2000 MBH	30	2.00 Ea.	\$79,676.28	\$93,240.42	1.8333	1	1	\$93,240.42	\$93,240.42

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Replace metal flue, all fuel SS, 6" diameter metal flue / chimney	15	1.00 L.F.	\$129.05	\$149.45	3.6667	3	3	\$448.36	\$448.36
Repair cooling tower, 100 ton	10	2.00 Ea.	\$9,218.47	\$10,943.18	5.5000	5	4	\$54,715.92	\$43,772.74
Replace cooling tower, 100 ton	15	2.00 Ea.	\$44,865.41	\$51,662.26	3.6667	3	3	\$154,986.77	\$154,986.77
Repair water cooled chiller, 100 ton, reciprocating	10	2.00 Ea.	\$125,651.86	\$146,809.43	5.5000	5	3	\$734,047.13	\$440,428.28
Replace chiller, water cooled, 100 ton, reciprocating	20	2.00 Ea.	\$177,389.08	\$206,343.98	2.7500	2	2	\$412,687.95	\$412,687.95
Replace roof mounted exhaust fan, 2000 CFM exhaust fan	20	2.00 Ea.	\$5,341.44	\$6,214.50	2.7500	2	2	\$12,429.01	\$12,429.01
Repair central station A.H.U., 1300 CFM	10	2.00 Ea.	\$996.98	\$1,189.14	5.5000	5	4	\$5,945.72	\$4,756.58
Replace central station A.H.U., 1300 CFM	15	2.00 Ea.	\$19,067.20	\$22,066.88	3.6667	3	3	\$66,200.63	\$66,200.63
Rebuild 4" diameter reduced pressure backflow preventer	10	1.00 Ea.	\$664.67	\$779.78	5.5000	5	5	\$3,898.92	\$3,898.92
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	90.00 Ea.	\$7,697.05	\$9,467.06	2.7500	2	2	\$18,934.11	\$18,934.11
Replace fuse	25	213.00 Ea.	\$88,003.99	\$101,110.73	2.2000	2	2	\$202,221.45	\$202,221.45
Maintenance and repair motor starter, up to 600 V	5	4.00 Ea.	\$1,118.56	\$1,350.39	11.0000	11	11	\$14,854.31	\$14,854.31
Maintenance and inspection motor starter, up to 600 V	0.5	4.00 Ea.	\$215.92	\$270.52	110.0000	110	110	\$29,757.24	\$29,757.24
Replace starter motor starter, up to 600 V	18	4.00 Ea.	\$3,221.24	\$3,832.30	3.0556	3	3	\$11,496.89	\$11,496.89
Maintenance and inspection lighting panel, indoor	3	7.00 Ea.	\$284.51	\$356.45	18.3333	18	18	\$6,416.11	\$6,416.11
Maintenance and repair breaker, molded case, 480 V, 1 pole	20	50.00 Ea.	\$3,588.13	\$4,495.41	2.7500	2	2	\$8,990.82	\$8,990.82
Maintenance and inspection circuit breaker, molded case, 480 V, 1 pole	0.5	50.00 Ea.	\$1,619.42	\$2,028.90	110.0000	110	110	\$223,179.26	\$223,179.26
Replace circuit breaker molded case, 480 V, 1 pole circuit breaker	50	50.00 Ea.	\$27,414.44	\$31,935.26	1.1000	1	1	\$31,935.26	\$31,935.26
Replace safety switch, heavy duty 30 A	25	5.00 Ea.	\$2,881.74	\$3,452.20	2.2000	2	2	\$6,904.39	\$6,904.39
Maintenance and repair receptacles and plugs	20	320.00 Ea.	\$13,517.90	\$16,876.36	2.7500	2	2	\$33,752.71	\$33,752.71
Replace wiring devices, switches	15	131.00 Ea.	\$8,564.49	\$10,640.07	3.6667	3	3	\$31,920.20	\$31,920.20
Replace fluorescent light fixture ballast, 80 W	10	410.00 Ea.	\$51,114.06	\$62,007.27	5.5000	5	5	\$310,036.34	\$310,036.34
Replace lamps (2 lamps), 4', 34 W energy saver	10	410.00 Ea.	\$10,337.75	\$12,947.36	5.5000	5	5	\$64,736.82	\$64,736.82
Repair smoke detector	10	121.00 Ea.	\$6,822.90	\$8,435.40	5.5000	5	4	\$42,177.01	\$33,741.61
Check operation smoke detector	1	121.00 Ea.	\$1,959.50	\$2,454.97	55.0000	55	55	\$135,023.45	\$135,023.45
Replace smoke detector	15	121.00 Ea.	\$34,392.72	\$41,074.89	3.6667	3	3	\$123,224.68	\$123,224.68
Check and repair manual pull station	10	8.00 Ea.	\$701.57	\$862.64	5.5000	5	4	\$4,313.21	\$3,450.57
Replace manual pull station	15	8.00 Ea.	\$1,627.74	\$1,959.53	3.6667	3	3	\$5,878.59	\$5,878.59
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
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
Replace fire alarm bell, 6"	20	8.00 Ea.	\$1,559.70	\$1,882.20	2.7500	2	2	\$3,764.41	\$3,764.41
Maintenance and repair building structure ground	7	1.00 M.L.F.	\$87.89	\$109.79	7.8571	7	7	\$768.51	\$768.51
Replace building structure ground	50	1.00 M.L.F.	\$4,337.42	\$5,318.61	1.1000	1	1	\$5,318.61	\$5,318.61

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Replace commercial dishwasher, 10 to 12 racks per hour	10	3.00 Ea.	\$15,868.58	\$18,333.20	5.5000	5	5	\$91,666.02	\$91,666.02	
Remove and replace dishwasher pump	15	3.00 Ea.	\$3,895.97	\$4,457.56	3.6667	3	3	\$13,372.69	\$13,372.69	
Refinish metal handicap ramp	3	150.00 S.F.	\$287.85	\$350.93	18.3333	18	18	\$6,316.73	\$6,316.73	
			\$2,854,244.26	\$3,400,582.14				MR Subtotal	\$8,729,346.61	
									MR Per Year	\$158,470.53
									PM Total	\$73,409.76
									Subtotal	\$231,880.29
									Total Per Unit	\$3.65

FAC 7215 UNACCOMPANIED HOUSING FOR WOUNDED WARRIORS SUC \$3.65

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 55

Type PM

Average Size 63600.0

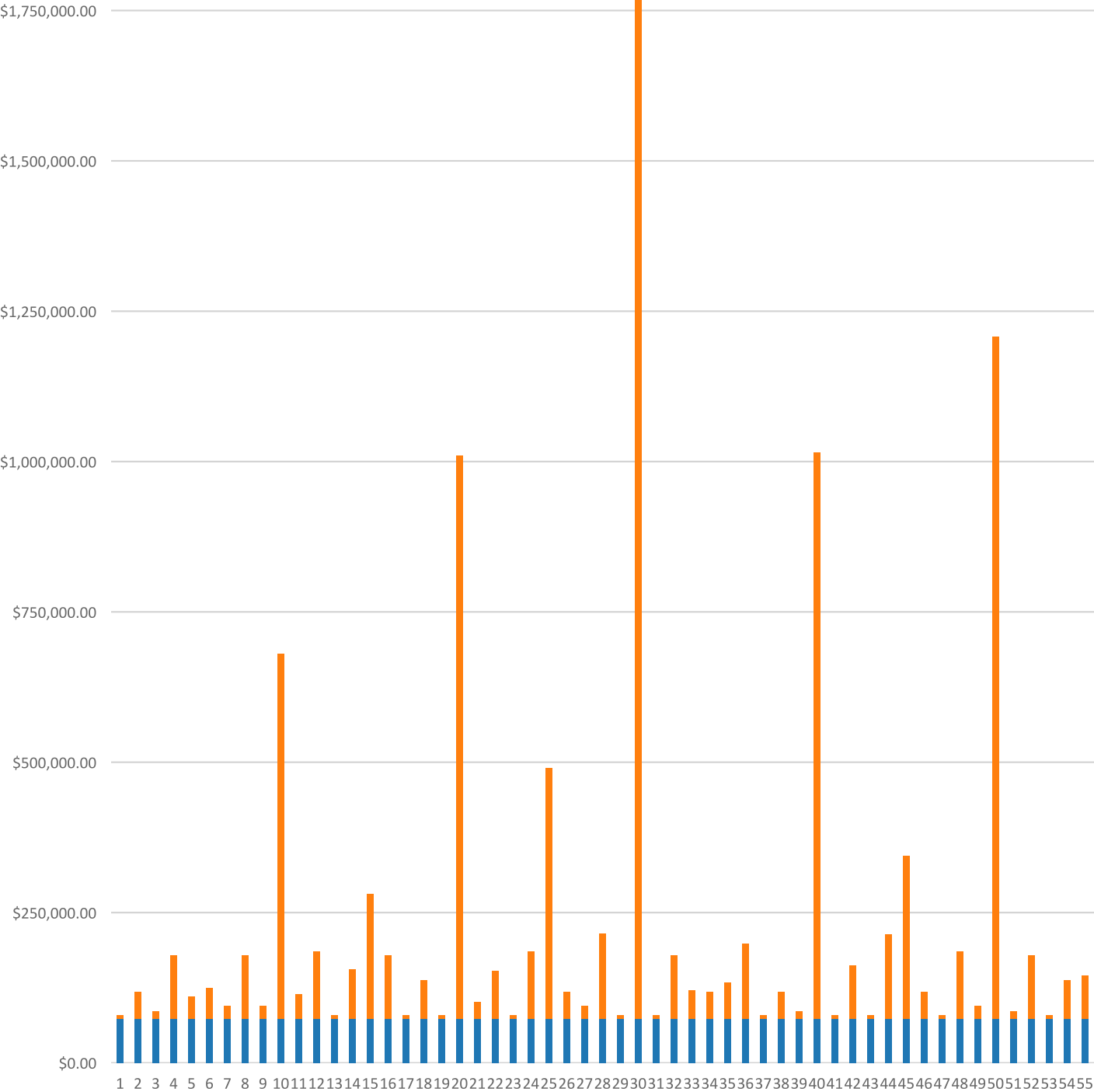
Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Door, emergency egress, swinging, annualized	6.00	1.56	\$87.55	\$64.50	\$0.00	\$152.05	\$180.15	\$212.63
Fire doors, swinging, annualized	6.00	2.35	\$85.93	\$87.34	\$0.00	\$173.27	\$208.07	\$247.16
Elevator, cable, electric, passenger / freight, annualized	2.00	95.79	\$8,136.60	\$8,070.45	\$0.00	\$16,207.05	\$19,441.85	\$23,083.47
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
Toilet (vacuum breaker type), annualized	103.00	18.23	\$869.51	\$916.50	\$0.00	\$1,786.01	\$2,147.92	\$2,553.30
Lavatories, annualized	103.00	35.84	\$614.38	\$2,132.46	\$0.00	\$2,746.85	\$3,448.02	\$4,179.92
Showers, annualized	97.00	22.12	\$1,250.35	\$1,320.31	\$0.00	\$2,570.66	\$3,091.79	\$3,675.44
Drink fountain, annualized	4.00	2.48	\$82.90	\$125.10	\$0.00	\$208.00	\$253.82	\$303.79
Valve, motor operated, above 4", annualized	4.00	4.01	\$93.01	\$200.87	\$0.00	\$293.88	\$363.44	\$437.65
Water heater, steam 2500 gal., annualized	1.00	1.55	\$143.56	\$77.97	\$0.00	\$221.53	\$259.28	\$304.20
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
Deaerator tank, annualized	1.00	1.51	\$24.77	\$90.74	\$0.00	\$115.51	\$145.21	\$176.15
Water cooling tower, 50 thru 500 tons, annualized	2.00	19.82	\$315.43	\$1,198.16	\$0.00	\$1,513.59	\$1,904.58	\$2,311.35
Chiller, centrif., water cooled, up to 100 tons, annualized	2.00	53.54	\$166.81	\$3,215.65	\$0.00	\$3,382.47	\$4,363.84	\$5,353.56
Fan coil unit, annualized	3.00	10.01	\$339.70	\$504.81	\$0.00	\$844.51	\$1,029.92	\$1,232.32
VAV Boxes, annualized	103.00	96.20	\$989.26	\$5,807.55	\$0.00	\$6,796.82	\$8,638.01	\$10,528.66
Fire pump, electric motor driven, annualized	1.00	47.75	\$53.08	\$2,841.22	\$0.00	\$2,894.30	\$3,751.98	\$4,612.31
Extinguishing system, dry pipe, annualized	1.00	13.02	\$122.33	\$775.28	\$0.00	\$897.61	\$1,142.43	\$1,393.36
Panelboard, 225 A and above, annualized	5.00	2.21	\$115.99	\$145.04	\$0.00	\$261.03	\$316.14	\$377.05
Motor control center, over 400 A, annualized	2.00	0.78	\$46.39	\$51.80	\$0.00	\$98.19	\$118.37	\$140.87
Fire alarm annunciator system, annualized	1.00	11.05	\$179.39	\$652.68	\$0.00	\$832.07	\$1,045.82	\$1,268.53
Light, emergency, hardwired system, annualized	16.00	4.00	\$123.72	\$236.21	\$0.00	\$359.93	\$443.16	\$532.58
						\$49,594.38	\$61,077.69	\$73,409.76

FAC 7215 UNACCOMPANIED HOUSING FOR WOUNDED WARRIORS

Modeled Component List CostWorks Release 2021 Qtr 3

B10 Superstructure	
Concrete Stairs	340.0 S.F.
Railing, Metal	60.0 L.F.
B20 Exterior Enclosure	
Clay Brick, 2nd floor	104.0 C.S.F.
Aluminum Window, Fixed, 1st floor	131.0 Ea.
Steel, Painted	67.0 Ea.
B30 Roofing	
Metal Steep Roofing	636.0 Sq.
C10 Interior Construction	
Concrete Block, Painted	362.0 C.S.F.
Steel Painted Interior Doors	10.0 Ea.
Lockset, Brass	103.0 Ea.
Fire Doors, Swinging, annualized	6.0 Each
C30 Interior Finishes	
Terrazzo	104.0 C.S.F.
D20 Plumbing	
Service/Utility Sink	4.0 Ea.
Shower, Terrazzo	97.0 Ea.
Water Heater, Gas / Oil, 1150 GPH	1.0 Ea.
Circulation Pump, 1/2 HP	1.0 Ea.
D30 HVAC	
Boiler, Gas, 2000 MBH	2.0 Ea.
Metal Flue / Chimney, 6" diameter	1.0 L.F.
Cooling Tower, 100 ton	2.0 Ea.
Chiller, Water Cooled, Reciprocating, 100 ton	2.0 Ea.
Exhaust Fan, roof mounted exhaust fan, 2000 CFM exhaust	2.0 Ea.
Central Station Air Conditioning Air Handling Unit, 1300 CFM	2.0 Ea.
VAV Box	103.0 Each
D40 Fire Protection	
Backflow Preventer	1.0 Ea.
Sprinkler System, Fire Suppression, sprinkler head	90.0 Ea.
Fire Pump, Electric, annualized	1.0 Each
Extinguishing system, dry pipe, annualized	1.0 Each
D50 Electrical	
Motor Starter, Up To 600 V	4.0 Ea.
Load Center, 100 A, maintenance & inspection	7.0 Ea.
Circuit Breaker, molded case, 480 V, 1 pole	50.0 Ea.
Safety Switch, Heavy Duty	5.0 Ea.
Smoke Detector	121.0 Ea.
Manual Pull Station	8.0 Ea.
Fire Alarm Control Panel	1.0 Ea.
Fire Alarm Bell	8.0 Ea.
Building Structure Ground	1.0 M.L.F.
E10 Equipment	
Dishwasher	3.0 Ea.
D10 Conveying	
Elevator, cable annualized	2.0 Each
Elevator, hydraulic annualized	2.0 Each

FAC 7215 UNACCOMPANIED HOUSING FOR WOUNDED WARRIORS
Sustainment by Year
CostWorks Release 2021 Qtr 3



PM Cost
MR Cost