

Palo Verde Community College - Child Development Center

75% Construction Documents Statement of Probable Cost

March 15, 2022

21-00053.00



Prepared for SILLMAN

CUMMING
Building Value Through Expertise

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EXECUTIVE SUMMARY

Project Description	The project includes demolishing the existing Masonic Lodge Building, approximately 3,330 SF, at 141 S. 2nd Street in Blythe, CA, and building a new Child Development Center. The project includes construction of a new, 9,600 SF single story modular building. Also included are hardscape, landscape, site improvements and site utilities.
Basis of Estimate	<ul style="list-style-type: none">- This 75% Construction Documents Statement of Probable Cost is based upon the following:- PVC CDC AMS 75% CD plans, dated 2/11/22, prepared by AMS- PVC CDC Arch 75% CD plans, dated 2/24/22, prepared by SILLMAN- PVC CDC Civil progress plans, dated 11/11/21, prepared by The Holt Group- PVC CDC Electrical 75% CD plans, dated 2/10/22, prepared by EPI- PVC CDC Fire Alarm 75% CD plans, dated 2/10/22, prepared by Veltre Engineering- PVC CDC Food Service 75% CD plans, dated 2/10/22, prepared by Webb- PVC CDC Landscape progress plans, dated 11/19/21, prepared by MSLA Landscape Arch- PVC CDC Structural progress plans, dated 2/3/22, prepared by Core Structure, Inc.- PVC CDC Modular Building quote, dated 10/4/21, prepared by American Modular Systems- Discussions with the design team
Estimate Format	A component cost classification format has been used for the preparation of this estimate. It classifies costs by building system / element.
Cost Mark Ups	<p>The following % mark ups have been included in each design option:</p> <ul style="list-style-type: none">- General Conditions (6.00% on direct costs)- General Requirements (3.00% on direct costs)- Bonds & Insurance (2.00% on direct costs)- Contractor's Fee (5.00% on direct costs)- Design Contingency (2.50% on direct costs)- Escalation to MOC, 12/31/22 (5.58% on direct costs)
Escalation	All subcontract prices herein are reflective of current bid prices. Escalation has been included on the summary level to the stated mid point of construction.
Design Contingency	An allowance of 2.50% for undeveloped design details has been included in this estimate. As the design of each system is further developed, details which historically increase cost become apparent and must be incorporated into the estimate while decreasing the % burden.
Construction Contingency	It is prudent for all program budgets to include an allowance for change orders which occur during the construction phase. These change orders normally increase the cost of the project. It is recommended that a 5.00% - 10.00% construction contingency is carried in this respect. This cost is not included within the estimate.
Construction Schedule	<p>Costs included herein have been based upon a construction period of 8 months. Any costs for excessive overtime to meet accelerated schedule milestone dates are not included in this estimate.</p> <ul style="list-style-type: none">- Anticipated Construction Start - September 1, 2022- Anticipated Midpoint of Construction - December 31, 2022- Anticipated Substantial Completion - May 1, 2023

EXECUTIVE SUMMARY

Method of Procurement	The estimate is based on a design-bid-build delivery method. The modular building will be contracted separately, while the General Contractor will include all sitework, foundations, utilities and building components not provided by AMS.
Bid Conditions	This estimate has been based upon competitive bid situations (minimum of 4 bidders) for all items of subcontracted work.
Basis For Quantities	Wherever possible, this estimate has been based upon the actual measurement of different items of work. For the remaining items, parametric measurements were used in conjunction with other projects of a similar nature.
Basis for Unit Costs	Unit costs as contained herein are based on current bid prices in Blythe, CA. Sub overheads and profit are included in each line item unit cost. Their overhead and profit covers each sub's cost for labor burden, materials, and equipment, sales taxes, field overhead, home office overhead, and profit. The general contractor's overhead is shown separately on the master summary.
Sources for Pricing	This estimate was prepared by a team of qualified cost consultants experienced in estimating construction costs at all stages of design. These consultants have used pricing data from Cumming's database for construction, updated to reflect current conditions in Blythe, CA.
Key Exclusions	The following items have been excluded from our estimate: <ul style="list-style-type: none">- Professional fees, inspections and testing.- Plan check fees and building permit fees.- Furnishings, fixtures and equipment (FF&E), except where noted through the cost estimate.- Hazardous material abatement- Construction Contingency- Phasing / out of hours working- Move management- Building components as noted as provided by AMS per quote dated 10/4/21
Items Affecting Cost Estimate	Items which may change the estimated construction cost include, but are not limited to: <ul style="list-style-type: none">- Modifications to the scope of work included in this estimate.- Unforeseen sub-surface conditions.- Restrictive technical specifications or excessive contract conditions.- Any specified item of material or product that cannot be obtained from 3 sources.- Any other non-competitive bid situations.- Bids delayed beyond the projected schedule.- Land acquisition, FF&E, playground equipment and technology budgets per the owner.

EXECUTIVE SUMMARY

Statement of Probable Cost

Cumming has no control over the cost of labor and materials, the general contractor's or any subcontractor's method of determining prices, or competitive bidding and market conditions. This estimate is made on the basis of the experience, qualifications, and best judgement of a professional consultant familiar with the construction industry. Cumming, however, cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.

Cumming's staff of professional cost consultants has prepared this estimate in accordance with generally accepted principles and practices. This staff is available to discuss its contents with any interested party.

Pricing reflects probable construction costs obtainable in the project locality on the target dates specified and is a determination of fair market value for the construction of this project. The estimate is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all sub and general contractors with a range of 3 - 4 bidders for all items of work. Experience and research indicates that a fewer number of bidders may result in higher bids. Conversely, an increased number of bidders may result in more competitive bid day responses.

COVID-19 Disclosure

The outbreak of the novel Coronavirus (COVID-19), declared by the World Health Organization as a "Global Pandemic" on 11 March 2020, has impacted global financial markets.

Market activity is being impacted in many sectors and circumstances remain very fluid and variable in different jurisdictions. Accordingly, as of this date, we are concerned with the market related impacts on the deliverables we are furnishing to you as part of our Services including cost estimates, budgets, and schedules ("Deliverable(s)"). Indeed, the current response to this pandemic means that we are faced with an unprecedented set of circumstances on which to base a judgement of the effects on the availability of labor, materials, and access and other impacts, although we are monitoring those on a continuing basis. Particularly including productivity impacts as a result of the CDC directives regarding social distancing.

Our Deliverables must be regarded with a degree of 'material uncertainty, – and a higher degree of caution – than would normally be the case. Given the unknown future impact that the COVID-19 pandemic might have on the construction and real estate markets, we recommend that you keep the Deliverables of this project under frequent review. For your information, we have not added or considered a COVID19 additional contingency within this Deliverable"

Recommendations

Cumming recommends that the Owner and the Architect carefully review this entire document to ensure it reflects their design intent. Requests for modifications of any apparent errors or omissions to this document must be made to Cumming within ten days of receipt of this estimate. Otherwise, it will be assumed that its contents have been reviewed and accepted. If the project is over budget or there are unresolved budget issues, alternate systems / schemes should be evaluated before proceeding into further design phases.

It is recommended that there are preparations of further cost estimates throughout design by Cumming to determine overall cost changes since the preparation of this preliminary estimate. These future estimates will have detailed breakdowns indicating materials by type, kind, and size, priced by their respective units of measure.

OVERALL SUMMARY

Element	Area	Cost / SF	Total
Sitework	31,960	\$53.22	\$1,701,056
New Modular Building	9,600	\$564.16	\$5,415,913
Total Estimated Construction Cost	9,600	\$741.35	\$7,116,968
FF&E, Playground Equipment & Technology (Allowance per PVCC)			\$500,000
Land Acquisition Costs (Allowance per PVCC)			\$125,000
<u>Add Alternates</u>			
Re-pave Alley Behind Property			\$25,000

SUMMARY MATRIX

Element	Sitework 31,960 SF			New Modular Building 9,600 SF			Totals 9,600 SF		
	Subtotal	Total	Cost/SF	Subtotal	Total	Cost/SF	Subtotal	Total	Cost/SF
A) Shell (1-5)					\$319,250	\$33.26		\$319,250	\$33.26
1 Foundations				\$288,000		\$30.00	\$288,000		\$30.00
2 Vertical Structure									
3 Floor & Roof Structures									
4 Exterior Cladding				\$31,250		\$3.26	\$31,250		\$3.26
5 Roofing and Waterproofing									
B) Interiors (6-7)									
6 Interior Partitions, Doors and Glazing									
7 Floor, Wall and Ceiling Finishes									
C) Equipment and Vertical Transportation (8-9)					\$171,680	\$17.88		\$171,680	\$17.88
8 Function Equipment and Specialties				\$171,680		\$17.88	\$171,680		\$17.88
9 Stairs and Vertical Transportation									
D) Mechanical and Electrical (10-13)					\$393,064	\$40.94		\$393,064	\$40.94
10 Plumbing Systems				\$42,502		\$4.43	\$42,502		\$4.43
11 Heating, Ventilation and Air Conditioning				\$40,809		\$4.25	\$40,809		\$4.25
12 Electrical Lighting, Power and Communications				\$302,252		\$31.48	\$302,252		\$31.48
13 Fire Protection Systems				\$7,500		\$0.78	\$7,500		\$0.78
E) Site Construction (14-16)		\$1,347,528	\$42.16					\$1,347,528	\$140.37
14 Site Preparation and Demolition	\$116,790		\$3.65				\$116,790		\$12.17
15 Site Paving, Structures & Landscaping	\$846,852		\$26.50				\$846,852		\$88.21
16 Utilities on Site	\$383,886		\$12.01				\$383,886		\$39.99
Subtotal Cost		\$1,347,528	\$42.16		\$883,994	\$92.08		\$2,231,521	\$232.45
General Conditions 6.00%		\$80,852	\$2.53		\$53,040	\$5.52		\$133,891	\$13.95
General Requirements 3.00%		\$42,851	\$1.34		\$28,111	\$2.93		\$70,962	\$7.39
Bonds & Insurance 2.00%		\$29,425	\$0.92		\$19,303	\$2.01		\$48,728	\$5.08
Contractor's Fee 5.00%		\$75,033	\$2.35		\$49,222	\$5.13		\$124,255	\$12.94
Design Contingency 2.25%		\$35,453	\$1.11		\$23,258	\$2.42		\$58,711	\$6.12
Escalation to MOC, 12/31/22 5.58%		\$89,915	\$2.81		\$58,985	\$6.14		\$148,900	\$15.51
Modular Building, AMS, incl. structure, envelope, interior fit-out, MEP, allowance					\$4,300,000	\$447.92		\$4,300,000	\$447.92
Total Estimated Construction Cost		\$1,701,056	\$53.22		\$5,415,913	\$564.16		\$7,116,968	\$741.35

Sitework

SUMMARY - SITEWORK

Element	Subtotal	Total	Cost / SF	Cost / SF
A) Shell (1-5)				
1 Foundations				
2 Vertical Structure				
3 Floor & Roof Structures				
4 Exterior Cladding				
5 Roofing and Waterproofing				
B) Interiors (6-7)				
6 Interior Partitions, Doors and Glazing				
7 Floor, Wall and Ceiling Finishes				
C) Equipment and Vertical Transportation (8-9)				
8 Function Equipment and Specialties				
9 Stairs and Vertical Transportation				
D) Mechanical and Electrical (10-13)				
10 Plumbing Systems				
11 Heating, Ventilation and Air Conditioning				
12 Electrical Lighting, Power and Communications				
13 Fire Protection Systems				
E) Site Construction (14-16)				
14 Site Preparation and Demolition	\$116,790		\$3.65	
15 Site Paving, Structures & Landscaping	\$846,852		\$26.50	
16 Utilities on Site	\$383,886		\$12.01	
Subtotal		\$1,347,528		\$42.16
General Conditions	6.00%	\$80,852		\$2.53
Subtotal		\$1,428,379		\$44.69
General Requirements	3.00%	\$42,851		\$1.34
Subtotal		\$1,471,231		\$46.03
Bonds & Insurance	2.00%	\$29,425		\$0.92
Subtotal		\$1,500,655		\$46.95
Contractor's Fee	5.00%	\$75,033		\$2.35
Subtotal		\$1,575,688		\$49.30
Design Contingency	2.25%	\$35,453		\$1.11
Subtotal		\$1,611,141		\$50.41
Escalation to MOC, 12/31/22	5.58%	\$89,915		\$2.81

TOTAL ESTIMATED CONSTRUCTION COST		\$1,701,056		\$53.22
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Total Area: 31,960 SF

DETAIL ELEMENTS - SITEWORK

Element	Quantity	Unit	Unit Cost	Total
14 Site Preparation and Demolition				
Site Preparation & Demolition				
Temporary protection measures, site fencing, etc.	1	ls	\$8,750.00	\$8,750
Demo existing building, incl. foundations	3,525	sf	\$8.00	\$28,200
Sawcut AC paving	243	lf	\$3.60	\$875
Sawcut concrete paving/curbs	33	lf	\$6.00	\$198
Demo AC paving	856	sf	\$2.00	\$1,712
Demo concrete paving	1,909	sf	\$3.55	\$6,777
Demo curb & gutter	83	lf	\$10.25	\$851
Demo existing fencing	162	lf	\$8.25	\$1,337
Earthwork				
Clear and grub site, remove vegetation, plants	26,370	sf	\$0.25	\$6,593
Field staking/layout	31,960	sf	\$0.20	\$6,392
Erosion control measures	31,960	sf	\$0.30	\$9,588
Rough grading, cut and fill, based on balanced site	31,960	sf	\$0.50	\$15,980
Overexcavate and recompact, 5' below/beyond pads	2,670	cy	\$8.50	\$22,695
Fine grading	22,811	sf	\$0.30	\$6,843

Total - Site Preparation and Demolition				\$116,790
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15 Site Paving, Structures & Landscaping

Off-site improvements, allowance	1	ls	\$75,000.00	\$75,000
Hardscape				
AC paving, 3" over 6" base	5,497	sf	\$4.85	\$26,660
AC paving, 3" over 9" base	182	sf	\$6.00	\$1,092
Concrete paving - PCC sidewalks	6,562	sf	\$10.00	\$65,620
Concrete paving - PCC sidewalks, integral color	4,777	sf	\$11.00	\$52,547
Concrete paving - vehicular	263	sf	\$12.00	\$3,156
Concrete paving - ribbon gutter	411	sf	\$14.50	\$5,960
Concrete paving - ramps	194	sf	\$20.00	\$3,880
Concrete steps	28	sf	\$40.00	\$1,120
Concrete curbs - 6" barrier curb	367	lf	\$21.50	\$7,891
Concrete curbs - 6" curb & gutter	66	lf	\$28.50	\$1,881
Concrete curbs - depressed curb & gutter	20	lf	\$22.50	\$450
Concrete curbs - 4" mow curb	54	lf	\$13.50	\$729
Concrete curbs - 6" mow curb	56	lf	\$15.50	\$868
Truncated domes	25	sf	\$33.00	\$825
Striping - parking stalls, typ	25	ea	\$40.00	\$1,000
Striping - parking stalls, ADA, incl. post & signage	2	ea	\$385.00	\$770
Striping - hatched	143	sf	\$4.00	\$572
Striping - painted curbs	156	lf	\$1.00	\$156
Striping - "no parking"	1	ea	\$80.00	\$80
Striping - tricycle track	280	lf	\$1.50	\$420
Concrete wheel stops	2	ea	\$55.00	\$110
Resilient playground surfacing	1,065	sf	\$16.50	\$17,573

DETAIL ELEMENTS - SITEWORK

Element	Quantity	Unit	Unit Cost	Total
Landscaping				
Shrubs, small	96	ea	\$45.00	\$4,320
Shrubs, medium	38	ea	\$70.00	\$2,660
Soil amendmets & mulch	2,039	sf	\$2.25	\$4,588
Lawn, ground preparation and sod	950	sf	\$1.80	\$1,710
Sand box	843	sf	\$4.00	\$3,372
Trees - 15 gal	6	ea	\$775.00	\$4,650
Irrigation to planting areas	2,039	sf	\$4.00	\$8,156
Irrigation to lawn	950	sf	\$1.50	\$1,425
Site Amenities & Structures				
Concrete footing for CMU walls	571	lf	\$82.00	\$46,822
8" CMU walls - 8'-0" H w/cap	571	lf	\$250.00	\$142,750
Stone veneer, 2" at CMU walls	514	sf	\$45.00	\$23,130
Fencing - ornamental metal, 5'-0" H	8	lf	\$295.00	\$2,360
Fencing - ornamental metal, 8'-0" H	15	lf	\$350.00	\$5,250
Fencing - ornamental metal, ped gates, single, 5'-0" H	2	ea	\$2,750.00	\$5,500
Fencing - ornamental metal, ped gates, single, 8'-0" H	3	ea	\$3,150.00	\$9,450
Fencing - ornamental metal, vehicular rolling gates, 8'-0" H	2	ea	\$20,500.00	\$41,000
Fabric shade structure at playground	1,986	sf	\$55.00	\$109,230
Metal lunch shelter	1,602	sf	\$60.00	\$96,120
Commercial in-ground umbrellas, 10'-0" dia	3	ea	\$12,000.00	\$36,000
Trash enclosure	2	ea	\$15,000.00	\$30,000

Total - Site Paving, Structures & Landscaping \$846,852

16 Utilities on Site

Wet Utilities				
Domestic / fire water systems, allowance	31,960	sf	\$1.10	\$35,156
Stormwater systems, allowance	31,960	sf	\$1.65	\$52,734
Sanitary systems, allowance	31,960	sf	\$1.20	\$38,352
Site Electrical Service and Distribution				
Feeder, 100 amp, 3P, 4W, PVC	1,125	lf	\$38.68	\$43,510
Feeder, 200 amp, 3P, 4W, PVC	44	lf	\$68.41	\$3,010
Feeder, 400 amp, 3P, 4W, PVC	118	lf	\$153.17	\$18,074
Conduit, 4" pvc	110	lf	\$25.55	\$2,811
Conduit, 5" pvc	160	lf	\$37.75	\$6,041
Utility TX Cast Concrete pad	1	ea	\$4,727.87	\$4,728
Trenching, backfill and compaction	475	lf	\$87.32	\$41,479
Concrete encasement	40	cy	\$254.79	\$10,192
Site Lighting and Lighting Controls				
Type L1	3	ea	\$5,955.83	\$17,867
Conduit, 1" pvc	355	lf	\$7.25	\$2,575
Copper wire, #10 thhn	1,118	lf	\$1.20	\$1,342
Pull box, 10x17x12	2	ea	\$563.78	\$1,128

DETAIL ELEMENTS - SITEWORK

Element	Quantity	Unit	Unit Cost	Total
Site Communications				
Conduit, 4" pvc	80	lf	\$25.55	\$2,044
Conduit, 2" pvc	40	lf	\$12.12	\$485
Pull box, 24x36x36-Cable	1	ea	\$2,363.48	\$2,363
Pull box, 30"x48"x36"-Telecommunication	1	ea	\$3,153.96	\$3,154
Site Electronic Safety and Security				
Conduit, 1" pvc-Fire alarm	150	lf	\$7.25	\$1,088
Conduit, 2" pvc-Security	814	lf	\$12.12	\$9,862
Pull box, 24x36x36-Security	9	ea	\$2,363.48	\$21,271
Trenching, backfill and compaction	740	lf	\$87.32	\$64,620
Total - Utilities on Site				\$383,886

New Modular Building

SUMMARY - NEW MODULAR BUILDING

Element	Subtotal	Total	Cost / SF	Cost / SF
A) Shell (1-5)		\$319,250		\$33.26
1 Foundations	\$288,000		\$30.00	
2 Vertical Structure				
3 Floor & Roof Structures				
4 Exterior Cladding	\$31,250		\$3.26	
5 Roofing and Waterproofing				
B) Interiors (6-7)				
6 Interior Partitions, Doors and Glazing				
7 Floor, Wall and Ceiling Finishes				
C) Equipment and Vertical Transportation (8-9)		\$171,680		\$17.88
8 Function Equipment and Specialties	\$171,680		\$17.88	
9 Stairs and Vertical Transportation				
D) Mechanical and Electrical (10-13)		\$393,064		\$40.94
10 Plumbing Systems	\$42,502		\$4.43	
11 Heating, Ventilation and Air Conditioning	\$40,809		\$4.25	
12 Electrical Lighting, Power and Communications	\$302,252		\$31.48	
13 Fire Protection Systems	\$7,500		\$0.78	
E) Site Construction (14-16)				
14 Site Preparation and Demolition				
15 Site Paving, Structures & Landscaping				
16 Utilities on Site				
Subtotal		<u>\$883,994</u>		<u>\$92.08</u>
General Conditions	6.00%	\$53,040		\$5.52
Subtotal		<u>\$937,034</u>		<u>\$97.61</u>
General Requirements	3.00%	\$28,111		\$2.93
Subtotal		<u>\$965,145</u>		<u>\$100.54</u>
Bonds & Insurance	2.00%	\$19,303		\$2.01
Subtotal		<u>\$984,447</u>		<u>\$102.55</u>
Contractor's Fee	5.00%	\$49,222		\$5.13
Subtotal		<u>\$1,033,670</u>		<u>\$107.67</u>
Design Contingency	2.25%	\$23,258		\$2.42
Subtotal		<u>\$1,056,927</u>		<u>\$110.10</u>
Escalation to MOC, 12/31/22	5.58%	\$58,985		\$6.14
Child Development Center Building - 9,600 SF Modular Building "EVOLVE", quoted by American Modular Systems, dated 10/4/21 (escalated)		\$4,300,000		\$447.92
TOTAL ESTIMATED CONSTRUCTION COST		\$5,415,913		\$564.16

Total Area: 9,600 SF

DETAIL ELEMENTS - NEW MODULAR BUILDING

Element	Quantity	Unit	Unit Cost	Total
1 Foundations				
New shallow concrete foundations	9,600	sf	\$18.00	\$172,800
New concrete slab on grade	9,600	sf	\$12.00	\$115,200

Total - Foundations **\$288,000**

3 Floor & Roof Structures

Roof structure by American Modular Systems, Inc. Excluded - By AMS

Total - Floor & Roof Structures

4 Exterior Cladding

Exterior envelope / walls / doors / glazing / finishes by American Modular Systems, Inc. Excluded - By AMS

Custom circle / wave canopy, incl. steel framing, plates, connections, finishes 250 sf \$125.00 \$31,250

Total - Exterior Cladding **\$31,250**

5 Roofing and Waterproofing

Roofing systems & roof specialties by American Modular Systems, Inc. Excluded - By AMS

Total - Roofing and Waterproofing

6 Interior Partitions, Doors and Glazing

Interior partitions, doors & glazing by American Modular Systems, Inc. Excluded - By AMS

Total - Interior Partitions, Doors and Glazing

7 Floor, Wall and Ceiling Finishes

Interior flooring, bases, wall finishes & ceilings by American Modular Systems, Inc. Excluded - By AMS

Total - Floor, Wall and Ceiling Finishes

8 Function Equipment and Specialties

Interior specialties & casework by American Modular Systems, Inc. Excluded - By AMS

Code signage 9,600 sf \$0.80 \$7,680
 Interior specialties - CFCI 9,600 sf \$2.50 \$24,000

DETAIL ELEMENTS - NEW MODULAR BUILDING

Element	Quantity	Unit	Unit Cost	Total
Kitchen equipment, allowance per Webb FSD 6/21/21 (escalated)	1	ls	\$140,000.00	\$140,000
Total - Function Equipment and Specialties				\$171,680

10 Plumbing Systems

Plumbing systems by American Modular Systems, Inc.

Excluded - By AMS

General Plumbing Equipment

Water heater, elec, point of use, 2.5 gal	5	ea	\$780.60	\$3,903
Backflow Preventer	1	ea	\$1,379.00	\$1,379
Grease interceptor	1	ea	\$2,743.00	\$2,743

Rough-ins

Rough-in to refrigerator/freezer	3	ea	\$175.90	\$528
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Domestic Cold Water

3/4" pipe, cu type L, in bldg	35	lf	\$40.23	\$1,408
1" pipe, cu type L, in bldg	20	lf	\$44.72	\$894
1-1/4" pipe, cu type L, in bldg	15	lf	\$44.97	\$675
1-1/2" pipe, cu type L, in bldg	50	lf	\$48.97	\$2,449

Domestic Hot Water

3/4" pipe, cu type L, in bldg	80	lf	\$40.23	\$3,218
1" pipe, cu type L, in bldg	35	lf	\$44.72	\$1,565
1-1/4" pipe, cu type L, in bldg	25	lf	\$44.97	\$1,124
Pipe insulation, 3/4" pipe	80	lf	\$9.47	\$758
Pipe insulation, 1" pipe	35	lf	\$9.91	\$347
Pipe insulation, 1-1/4" pipe	25	lf	\$12.04	\$301

Domestic Cold/Hot Water Connections

Cold water rough-in at kitchen equipment	6	ea	\$356.20	\$2,137
Hot water rough-in at kitchen equipment	6	ea	\$457.90	\$2,747

Waste Piping

2" pipe, ci, no-hub, below grade	30	lf	\$29.50	\$885
3" pipe, ci, no-hub, below grade	25	lf	\$36.74	\$919
Trench excavate, backfill, compact	18	cy	\$64.57	\$1,184
Sand bedding in trench	6	cy	\$18.40	\$112

Vent Piping

2" pipe, ci, no-hub, in bldg	50	lf	\$52.87	\$2,644
Vent through roof, 2"	1	ea	\$361.90	\$362

Waste/Vent Connections

Direct waste rough-in at kitchen equipment	6	ea	\$1,028.00	\$6,168
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DETAIL ELEMENTS - NEW MODULAR BUILDING

Element	Quantity	Unit	Unit Cost	Total
Miscellaneous Plumbing				
Test / clean plumbing	8	hr	\$123.71	\$990
Start-up/check-out	8	hr	\$148.46	\$1,188
Commissioning assist	8	hr	\$130.23	\$1,042
Seismic bracing	556	sf	\$0.85	\$473
Penetrations and firestopping for plumbing	556	sf	\$0.65	\$361

Total - Plumbing Systems **\$42,502**

11 Heating, Ventilation and Air Conditioning

HVAC systems by American Modular Systems, Inc. Excluded - By AMS

Air-Side Equipment				
MAU - (make-up air handling unit)	3,000	cfm	\$3.06	\$9,180
Fans				
Kitchen exhaust fan	3,000	cfm	\$2.64	\$7,920
VFD to fan, 1.5 hp	1	ea	\$835.20	\$835
Air Distribution				
Ductwork				
Ductwork, galv, self-fab'd	217	lbs	\$12.31	\$2,675
Ductwork, 16 ga black steel, welded	235	lbs	\$14.38	\$3,379
Duct insulation, wrap	150	sf	\$2.80	\$420
Firemaster rated insulation (1 layer)	160	sf	\$30.64	\$4,902
Miscellaneous				
Test / balance HVAC	16	hr	\$125.38	\$2,006
Start-up/check-out	8	hr	\$113.98	\$912
Commissioning assist	8	hr	\$113.98	\$912
HVAC Controls				
DDC controls, makeup air unit	1	ea	\$1,278.00	\$1,278
DDC controls, general exhaust fan	1	ea	\$1,278.00	\$1,278
DDC controls, controls workstation tie-in	1	ea	\$5,111.00	\$5,111

Total - Heating, Ventilation and Air Conditioning **\$40,809**

12 Electrical Lighting, Power and Communications

Electrical systems by American Modular Systems, Inc. Excluded - By AMS

Electrical Systems				
Distribution Equipment				
Main switchboard, 600 amp, 120/208v, 3ph, 4w - Nema3R	1	ea	\$49,240.91	\$49,241
General conditions / general requirements, incl. temp power, consumables, indirect labor, testing/cx, etc.	9,600	sf	\$7.00	\$67,200

DETAIL ELEMENTS - NEW MODULAR BUILDING

Element	Quantity	Unit	Unit Cost	Total
Voice and Data system				
Tele/data outlet, 1 port	36	ea	\$107.69	\$3,877
Wireless access point	4	ea	\$358.97	\$1,436
MDF Cabinet, with power and grounding	1	ea	\$3,150.00	\$3,150
IDF wall mount cabinet	4	ea	\$2,543.16	\$10,173
J-hook support	144	ea	\$22.28	\$3,208
CAT-6, 4 pair 23 AWG, CMP	1,610	lf	\$1.51	\$2,430
Fiber optic, 24 strand, single mode	512	lf	\$3.32	\$1,701
Closed Circuit Television System				
Exterior wall mount camera	16	ea	\$2,382.25	\$38,116
Exterior camera on pole light	3	ea	\$2,251.75	\$6,755
CCTV wall mount, rough-in only	11	ea	\$61.90	\$681
DVR, 24TB storage	1	ea	\$15,040.18	\$15,040
Video matrix	1	ea	\$4,724.65	\$4,725
Conduit, 2" pvc	678	lf	\$12.12	\$8,214
Conduit, 1" emt	2,090	lf	\$10.88	\$22,742
CCTV cabling	3,135	lf	\$1.50	\$4,714
Access control system-Rough in only				
Card reader, rough in only	18	ea	\$163.04	\$2,935
Conduit, 1" emt	1,728	lf	\$10.88	\$18,803
Fire Alarm				
FA control panel	1	ea	\$5,116.98	\$5,117
FA annunciator panel	1	ea	\$2,930.00	\$2,930
FA power supply	1	ea	\$785.50	\$786
FA flow switch	1	ea	\$354.71	\$355
FA pull station	1	ea	\$167.68	\$168
FA tamper switch	1	ea	\$295.84	\$296
FA speaker strobe unit, ceiling mount	38	ea	\$255.10	\$9,694
FA speaker strobe unit, wall mount-WP	3	ea	\$379.39	\$1,138
FA monitor module	2	ea	\$224.19	\$448
Conduit, 3/4" emt	1,175	lf	\$9.20	\$10,807
Fire alarm cable rated, 4C	1,234	lf	\$4.36	\$5,374

Total - Electrical Lighting, Power and Communications **\$302,252**

13 Fire Protection Systems

Fire protection / sprinkler systems by American Modular Systems, Inc. Excluded - By AMS

Ansul fire protection system, allowance 1 ls \$7,500.00 \$7,500

Total - Fire Protection Systems **\$7,500**