

FIELDHOUSES



EXCELLENT CLASS C



GOOD CLASS C

OCCUPANCY DESCRIPTION: Fieldhouses are large gymnasium-type structures designed for indoor and outdoor sports and practice facilities. The better quality structures will include complete spectator and team facilities commensurate with the quality.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit.

NOT INCLUDED IN COSTS: Sprinklers, lockers, therapy or recreational equipment

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Good	\$241.94	Good frame, face brick, stone, concrete or metal panels, solar glass	Good exhibition floor, varied sports and spectator facilities	Good lighting and outlets, good plumbing, extra features	Hot and chilled water (zoned)
	Average	158.75	Steel columns and girders, face brick, best ornamental block	Intramural and competitive sports venues, good support facilities	Good lighting and outlets, showers and restrooms	Warm and cool air (zoned)
A-B	Finished Basement	122.73	Reinforced concrete, plaster interior	Utility, classroom and dressing room finishes	Adequate lighting and plumbing, tiled showers and restrooms	Package A.C.
C	Excellent	234.23	Heavy frame, best masonry walls, spectator entrance and lobby	Good exhibition floor, some arena finishes and spectator facilities	Good lighting and outlets, good plumbing, extra features	Warm and cool air (zoned)
	Good	157.90	Steel columns and girders, face brick, best ornamental block	Intramural and competitive sports venues, good support facilities	Good lighting and outlets, showers and restrooms	Heat pump system
	Average	101.66	Steel or Glulam, trusses or girders, brick, block or tilt-up	Multisport fields, some courts, co-recreation/sports activities	Adequate lighting and plumbing, locker rooms	Package A.C.
	Low cost	59.06	Light frame, block or tilt-up, very plain	Low-cost finishes, minimal support facilities, synthetic flooring	Minimum sports lighting and plumbing	Space heaters
D	Excellent	228.25	Heavy frame, masonry veneer walls, spectator entrance and lobby	Good exhibition floor, some arena finishes and spectator facilities	Good lighting and outlets, good plumbing, extra features	Warm and cool air (zoned)
	Good	151.72	Steel or Glulam frame, trusses and girders, brick veneer, best stucco	Intramural and competitive sports venues, good support facilities	Good lighting and outlets, showers and restrooms	Heat pump system
	Average	96.22	Heavy frame, trusses or girders, good stucco or siding, little trim	Multisport fields, some courts co-recreation/sports activities	Adequate lighting and plumbing, locker rooms	Package A.C.
	Low cost	54.64	Light frame, stucco or siding, very plain	Low-cost finishes, minimal support facilities, synthetic flooring	Minimum sports lighting and plumbing	Space heaters
D POLE	Average	88.67	Pole frame, good metal panels, finished inside, little trim	Multisport fields, some courts, co-recreation/sports activities	Adequate lighting and plumbing, locker rooms	Package A.C.
	Low cost	49.57	Pole frame, metal siding, partly finished interior, insulation	Low-cost finishes, minimal support facilities, synthetic flooring	Minimum sports lighting and plumbing	Space heaters
	Cheap	38.70	Pole frame, metal single wall, very plain	Little or none, no dressing rooms or showers, practice field only	Minimum lighting and restrooms	Ventilation
S	Good	149.16	Pre-engineered, good sandwich panels, some brick or stone trim	Intramural and competitive sports venues, good support facilities	Good lighting and outlets, showers and restrooms	Heat pump system
	Average	93.51	Pre-engineered, finished interior, insulation, little trim	Multisport fields, some courts, co-recreation/sports activities	Adequate lighting and plumbing, locker rooms	Package A.C.
	Low cost	52.25	Pre-engineered, partly finished interior, some insulation	Low-cost finishes, minimal support facilities, synthetic flooring	Minimum sports lighting and plumbing	Space heaters
	Cheap	40.65	Single wall, very plain	Little or none, no dressing rooms or showers, practice field only	Minimum lighting and restrooms	Ventilation
CDS	Finished Basement	87.38	Reinforced concrete, plaster or drywall interior	Utility, classroom and dressing room finishes	Adequate lighting and plumbing, showers and restrooms	Forced air

For fire-resistant Type I basements with concrete slab separation under Class C, D or S units, add \$5.95 per square foot.

FIELDHOUSES

REFINEMENTS: On this page are adjustments to the base costs from the previous page. Follow steps 1 through 5 to obtain final costs.

1

ELEVATORS: A small passenger elevator with simple call system and push-button control, four-passenger cab, and two or three stops, costs \$56,250 to \$77,250.					SPRINKLERS: Apply to area covered by sprinklers.				
		Sq. Ft.	LOW	AVG.	GOOD	EXCL.			
		1,000	\$4.60	\$5.97	\$7.74	\$10.05			
		2,500	4.00	5.13	6.58	8.43			
		5,000	3.60	4.57	5.81	7.39			
		10,000	3.24	4.08	5.14	6.47			
		15,000	3.04	3.82	4.78	5.99			
		20,000	2.91	3.64	4.54	5.67			
		50,000	2.53	3.13	3.86	4.76			
		80,000	2.36	2.89	3.55	4.35			
		100,000	2.28	2.79	3.41	4.17			
Vertical wheelchair lifts add \$12,700 to \$24,700.									
BALCONIES: Balcony cost include the supporting structure decking and rails. Apply costs to the balcony area.									
			LOW	AVG.	GOOD	EXCL.			
Concrete	.....		\$22.50	\$29.25	\$38.00	\$49.50			
Steel	.....		20.90	28.25	38.00	51.00			
Wood	.....		19.35	25.75	34.50	46.00			
Add for ornate finishes, balustrades	.....		19.45	24.10	29.75	36.75			
Add for roofs or awnings	.....		10.50	13.95	18.45	24.60			

2

HEATING AND COOLING					
These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.					
	Sq. Ft.		Sq. Ft.		Sq. Ft.
HEATING ONLY	Costs	HEATING & COOLING	Costs	COOLING ONLY	Costs
Electric cable or baseboard	..	Package A.C. (short ductwork)	....	Central refrigeration (zoned)	....
Electric wall heaters	.....	Warm and cool air (zoned)	.....	package (short ductwork)	....
Forced air furnace	.....	Hot/chilled water (zoned)	.....	Central evaporative	.....
Hot water, baseboard/convactor	.....	Heat pump system	.....	Pkg. refrig. . \$2,050 to \$2,600 per ton capacity	
Space heaters, with fan	.....			Evap. coolers . \$300 to \$500 per MCFM capacity	
radiant	.....			
Steam (including boiler)	.....	Small indiv. heat pumps cost \$1,760 to \$2,500		VENTILATION ONLY	
without boiler	.....	per ton of rated capacity.		Vent. (blowers/ducts)	.....
Wall or floor furnace	.....				\$3.31

3

HEIGHT REFINEMENTS					
STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.					
Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
8	.963	13	1.055	20	1.183
9	.981	14	1.073	22	1.220
10	1.000 (base)	15	1.092	24	1.257
11	1.018	16	1.110	30	1.367
12	1.037	18	1.147	36	1.476

4

Average Floor Area Sq. Ft./Story	AVERAGE PERIMETER														Average Floor Area Sq. Ft./Story
	125	150	175	200	250	300	400	500	600	800	1000	1200	1600	2000	
1,000	1.134	1.189	1.244	1.298	1.407	----	----	----	----	----	----	----	----	----	1,000
1,500	1.043	1.079	1.116	1.153	1.227	----	----	----	----	----	----	----	----	----	1,500
2,000	.996	1.024	1.052	1.079	1.134	1.189	----	----	----	----	----	----	----	----	2,000
3,000	----	.968	.985	1.006	1.043	1.079	1.153	----	----	----	----	----	----	----	3,000
4,000	----	----	.957	.968	.995	1.024	1.079	1.134	----	----	----	----	----	----	4,000
5,000	----	----	----	.949	.968	.991	1.036	1.079	1.123	----	----	----	----	----	5,000
6,000	----	----	----	.934	.952	.968	1.006	1.043	1.079	----	----	----	----	----	6,000
8,000	----	----	----	----	.929	.942	.968	.996	1.024	1.079	1.134	----	----	----	8,000
10,000	----	----	----	----	----	.927	.949	.968	.991	1.036	1.079	1.123	----	----	10,000
12,000	----	----	----	----	----	.915	.934	.959	.968	1.006	1.043	1.079	1.153	----	12,000
16,000	----	----	----	----	----	----	.915	.929	.942	.968	.996	1.024	1.079	1.134	16,000
20,000	----	----	----	----	----	----	----	.915	.927	.949	.968	.991	1.036	1.079	20,000

NOTE: For larger buildings, enter the table by taking half the area and half the perimeter. For very small structures, reverse the process (i.e., for a 10' x 10' or 100-square-foot building, multiply both the area and the perimeter by a factor of 5 to enter the table where the wall-to-floor ratio remains the same at 4:1 with a 10' height).

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

FITNESS CENTERS



EXCELLENT CLASS C



GOOD CLASS C

OCCUPANCY DESCRIPTION: These buildings are complete multi-sport recreational complexes distinguished by large gymnasium/auditorium-type structures that include both the private membership and public community center facilities. These multipurpose buildings will include gym/basketball, handball/racquetball/bowling and other sport courts, rinks, varied swimming/natorium facilities, running tracks, as well as exercise, craft, game and other social/multipurpose exercise rooms. The number of varied amenities and

support facilities (locker room, sauna, snack bars, etc.) will vary with the level of quality.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Suitable office areas and lounge facilities.

NOT INCLUDED IN COSTS: Elevators, sprinklers, lockers, pools, exercise equipment, kitchen equipment or furnishings. Equipment and trade fixtures associated with the various amenities.

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Good	\$213.14	Special architecture, good materials, good entrance and lobby	Top sports finish, elaborate finishes, many extra facilities and rooms	Best sports lighting, plumbing, many extras	Hot and chilled water (zoned)
	Average	156.25	Heavy frame, metal or concrete panels, good architecture	Good main gym or rink, multisports courts, natatorium, many extras	Good sports lighting, restrooms, sauna, shower and locker rooms	Warm and cool air (zoned)
A-B	Finished basement	132.48	Reinforced concrete, plaster interior	Exercise and dressing room finishes, some utility and storage	Adequate lighting and plumbing, showers and restrooms	Package A.C.
	Good mezzanine	44.74	Not included	Open, finished running track, plaster or drywall soffit	Average lighting, no plumbing	In building cost
	Average mezzanine	32.87	Not included	Open, finished floors and soffit, add for spectator seating	Average lighting, no plumbing	In building cost
C	Excellent	207.46	Best masonry, good curtain walls, good entrance and lobby	Top sports finish, elaborate finishes, many extra facilities and rooms	Best sports lighting, plumbing, many extras	Hot and chilled water (zoned)
	Good	149.73	Brick, best block, metal and glass, good entrance	Good main gym or rink, multisports courts, natatorium, many extras	Good sports lighting, restrooms, sauna, shower and locker rooms	Warm and cool air (zoned)
	Average	105.73	Brick, block, tilt-up, some ornamentation, small front	Basketball floor, swim pools, good multipurpose rooms	Adequate lighting, restrooms, sauna, shower and locker rooms	Package A.C.
D	Good	145.98	Brick veneer or best stucco on heavy frame, good entrance	Good main gym or rink, multisports courts, natatorium, many extras	Good sports lighting, restrooms, sauna, shower and locker rooms	Warm and cool air (zoned)
	Average	102.70	Stucco or siding on Glulam frame with girders or trusses	Basketball floor, swim pools, good multipurpose rooms	Adequate lighting, restrooms, sauna, shower and locker rooms	Package A.C.
S	Good	143.88	Insulated metal sandwich panels, good frame, entrance	Good main gym or rink, multisports courts, natatorium, many extras	Good sports lighting, restrooms, sauna, shower and locker rooms	Warm and cool air (zoned)
	Average	99.51	Good metal panels and roof, little ornamentation, small front	Basketball floor, swim pools, good multipurpose rooms	Adequate lighting, restrooms, sauna, shower and locker rooms	Package A.C.
CDS	Finished basement	88.76	Reinforced concrete, plaster or drywall interior	Exercise and dressing room finishes, some utility and storage	Adequate lighting and plumbing, showers and restrooms	Forced air
	Good mezzanine	35.19	Not included	Open, finished running track, drywall soffit	Average lighting, no plumbing	In building cost
	Average mezzanine	23.82	Not included	Open, finished floors and soffit, add for spectator seating	Average lighting, no plumbing	In building cost

MEZZANINES: Do not use story height or area/perimeter multipliers with mezzanine costs.

FITNESS CENTERS

REFINEMENTS: On this page are adjustments to the base costs from the previous page. Follow steps 1 through 5 to obtain final costs.

1	ELEVATORS: A small passenger or freight elevator with simple call system and push-button control, and two or three stops, costs \$56,250 to \$77,250.		SPRINKLERS: Apply to area covered by sprinklers.				
			Sq. Ft.	LOW	AVG.	GOOD	EXCL.
			5,000	\$3.56	\$4.51	\$5.71	\$7.22
			10,000	3.21	4.02	5.05	6.33
			15,000	3.01	3.76	4.70	5.86
			20,000	2.88	3.59	4.46	5.55
			30,000	2.71	3.35	4.15	5.14
			40,000	2.59	3.20	3.94	4.87
			60,000	2.44	2.99	3.67	4.50
			80,000	2.33	2.85	3.49	4.27
		100,000	2.25	2.75	3.35	4.09	
	COST RANGE						
	LOCKERS per opening:	Single tier	\$135 – \$260				
		Double	89 – 170				
		Triple	64 – 140				
		Box type	46 – 86				
	SWIMMING POOLS: For lack of swimming pool, deduct \$8.30 per square foot.						

2	HEATING AND COOLING					
	These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.					
		Sq. Ft.		Sq. Ft.		Sq. Ft.
	HEATING ONLY	Costs	HEATING & COOLING	Costs	COOLING ONLY	Costs
	Electric cable or baseboard . . .	\$ 9.25	Package A.C. (short ductwork)	\$20.00	Central refrigeration (zoned)	\$14.20
	Electric wall heaters	3.40	Warm and cool air (zoned)	30.00	package (short ductwork)	9.90
	Forced air furnace	12.60	Hot/chilled water (zoned)	40.25	Central evaporative	5.50
	Hot water	17.10	Heat pump system	24.90	Pkg. refrig. . \$1,980 to \$2,575 per ton capacity	
	Space heaters, with fan	3.88			Evap. coolers . \$295 to \$485 per MCFM capacity	
	radiant	4.44				
Steam (including boiler)	15.50			VENTILATION ONLY		
without boiler	13.90	Small indiv. heat pumps cost \$1,750 to \$2,440		Vent. (blowers/ducts)	\$3.17	
Wall or floor furnace	3.75	per ton of rated capacity.				

3	HEIGHT REFINEMENTS			
	STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.			
	Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
	12	.889	20	1.106
	14	.945	22	1.158
	16	1.000 (base)	24	1.210
	18	1.054		

4	Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER														Average Floor Area Sq.Ft./Story	
		250	300	350	400	450	500	600	700	800	900	1000	1200	1400	1600		
	5,000	1.034	1.056	1.078	1.100	----	----	----	----	----	----	----	----	----	----	----	5,000
	10,000	----	----	.999	1.011	1.023	1.034	1.056	1.078	1.100	----	----	----	----	----	----	10,000
	12,000	----	----	----	.995	1.005	1.015	1.034	1.052	1.071	1.089	----	----	----	----	----	12,000
	14,000	----	----	----	.982	.992	1.001	1.018	1.034	1.049	1.063	----	----	----	----	----	14,000
	20,000	----	----	----	----	----	.971	.986	.999	1.011	1.023	1.034	1.056	----	----	----	20,000
	25,000	----	----	----	----	----	.954	.967	.980	.992	1.003	1.011	1.027	----	----	----	25,000
	30,000	----	----	----	----	----	.943	.954	.965	.976	.986	.995	1.011	1.026	----	----	30,000
	35,000	----	----	----	----	----	.936	.945	.954	.964	.973	.982	.997	1.011	----	----	35,000
40,000	----	----	----	----	----	----	.938	.945	.954	.963	.971	.986	.999	1.011	----	40,000	
50,000	----	----	----	----	----	----	.930	.935	.941	.947	.954	.967	.980	.992	----	50,000	
75,000	----	----	----	----	----	----	.920	.923	.926	.930	.934	.941	.949	.958	----	75,000	
100,000	----	----	----	----	----	----	.914	.917	.920	.922	.925	.930	.935	.941	----	100,000	

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

© 2014 Marshall & Swift/Boeckh, LLC, all rights reserved.
Any reprinting, distribution, modification, reverse engineering, or creation of derivative works, is strictly prohibited.

FRATERNAL BUILDINGS



AVERAGE CLASS C



AVERAGE CLASS C

OCCUPANCY DESCRIPTION: These large multipurpose buildings are designed for use by fraternal organizations and generally have an auditorium, kitchen, dining room, game rooms and offices. They also often have large meeting rooms with movable partitions. Those consisting primarily of a small auditorium with few additional rooms, would be classified as clubhouses. If the facility has many sleeping rooms or apartments it would be considered a city club for costing purposes.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit.

NOT INCLUDED IN COSTS: Elevators, sprinklers, furnishings, kitchen equipment, lockers or athletic equipment.

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A	Average	\$189.06	Brick, concrete, metal and glass, some ornamentation	Drywall, asphalt tile, hardwood, auditorium, kitchen and game rooms	Adequate lighting and plumbing	Warm and cool air (zoned)
B	Average	178.08	Brick, concrete, metal and glass, some ornamentation	Drywall, asphalt tile, hardwood, auditorium, kitchen and game rooms	Adequate lighting and plumbing	Warm and cool air (zoned)
A-B	Finished basement	115.34	Plaster interior	Finished rooms, asphalt tile	Adequate lighting and plumbing	Hot water
	Semifin. basement	82.23	Low cost finishing	Minimum social functions, kitchenette	Minimum lighting and plumbing	Forced air
	Unfinished basement	59.40	Unfinished interior	Unfinished storage and utility	Minimum lighting, drains	None
C	Excellent	230.78	Marble, stone, metal and glass, very decorative	Excellent finish and detail, carpet, terrazzo, vinyl, fine kitchen	Best lighting and sound systems, good plumbing	Warm and cool air (zoned)
	Good	176.08	Face brick, ornamental trim, good entrance, lobby	Good finish and detail, carpeting and tile, auditorium, good kitchen	Good fluorescent lighting, good plumbing and restrooms	Warm and cool air (zoned)
	Average	126.87	Brick, block, concrete panels, some ornamentation	Drywall, acoustic tile, hardwood and asphalt tile, kitchen	Adequate lighting and plumbing	Package A.C.
	Low cost	90.92	Low-cost brick, block, concrete	Painted, acoustic and asphalt tile	Minimum lighting and plumbing	Forced air
D	Good	172.21	Brick veneer or best stucco with trim, good entrance	Good finish and detail, carpet, vinyl, auditorium, good kitchen	Good fluorescent lighting, good plumbing and restrooms	Warm and cool air (zoned)
	Average	122.86	Stucco, some brick or stone trim, small entrance	Drywall, acoustic tile, asphalt tile, kitchen and game rooms	Adequate lighting and plumbing	Package A.C.
	Low cost	87.13	Low-cost wood or stucco	Drywall, acoustic and asphalt tile	Minimum lighting and plumbing	Forced air
D POLE	Low cost	82.53	Metal skin on pole frame and truss, finished interior	Drywall, acoustic and resilient tile, small kitchen and game rooms	Minimum lighting and plumbing	Forced air
S	Average	117.57	Metal sandwich panels	Drywall, acoustic tile, asphalt tile, kitchen and game rooms	Adequate lighting and plumbing	Package A.C.
	Low cost	83.90	Steel or aluminum panels	Drywall, acoustic and asphalt tile	Minimum lighting and plumbing	Forced air
CDS	Finished basement	85.84	Plaster or drywall interior	Finished rooms, asphalt tile	Adequate lighting and plumbing	Forced air
	Semifin. basement	50.51	Low-cost finishes	Minimum social functions	Minimum lighting and plumbing	Space heaters
	Unfinished basement	36.92	Unfinished interior	Unfinished storage and utility	Minimum lighting, drains	None

FRATERNAL BUILDINGS

REFINEMENTS: On this page are adjustments to the base costs from the previous page. Follow steps 1 through 5 to obtain final costs.

1

<p>ELEVATORS: A small passenger or freight elevator with simple call system and push button control and two or three stops, costs \$56,250 to \$77,250.</p>	<p>SPRINKLERS: Apply to area covered by sprinklers.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sq. Ft.</th> <th>LOW</th> <th>AVG.</th> <th>GOOD</th> <th>EXCL.</th> </tr> </thead> <tbody> <tr><td>5,000</td><td>\$3.56</td><td>\$4.51</td><td>\$5.71</td><td>\$7.22</td></tr> <tr><td>10,000</td><td>3.21</td><td>4.02</td><td>5.05</td><td>6.33</td></tr> <tr><td>15,000</td><td>3.01</td><td>3.76</td><td>4.70</td><td>5.86</td></tr> <tr><td>20,000</td><td>2.88</td><td>3.59</td><td>4.46</td><td>5.55</td></tr> <tr><td>30,000</td><td>2.71</td><td>3.35</td><td>4.15</td><td>5.14</td></tr> <tr><td>40,000</td><td>2.59</td><td>3.20</td><td>3.94</td><td>4.87</td></tr> <tr><td>60,000</td><td>2.44</td><td>2.99</td><td>3.67</td><td>4.50</td></tr> <tr><td>80,000</td><td>2.33</td><td>2.85</td><td>3.49</td><td>4.27</td></tr> <tr><td>100,000</td><td>2.25</td><td>2.75</td><td>3.35</td><td>4.09</td></tr> <tr><td>150,000</td><td>2.12</td><td>2.57</td><td>3.12</td><td>3.79</td></tr> <tr><td>200,000</td><td>2.03</td><td>2.45</td><td>2.96</td><td>3.58</td></tr> </tbody> </table>	Sq. Ft.	LOW	AVG.	GOOD	EXCL.	5,000	\$3.56	\$4.51	\$5.71	\$7.22	10,000	3.21	4.02	5.05	6.33	15,000	3.01	3.76	4.70	5.86	20,000	2.88	3.59	4.46	5.55	30,000	2.71	3.35	4.15	5.14	40,000	2.59	3.20	3.94	4.87	60,000	2.44	2.99	3.67	4.50	80,000	2.33	2.85	3.49	4.27	100,000	2.25	2.75	3.35	4.09	150,000	2.12	2.57	3.12	3.79	200,000	2.03	2.45	2.96	3.58
Sq. Ft.	LOW	AVG.	GOOD	EXCL.																																																									
5,000	\$3.56	\$4.51	\$5.71	\$7.22																																																									
10,000	3.21	4.02	5.05	6.33																																																									
15,000	3.01	3.76	4.70	5.86																																																									
20,000	2.88	3.59	4.46	5.55																																																									
30,000	2.71	3.35	4.15	5.14																																																									
40,000	2.59	3.20	3.94	4.87																																																									
60,000	2.44	2.99	3.67	4.50																																																									
80,000	2.33	2.85	3.49	4.27																																																									
100,000	2.25	2.75	3.35	4.09																																																									
150,000	2.12	2.57	3.12	3.79																																																									
200,000	2.03	2.45	2.96	3.58																																																									
<p>BALCONIES: Balcony cost include the supporting structure, decking and rails. Apply costs to the balcony area.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>LOW</th> <th>AVG.</th> <th>GOOD</th> <th>EXCL.</th> </tr> </thead> <tbody> <tr> <td>Concrete</td> <td>\$22.70</td> <td>\$29.25</td> <td>\$37.75</td> <td>\$48.50</td> </tr> <tr> <td>Steel</td> <td>21.40</td> <td>28.75</td> <td>39.00</td> <td>52.00</td> </tr> <tr> <td>Wood</td> <td>18.40</td> <td>24.60</td> <td>33.00</td> <td>44.25</td> </tr> <tr> <td>Add for ornate finishes, balustrades</td> <td>19.00</td> <td>23.60</td> <td>29.25</td> <td>36.25</td> </tr> <tr> <td>Add for roofs or awnings</td> <td>10.50</td> <td>13.90</td> <td>18.40</td> <td>24.50</td> </tr> </tbody> </table>		LOW	AVG.	GOOD	EXCL.	Concrete	\$22.70	\$29.25	\$37.75	\$48.50	Steel	21.40	28.75	39.00	52.00	Wood	18.40	24.60	33.00	44.25	Add for ornate finishes, balustrades	19.00	23.60	29.25	36.25	Add for roofs or awnings	10.50	13.90	18.40	24.50																															
	LOW	AVG.	GOOD	EXCL.																																																									
Concrete	\$22.70	\$29.25	\$37.75	\$48.50																																																									
Steel	21.40	28.75	39.00	52.00																																																									
Wood	18.40	24.60	33.00	44.25																																																									
Add for ornate finishes, balustrades	19.00	23.60	29.25	36.25																																																									
Add for roofs or awnings	10.50	13.90	18.40	24.50																																																									

2

HEATING AND COOLING					
<p>These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.</p>					
	Sq. Ft.		Sq. Ft.		Sq. Ft.
HEATING ONLY	Costs	HEATING & COOLING	Costs	COOLING ONLY	Costs
Electric cable or baseboard ..	\$ 9.25	Package A.C. (short ductwork)	\$20.00	Central refrigeration (zoned)	\$14.20
Electric wall heaters	3.40	Warm and cool air (zoned)	30.00	package (short ductwork)	9.90
Forced air furnace	12.60	Hot/chilled water (zoned)	40.25	Central evaporative	5.50
Hot water	17.10	Heat pump system	24.90	Pkg. refriger. . \$1,980 to \$2,575 per ton capacity	
Space heaters, with fan	3.88			Evap. coolers . \$295 to \$485 per MCFM capacity	
radiant	4.44				
Steam (including boiler)	15.50				
without boiler	13.90	Small indiv. heat pumps cost \$1,750 to \$2,440		VENTILATION ONLY	
Wall or floor furnace	3.75	per ton of rated capacity.		Vent. (blowers/ducts)	\$3.17

3

HEIGHT REFINEMENTS			
<p>STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.</p>			
Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
10	.833	20	1.106
12	.889	22	1.158
14	.945	24	1.210
16	1.000 (base)	26	1.262
18	1.054	28	1.313

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER														Average Floor Area Sq.Ft./Story
	175	200	250	300	400	500	600	700	800	900	1000	1200	1400	1600	
2,000	1.117	1.147	1.205	1.264	1.381	----	----	----	----	----	----	----	----	----	2,000
5,000	.999	1.011	1.034	1.056	1.100	----	----	----	----	----	----	----	----	----	5,000
10,000	----	----	----	----	1.011	1.034	1.056	1.078	1.100	----	----	----	----	----	10,000
14,000	----	----	----	----	.982	1.001	1.018	1.034	1.049	1.063	----	----	----	----	14,000
20,000	----	----	----	----	----	.971	.986	.999	1.011	1.023	1.034	1.056	----	----	20,000
25,000	----	----	----	----	----	.954	.967	.980	.992	1.003	1.011	1.027	----	----	25,000
30,000	----	----	----	----	----	.943	.954	.965	.976	.986	.995	1.011	1.026	----	30,000
40,000	----	----	----	----	----	----	.938	.945	.954	.963	.971	.986	.999	1.011	40,000
45,000	----	----	----	----	----	----	.934	.939	.946	.954	.962	.976	.989	1.001	45,000
50,000	----	----	----	----	----	----	.930	.935	.941	.947	.954	.967	.980	.992	50,000
75,000	----	----	----	----	----	----	.920	.923	.926	.930	.934	.941	.949	.958	75,000
100,000	----	----	----	----	----	----	.914	.917	.920	.922	.925	.930	.935	.941	100,000

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

FRATERNITY HOUSES



GOOD/EXCELLENT CLASS D



AVERAGE CLASS D

OCCUPANCY DESCRIPTION: These structures are very similar in design to residential structures. The family-style nature of the kitchens, dining areas and lounge rooms differs from Dormitories. The distinguishing characteristics are the multiple sleeping units and the expanded plumbing to service more than one student per bath.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit.

NOT INCLUDED IN COSTS: Elevators, sprinklers, balconies, fireplaces or kitchen equipment.

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
C	Excellent	\$183.82	Stone, best brick and design, ornamental front	Soundproofed rooms, extra features, good lounge	Paired baths, tiled, good electrical and plumbing	Warm & cool air (zoned)
	Good	146.22	Face brick, stone trim, good fenestration and design	Plaster or drywall, hardwood, carpet, vinyl composition, good detail	Good electrical/plumbing fixtures, three students per bath	Warm & cool air (zoned)
	Average	110.61	Brick or block, little trim, good fenestration	Plaster or drywall, painted block, carpet, vinyl composition	Adequate, shower rooms, residential lighting circuits	Hot water
D	Excellent	175.55	Face brick or stone veneer, fine windows, ornamental front	Fine interior detail, ceramic tile, carpet, paneling, fine hardwood	Good fixtures, many outlets, one full bath per bedroom	Warm & cool air (zoned)
	Good	138.81	Good stucco or siding with trim, brick veneer, ornamentation	Plaster or drywall, hardwood, carpet, vinyl composition, good detail	Good electrical/plumbing fixtures, three students per bath	Warm & cool air (zoned)
	Average	104.11	Stucco or siding, little trim	Plaster or drywall, some carpet	Adequate lighting/plumbing	Hot water
C-D	Finished basement	36.89	Finished interior, add for saunas, bars, and equipment	Gypsum board ceiling, vinyl composition tile or sheet vinyl	Adequate lighting/plumbing	None
	Unfinished basement	29.82	Few partitions, little or no finish	Unfinished ceiling, slab, storage only	Minimum lighting and drain	None

For basement apartments use 75% of costs of comparable above ground units. For semi-basement apartments, use 85%.

FRATERNITY HOUSES

REFINEMENTS: On this page are adjustments to the base costs from the previous page. Follow steps 1 through 5 to obtain final costs.

1

<p>FIREPLACES: For each additional opening using the same chimney, add 30% to 50%. Fraternity Houses with basements, add 40% to extend the foundation to the basement level.</p>		<p>SPRINKLERS: Apply to area covered by sprinklers.</p>																																		
<p>TYPE</p> <p>One-story \$2,630 – \$ 8,510</p> <p>Two-stories 3,370 – 10,195</p> <p>Three-stories 4,110 – 11,880</p>		<table border="1"> <thead> <tr> <th>Sq. Ft.</th> <th>LOW</th> <th>AVG.</th> <th>GOOD</th> <th>EXCL.</th> </tr> </thead> <tbody> <tr> <td>3,000</td> <td>\$3.54</td> <td>\$4.56</td> <td>\$5.87</td> <td>\$7.55</td> </tr> <tr> <td>5,000</td> <td>3.27</td> <td>4.18</td> <td>5.36</td> <td>6.86</td> </tr> <tr> <td>10,000</td> <td>2.93</td> <td>3.73</td> <td>4.74</td> <td>6.03</td> </tr> <tr> <td>20,000</td> <td>2.63</td> <td>3.32</td> <td>4.20</td> <td>5.30</td> </tr> <tr> <td>50,000</td> <td>2.28</td> <td>2.85</td> <td>3.57</td> <td>4.46</td> </tr> </tbody> </table>					Sq. Ft.	LOW	AVG.	GOOD	EXCL.	3,000	\$3.54	\$4.56	\$5.87	\$7.55	5,000	3.27	4.18	5.36	6.86	10,000	2.93	3.73	4.74	6.03	20,000	2.63	3.32	4.20	5.30	50,000	2.28	2.85	3.57	4.46
Sq. Ft.	LOW	AVG.	GOOD	EXCL.																																
3,000	\$3.54	\$4.56	\$5.87	\$7.55																																
5,000	3.27	4.18	5.36	6.86																																
10,000	2.93	3.73	4.74	6.03																																
20,000	2.63	3.32	4.20	5.30																																
50,000	2.28	2.85	3.57	4.46																																
<p>RESIDENTIAL ELEVATORS: The small residential-style two or three passenger elevators found in Fraternity Houses cost \$18,600 to \$37,800 for two stops plus \$2,575 to \$4,000 for each additional stop.</p>		<p>BALCONIES: Balcony cost include the supporting structure, decking and rails. Apply costs to the balcony area.</p> <table border="1"> <thead> <tr> <th></th> <th>LOW</th> <th>AVG.</th> <th>GOOD</th> <th>EXCL.</th> </tr> </thead> <tbody> <tr> <td>Concrete</td> <td>\$23.75</td> <td>\$30.50</td> <td>\$38.75</td> <td>\$49.75</td> </tr> <tr> <td>Steel</td> <td>21.90</td> <td>29.25</td> <td>39.00</td> <td>52.00</td> </tr> <tr> <td>Wood</td> <td>20.40</td> <td>27.00</td> <td>35.50</td> <td>46.75</td> </tr> <tr> <td>Add for ornate finishes, balustrades</td> <td>20.25</td> <td>24.85</td> <td>30.50</td> <td>37.50</td> </tr> <tr> <td>Add for roofs or awnings</td> <td>10.30</td> <td>13.75</td> <td>18.25</td> <td>24.20</td> </tr> </tbody> </table>						LOW	AVG.	GOOD	EXCL.	Concrete	\$23.75	\$30.50	\$38.75	\$49.75	Steel	21.90	29.25	39.00	52.00	Wood	20.40	27.00	35.50	46.75	Add for ornate finishes, balustrades	20.25	24.85	30.50	37.50	Add for roofs or awnings	10.30	13.75	18.25	24.20
	LOW	AVG.	GOOD	EXCL.																																
Concrete	\$23.75	\$30.50	\$38.75	\$49.75																																
Steel	21.90	29.25	39.00	52.00																																
Wood	20.40	27.00	35.50	46.75																																
Add for ornate finishes, balustrades	20.25	24.85	30.50	37.50																																
Add for roofs or awnings	10.30	13.75	18.25	24.20																																

2

<p>HEATING AND COOLING</p> <p>These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.</p>					
<p>HEATING ONLY</p>		<p>HEATING & COOLING</p>		<p>COOLING ONLY</p>	
	Sq. Ft. Costs		Sq. Ft. Costs		Sq. Ft. Costs
Electric cable or baseboard . . .	\$ 7.23	Package A.C. (short ductwork)	\$15.05	Central refrigeration (zoned)	\$11.05
Electric wall heaters	2.64	Warm and cool air (zoned)	21.00	package (short ductwork)	7.35
Forced air furnace	10.40	Hot/chilled water (zoned)	31.25	Central evaporative	4.83
Hot water, baseboard/convactor	14.30	Heat pump system	17.45	Pkg. refrig. . \$1,880 to \$2,350 per ton capacity	
radiant floor/ceiling	15.50	Ind. thru-wall heat pumps	7.41	Evap. coolers . \$225 to \$370 per MCFM capacity	
Steam (including boiler)	13.15			VENTILATION ONLY	
without boiler	11.57	Small indiv. heat pumps cost \$1,570 to \$2,140		Vent. (blowers/ducts)	\$2.19
Wall or floor furnace	3.04	per ton of rated capacity			

3

<p>HEIGHT REFINEMENTS</p> <p>MULTISTORY BUILDINGS: Add .5% (1/2%) for each story over three, above ground, to all base costs.</p> <p>STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.</p>			
Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
8	.947	11	1.027
9	.973	12	1.055
10	1.000 (base)		

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER														Average Floor Area Sq. Ft./Story
	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
1,000	1.150	1.310	1.370	----	----	----	----	----	----	----	----	----	----	----	1,000
2,000	1.020	1.083	1.143	1.206	1.267	----	----	----	----	----	----	----	----	----	2,000
3,000	.970	1.000	1.042	1.083	1.123	1.165	1.206	----	----	----	----	----	----	----	3,000
4,000	----	.959	.989	1.021	1.052	1.083	1.113	1.143	1.175	1.206	1.237	----	----	----	4,000
5,000	----	----	.959	.984	1.009	1.034	1.059	1.083	1.108	1.133	1.157	1.181	----	----	5,000
7,000	----	----	.924	.942	.959	.977	.994	1.011	1.029	1.047	1.065	1.083	1.101	----	7,000
10,000	----	----	----	----	.922	.935	.947	.959	.972	.984	.997	1.009	1.022	1.034	10,000
12,000	----	----	----	----	.907	.917	.928	.938	.949	.959	.970	.980	.990	1.000	12,000
14,000	----	----	----	----	----	.906	.915	.924	.933	.942	.951	.959	.968	.977	14,000
18,000	----	----	----	----	----	----	.897	.904	.911	.917	.925	.932	.939	.945	18,000
22,000	----	----	----	----	----	----	----	----	.898	.903	.909	.915	.920	.926	22,000
30,000	----	----	----	----	----	----	----	----	----	.885	.889	.894	.898	.902	30,000

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.