# **DAIRIES (MILKING PARLORS)**



**GOOD CLASS S** 

**OCCUPANCY DESCRIPTION:** These buildings are designed for the milking of cows and first-stage milk processing. Most, except for the lower quality units, offer short-term storage. The structures are built to comply with state health and sanitation codes. Usually of masonry or wood frame construction, they have contoured concrete floors with epoxy or tile finishes. The better qualities have high-level lighting, cow washes, restrooms, showers, pipe stanchions and milk piping. These units are generally not heated.

Permanently installed piping and electrical circuits are included.

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit. Piping and electrical circuits for milking equipment.

**NOT INCLUDED IN COSTS:** Sprinklers, milking equipment or milk storage and processing equipment.

### **SQUARE FOOT COST TABLE**

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
	Excellent	\$72.09	Brick or stucco on block, insulated heavy roof structure	Ceramic & epoxy finishes, contoured concrete floor, plaster ceiling	High-level lighting, hot water, cow wash, restrooms and showers	None
C	Good	54.25	Brick, concrete block, insulated roof	Plaster walls in cooler/storage room, contoured concrete floor with drains	Good lighting and plumbing, pipe stanchions, milk piping	None
	Average	40.95	Brick, concrete block or clay tile, light wood trusses	Plaster wainscot in cooler and wash- room, good concrete floor	Adequate lighting and plumbing, pipe stanchions	None
	Low cost	30.96	Clay tile, concrete block, half walls, wood shutters & rafters	Painted walls, concrete milking floor, milking parlor only, no storage	Minimum electrical and plumbing service, wood stanchions	None
	Excellent	66.01	Best sidings or veneer, good roof structure, fully insulated	Ceramic & epoxy finishes, contoured concrete floors, plaster ceiling	High-level lighting, hot water, cow wash, restrooms and showers	None
D	Good	47.52	Good stucco or siding, some trim, wood or steel frame	Plaster walls, cooler and storage, contoured concrete floor	Good lighting and plumbing, pipe stanchions, milk piping	None
	Average	34.30	Stucco or siding, wood frame and rafters, windows/shutters	Plaster wainscot, cooler and wash- room, good concrete floor	Adequate lighting and plumbing, pipe stanchions	None
	Low cost	24.81	Wood siding or plywood on light wood frame, shutters	Some wainscot, concrete floor, milking barn only, no storage	Minimum electrical and plumbing services, wood stanchions	None
	Excellent	58.81	Best metal siding on pole frame, fully insulated, sheathed	Ceramic & epoxy finishes, contoured concrete floors, plaster ceiling	High-level lighting, hot water, cow wash, restrooms and showers	None
D POLE	Good	42.60	Pole frame, good metal siding and sheathing, insulated	Plaster or gypsum board, cooler and storage, contoured concrete floor	Good lighting and plumbing, pipe stanchions, milk piping	None
D POLE	Average	30.95	Pole frame, metal siding, windows or good shutters	Gypsum board or plaster, wainscot in cooler and washroom	Adequate lighting and plumbing, pipe stanchions	None
	Low cost	22.52	Pole frame, metal siding, some wainscot, shutters	Little interior finish, concrete milking floor, milking barn only	Minimum electrical and plumbing services, wood stanchions	None
	Excellent	67.49	Good steel siding and sheathing, fully insulated	Ceramic & epoxy finishes, contoured floors, plaster ceiling	High-level lighting, hot water, cow wash, restrooms and showers	None
S	Good	49.39	Good steel siding, full sheathing, insulated	Plaster or gypsum board, cooler and storage, contoured concrete floor	Good lighting and plumbing, pipe stanchions, milk piping	None
3	Average	36.25	Steel siding, windows or good shutters	Gypsum board or plaster, wainscot in cooler and washroom	Adequate lighting and plumbing, pipe stanchions	None
	Low cost	26.65	Steel siding, light frame, some wainscot, shutters	Little interior finish, concrete milking floor, milking barn only	Minimum electrical and plumbing wood stanchions	None

# **DAIRIES (MILKING PARLORS)**

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

MILKING EQUIPMENT: Stalls, fully automati	c system	SPRINKLERS:	SPRINKLERS: Apply to area covered by sprinklers.						
	COST RANGE	Sq. Ft.	LOW	AVG.	GOOD	EXCL.			
Double 6, Double 8	\$5,950 - \$8,700	1,000	\$3.54	\$4.61	\$6.00	\$7.81			
Double 10	7,950 - 12,200	2,500	3.06	3.95	5.09	6.56			
Double 12	10,800 - 13,600	5,000	2.74	3.51	4.49	5.75			
Double 16, Double 20	12,200 - 16,700	7,500	2.57	3.28	4.18	5.32			
Stall, manual system	3,600 - 4,975	10,000	2.46	3.12	3.97	5.04			
for feed system, add \$770 - \$990, plus \$7	70 for auger, per stall;	15,000	2.30	2.92	3.69	4.67			
for computerized automation, add \$1,740 - for each I.D. tag	. , ,	20,000	2.20	2.78	3.50	4.42			
	COST RANGE								
Bulk tanks, refrigerated, per gallon Bulk tanks, unrefrigerated, per gallon Compressor, each Floor-mounted plate cooler, each Chillers, each Water heater, gas, each Automatic wash systems, each		Holding pen/wa cost per square add for roof: add for powe add for cow v	e foot: \$7.71 \$4.29 - \$6.8 r crowd gate	- \$10.75 8 e: \$6.94 -		pe dividers,			

### 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	<b>HEATING &amp; COOLING</b>	Costs	COOLING ONLY	Costs
Electric cable or baseboard	\$4.31	Package A.C. (short ductwork)	\$9.58	Central refrigeration (zoned)	\$8.17
Electric wall heaters	1.84			package (short ductwork)	6.28
Forced air furnace	4.85			Evaporative coolers	3.72
Hot water, baseboard/convector	8.63				
Space heaters, with fan	2.37				
radiant	2.79				
Steam (including boiler)	7.68				
without boiler	6.74			VENTILATION ONLY	
Wall or floor furnace	2.19			Vent. (blowers/ducts)	\$1.36

3 HEIGHT REFINEMENTS

 $\textbf{MULTISTORY BUILDINGS:} \ \text{Add } .5\% \ (1/2\%) \ \text{for each story over three, above ground, to all base costs}.$ 

STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.

TI TILIGITI WICETIFLILIAS. IVIU	ilipiy base cost by following multipi	icis ioi aily valiation in average	story rieignit.
Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
8	.963	13	1.058
9	.981	14	1.077
10	1.000 (base)	16	1.115
11	1.019	18	1.154

4	Average Floor Area						A۱	/ERAGE	PERIM	ETER						Average Floor Area
	Sq.Ft./Story	75	125	150	200	250	300	350	400	500	600	700	800	900	1000	Sq. Ft./Story
	1,000	.980	1.110	1.178	1.311	1.444	1.577	1.711	1.844							1,000
	2,000	.878	.945	.977	1.044	1.110	1.178	1.245	1.311							2,000
	3,000	.843	.889	.911	.955	1.000	1.044	1.088	1.133							3,000
	4,000		.860	.878	.911	.945	.977	1.010	1.044	1.110	1.178					4,000
	5,000		.844	.857	.884	.911	.938	.960	.991	1.044	1.097	1.150				5,000
	6,000			.843	.865	.888	.911	.934	.955	1.000	1.044	1.088	1.133			6,000
	7,000			.835	.854	.873	.892	.911	.931	.967	1.006	1.044	1.080			7,000
	8,000				.844	.860	.877	.894	.911	.945	.977	1.010	1.044	1.076		8,000
	9,000				.836	.852	.867	.881	.896	.926	.955	.985	1.014	1.044		9,000
	10,000					.844	.858	.871	.884	.911	.938	.960	.991	1.018	1.044	10,000
	12,000					.833	.843	.855	.867	.888	.911	.934	.955	.977	1.000	12,000
	14,000					.825	.835	.844	.854	.873	.892	.911	.931	.949	.967	14,000
	16,000						.827	.836	.844	.861	.877	.894	.911	.928	.945	16,000
	20,000						.818	.824	.831	.844	.858	.871	.884	.898	.911	20,000

# 5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

# DAY CARE CENTERS



**GOOD CLASS C** 

**OCCUPANCY DESCRIPTION:** These structures are child and handicapped care centers and include nursery or children's preschools. They have light kitchen facilities, activity rooms, multiple restrooms and are more residential style in character than schools. Generally, the better centers may have reception, office, conference, lunch, shower and changing facilities, as well as classrooms.



**AVERAGE CLASS C** 

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

**NOT INCLUDED IN COSTS:** Elevators, sprinklers, kitchen equipment, balconies, 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	Average	\$168.89	Brick, concrete or metal panels, formed concrete	Plaster or drywall, carpet, hardwood and vinyl	Good restrooms and kitchen, adequate lighting/plumbing	Heat pump system
	Excellent	213.95	Face brick, glass panels, stone, top quality	Plaster, tile pavers, hardwood, carpet	Tiled restrooms, full kitchen, good lighting, extra features	Heat pump system
С	Good	161.92	Face brick, concrete or metal panels, ornamentation	Plaster or drywall, carpet, hardwood and vinyl	Good restrooms and kitchen, adequate lighting/plumbing	Package A.C.
	Average	125.88	Brick, block, concrete panels, some trim	Plaster or drywall, acoustic tile, vinyl composition, carpet	Adequate lighting/plumbing, average restrooms/kitchen	Forced air
	Low cost	89.89	Brick or block, tilt-up, no trim	Painted walls, asphalt tile	Minimum lighting/plumbing	Wall furnace
	Excellent	208.16	Face brick veneer, best siding, good ornamentation	Plaster, tile pavers, hardwood, carpet	Tiled restrooms, full kitchen, good lighting, extra features	Heat pump system
D	Good	155.88	Brick veneer, good stucco or siding with good trim	Plaster or drywall, carpet, hardwood and vinyl	Good restrooms and kitchen, adequate lighting/plumbing	Package A.C
	Average	120.33	Brick veneer, stucco or siding, little trim	Plaster or drywall, acoustic tile, carpet, vinyl composition	Adequate lighting/plumbing, average restrooms/kitchen	Forced air
	Low cost	84.93	Stucco or siding, very plain	Drywall, asphalt tile	Minimum lighting and plumbing	Wall furnace
D POLE	Average	113.25	Pole frame, good metal panels, finished inside, little trim	Plaster or drywall, acoustic tile, carpet, vinyl composition	Adequate lighting/plumbing, average restrooms/kitchen	Forced air
	Low cost	79.34	Pole frame, metal siding	Drywall, asphalt tile	Minimum lighting and plumbing	Wall furnace
S	Average	117.51	Insulated sandwich panels, pre-engineered frame	Drywall, acoustic tile, carpet, vinyl composition	Adequate lighting/plumbing, average restrooms/kitchen	Forced air
	Low cost	82.75	Light steel frame, siding	Drywall, asphalt tile	Minimum lighting and plumbing	Wall furnace
	Classroom basement	89.16	Reinforced concrete, plaster or drywall interior	Classrooms, school finishes, some utility and storage	Adequate lighting and plumbing	Forced air
	Parking basement	41.73	Unfinished interior	Finished ceiling, concrete floor with hardener	Exposed lighting, adequate drains	Ventilation
CDS <sup>†</sup>	Unfinished basement	33.67	Unfinished interior	Unfinished storage and utility	Minimum lighting, drains	None
	Classroom mezzanine	64.53	Not included	Classroom and office, typical finishes	Adequate school lighting and plumbing	In building cost
	Open mezzanine	25.03	Not included	Finished floors and soffit, open play area	Average lighting, no plumbing	In building cost

<sup>&</sup>lt;sup>†</sup>For fire-resistant Type I basements with concrete slab separation under Class C, D or S units, add \$5.95 per square foot.

# DAY CARE CENTERS

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

SPRINKLERS: Apply to area covered by sprinklers Sq. Ft. LOW AVG. GOOD E 1 ELEVATORS: A small passenger elevator with simple call system and push-button control, four-passenger cab, and two or three stops, costs EXCL. \$56,250 to \$77,250. 1,000 \$4.60 \$7.74 \$10.05 \$5.97 2,500 4.00 5.13 6.58 8.43 5,000 3.60 4.57 5.81 7.39 Vertical wheelchair lifts cost \$12,700 to \$24,700. 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 BALCONIES: Balcony cost include the supporting structure decking and rails. Apply costs to the balcony area. EXCL. LOW AVG. GOOD \$22.50 \$38.00 \$49.50 \$29.25 28.25 51.00 Steel 20.90 38.00 Wood 25.75 34.50 46.00 19.35 Add for ornate finishes, balustrades 19.45 24.10 29.75 36.75 Add for roofs or awnings . . . . . 10.50 18.45 13.95 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	<b>HEATING &amp; COOLING</b>	Costs	COOLING ONLY	Costs
Electric cable or baseboard	\$12.05	Package A.C. (short ductwork)	\$15.85	Central refrigeration (zoned)	\$14.40
Electric wall heaters	3.61	Warm and cool air (zoned)	25.00	package (short ductwork)	10.05
Forced air furnace	13.75	Hot/chilled water (zoned)	39.00	Central evaporative	5.38
Hot water, baseboard/convector	20.00	Heat pump system	23.85	Pkg. refrig \$2,050 to \$2,600 per to	n capacity
Space heaters, with fan	4.08			Evap. coolers . \$300 to \$500 per MCFI	M capacity
radiant	4.71				
Steam (including boiler)	18.00				
without boiler	16.35	Small indiv. heat pumps cost \$1,760 to	o \$2,500	VENTILATION ONLY	
Wall or floor furnace	3.73	per ton of rated capacity.		Vent. (blowers/ducts)	\$3.31

		liers for any variation in average	otory moignt.
Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
8	.963	13	1.055
9	.981	14	1.073
10	1.000 (base)	15	1.092
11	1.018	16	1.110
12	1.037		

4	Average Floor Area						Α	VERAGI	E PERIN	IETER						Average Floor Area
	Sq.Ft./Story	125	150	175	200	250	300	400	500	600	800	1000	1200	1600	2000	Sq. Ft./Story
	1,000	1.134	1.189	1.244	1.298	1.407										1,000
	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
	14,000							.923	.939	.955	.984	1.015	1.048	1.110	1.173	14,000
	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

### 5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

# **DORMITORIES**



#### **EXCELLENT CLASS B**

OCCUPANCY DESCRIPTION: These buildings include college and boarding school residence halls, interns' or nurses' quarters, and military service quarters. They generally have lounges and frequently have dining facilities. In the better qualities, the rooms are soundproof, furniture is built in, baths are tiled and painted, halls, lounges and rooms are carpeted. Plaster and drywall are the most common wall finishes used. The amount of detail on the interior is commensurate with the overall quality.



#### **GOOD CLASS B**

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit. Built-in cabinetry, desks, etc., which are normally included in the general building contract. Elevators are included in costs designated with an (\*) asterisk.

**NOT INCLUDED IN COSTS:** Sprinklers, balconies, kitchen equipment, swimming pools or recreation room equipment systems.

### **SQUARE FOOT COST TABLE**

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
	Excellent	\$294.59	Stone, best brick, good metal panels, best designs	Soundproofed rooms, carpeting, built-in furniture, fine lounges	*Tiled bathrooms, paired baths, good electrical and plumbing	Hot & chilled water (zoned)
Α	Good	202.57	Face brick, metal or concrete panels, ornamental fronts	Soundproofed rooms, carpeted halls and lounges, good detail	*Good bathrooms, good electrical/plumbing fixtures	Hot & chilled water (zoned)
	Average	158.83	Brick, steel or concrete pan- els, some ornamentation	Drywall or plaster walls/ceiling, vinyl composition, carpeting	*One bath for three students, average electrical service	Warm & cool air (zoned)
	Low cost	125.25	Brick or concrete panels, very plain, painted interior	Drywall, acoustic tile, vinyl composition floors	*Painted shower rooms, half baths in living units	Hot water
	Excellent	277.43	Stone, best brick, good metal panels, best designs	Soundproofed rooms, carpeting, built-in furniture, fine lounges	*Tiled bathrooms, paired baths, good electrical and plumbing	Hot & chilled water (zoned)
В	Good	190.87	Face brick, metal or concrete panels, ornamental fronts	Soundproofed rooms, carpeted halls and lounges, good detail	*Good bathrooms, good electrical/plumbing fixtures	Hot & chilled water (zoned)
	Average	149.18	Brick, steel or concrete panels, some ornamentation	Drywall or plaster walls/ceiling, vinyl composition, carpeting	*One bath for three students, average electrical service	Warm & cool air (zoned)
	Low cost	117.30	Brick or concrete panels, very plain, painted interior	Drywall, acoustic tile, vinyl composition floors	*Painted shower rooms, half baths in living units	Hot water
	Basement dorm units	124.44	Half exposed, good fenestration	Average-quality dormitory units	Average electrical/plumbing	Hot water
A-B	Finished basement	95.33	Finished Interior	Finished, service, social functions	Adequate lighting/plumbing	Hot water
	Util. bsmt.	50.57	Painted concrete	Utility and storage units	Utility lighting/plumbing	None
	Excellent	255.17	Stone, best brick, metal or concrete panels, best designs	Soundproofed rooms, carpeting, built-in furniture, fine lounges	*Tiled bathrooms, paired baths, good electrical and plumbing	Hot & chilled water (zoned)
С	Good	155.51	Face brick, metal or concrete panels, good design	Carpeted halls and lounges, good detail, plaster or drywall	*Good bathrooms, good electrical/plumbing fixtures	Warm & cool air (zoned)
	Average	115.73	Brick, steel or concrete pan- els, little trim	Plaster or drywall, carpeted halls, acoustic tile	Standard electrical/plumbing fixtures, some tile and extras	Hot water
	Low cost	88.94	Brick, block, precast concrete, very plain	Exposed block, drywall, acoustic tile, vinyl composition	Minimum number and quality of fixtures	Forced air
	Excellent	245.85	Stone or brick veneer, metal and glass, individual design	Carpeting, built-in furniture, good lounge and decoration	*Tiled bathrooms, paired baths, good electrical and plumbing	Hot & chilled water (zoned)
D	Good	143.21	Brick veneer or best stucco with trim, good ornamentation	Carpeted halls and lounges, plaster or drywall, good detail	Good bathrooms, good electrical service	Warm & cool air (zoned)
	Average	107.58	Brick veneer or stucco with some trim	Plaster or drywall, carpeted halls, acoustic tile	Standard electrical/plumbing fixtures, some tile and extras	Hot water
	Low cost	81.66	Stucco or siding, very plain, simple entrance	Drywall, vinyl composition, minimum finish	Minimum number and quality of fixtures	Forced air
S	Average	105.30	Sandwich panels, some trim	Drywall, carpet and vinyl composition, acoustic tile ceilings	Standard electrical and plumbing fixtures	Hot water
	Basement dorm units	92.27	Half exposed, good fenestration	Average-quality dormitory units	Average electrical/plumbing	Forced air
CDS	Finished basement	68.61	Finished Interior	Finished, service, social functions	Adequate lighting/plumbing	Forced air
	Util. bsmt.	31.59	Unfinished concrete	Unfinished floor and ceiling	Minimum lighting/plumbing	None

# **DORMITORIES**

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

SPRINKLERS: Apply to area covered by sprinklers. ELEVATORS: Buildings whose base costs include service elevators are 1 GOOD EXCL. marked with an asterisk (\*). If the building under consideration has no ele-Sq. Ft. LOW AVG. vators, deduct the following from the base costs so marked. For detailed costs 3,000 \$3.54 \$4.56 \$5.87 \$7.55 5,000 see Section UIP 8. 3.27 4.18 5.36 6.86 Classes A/B Sq. Ft. Classes C/D/S Sq. Ft. 10,000 2.93 3.73 4.74 6.03 Costs Costs 20,000 2.63 3.32 4.20 5.30 Excellent ..... \$6.25 Excellent . . . . . . . . . . . . \$3.89 50.000 2 28 2 85 3 57 4.46 5.36 3.41 100,000 2.04 2.54 3.16 3.92 Good . . . . . . . . . . . . . . Average . . . . . . . . . . . . 4.12 BALCONIES: Balcony cost include the supporting structure, Low cost ..... 3.13 decking and rails. Apply costs to the balcony area LOW AVG. GOOD EXCL. \$23.75 Concrete . . . . \$30.50 \$38.75 \$49.75 **ELEVATOR STOPS:** For basement stops, add \$6,350 to \$9,650 per stop. Steel..... 21.90 29.25 39.00 52.00 Wood . . . . . . . Add for ornate 20.40 27.00 35.50 46.75 finishes, balustrades 20.25 Add for roofs or awnings 10.30 13.75 18.25 24.20

#### 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	\$ 7.23	Package A.C. (short ductwork) S	\$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/convector	14.30	Heat pump system	17.45	Pkg. refrig \$1,880 to \$2,350 per tor	n capacity
radiant floor/ceiling	15.50	Ind. thru-wall heat pumps	7.41	Evap. coolers . \$225 to \$370 per MCFN	√ capacity
Steam (including boiler)	13.15				
without boiler	11.57	Small indiv. heat pumps cost \$1,570 to \$	\$2,140	VENTILATION ONLY	
Wall or floor furnace	3.04	per ton of rated capacity.		Vent. (blowers/ducts)	\$2.19

#### 3 HEIGHT REFINEMENTS

 $\textbf{MULTISTORY BUILDINGS:} \ \text{Add } .5\% \ (1/2\%) \ \text{for each story over three, above ground, to all base costs.}$ 

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
8	.947	12	1.055
9	.973	13	1.084
10	1.000 (base)	14	1.114
11	1.027		

4	Average Floor Area	AVERAGE PERIMETER														
	Sq.Ft./Story	150	200	250	300	350	400	450	500	550	600	650	700	750	800	Floor Area Sq. Ft./Story
	2,000	1.020	1.083	1.143	1.206	1.267										2,000
	4,000		.959	.989	1.021	1.052	1.083	1.113	1.143							4,000
	6,000			.938	.959	.980	1.000	1.021	1.042	1.063	1.083					6,000
	8,000				.929	.944	.959	.974	.989	1.005	1.021	1.037				8,000
	10,000					.922	.935	.947	.959	.972	.984	.997	1.009	1.022		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
	16,000						.898	.906	.913	.921	.929	.937	.944	.952	.959	16,000
	18,000							.897	.904	.911	.917	.925	.932	.939	.945	18,000
	20,000								.898	.904	.910	.916	.922	.929	.935	20,000
	25,000									.888	.892	.897	.903	.907	.912	25,000
	30,000										.885	.889	.894	.898	.902	30,000

### 5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.