GARAGES; EMERGENCY RESPONSE, STAFFED

VERY GOOD CLASS C

GOOD CLASS C

OCCUPANCY DESCRIPTION: This occupancy is used by a full-time fire department. The buildings are designed for engine storage, dormitory and light kitchen facilities. The better quality fire stations are able to serve as a command post for major fire control.

Average quality fire stations are similar to company size fire units in city areas and are also equipped for 24-hour watch.

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

NOT INCLUDED IN COSTS: Sprinklers or hoists.

GARAGES; EMERGENCY RESPONSE, STAFFED

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Good	$277.63	Good metal and glass, concrete, some good stone, good entrance	Fully equipped, kitchen, tile showers, offices, major command post	Good lighting and outlets, good plumbing	Warm and cool air (zoned)
	Average	199.39	Precast concrete, brick, limestone trim, some ornamentation	Kitchen, showers, offices, plaster, acoustic tile, vinyl tile	Adequate lighting and plumbing	Hot water
C	Excellent	267.01	Special design, face brick, stone, architectural concrete, good entrance	Individual sleeping rooms, tile showers/ decontamination room, good offices	Best lighting and outlets, good plumbing and kitchen	Warm and cool air (zoned)
	Very good	222.99	Face brick, stone, architectural concrete, good entrance	Fully equipped, kitchen, tile showers, offices, major command post	Good lighting and outlets, good plumbing	Heat pump system
	Good	183.56	Face brick, stone, metal and glass, ornamental trim	Kitchen, showers, offices, plaster, acoustic tile, vinyl tile	Good lighting and outlets, good plumbing	Package A.C.
	Average	128.17	Brick, block, concrete, some ornamentation	Small living and administrative areas, drywall and asphalt tile	Adequate lighting and plumbing	Forced air
	Low cost	84.10	Brick, block, tilt-up, very plain	Minimum watch type or emergency medical service, small finished areas	Minimum lighting and plumbing	Wall furnace
D	Excellent	259.68	Special design, face brick or stone veneer, good entrance	Individual sleeping rooms, tile showers/ decontamination room, good offices	Best lighting and outlets, good plumbing and kitchen	Warm and cool air (zoned)
	Very good	214.79	Face brick or stone veneer, good entrance	Fully equipped, kitchen, tile showers, offices, major command post	Good lighting and outlets, good plumbing	Heat pump system
	Good	175.01	Brick veneer, best stucco or siding with good trim	Kitchen, showers, offices, drywall or plaster, vinyl tile	Good lighting and plumbing	Package A.C.
	Average	119.85	Brick veneer, good stucco or siding with brick trim	Drywall and acoustic tile, small living and administrative areas	Adequate lighting and plumbing	Forced air
	Low cost	76.68	Stucco or siding, little trim	Drywall, small finished areas, minimum watch type or EMS	Minimum lighting and plumbing	Wall furnace
D POLE	Average	100.72	Pole frame, good metal panels, finished inside, little trim	Drywall and acoustic tile, some living and office area	Adequate lighting and plumbing	Forced air
	Low cost	63.78	Pole frame, metal siding, some interior finish and insulation	Minimum watch type, drywall, small finished areas	Minimum lighting and plumbing	Wall furnace
S	Good	152.47	Good sandwich panels, good entrance and trim	Kitchen, showers, offices, paneling, acoustic tile, carpet, vinyl tile	Good lighting and outlets, good plumbing	Package A.C.
	Average	105.49	Sandwich panels, or finished interior, some ornamentation	Drywall and acoustic tile, some living and office area	Adequate lighting and plumbing	Forced air
	Low cost	67.58	Metal exterior, some interior finish and insulation	Minimum watch type, drywall, small finished areas	Minimum lighting and plumbing	Wall furnace

GARAGES; EMERGENCY RESPONSE, STAFFED

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

1

TRAINING TOWERS: Masonry towers or burn structures cost $10.30 to $17.40 per cubic foot of tower structure. For structures with thermal insulated tiles, add 45%.

SPRINKLERS: Apply to area covered by sprinklers.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
1,000	$4.59	$5.97	$7.78	$10.12
2,000	3.98	5.13	6.61	8.51
5,000	3.57	4.57	5.84	7.46
10,000	3.20	4.07	5.16	6.55
15,000	3.01	3.80	4.80	6.06
20,000	2.88	3.62	4.56	5.74
30,000	2.70	3.38	4.24	5.32
50,000	2.49	3.11	3.87	4.83

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.

HEATING ONLY	Sq. Ft. Costs
Electric cable or baseboard	$11.90
Electric wall heaters	3.55
Forced air furnace	13.30
Hot water	20.60
Space heaters, with fan	4.38
radiant	5.05
Steam (including boiler)	19.40
without boiler	17.80
Wall or floor furnace	3.89

HEATING & COOLING	Sq. Ft. Costs
Package A.C. (short ductwork)	$18.90
Warm and cool air (zoned)	30.75
Hot/chilled water (zoned)	43.00
Heat pump system	25.75

Small indiv. heat pumps cost $1,790 to $2,390 per ton of rated capacity.

COOLING ONLY	Sq. Ft. Costs
Central refrigeration (zoned)	$14.60
package (short ductwork)	10.30
Central evaporative	5.65
Pkg. refrig. . $2,030 to $2,625 per ton capacity	
Evap. coolers . $295 to $515 per MCFM capacity	

VENTILATION ONLY

Vent. (blowers/ducts)	$3.49

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
8	.900	14	1.046
10	.953	16	1.092
12	1.000 (base)	18	1.138

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER 125	150	175	200	250	300	400	500	600	700	800	1000	1200	1600	Average Floor Area Sq. Ft./Story
1,000	1.168	1.235	1.299	1.364	1.494	1.624	1.884	-----	-----	-----	-----	-----	-----	-----	**1,000**
2,000	1.007	1.040	1.072	1.105	1.168	1.235	1.364	-----	-----	-----	-----	-----	-----	-----	**2,000**
4,000	-----	-----	.958	.975	1.007	1.040	1.105	1.168	-----	-----	-----	-----	-----	-----	**4,000**
5,000	-----	-----	.936	.949	.975	1.000	1.052	1.105	1.155	-----	-----	-----	-----	-----	**5,000**
8,000	-----	-----	-----	-----	.926	.942	.975	1.007	1.040	1.072	1.105	-----	-----	-----	**8,000**
10,000	-----	-----	-----	-----	.910	.923	.949	.975	1.000	1.027	1.052	1.105	1.155	-----	**10,000**
14,000	-----	-----	-----	-----	-----	.900	.920	.938	.956	.975	.993	1.030	1.067	1.140	**14,000**
20,000	-----	-----	-----	-----	-----	-----	-----	.910	.923	.936	.949	.975	1.000	1.052	**20,000**
25,000	-----	-----	-----	-----	-----	-----	-----	.897	.908	.918	.928	.948	.969	1.011	**25,000**
30,000	-----	-----	-----	-----	-----	-----	-----	-----	.897	.906	.915	.932	.949	.983	**30,000**
40,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.890	.897	.910	.923	.949	**40,000**
50,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	.887	.897	.908	.928	**50,000**

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

GARAGES: EMERGENCY RESPONSE, VOLUNTEER

GOOD CLASS S

AVERAGE CLASS C

OCCUPANCY DESCRIPTION: Emergency Response Garages typically include vehicle storage, small offices, a classroom and minimal plumbing. They have only partially finished floors and ceilings. Better than average garages may have kitchenettes, drywall and acoustical tile.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Elevators are included in costs designated with an asterisk (*).

NOT INCLUDED IN COSTS: Sprinklers or hoists.

GARAGES: EMERGENCY RESPONSE, VOLUNTEER

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Average	116.78	Brick, ornamented block, concrete, some ornamentation	Office, classroom, kitchenette, drywall and acoustic tile	Good lighting, adequate plumbing and restrooms	Package A.C.
	Low cost	92.07	Brick, block, tilt-up, some trim	Painted walls, few small offices, some finished floor and ceiling	Adequate electrical, minimum plumbing	Forced air
C	Good	101.02	Brick, ornamented block, concrete, some trim	Office, classroom, kitchenette, drywall and acoustic tile	Good lighting, adequate plumbing and restrooms	Forced air
	Average	70.05	Brick, block, tilt-up, wall bearing or frame	Painted walls, few small offices, some finished floor and ceiling	Adequate electrical, minimum plumbing	Space heaters
	Low cost	53.59	Block, cheap brick, tilt-up, light shell structure	Some partitions, little finish, minimum garage type	Minimum electrical and water	Space heaters
D	Good	93.84	Brick veneer, good stucco or siding with brick trim	Office, classroom, kitchenette, drywall and acoustic tile	Good lighting, adequate plumbing and restrooms	Forced air
	Average	64.31	Studs or light frame, siding or stucco, some trim or veneer	Few small offices, some finished floor and ceiling	Adequate electrical, minimum plumbing	Space heaters
	Low cost	48.97	Cheap frame, stucco or siding, very plain	Minimum apparatus facility, few partitions, little finish	Minimum electrical and water	Space heaters
D POLE	Average	57.36	Pole frame and truss, metal siding, lined, insulated	Small finished offices, some drywall, vinyl composition	Adequate electrical, minimum plumbing	Space heaters
	Low cost	42.84	Pole frame, metal, primarily exp.	Some partitions, finish, garage type	Minimum electrical and water	Space heaters
S	Good	90.51	Sandwich panels, or finished interior, some trim	Office, classroom, kitchenette, drywall and acoustic tile	Good lighting, adequate outlets, plumbing, restrooms	Forced air
	Average	61.04	Single wall, some interior finish and insulation	Small finished offices, some drywall, vinyl composition	Adequate electrical, minimum plumbing	Space heaters
	Low cost	46.00	Metal on light frame, primarily exposed	Some partitions, little finish, minimum apparatus facility	Minimum electrical and water	Space heaters

GARAGES: EMERGENCY RESPONSE, VOLUNTEER

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

1

TRAINING TOWERS: Masonry towers or burn structures cost $10.30 to $17.40 per cubic foot of tower structure. For structures with thermal insulated tiles, add 45%.

SPRINKLERS: Apply to area covered by sprinklers.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
1,000	$4.59	$5.97	$7.78	$10.12
2,000	3.98	5.13	6.61	8.51
5,000	3.57	4.57	5.84	7.46
10,000	3.20	4.07	5.16	6.55
15,000	3.01	3.80	4.80	6.06
20,000	2.88	3.62	4.56	5.74
30,000	2.70	3.38	4.24	5.32
50,000	2.49	3.11	3.87	4.83

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.

HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. Costs
Electric cable or baseboard . .	$11.90	Package A.C. (short ductwork)	$18.90	Central refrigeration (zoned)	$14.60
Electric wall heaters	3.55	Warm and cool air (zoned)	30.75	package (short ductwork)	10.30
Forced air furnace	13.30	Hot/chilled water (zoned)	43.00	Central evaporative	5.65
Hot water	20.60	Heat pump system	25.75	Pkg. refrig. . $2,030 to $2,625 per ton capacity	
Space heaters, with fan	4.38			Evap. coolers . $295 to $515 per MCFM capacity	
radiant	5.05				
Steam (including boiler)	19.40				
without boiler	17.80	Small indiv. heat pumps cost $1,790 to $2,390		**VENTILATION ONLY**	
Wall or floor furnace	3.89	per ton of rated capacity.		Vent. (blowers/ducts)	$3.49

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
8	.900	14	1.046
10	.953	16	1.092
12	1.000 (base)	18	1.138

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER 125	150	175	200	250	300	400	500	600	700	800	1000	1200	1600	Average Floor Area Sq. Ft./Story
1,000	1.168	1.235	1.299	1.364	1.494	1.624	1.884	-----	-----	-----	-----	-----	-----	-----	**1,000**
2,000	1.007	1.040	1.072	1.105	1.168	1.235	1.364	-----	-----	-----	-----	-----	-----	-----	**2,000**
4,000	-----	-----	.958	.975	1.007	1.040	1.105	1.168	-----	-----	-----	-----	-----	-----	**4,000**
5,000	-----	-----	.936	.949	.975	1.000	1.052	1.105	1.155	-----	-----	-----	-----	-----	**5,000**
8,000	-----	-----	-----	-----	.926	.942	.975	1.007	1.040	1.072	1.105	-----	-----	-----	**8,000**
10,000	-----	-----	-----	-----	.910	.923	.949	.975	1.000	1.027	1.052	1.105	1.155	-----	**10,000**
14,000	-----	-----	-----	-----	-----	.900	.920	.938	.956	.975	.993	1.030	1.067	1.140	**14,000**
20,000	-----	-----	-----	-----	-----	-----	-----	.910	.923	.936	.949	.975	1.000	1.052	**20,000**
25,000	-----	-----	-----	-----	-----	-----	-----	.897	.908	.918	.928	.948	.969	1.011	**25,000**
30,000	-----	-----	-----	-----	-----	-----	-----	-----	.897	.906	.915	.932	.949	.983	**30,000**
40,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.890	.897	.910	.923	.949	**40,000**
50,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	.887	.897	.908	.928	**50,000**

5 **USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.**

GARAGES: MINI-LUBE AND SERVICE/REPAIR SHEDS

GOOD CLASS C

LOW CLASS C

OCCUPANCY DESCRIPTION: Mini-lube garages are designed for quick-maintenance lube and oil changes and may have drive-thru bays. There is usually adequate lighting and adequate plumbing using commercial plumbing fixtures. The floor is concrete, with office areas having resilient floor covering. The size or amount of office area is commensurate with the overall quality. Exterior walls generally have some large openings for overhead doors and minimal fenestration.

Service garages/repair sheds are buildings designed primarily for vehicular repair and maintenance. They are characterized by their low-cost, open fronts (no doors), unfinished interiors, concrete or asphalt floors, with adequate lighting and outlets. These buildings are typically found in car dealerships and large fleet operations.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Sufficient heating to protect materials and personnel from freezing. Some shop cabinets and work space are included in the better-quality service/repair sheds.

NOT INCLUDED IN COSTS: Sprinklers, hoists or service equipment.

GARAGE – MINI-LUBE

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
C	Excellent	166.89	Best block, entry, 20% or more finished sales area	Good store type finish in sales, good lobby, waiting room, restrooms	Good retail illumination, good garage in balance	Package A.C.
	Good	127.26	Good ornamental block and parapet, storefront lobby	Good drywall, acoustic tile, pavers, vinyl comp. tile, carpet, good office/waiting room	Good lighting and plumbing, service outlets	Forced air
	Average	97.99	Masonry bearing walls or frame, roll-up doors	Painted walls, slab, some partitions, floor and ceiling finish, waiting area	Adequate lighting and plumbing, service outlets	Space heaters
	Low cost	77.80	Block, cheap brick, tilt-up, light construction	Painted wall, slab, few partitions, small office area	Minimum lighting and plumbing, service outlets	Space heaters
D	Excellent	160.57	Best masonry veneer, entry, 20% or more finished sales area	Good store type finish in sales, good lobby, waiting room, restrooms	Good retail illumination, good garage in balance	Package A.C.
	Good	121.56	Good masonry veneer, EIFS, decorative parapet, storefront lobby	Good drywall, acoustic tile, pavers, vinyl comp. tile, carpet, good office/waiting room	Good lighting and plumbing, service outlets	Forced air
	Average	92.94	Frame and stucco, siding, masonry veneer, some trim, roll-up doors	Some gypsum walls and ceiling, slab, some finished floor, waiting area	Adequate lighting and plumbing, service outlets	Space heaters
	Low cost	73.37	Stucco or siding on wood or steel	Some gypsum walls and ceiling, slab, small office area	Minimum lighting and plumbing, service outlets	Space heaters
S	Average	93.29	Pre-engineered, steel studs or frame, good panels, roll-up doors	Some gypsum walls, acoustic tile, slab, some finished floor, waiting area	Adequate lighting and plumbing, service outlets	Space heaters
	Low cost	74.17	Pre-engineered frame, metal siding	Some gypsum walls, acoustic tile, slab, small office area	Minimum lighting and plumbing, service outlets	Space heaters
CDS	Average basement	31.03	Reinforced concrete or block, unfinished interior	Unfinished, storage areas, some partitions, service walkways	Minimum lighting and plumbing, drains	None

SERVICE/REPAIR SHED†

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
C	Good	$35.51	Open front, block or low-cost brick, good roof	Unfinished, concrete floor, shop area and cabinets	Good lighting and outlets, adequate plumbing	Space heaters
	Average	24.17	Open front, tilt-up, block, steel or wood truss, average cover	Unfinished, concrete or asphalt floor, some cabinets, work area	Adequate electrical and water service and outlets	None
	Low cost	18.27	End walls only, concrete block, shed or flat roof	Unfinished, concrete or asphalt floor	Adequate electrical and water service and outlets	None
D POLE	Good	28.28	Open front, good metal siding on pole frame	Unfinished, concrete floor, shop area and cabinets	Good lighting and outlets, adequate plumbing	Space heaters
	Average	19.00	Open front, metal or board on light pole frame	Unfinished, concrete or asphalt floor, some cabinets, work area	Adequate electrical and water service and outlets	None
	Low cost	14.59	End walls only, low-cost siding on wood pole frame	Unfinished, concrete or asphalt floor	Adequate electrical and water service and outlets	None
S	Good	31.68	Open front, good metal and steel frame	Unfinished, concrete floor, shop area and cabinets	Good lighting and outlets, adequate plumbing	Space heaters
	Average	21.60	Open front, enameled siding on light frame	Unfinished, concrete or asphalt floor, some cabinets, work area	Adequate electrical and water service and outlets	None
	Low cost	16.59	End walls only, low-cost siding on steel frame	Unfinished, concrete or asphalt floor	Adequate electrical and water service and outlets	None

†**NOTE:** Use total length of walled sides as the perimeter in the floor area/perimeter table. For repair buildings, see Page CAL 88.

GARAGES: MINI-LUBE AND SERVICE/REPAIR SHEDS

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

1

HOISTS: Automobile hoists cost $8,700 to $13,500 each.
Truck hoists, $11,800 to $22,500. See Section UIP 14 for greater detail.

Walk in service pits cost $2,390 to $5,100 per bay.

SPRINKLERS: Apply to area covered by sprinklers.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
1,000	$3.65	$4.92	$6.64	$8.95
2,000	3.18	4.24	5.66	7.55
5,000	2.86	3.79	5.01	6.63
10,000	2.58	3.38	4.44	5.82

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.

HEATING ONLY	Sq. Ft. Costs
Electric cable or baseboard	$ 6.21
Electric wall heaters	2.53
Forced air furnace	7.01
Hot water, baseboard/convector	12.40
Space heaters, with fan	3.54
radiant	3.96
Steam (including boiler)	10.80
without boiler	9.42

HEATING & COOLING	Sq. Ft. Costs
Package A.C. (short ductwork)	$13.65
Warm and cool air (zoned)	18.65
Hot/chilled water (zoned)	31.25
Heat pump system	17.10

Small indiv. heat pumps cost $1,600 to $2,160 per ton of rated capacity.

COOLING ONLY	Sq. Ft. Costs
Central refrigeration (zoned)	$11.50
package (short ductwork)	7.63
Central evaporative	4.77
Pkg. refrig.	$1,660 to $2,180 per ton capacity
Evap. coolers	$235 to $385 per MCFM capacity

VENTILATION ONLY

Vent. (blowers/ducts)	$2.04

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
10	.921	18	1.086
12	.960	20	1.133
14	1.000 (base)	22	1.181
16	1.041	24	1.231

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER 100	125	150	175	200	250	300	350	400	450	500	600	700	800	Average Floor Area Sq. Ft./Story
1,000	1.252	1.360	1.468	1.576	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	**1,000**
1,500	1.112	1.182	1.252	1.323	1.395	-----	-----	-----	-----	-----	-----	-----	-----	-----	**1,500**
2,000	-----	1.095	1.147	1.199	1.252	1.360	-----	-----	-----	-----	-----	-----	-----	-----	**2,000**
2,500	-----	-----	1.083	1.125	1.168	1.252	1.340	1.430	-----	-----	-----	-----	-----	-----	**2,500**
3,000	-----	-----	-----	1.077	1.112	1.182	1.252	1.323	1.395	-----	-----	-----	-----	-----	**3,000**
4,000	-----	-----	-----	1.013	1.040	1.094	1.147	1.199	1.252	1.306	-----	-----	-----	-----	**4,000**
5,000	-----	-----	-----	-----	.996	1.040	1.083	1.125	1.168	1.210	1.252	-----	-----	-----	**5,000**
6,000	-----	-----	-----	-----	-----	1.004	1.040	1.077	1.112	1.147	1.182	1.252	-----	-----	**6,000**
7,000	-----	-----	-----	-----	-----	-----	1.008	1.040	1.071	1.102	1.132	1.192	1.252	-----	**7,000**
8,000	-----	-----	-----	-----	-----	-----	.984	1.013	1.040	1.068	1.094	1.147	1.199	1.252	**8,000**
10,000	-----	-----	-----	-----	-----	-----	-----	.972	.996	1.019	1.040	1.083	1.125	1.168	**10,000**
12,000	-----	-----	-----	-----	-----	-----	-----	-----	.965	.984	1.003	1.040	1.077	1.112	**12,000**

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

GARAGES – PARKING LEVELS

GOOD CLASS B PARKING LEVEL

OCCUPANCY DESCRIPTION: The intermediate and ground level parking levels are found underneath elevated buildings and include all framing, ramps and stairs necessary.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Elevators are included in costs designated with an asterisk (*).

NOT INCLUDED IN COSTS: Sprinklers, landscaping on roof of belowgrade structures, ticketing equipment or hoists.

PARKING LEVELS (INTERMEDIATE/UNDER BUILDING)

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Excellent	$104.97	Best curtain wall panels, matching spandrel & louvers, fully encl.	Unfinished except good office, service and lobby areas	*Reading level lighting, restrooms and service plumbing	Ventilation
	Good	80.75	Good curtain panels, masonry, partial louvers, natural vent.	Concrete with hardener, lines and stops, small office, few extras	*Adequate lighting and drains	None
	Average	64.32	Partial walls, brick, concrete, metal panels, some trim/louvers	Unfinished, concrete floor, lines, low cost elevator lobbies	*Low level lighting, drains	None
	Low cost†	49.38	Under building, grade level only, blind wall panels, some trim, gates	Concrete paving, lines and stops, plaster soffit; entrance lobby vestibule not included	Low level lighting, drains	None
	Cheap†	31.59	Under building, grade level only, no walls, covered columns	Asphalt paving, lines, painted soffit; lobby/vestibule not included	Minimum lighting, drains	None
CDS	Good	67.31	Good panels, masonry, partial louvers, open ventilation	Concrete with hardener, lines and stops, few extras	*Adequate lighting and drains	None
	Average	52.55	Partial walls, brick, masonry or stucco panels, some trim/louvers	Unfinished, concrete floor, lines, low cost elevator lobbies	*Low level lighting, drains	None
	Low cost†	39.43	Under building, grade level only, some blind walls, trim and gates	Concrete or asphalt, lines, plaster soffit; vestible entry not included	Low level lighting, drains	None
	Cheap†	24.03	Under building, grade level only, open, no walls, exposed columns	Asphalt paving, lines, finished building soffit; lobby not included	Minimum lighting, drains	None

†Ground-level vestibule entry lobbies for elevated buildings must be added separately. See Page CAL 232.

GARAGES – PARKING LEVELS

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: Buildings whose base costs include service elevators are marked with an asterisk (*). If the building under consideration has no elevators, deduct the following from the base costs so marked. For detailed costs, see Section UIP 8.

Classes A/B	Sq. Ft. Costs	Classes C/D/S	Sq. Ft. Costs
Good	$3.85	Good	$2.25
Average	3.10	Average	1.95
Low cost	2.45		

NOTE: Do not use floor area/perimeter multipliers with open grade level parking under elevated buildings.

SPRINKLERS: Apply to area covered by sprinklers.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
1,000	$4.59	$5.97	$7.78	$10.12
2,500	3.98	5.13	6.61	8.51
5,000	3.57	4.57	5.84	7.46
10,000	3.20	4.07	5.16	6.55
15,000	3.01	3.80	4.80	6.06
20,000	2.88	3.62	4.56	5.74
30,000	2.70	3.38	4.24	5.32
50,000	2.49	3.11	3.87	4.83

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.

HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. Costs
Electric cable or baseboard	$11.90	Package A.C. (short ductwork)	$18.90	Central refrigeration (zoned)	$14.60
Electric wall heaters	3.55	Warm and cool air (zoned)	30.75	package (short ductwork)	10.30
Forced air furnace	13.30	Hot/chilled water (zoned)	43.00	Central evaporative	5.65
Hot water	20.60	Heat pump system	25.75	Pkg. refrig.	$2,030 to $2,625 per ton capacity
Space heaters, with fan	4.38			Evap. coolers	$295 to $515 per MCFM capacity
radiant	5.05				
Steam (including boiler)	19.40				
without boiler	17.80	Small indiv. heat pumps cost $1,790 to $2,390 per ton of rated capacity.		**VENTILATION ONLY**	
Wall or floor furnace	3.89			Vent. (blowers/ducts)	$3.49

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
8	.900	13	1.023
9	.928	14	1.046
10	.953	15	1.069
11	.977	16	1.092
12	1.000 (base)	20	1.184

4

Average Floor Area	AVERAGE PERIMETER														Average Floor Area
Sq.Ft./Story	125	150	200	250	300	400	500	600	700	800	1000	1200	1400	1600	Sq. Ft./Story
1,000	1.168	1.235	1.364	1.494	1.624	1.884	-----	-----	-----	-----	-----	-----	-----	-----	**1,000**
3,000	-----	.975	1.018	1.061	1.105	1.191	-----	-----	-----	-----	-----	-----	-----	-----	**3,000**
5,000	-----	-----	.949	.975	1.000	1.052	1.105	1.155	-----	-----	-----	-----	-----	-----	**5,000**
8,000	-----	-----	-----	.926	.942	.975	1.007	1.040	1.072	1.105	-----	-----	-----	-----	**8,000**
10,000	-----	-----	-----	.910	.923	.949	.975	1.000	1.027	1.052	1.105	1.155	-----	-----	**10,000**
14,000	-----	-----	-----	-----	.900	.920	.938	.956	.975	.993	1.030	1.067	1.105	1.140	**14,000**
20,000	-----	-----	-----	-----	-----	-----	.910	.923	.936	.949	.975	1.000	1.027	1.052	**20,000**
25,000	-----	-----	-----	-----	-----	-----	.897	.908	.918	.928	.948	.969	.990	1.011	**25,000**
30,000	-----	-----	-----	-----	-----	-----	-----	.897	.906	.915	.932	.949	.965	.983	**30,000**
50,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.887	.897	.908	.918	.928	**50,000**

5 **USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.**

GARAGES – PARKING STRUCTURES

GOOD CLASS B PARKING STRUCTURE

GOOD CLASS B PARKING STRUCTURE

OCCUPANCY DESCRIPTION: Built above and below grade, these structures are designed for live-load storage of autos. Independent above grade structures commonly have either no exterior walls or partial exterior walls. The independent above grade structure is priced by the number of stories and will always have one more level (ground or roof) of parking than stories, while the underground structure will have a load bearing roof for a park or plaza at grade level. While the lower quality structures do not have office area, the better qualities have some small office and service areas. There is low level lighting and adequate plumbing for restrooms and service areas.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Elevators are included in costs designated with an asterisk (*).

NOT INCLUDED IN COSTS: Sprinklers, landscaping on roof of below grade structures, ticketing equipment or hoists.

ABOVE GROUND STRUCTURES

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A	Good	$72.55	Partial walls, brick or concrete, ornamentation	Unfinished, except good office and service area	*Reading-level lighting, restrooms and service plumbing	None
	Average	55.76	Partial walls, brick, block, concrete, little trim	Unfinished, small office and service area	*Low-level lighting, drains, minimum restroom for office	None
B	Good	67.28	Partial walls, brick or concrete, ornamentation	Unfinished, except good office and service area	*Reading-level lighting, restrooms and service plumbing	None
	Average	52.23	Partial walls, brick, block, concrete, plain finish	Unfinished, small office and service area	*Low-level lighting, drains, minimum restroom for office	None
	Low cost	40.72	Low parapets, precast frame and floors, minimum finish	Unfinished, minimum extras	*Minimum lighting and plumbing	None
S	Low cost	38.74	Demountable type, exposed steel frame	Unfinished, some masonry shear walls, minimum extras	Low-level lighting, drains, minimum personnel plumbing	None
	Cheap	30.40	Demountable type, exposed steel frame, cable rails	Unfinished, no extras	Minimum lighting, drains only	None

UNDERGROUND STRUCTURES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Average	$97.32	Unfinished concrete, waterproofed walls and load-bearing roof at grade level	Unfinished, some office and service areas	Good lighting, restrooms and service plumbing	Package A.C.

†Ground-level vestibule entry lobbies for elevated buildings must be added separately. See Page CAL 232.

GARAGES – PARKING STRUCTURES

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: Buildings whose base costs include service elevators are marked with an asterisk (*). If the building under consideration has no elevators, deduct the following from the base costs so marked. For detailed costs, see Section UIP 8.

Classes A/B	Sq. Ft. Costs
Good	$2.66
Average	1.78
Low cost	1.30

SPRINKLERS: Apply to area covered by sprinklers.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
5,000	$2.86	$3.79	$5.01	$6.63
10,000	2.58	3.38	4.44	5.82
15,000	2.42	3.16	4.13	5.40
20,000	2.32	3.02	3.93	5.11
30,000	2.18	2.83	3.66	4.74
50,000	2.02	2.60	3.35	4.31
80,000	1.88	2.41	3.08	3.95
100,000	1.82	2.32	2.96	3.79
150,000	1.71	2.17	2.76	3.51
200,000	1.64	2.07	2.63	3.33
250,000	1.58	2.00	2.53	3.19
400,000	1.47	1.85	2.33	2.92

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.

HEATING ONLY	Sq. Ft. Costs
Electric cable or baseboard	$ 6.21
Electric wall heaters	2.53
Forced air furnace	7.01
Hot water, baseboard/convector	12.40
Space heaters, with fan	3.54
radiant	3.96
Steam (including boiler)	10.80
without boiler	9.42

HEATING & COOLING	Sq. Ft. Costs
Package A.C. (short ductwork)	$13.65
Warm and cool air (zoned)	18.65
Hot/chilled water (zoned)	31.25
Heat pump system	17.10

Small indiv. heat pumps cost $1,600 to $2,160 per ton of rated capacity.

COOLING ONLY	Sq. Ft. Costs
Central refrigeration (zoned)	$11.50
package (short ductwork)	7.63
Central evaporative	4.77

Pkg. refrig. . $1,660 to $2,180 per ton capacity
Evap. coolers . . $235 to $385 per MCFM capacity

VENTILATION ONLY

Vent. (blowers/ducts) $2.04

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
8	.885	14	1.000 (base)
10	.921	16	1.041
12	.960	18	1.086

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER 250	300	350	400	450	500	600	700	800	900	1000	1200	1500	2000	Average Floor Area Sq. Ft./Story
5,000	1.040	1.083	1.125	1.168	1.210	1.252	-----	-----	-----	-----	-----	-----	-----	-----	**5,000**
10,000	-----	-----	.972	.996	1.019	1.040	1.083	1.125	1.168	1.210	-----	-----	-----	-----	**10,000**
14,000	-----	-----	-----	.945	.961	.977	1.008	1.040	1.071	1.102	1.132	-----	-----	-----	**14,000**
20,000	-----	-----	-----	-----	-----	.926	.949	.972	.996	1.019	1.040	1.083	-----	-----	**20,000**
25,000	-----	-----	-----	-----	-----	.907	.924	.942	.959	.977	.996	1.032	-----	-----	**25,000**
30,000	-----	-----	-----	-----	-----	-----	.907	.921	.935	.949	.965	.995	1.040	-----	**30,000**
40,000	-----	-----	-----	-----	-----	-----	-----	.899	.907	.916	.926	.949	.984	-----	**40,000**
50,000	-----	-----	-----	-----	-----	-----	-----	-----	.891	.898	.907	.924	.950	.996	**50,000**
60,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.889	.895	.907	.928	.965	**60,000**
70,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.877	.884	.896	.913	.945	**70,000**
80,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.869	.875	.887	.903	.926	**80,000**
100,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	.863	.872	.887	.907	**100,000**

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

GARAGES – RESIDENTIAL

GOOD CLASS D

LOW COST D-POLE

Occupancy Description:

For attached garages, deduct the cost of the common wall. For built-in garages, deduct the cost of the common wall and the roof cost. For open carports use roof and wall costs as required, add supports from Section UIP 1. Costs do not include interior finish or electric door operators, except as specifically mentioned; add from Sections UIP 2 and UIP 5 if necessary.

CLASS	TYPE	COST PER SQUARE FOOT						WALL COST (Lin. Ft.)	ROOF COST (Sq. Ft.)	DESCRIPTION
		200 Sq. Ft.	400 Sq. Ft.	600 Sq. Ft.	800 Sq. Ft.	1,000 Sq. Ft.	1,400 Sq. Ft.			
C	Excellent	$104.21	$78.06	$70.04	$65.65	$61.59	$57.12	$18.79	$244.73	Face brick or cut stone walls, heavy roof, slate, tile, lightweight concrete, heavy reinforced slab, plaster interior, good windows and lighting
	Very good	88.50	65.82	59.05	54.98	51.90	47.84	15.66	210.05	Good brick, adobe stone, heavy roof structure, tile heavy shake, finished interior, good overhead & pedestrian doors, good windows/lighting
	Good	70.58	51.96	46.58	43.55	41.12	37.29	12.99	174.21	Brick, ornamental block, adobe, good roof structure and roofing, good reinforced slab, overhead door, window, pedestrian door, good lighting
	Average	52.60	38.33	34.26	31.84	30.04	27.02	8.99	129.79	8" brick or block, 2 x 4 rafters, gable roof, wood or good asphalt shingles, reinforced slab, overhead door, window, pedestrian door, lighting
	Low cost	39.67	28.42	25.52	23.49	22.21	19.89	6.15	96.79	Concrete block, low cost brick, structural tile, asphalt shingles or composition roofing, unreinforced slab, low cost overhead or hinged doors
D MASONRY VENEER	Excellent	98.38	74.35	67.10	62.94	58.90	54.81	18.44	225.18	Best face brick or cut stone veneer, heavy roof, slate, tile, good reinforced slab, plaster interior, good windows and lighting
	Very good	83.74	62.71	56.55	52.85	49.85	45.99	15.39	194.69	Good brick or stone veneer, heavy roof structure, tile, heavy shake, finished interior, good overhead and pedestrian doors, good windows and lighting
	Good	66.86	49.85	44.95	41.96	39.59	35.96	12.74	162.36	Face brick veneer, good roof, shakes, tile, etc., reinforced slab, good overhead doors, good windows, pedestrian door, good lighting
	Average	50.14	36.77	33.40	30.72	28.99	26.05	8.70	122.88	Brick veneer, 2 x 4 rafters, gable roof, wood or good asphalt shingles, reinforced slab, overhead door, window, pedestrian door, lighting
	Low cost	38.21	27.38	24.65	22.71	21.56	19.25	6.05	92.96	Low cost brick or block veneer, composition or asphalt shingle roof, unreinforced slab, low cost overhead or hinged doors, one window or light
D	Excellent	83.05	64.72	59.31	56.19	52.10	48.76	18.33	168.35	Best stucco, stone or brick trim, heavy rafters or steep roof, heavy slab, finished interior, good doors, good lighting and windows
	Very good	71.24	55.10	50.20	47.43	44.26	41.09	15.27	146.22	Good sidings, stone trim, heavy roof, tile, heavy shake, finished interior, good overhead and pedestrian doors, good fenestration and lighting
	Good	55.96	43.00	39.37	37.06	34.70	32.04	12.62	120.80	Good stucco or siding, good roof, shakes, tile, etc., reinforced slab, good overhead doors, good windows, pedestrian door, good lighting
	Average	42.25	31.76	29.03	27.09	25.70	23.40	8.65	92.79	Stucco or siding, 2 x 4 rafters, gable roof, wood or good asphalt shingles, reinforced slab, overhead door, window, pedestrian door, lighting
	Low cost	32.22	23.86	21.59	20.17	19.25	17.23	5.94	71.29	Low cost stucco or siding, light studs, composition or asphalt shingle roof, unreinforced slab, low cost overhead or hinged door, one window or light
	Cheap	25.59	18.39	16.60	15.33	-----	-----	5.48	60.23	Cheap siding, vertical boards, hardboard, no floor, windows or lighting
D POLE	Low cost	26.22	20.11	18.10	17.00	-----	-----	4.32	50.60	Single wall, enameled metal on wood pole frame, concrete slab
S	Average	48.02	36.30	33.65	31.15	29.78	-----	8.80	111.06	Insulated sandwich panels on pre-engineered frame, reinforced slab, pedestrian door, windows, electric light and outlet
	Low cost	28.52	21.72	19.65	18.41	-----	-----	4.63	56.93	Single wall, enameled metal on low cost pre-engineered frame, concrete slab

NOTE: Residential-type garages usually found with single-family residences should be priced from Volume I.

GARAGES – RESIDENTIAL

MULTIPLE GARAGES OR CARPORTS

Costs per square foot include back wall, end wall and roof with necessary supports and girders. Add $550 to $955 per single space for doors. Average and Good costs include lockers and partitions commensurate with the quality. Concrete floors included: deduct $1.38 to $2.08 for asphalt. Open carport covers with concrete floors will cost $8.67 to $17.30 per square foot.

SQUARE FOOT COST TABLE

CLASS	QUALITY	4-CAR	8-CAR	12-CAR	16-CAR	20-CAR
C-D MASONRY VENEER	Good	$35.97	$32.99	$31.53	$31.30	$31.12
	Average	27.74	25.34	24.35	24.00	23.77
	Low cost	21.49	19.45	18.63	18.45	18.22
D	Good	30.34	28.28	27.46	27.11	26.75
	Average	22.34	20.70	20.05	19.82	19.58
	Low cost	16.46	15.11	14.70	14.46	14.35

BASEMENT GARAGES

Lump sums to be added to the total basement costs, including garage finish.

	SINGLE	DOUBLE	3-CAR
Unfinished basements	$1,910.00 – $2,725.00	$2,525.00 – $3,875.00	$3,575.00 – $5,250.00
Finished basements	1,500.00 – 2,140.00	1,790.00 – 2,550.00	2,220.00 – 3,300.00

BUILT-IN GARAGES FOR TOWN HOUSES

Costs per square foot of garage area, including interior finish.

CLASS	QUALITY	SINGLE		DOUBLE		3-CAR	
		End Unit	Inside	End Unit	Inside	End Unit	Inside
C	Excellent	$58.98	$34.91	$43.96	$33.52	$40.07	$32.42
	Good	45.06	26.68	33.58	25.29	30.45	24.59
	Average	34.27	20.41	25.58	18.96	23.08	18.56
	Low cost	26.21	15.60	19.54	14.27	17.46	14.03
D MASONRY VENEER	Excellent	55.39	33.20	41.90	31.87	38.56	30.77
	Good	42.65	25.53	32.10	24.21	29.40	23.52
	Average	32.86	19.60	24.67	18.15	22.42	17.81
	Low cost	25.30	15.04	18.91	13.77	17.00	13.54
D	Excellent	46.91	29.85	35.91	28.64	33.43	27.66
	Good	36.36	23.00	27.84	21.78	25.82	21.21
	Average	28.17	17.80	21.55	16.59	19.37	16.22
	Low cost	21.90	13.83	16.77	12.68	15.39	12.50

NOTE: Residential-type garages usually found with single-family residences should be priced from Volume I.

GARAGES – SERVICE STATIONS

AVERAGE/GOOD CLASS S-C SERVICE STATION

AVERAGE CLASS S-C SERVICE STATION

OCCUPANCY DESCRIPTION: Service stations are complete stations, including areas for office storage, sales, restrooms, and lube areas for service bay stations.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Base electric and interior circuits. Sufficient heating to protect materials and personnel from freezing.

NOT INCLUDED IN COSTS: Sprinklers, hoists, compressors, exterior electrical circuits, carwashes, food service or display fixtures, exterior equipment and improvements.

STATIONS WITH SERVICE BAYS

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
S-C	Excellent	$194.80	Best steel or brick, masonry trim, good fenestration, garage doors	Good finish, best workmanship, many built-in features, tire racks, etc.	Six to eight good commercial plumbing fixtures, good electrical	Package A.C.
	Good	153.41	Good steel or brick, sectional doors, good sash, large overhangs	Ranch or suburban style, tiled restrooms, good office	Average commercial fixtures, adequate interior circuits	Space heaters
	Average	127.38	Average painted steel or block, little trim, small overhangs	Present-day station, small office, storage, restrooms	Five to six low-cost commercial plumbing fixtures, standard electrical	Space heaters
	Low cost	105.88	Painted steel, inexpensive sash and doors or gates	Older station, minimum finishes, few built-in items	Four residential-type fixtures, minimum interior electrical	Space heaters
D	Good	125.85	Good sidings, sectional doors, good sash, large overhangs	Ranch or suburban style, tiled restroom, good office	Average commercial fixtures, adequate interior circuits	Space heaters
	Average	105.69	Siding or metal on wood frame, little trim, small overhangs	Present-day station, small office, storage, restrooms	Five to six low-cost commercial plumbing fixtures, std. electrical	Space heaters
	Low cost	88.87	Siding or stucco, inexpensive sash and doors or gates	Older station, minimum finishes, few built-in items	Two to three low-cost fixtures, minimum interior circuits	Space heaters
	Cheap	70.87	Low-cost siding or stucco, cheap sash and gates	Substandard, older station, minimal finishes	Two cheap plumbing fixtures, minimum incandescent lighting	None

PREFABRICATED FOOD BOOTHS

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
S	Good	$248.55	Good enameled prefinished steel, good front, masonry trim	Good acoustic, ceramic tile, security partitioning, walk-in box	Good lighting and outlets, restroom, standard fixtures	Package A.C.
	Average	218.31	Sandwich panels, small front, some trim or mansard	Typical food booth, some extras, adequate support, cooler areas	Adequate electrical, approx. one plumbing fixture each 175 sq. ft.	Package A.C.
	Low cost	191.96	Painted steel panels, low cost sash and fascia	Acoustic tile, vinyl composition, limited partitions, built-in cooler	Minimum display wiring and plumbing	Package A.C.

GARAGES – SERVICE STATIONS

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

1

HOISTS: Automobile hoists cost $8,700 to $13,500 each.
Truck hoists, $11,800 to $22,500. See Section UIP 14 for greater detail.

For cashier booths, gasoline pumps, see Section UIP 14.

CANOPIES: Costs per square foot of covered area including light fixtures and supports. Add 10% for gable or ranch style, 25% for round.
Individually designed or highly ornamented canopies can cost 100% more.

	LOW	AVG.	GOOD	EXCL.
Concrete tees.....	24.95	28.50	34.00	39.75
Steel	21.40	27.50	35.00	44.25
Wood Frame	18.75	23.75	28.75	36.75

SPRINKLERS: Apply to area covered by sprinklers.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
1,000	$3.65	$4.92	$6.64	$8.95
2,000	3.18	4.24	5.66	7.55
5,000	2.86	3.79	5.01	6.63
10,000	2.58	3.38	4.44	5.82

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.

HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. Costs
Electric cable or baseboard	$ 6.21	Package A.C. (short ductwork)	$13.65	Central refrigeration (zoned)	$11.50
Electric wall heaters	2.53	Warm and cool air (zoned)	18.65	package (short ductwork)	7.63
Forced air furnace	7.01	Hot/chilled water (zoned)	31.25	Central evaporative	4.77
Hot water, baseboard/convector	12.40	Heat pump system	17.10	Pkg. refrig.	$1,660 to $2,180 per ton capacity
Space heaters, with fan	3.54			Evap. coolers	$235 to $385 per MCFM capacity
radiant	3.96				
Steam (including boiler)	10.80	Small indiv. heat pumps cost	$1,600 to $2,160	**VENTILATION ONLY**	
without boiler	9.42	per ton of rated capacity.		Vent. (blowers/ducts)	$2.04

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
8	.885	16	1.041
10	.921	18	1.086
12	.960	20	1.133
14	1.000 (base)	22	1.181

4

FLOOR AREA MULTIPLIERS

FLOOR AREA PER UNIT	MULTIPLIER		FLOOR AREA PER UNIT	MULTIPLIER	
Sq. Ft.	Food Booths	Service Bay Stations	Sq. Ft.	Food Booths	Service Bay Stations
400	1.118	1.525	2,600	.891	.812
600	1.064	1.330	2,800	.883	.792
800	1.027	1.207	3,200	.869	.757
1,000	1.000	1.120	3,600	.856	.728
1,200	.978	1.053	4,000	.846	.702
1,400	.960	1.000	4,400	.836	.680
1,600	.945	.956	4,800	.827	.660
1,800	.932	.919	5,200	.819	.642
2,000	.920	.887	5,600	.812	.627
2,200	.909	.859	6,000	.805	-----
2,400	.900	.834	8,000	.775	-----

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

GARAGES – SERVICE/FLEET SERVICE FACILITIES

LOW COST/AVERAGE CLASS S SERVICE

OCCUPANCY DESCRIPTION: Service garages are designed primarily for vehicular repair and maintenance. They are built in all classes of construction and include small office areas with plaster or drywall finish. There is usually good lighting and adequate plumbing using commercial plumbing fixtures. The floor is concrete, with office areas having resilient floor covering. The size or amount of office area is commensurate with the overall quality. Exterior walls generally have some large openings for overhead doors and minimal fenestration.

GOOD CLASS S FLEET SERVICE FACILITY

Fleet service facilities include several subdivisions for offices, stores and shops to support major vehicular maintenance and repair facilities. Exterior walls will have some office fenestration and numerous openings for overhead doors.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Sufficient heating to protect materials and personnel from freezing. Elevators are included in costs designated with an asterisk (*).

NOT INCLUDED IN COSTS: Sprinklers, hoists or service equipment.

GARAGES – SERVICE (REPAIR)

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Average	$ 84.19	Brick, reinforced concrete, good fenestration	Some plaster and glazed surfaces, offices, masonry partitions	*Good level of lighting, adequate plumbing	Space heaters
C	Excellent	109.60	Steel or concrete frame, brick, decorative block or concrete panels	Some good offices and supply rooms	Good electrical, lighting and service outlets, good restrooms	Forced air
	Good	76.92	Steel, concrete or glulam frame, masonry curtain or bearing walls	Finished office, painted walls, some partitions	Adequate lighting and service outlets, adequate restrooms	Space heaters
	Average	56.07	Masonry bearing walls with pilasters, light trusses	Unfinished, small finished office area, some supply area	Adequate lighting and service outlets, small restroom	Space heaters
	Low cost	41.19	Light masonry bearing walls, light rafters	Unfinished, small partitioned office area, concrete floor	Minimum electrical and plumbing	Space heaters
D	Good	67.78	Wood frame, good siding, brick veneer, or stucco & fenestration	Partially finished, finished office area, some partitions	Adequate lighting and service outlets, adequate restrooms	Space heaters
	Average	50.04	Light wood frame, siding or stucco	Unfinished, small finished office area, some supply area	Adequate lighting and service outlets, small restroom	Space heaters
	Low cost	37.24	Cheap frame, stucco or siding	Unfinished, small office area, concrete floor	Minimum lighting and plumbing	Space heaters
D POLE	Average	43.24	Pole frame, metal siding, lined and insulated	Small finished office area, some supply area	Adequate lighting and service outlets, small restroom	Space heaters
	Low cost	32.03	Pole frame and truss, metal siding	Small partitioned office area, concrete floor, utility type	Minimum lighting and plumbing	Space heaters
S	Good	66.83	Sandwich panels or metal with interior finish	Partially finished, finished office area, some partitions	Adequate lighting and service outlets, adequate restrooms	Space heaters
	Average	48.70	Single wall with some interior finish	Unfinished, small finished office area, some supply area	Adequate lighting and service outlets, small restroom	Space heaters
	Low cost	35.80	Light, pre-engineered, utility type building	Unfinished, small office area, concrete floor	Minimum lighting and plumbing	Space heaters

FLEET SERVICE FACILITIES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
C	Excellent	$171.87	Good masonry or concrete, some ornamentation, heavy frame	Plaster, acoustic tile, finished floors, good offices, shops, supply rooms	Many power outlets, good lighting and plumbing	Package A.C.
	Good	123.80	Steel or concrete frame, brick, or concrete panels	Some good offices and interior finish, supply rooms and shops	Good electrical, lighting and service outlets, good restrooms	Package A.C.
	Average	83.69	Steel, concrete or glulam frame, masonry curtain or bearing walls	Finished office, painted walls, some partitions, supply areas and shops	Adequate lighting and service outlets, adequate restrooms	Forced air
D	Average	75.07	Stucco or brick veneer, some frame or bearing, finished interior	Finished office, some partitions, supply areas and shops	Adequate lighting and service outlets, adequate restrooms	Forced air
S	Excellent	151.80	Good sandwich panels, some ornamentation, heavy frame	Finished walls & floor, acoustic tile, good offices, shops, supply rooms	Many power outlets, good lighting and plumbing	Package A.C.
	Good	110.90	Good steel frame, siding and fenestration	Some good offices and interior finish, supply rooms and shops	Good electrical, lighting and service outlets, good restrooms	Package A.C.
	Average	75.47	Sandwich panels or metal with interior finish	Partially finished, finished office area, some partitions, supply and shop areas	Adequate lighting and service outlets, adequate restrooms	Forced air

GARAGES – SERVICE/FLEET SERVICE FACILITIES

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: Buildings whose base costs include service elevators are marked with an asterisk (*). If the building under consideration has no elevators, deduct the following from the base costs so marked. For detailed costs, see Section UIP 8.

Classes A/B	Sq. Ft. Costs
Average	$2.01

HOISTS: Automobile hoists cost $8,700 to $13,500 each. Truck hoists cost, $11,800 to $22,500 each. See Section UIP 14 for greater detail.

SPRINKLERS: Apply to area covered by sprinklers.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
1,000	$3.65	$4.92	$6.64	$8.95
2,000	3.18	4.24	5.66	7.55
5,000	2.86	3.79	5.01	6.63
10,000	2.58	3.38	4.44	5.82
15,000	2.42	3.16	4.13	5.40
20,000	2.32	3.02	3.93	5.11
30,000	2.18	2.83	3.66	4.74
50,000	2.02	2.60	3.35	4.31

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.

HEATING ONLY	Sq. Ft. Costs
Electric cable or baseboard	$ 6.21
Electric wall heaters	2.53
Forced air furnace	7.01
Hot water, baseboard/convector	12.40
Space heaters, with fan	3.54
radiant	3.96
Steam (including boiler)	10.80
without boiler	9.42

HEATING & COOLING	Sq. Ft. Costs
Package A.C. (short ductwork)	$13.65
Warm and cool air (zoned)	18.65
Hot/chilled water (zoned)	31.25
Heat pump system	17.10
Small indiv. heat pumps cost per ton of rated capacity.	$1,600 to $2,160

COOLING ONLY	Sq. Ft. Costs
Central refrigeration (zoned)	$11.50
package (short ductwork)	7.63
Central evaporative	4.77
Pkg. refrig.	$1,660 to $2,180 per ton capacity
Evap. coolers	$235 to $385 per MCFM capacity

VENTILATION ONLY

Vent. (blowers/ducts)	$2.04

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
10	.921	18	1.086
12	.960	20	1.133
14	1.000 (base)	22	1.181
16	1.041	24	1.231

4

Average Floor Area Sq. Ft./Story	AVERAGE PERIMETER 100	150	200	250	300	400	500	600	700	800	900	1000	1200	1500	Average Floor Area Sq. Ft./Story
1,000	1.252	1.468	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1,000
2,000	-----	1.147	1.252	1.360	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2,000
4,000	-----	-----	1.040	1.094	1.147	1.252	-----	-----	-----	-----	-----	-----	-----	-----	4,000
5,000	-----	-----	.996	1.040	1.083	1.168	1.252	-----	-----	-----	-----	-----	-----	-----	5,000
8,000	-----	-----	-----	-----	.984	1.040	1.094	1.147	1.199	1.252	-----	-----	-----	-----	8,000
10,000	-----	-----	-----	-----	-----	.996	1.040	1.083	1.125	1.168	1.210	-----	-----	-----	10,000
14,000	-----	-----	-----	-----	-----	.945	.977	1.008	1.040	1.071	1.102	1.132	-----	-----	14,000
20,000	-----	-----	-----	-----	-----	-----	.926	.949	.972	.996	1.019	1.040	1.083	-----	20,000
25,000	-----	-----	-----	-----	-----	-----	.907	.924	.942	.959	.977	.996	1.032	-----	25,000
30,000	-----	-----	-----	-----	-----	-----	-----	.907	.921	.935	.949	.965	.995	1.040	30,000
40,000	-----	-----	-----	-----	-----	-----	-----	-----	.899	.907	.916	.926	.949	.984	40,000
50,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.891	.898	.907	.924	.950	50,000

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

GARAGES – STORAGE

AVERAGE C_{MILL} STORAGE

AVERAGE CLASS C

OCCUPANCY DESCRIPTION: Storage garages are designed for live and dead load storage of automobiles. Built in all classes of construction, they have some unfinished partitioned office areas using masonry or wood frame walls with minimum lighting and plumbing.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Elevators are included in costs designated with an asterisk (*).

NOT INCLUDED IN COSTS: Sprinklers or hoists.

STORAGE GARAGES

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Average	$75.43	Brick, reinforced concrete, little ornamentation	Plaster or drywall, masonry partitions, small office & service area	*Low lighting levels, minimum plumbing	Space heaters
A-B	Parking basement	60.46	Unfinished concrete, water-proofed walls	Unfinished, concrete floor, striped	Minimum lighting, drains	Ventilation
C	Average	55.85	Brick, block, tilt-up, plain facade	Unfinished, small partitioned office area, concrete floors	Low-level lighting, minimum plumbing	Space heaters
C_{MILL}	Average	65.72	Mill-type frame, brick, plain facade	Painted walls, mill-type floors, masonry partitions	*Minimum electrical and plumbing	Space heaters
D	Average	50.72	Wood frame, stucco or siding, plain facade	Unfinished, small partitioned office area, concrete floors	Minimum electrical and plumbing	Space heaters
S	Average	49.43	Single-wall construction, enameled steel or aluminum	Unfinished, small partitioned office area, concrete floors	Low-level lighting, minimum plumbing	Space heaters
CDS	Avg. parking bsmt.	39.56	Unfinished concrete, water-proofed walls	Plaster or drywall ceiling, concrete floor, striped	Minimum lighting, adequate drains	Ventilation
	Low parking bsmt.	33.63	Partially exposed, some ornamentation, unfinished interior	Finished ceiling, concrete slab, striping	Minimum lighting, adequate drains	None

NOTE: For parking structures, see Page CAL 82.

MEZZANINES: Do not use story height or area/perimeter multipliers with industrial type mezzanine costs shown above. For fully finish office type mezzanines, see Page CAL 140.

GARAGES – STORAGE

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: Buildings whose base costs include service elevators are marked with an asterisk (*). If the building under consideration has no elevators, deduct the following from the base costs so marked. For detailed costs, see Section UIP 8.

Classes A/B/C$_{MILL}$	Sq. Ft. Costs
Average	$2.07

ELEVATOR STOPS: For basement or mezzanine elevator stops, add $6,400 to $9,650 per stop.

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	$3.65	$4.92	$6.64	$8.95
2,000	3.18	4.24	5.66	7.55
5,000	2.86	3.79	5.01	6.63
10,000	2.58	3.38	4.44	5.82
15,000	2.42	3.16	4.13	5.40
20,000	2.32	3.02	3.93	5.11
30,000	2.18	2.83	3.66	4.74
50,000	2.02	2.60	3.35	4.31

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.

HEATING ONLY	Sq. Ft. Costs
Electric cable or baseboard	$ 6.21
Electric wall heaters	2.53
Forced air furnace	7.01
Hot water, baseboard/convector	12.40
Space heaters, with fan	3.54
radiant	3.96
Steam (including boiler)	10.80
without boiler	9.42

HEATING & COOLING	Sq. Ft. Costs
Package A.C. (short ductwork)	$13.65
Warm and cool air (zoned)	18.65
Hot/chilled water (zoned)	31.25
Heat pump system	17.10

Small indiv. heat pumps cost $1,600 to $2,160 per ton of rated capacity.

COOLING ONLY	Sq. Ft. Costs
Central refrigeration (zoned)	$11.50
package (short ductwork)	7.63
Central evaporative	4.77
Pkg. refrig.	$1,660 to $2,180 per ton capacity
Evap. coolers	$235 to $385 per MCFM capacity

VENTILATION ONLY

Vent. (blowers/ducts) $2.04

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
8	.885	14	1.000 (base)
10	.921	16	1.041
12	.960	18	1.086

4

Average Floor Area Sq. Ft./Story	AVERAGE PERIMETER 100	150	200	250	300	400	500	600	700	800	900	1000	1200	1500	Average Floor Area Sq. Ft./Story
1,000	1.252	1.468	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1,000
2,000	-----	1.147	1.252	1.360	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2,000
4,000	-----	-----	1.040	1.094	1.147	1.252	-----	-----	-----	-----	-----	-----	-----	-----	4,000
5,000	-----	-----	.996	1.040	1.083	1.168	1.252	-----	-----	-----	-----	-----	-----	-----	5,000
8,000	-----	-----	-----	-----	.984	1.040	1.094	1.147	1.199	1.252	-----	-----	-----	-----	8,000
10,000	-----	-----	-----	-----	-----	.996	1.040	1.083	1.125	1.168	1.210	-----	-----	-----	10,000
14,000	-----	-----	-----	-----	-----	.945	.977	1.008	1.040	1.071	1.102	1.132	-----	-----	14,000
20,000	-----	-----	-----	-----	-----	-----	.926	.949	.972	.996	1.019	1.040	1.083	-----	20,000
25,000	-----	-----	-----	-----	-----	-----	.907	.924	.942	.959	.977	.996	1.032	-----	25,000
30,000	-----	-----	-----	-----	-----	-----	-----	.907	.921	.935	.949	.965	.995	1.040	30,000
40,000	-----	-----	-----	-----	-----	-----	-----	-----	.899	.907	.916	.926	.949	.984	40,000
50,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.891	.898	.907	.924	.950	50,000

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

GOVERNMENTAL BUILDINGS

AVERAGE CLASS C

GOOD CLASS B

OCCUPANCY DESCRIPTION: These buildings include city halls, courthouses, etc., but do not include typical office or service buildings. They may be massive buildings or buildings utilizing modern exterior curtain walls. The better qualities have well-finished chambers and hearing rooms, as well as executive offices, while average quality governmental buildings have only a few decorative features.

These buildings are built using all classes of construction. Exteriors vary with the building class; typical finishes include marble, granite, concrete, metal and glass panels, concrete block and various types of masonry veneer.

Interiors commonly utilize high use floor covers such as terrazzo, marble, carpet, ceramic tile and, in some cases, resilient flooring. Most, except the low quality governmental buildings, have combined heating and cooling systems.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Elevators are included in costs designated with an asterisk (*).

NOT INCLUDED IN COSTS: Sprinklers, parking or balconies.

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A	Excellent	$343.77	Highly ornamental, marble, granite, best metal and glass	Plaster, marble trim, ornate detail, terrazzo, carpet, vinyl floors	*Best lighting and outlets, tiled restrooms, many fixtures	Hot and chilled water (zoned)
	Good	266.65	Good metal and glass, concrete, some good stone, good entrance	Plaster or drywall, some paneled offices, vinyl and carpet	*Good lighting and outlets, good tiled restrooms	Hot and chilled water (zoned)
	Average	197.51	Brick, concrete panels, metal and glass, little ornamentation	Plaster or drywall, little paneling, vinyl composition, some carpet	*Adequate lighting and outlets, some tiled restrooms	Warm and cool air (zoned)
B	Excellent	330.12	Highly ornamental, marble, granite, best metal and glass	Plaster, marble trim, ornate detail, terrazzo, carpet, vinyl floors	*Best lighting and outlets, tiled restrooms, many fixtures	Hot and chilled water (zoned)
	Good	257.62	Good metal and glass, concrete, some good stone, good entrance	Plaster or drywall, some paneled offices, vinyl and carpet	*Good lighting and outlets, good tiled restrooms	Hot and chilled water (zoned)
	Average	191.61	Brick, concrete panels, metal and glass, little ornamentation	Plaster or drywall, little paneling, vinyl composition, some carpet	*Adequate lighting and outlets, some tiled restrooms	Warm and cool air (zoned)
	Low cost	147.57	Precast concrete, block, little trim	Plaster or drywall, few paneled offices, vinyl composition	Adequate lighting and outlets, adequate plumbing	Warm and cool air (zoned)
A-B	Office basement	151.88	Reinforced concrete, plaster interior	Office partitions, acoustic tile, some paneling, vinyl composition	Office lighting and outlets, adequate plumbing	Warm and cool air (zoned)
	Parking basement	68.59	Painted interior	Parking, storage and service, lines and stops	Adequate lighting and plumbing	Ventilation
C	Excellent	279.34	Marble or granite, best metal and glass, highly decorative	Plaster, marble trim, paneling, terrazzo, carpet, vinyl floors	Best lighting and outlets, tiled restrooms, many fixtures	Hot and chilled water (zoned)
	Good	202.19	Best ornamental masonry, good metal and glass	Plaster or drywall, good detail and paneling, terrazzo, vinyl tile	Good lighting and outlets, good tiled restrooms	Warm and cool air (zoned)
	Average	155.58	Brick, block, concrete, metal and glass, good entrance	Plaster or drywall, some paneled offices, vinyl composition	Adequate lighting and outlets, adequate plumbing	Warm and cool air (zoned)
	Low cost	109.95	Brick, block, tilt-up, very plain	Plaster or drywall, acoustic tile	Adequate lighting and plumbing	Package A.C.
D	Excellent	272.83	Best masonry veneer, metal and glass, fine fenestration	Plaster, marble trim, paneling, terrazzo, carpet, vinyl floors	Best lighting and outlets, tiled restrooms, many fixtures	Hot and chilled water (zoned)
	Good	196.75	Face brick or stone veneer, fine fenestration	Plaster or drywall, vinyl, paneling, carpet, vinyl composition	Good lighting and outlets, good tiled restrooms	Warm and cool air (zoned)
	Average	139.23	Brick veneer, ornamental stucco, EIFS, metal and glass	Plaster or drywall, acoustic tile, some paneling, vinyl composition	Adequate lighting and outlets, adequate plumbing	Package A.C.
	Low cost	100.69	Stucco or siding, very plain	Drywall, acoustic tile, asphalt tile	Adequate lighting and plumbing	Forced air
S	Average	136.20	Sandwich panels, good fenestration, some brick or stone	Plaster or drywall, some paneled offices, vinyl composition	Adequate lighting and outlets, adequate plumbing	Package A.C.
	Low Cost	98.80	Insulated wall or sandwich panels, adequate fenestration	Drywall, acoustic tile, asphalt tile	Adequate lighting and plumbing	Forced air
CDS†	Office basement	97.61	Plaster or drywall interior	Office partitions, acoustic tile and vinyl composition	Office lighting and outlets, adequate plumbing	Forced air
	Parking basement	46.84	Unfinished interior	Parking, storage and service, lines and stops	Adequate lighting and plumbing	Ventilation

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

GOVERNMENTAL 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

ELEVATORS: Buildings whose base costs include elevators are marked with an asterisk (*). If the building under consideration has no elevators, deduct the following from the base costs so marked. For detailed costs For detailed costs, see Section UIP 8.

Classes A/B	Sq. Ft. Costs
Excellent	$12.20
Good	8.50
Average	5.90

ELEVATOR STOPS: For basements stops, add $6,400 to $9,850 per stop. 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	$4.59	$5.97	$7.78	$10.12
2,500	3.98	5.13	6.61	8.51
5,000	3.57	4.57	5.84	7.46
10,000	3.20	4.07	5.16	6.55
15,000	3.01	3.80	4.80	6.06
20,000	2.88	3.62	4.56	5.74
30,000	2.70	3.38	4.24	5.32
50,000	2.49	3.11	3.87	4.83
75,000	2.34	2.90	3.60	4.47
100,000	2.24	2.77	3.42	4.23

BALCONIES: Balcony cost include the supporting structure, decking and rails. Apply costs to the balcony area.

	LOW	AVG.	GOOD	EXCL.
Concrete	$21.90	$28.25	$36.75	$47.25
Steel	20.60	28.00	38.00	52.00
Wood	17.80	23.80	31.50	42.25
Add for ornate finishes, balustrades	19.00	23.40	28.50	35.25
Add for roofs or awnings	10.50	13.90	18.50	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.

HEATING ONLY	Sq. Ft. Costs
Electric cable or baseboard	$11.90
Electric wall heaters	3.55
Forced air furnace	13.30
Hot water	20.60
Space heaters, with fan	4.38
radiant	5.05
Steam (including boiler)	19.40
without boiler	17.80
Wall or floor furnace	3.89

HEATING & COOLING	Sq. Ft. Costs
Package A.C. (short ductwork)	$18.90
Warm and cool air (zoned)	30.75
Hot/chilled water (zoned)	43.00
Heat pump system	25.75

Small indiv. heat pumps cost $1,790 to $2,390 per ton of rated capacity.

COOLING ONLY	Sq. Ft. Costs
Central refrigeration (zoned)	$14.60
package (short ductwork)	10.30
Central evaporative	5.65
Pkg. refrig.	$2,030 to $2,625 per ton capacity
Evap. coolers	$295 to $515 per MCFM capacity

VENTILATION ONLY

Vent. (blowers/ducts)	$3.49

3

HEIGHT REFINEMENTS

MULTISTORY BUILDINGS: Up to 30 stories, add .5% (1/2%) for each story over three, above ground, to all base costs; over 30, add .4% (4/10%) for each additional story.

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	.900	13	1.023
9	.928	14	1.046
10	.953	15	1.069
11	.977	16	1.092
12	1.000 (base)		

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER 125	150	200	250	300	400	500	600	700	800	1000	1200	1400	1600	Average Floor Area Sq. Ft./Story
1,000	1.168	1.235	1.364	1.494	1.624	1.884	-----	-----	-----	-----	-----	-----	-----	-----	**1,000**
3,000	-----	.975	1.018	1.061	1.105	1.191	-----	-----	-----	-----	-----	-----	-----	-----	**3,000**
5,000	-----	-----	.949	.975	1.000	1.052	1.105	1.155	-----	-----	-----	-----	-----	-----	**5,000**
8,000	-----	-----	-----	.926	.942	.975	1.007	1.040	1.072	1.105	-----	-----	-----	-----	**8,000**
10,000	-----	-----	-----	.910	.923	.949	.975	1.000	1.027	1.052	1.105	1.155	-----	-----	**10,000**
14,000	-----	-----	-----	-----	.900	.920	.938	.956	.975	.993	1.030	1.067	1.105	1.140	**14,000**
20,000	-----	-----	-----	-----	-----	-----	.910	.923	.936	.949	.975	1.000	1.027	1.052	**20,000**
25,000	-----	-----	-----	-----	-----	-----	.897	.908	.918	.928	.948	.969	.990	1.011	**25,000**
30,000	-----	-----	-----	-----	-----	-----	-----	.897	.906	.915	.932	.949	.965	.983	**30,000**
50,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.887	.897	.908	.918	.928	**50,000**
75,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.873	.879	.885	.892	.900	**75,000**
100,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.866	.871	.876	.881	.887	**100,000**

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

GOVERNMENTAL - COMMUNITY SERVICE BUILDINGS

AVERAGE CLASS C

OCCUPANCY DESCRIPTION: These public buildings are designed as mixed-use structures, typically found in rural communities, and are generally smaller and utilitarian in scope. The lower qualities are generally composed of public safety facilities, volunteer fire, limited office and council meeting rooms and/or small libraries, etc.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Elevators are included in costs designated with an asterisk (*).

NOT INCLUDED IN COSTS: Sprinklers, parking or balconies.

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Average	$164.25	Brick, precast concrete, block, some trim, good lobby	Plaster or drywall, good detail, terrazzo, carpet, vinyl tile	Good lighting and outlets, adequate restrooms	Warm and cool air (zoned)
	Low cost	126.20	Precast concrete, block, very plain lobby	Plaster or drywall, vinyl composition, some carpet and pavers	Adequate administrative lighting, restroom facilities, some extras	Heat pump system
A-B	Finished basement	151.88	Reinforced concrete, plaster interior	Office partitions, acoustic tile, some paneling, vinyl composition	Office lighting and outlets, adequate plumbing	Warm and cool air (zoned)
C	Excellent	229.04	Steel frame, masonry and glass, stone ornamentation, top quality	Plaster, paneling, carpet and terrazzo, suspended ceilings, best mixed-use	Best fluorescent ceiling panels, tiled restrooms, good fixtures	Warm and cool air (zoned)
	Good	170.99	Steel columns, web or bar joists, ornamental block or face brick	Plaster or drywall, good partitions, acoustic tile, carpet and vinyl	Good fluorescent lighting, good restrooms and fixtures	Heat pump system
	Average	125.78	Steel frame or bearing wall, brick, block, concrete panels, some trim	Paint, drywall partitions, acoustic tile, vinyl composition, typical mixed-use	Fluorescent lighting, adequate outlets and plumbing	Package A.C.
	Low cost	91.95	Brick, block, tilt-up panels, bearing walls, wood joists, little trim	Paint, few low-cost partitions, acoustic tile, public safety, few offices	Minimum administrative lighting and plumbing	Forced air
D	Excellent	223.51	Steel or wood frame, brick or stone veneer, metal and glass, ornamental	Plaster, paneling, carpet and terrazzo, suspended ceilings, best mixed-use	Best fluorescent ceiling panels, tiled restrooms, good fixtures	Warm and cool air (zoned)
	Good	166.09	Steel or glulam frame and joists, brick veneer, glass, best stucco	Plaster or drywall, good partitions, acoustic tile, carpet and vinyl	Good fluorescent lighting, good restrooms and fixtures	Heat pump system
	Average	121.55	Wood frame or pipe columns, good stucco or siding with some trim	Paint, drywall partitions, acoustic tile, vinyl composition, typical mixed-use	Fluorescent lighting, adequate outlets and plumbing	Package A.C.
	Low cost	88.38	Wood frame, stucco or siding, some ornamentation	Paint, few low-cost partitions, acoustic tile, public safety, few offices	Minimum administrative lighting and plumbing	Forced air
D POLE	Average	113.84	Pole frame, insulated metal panels, some ornamentation	Plaster or drywall, good hardwood, low-cost terrazzo, vinyl composition	Adequate lighting and outlets, adequate restrooms	Package A.C.
	Low cost	82.41	Pole frame, finished interior, insulation, little trim	Drywall, acoustic tile, few partitions, public safety, some town offices	Minimum administrative lighting and plumbing	Forced air
S	Good	161.35	Pre-engineered, good sandwich panels, some brick or stone trim	Drywall, some trim, carpet, vinyl, acoustic tile, good mixed-use	Good lighting and plumbing, tiled restrooms	Heat Pump System
	Average	118.16	Pre-engineered, sandwich panels, some ornamentation	Drywall, acoustic, vinyl composition, some pavers or ceramic	Adequate lighting and outlets, adequate restrooms	Package A.C.
	Low cost	85.96	Pre-engineered, finished interior, insulation, little trim	Drywall, acoustic tile, few partitions, public safety, some town offices	Minimum administrative lighting and plumbing	Forced air
CDS†	Finished basement	97.61	Plaster or drywall interior	Office partitions, acoustic tile and vinyl composition	Office lighting and outlets, adequate plumbing	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.

GOVERNMENTAL - COMMUNITY SERVICE 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

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.

ELEVATOR STOPS: For basements stops, add $6,400 to $9,850 per stop.

SPRINKLERS: Apply to area covered by sprinklers.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
1,000	$4.59	$5.97	$7.78	$10.12
2,500	3.98	5.13	6.61	8.51
5,000	3.57	4.57	5.84	7.46
10,000	3.20	4.07	5.16	6.55
15,000	3.01	3.80	4.80	6.06
20,000	2.88	3.62	4.56	5.74
30,000	2.70	3.38	4.24	5.32
50,000	2.49	3.11	3.87	4.83
75,000	2.34	2.90	3.60	4.47
100,000	2.24	2.77	3.42	4.23

BALCONIES: Balcony cost include the supporting structure, decking and rails. Apply costs to the balcony area.

	LOW	AVG.	GOOD	EXCL.
Concrete	$21.90	$28.25	$36.75	$47.25
Steel	20.60	28.00	38.00	52.00
Wood	17.80	23.80	31.50	42.25
Add for ornate finishes, balustrades	19.00	23.40	28.50	35.25
Add for roofs or awnings	10.50	13.90	18.50	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.

HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. Costs
Electric cable or baseboard	$11.90	Package A.C. (short ductwork)	$18.90	Central refrigeration (zoned)	$14.60
Electric wall heaters	3.55	Warm and cool air (zoned)	30.75	package (short ductwork)	10.30
Forced air furnace	13.30	Hot/chilled water (zoned)	43.00	Central evaporative	5.65
Hot water	20.60	Heat pump system	25.75	Pkg. refrig.	$2,030 to $2,625 per ton capacity
Space heaters, with fan	4.38			Evap. coolers	$295 to $515 per MCFM capacity
radiant	5.05				
Steam (including boiler)	19.40				
without boiler	17.80	Small indiv. heat pumps cost $1,790 to $2,390		**VENTILATION ONLY**	
Wall or floor furnace	3.89	per ton of rated capacity.		Vent. (blowers/ducts)	$3.49

3

HEIGHT REFINEMENTS

MULTISTORY BUILDINGS: Up to 30 stories, add .5% (1/2%) for each story over three, above ground, to all base costs; over 30, add .4% (4/10%) for each additional story.

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	.900	13	1.023
9	.928	14	1.046
10	.953	15	1.069
11	.977	16	1.092
12	1.000 (base)		

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER 125	150	200	250	300	400	500	600	700	800	1000	1200	1400	1600	Average Floor Area Sq. Ft./Story
1,000	1.168	1.235	1.364	1.494	1.624	1.884	-----	-----	-----	-----	-----	-----	-----	-----	**1,000**
3,000	-----	.975	1.018	1.061	1.105	1.191	-----	-----	-----	-----	-----	-----	-----	-----	**3,000**
5,000	-----	-----	.949	.975	1.000	1.052	1.105	1.155	-----	-----	-----	-----	-----	-----	**5,000**
8,000	-----	-----	-----	.926	.942	.975	1.007	1.040	1.072	1.105	-----	-----	-----	-----	**8,000**
10,000	-----	-----	-----	.910	.923	.949	.975	1.000	1.027	1.052	1.105	1.155	-----	-----	**10,000**
14,000	-----	-----	-----	-----	.900	.920	.938	.956	.975	.993	1.030	1.067	1.105	1.140	**14,000**
20,000	-----	-----	-----	-----	-----	-----	.910	.923	.936	.949	.975	1.000	1.027	1.052	**20,000**
25,000	-----	-----	-----	-----	-----	-----	.897	.908	.918	.928	.948	.969	.990	1.011	**25,000**
30,000	-----	-----	-----	-----	-----	-----	-----	.897	.906	.915	.932	.949	.965	.983	**30,000**
50,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.887	.897	.908	.918	.928	**50,000**
75,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.873	.879	.885	.892	.900	**75,000**
100,000	-----	-----	-----	-----	-----	-----	-----	-----	-----	.866	.871	.876	.881	.887	**100,000**

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

GREENHOUSES – COMMERCIAL

AVERAGE CLASS S

CHEAP CLASS S

OCCUPANCY DESCRIPTION: Enclosures used to regulate the climatic conditions for the display, sales and research of various plants and vegetables.

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

NOT INCLUDED IN COSTS: Heating or automated watering systems, shade curtains and planting benches are not included.

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ.FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING & PLUMBING	HEAT
D	Fair	$ 47.51	Best redwood or laminated frame, glass or sandwich panels	Concrete floor, good display house or nursery sales	Adequate electrical, lighting, water and drains	None
	Low cost	38.01	Wood frame, glass or fiberglass covering, some vents	Dirt floor, some gravel or concrete walks, typical display nursery house	Minimum equipment outlets and hose bibs	None
S	Excellent	139.02	Structural mullions, architectural embellishments, very ornate	Concrete, pavers, some partitions and extras, good conservatory type	Best lighting, electrical and plumbing	None
	Very good	112.94	Best aluminum frame, gutters, metal sandwich or masonry knee wall	Sealed concrete, research modules, glazed corridors	Good lighting and plumbing	None
	Good	91.67	Shed or gable, good glass and masonry knee wall	Good concrete floor, good display science greenhouse	Good lighting and water, good drains	None
	Average	60.78	Tubular or structural frame, good glazing, some knee wall	Concrete floor, best display or horticulture house	Adequate electrical and water service, drains	None
	Fair	49.42	Good metal frame, glass or translucent sandwich panels	Concrete floor, good display house or nursery sales	Adequate electrical, lighting, water and drains	None
	Cheap	40.22	Metal frame, glass or fiberglass covering, some vents	Dirt floor, some gravel or concrete walks, typical display nursery house	Minimum equipment outlets and hose bibs	None

GREENHOUSES – COMMERCIAL

REFINEMENTS: On this page are the means of making major adjustments to the base costs. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

1

ADJUSTMENTS	COST RANGE
Humidifiers, each	$ 415.00 – $2,070.00
Exhaust fan cooling assembly, per. sq. ft. of pad	725.00 – 1,950.00
Water-drip humidity pad assembly, per sq. ft. of pad	13.20 – 21.05
Automatic vent and/or environmental controls, per unit	725.00 – 1,870.00
Automatic chemical injectors (excluding tanks), per unit	2,420.00 – 4,300.00
Automatic water controls, per unit	275.00 – 690.00
Traveling boom sprayer, per linear foot of rail	44.25 – 93.00
Roof shade curtains, per sq. ft. of cover, man	.72 – .89
Hinged sidewall vents, manual, per linear foot	30.25 – 35.75
Automatic sidewall curtain assembly, per linear foot	12.35 – 16.25
Concrete Curb per linear foot	2.69 – 5.95
Stem Knee Walls. Per linear foot	11.50 – 14.30

MISCELLANEOUS SQUARE FOOT COSTS

Electrical: Low Cost $.23, Average, $.71; Good, $1.43; Excellent, $2.49

Floors or walks: Dirt, $.23 – $.36; Gravel, $.51 – $.74; Asphalt, $1.94 – $3.16; Concrete, $2.86 – $4.17

Water system, plastic: Spray, $.18 – $.31; Mist, $.27 – $.46; Drip tube, $.33 – $.54

Planting benches, per square foot of bench: Plastic, $3.48 – $5.54; Wood slat, $5.49 – $6.27; Solid propagating, $5.95 – $10.65

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.

HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. 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 ton capacity
Space heaters, with fan	4.08			Evap. coolers	$300 to $500 per MCFM capacity
radiant	4.71				
Steam (including boiler)	18.00	Small indiv. heat pumps cost $1,760 to $2,500		**VENTILATION ONLY**	
without boiler	16.35	per ton of rated capacity.		Vent. (blowers/ducts)	$3.31
Wall or floor furnace	3.73				

3

HEIGHT REFINEMENTS

MULTISTORY BUILDINGS: Add .5% (1/2%) 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	.983	14	1.036
9	.991	16	1.055
10	1.000 (base)	18	1.074
11	1.009	20	1.090
12	1.018		

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER 90	120	200	300	500	600	800	1000	1200	1400	1600	1800	2000	Average Floor Area Sq. Ft./Story
500	1.710	1.750	1.840	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	**500**
1,000	1.650	1.670	1.720	1.780	-----	-----	-----	-----	-----	-----	-----	-----	-----	**1,000**
2,000	1.360	1.370	1.410	1.450	-----	-----	-----	-----	-----	-----	-----	-----	-----	**2,000**
4,000	-----	1.170	1.200	1.240	1.320	-----	-----	-----	-----	-----	-----	-----	-----	**4,000**
5,000	-----	-----	1.150	1.160	1.180	1.190	-----	-----	-----	-----	-----	-----	-----	**5,000**
6,000	-----	-----	-----	1.110	1.130	1.140	-----	-----	-----	-----	-----	-----	-----	**6,000**
8,000	-----	-----	-----	1.040	1.060	1.070	1.080	-----	-----	-----	-----	-----	-----	**8,000**
10,000	-----	-----	-----	.950	.990	1.000	1.020	1.040	-----	-----	-----	-----	-----	**10,000**
20,000	-----	-----	-----	-----	.830	.840	.860	.880	-----	-----	-----	-----	-----	**20,000**
25,000	-----	-----	-----	-----	-----	.800	.820	.840	.860	-----	-----	-----	-----	**25,000**
50,000	-----	-----	-----	-----	-----	-----	.680	.700	.720	.740	-----	-----	-----	**50,000**

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

GREENHOUSES - SHADE

AVERAGE CLASS S

OCCUPANCY DESCRIPTION: These light structures are open (non-walled) shelters designed as sun shades for various plants and vegetables. They have shade netting roofs on either wood posts or steel pipe column and cable supports. The floor is dirt and there is minimum hose bibs and no electrical. The better qualities will have light pipe or post girders instead of cable and some gravel floor covering.

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

NOT INCLUDED IN COSTS: Heating or automated watering systems, shade curtains and planting benches are not included.

SQUARE FOOT COST TABLE

GREENHOUSE SHADE SHELTERS

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
D	Average	$2.28	Light wood posts and girders, shade netting cover	Some gravel	No electrical, hose bibs only	None
	Low cost	1.68	No walls, wood posts and cable, flat shade netting roof	Dirt floor	Hose bibs only	None
S	Average	2.57	Light pipe columns and girders, shade netting cover	Some gravel	No electrical, hose bibs only	None
	Low cost	1.92	No walls, steel pipe and cable, flat shade netting roof	Dirt floor	Hose bibs only	None

LATH SHADE HOUSES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
D	Average	$4.97	Wood skeleton frame, spaced wood lath	Gravel, some concrete walks	Equipment outlets and hose bibs	None
S	Average	8.83	Metal skeleton frame, spaced aluminum lath	Gravel, some concrete walks	Equipment outlets and hose bibs	None

GREENHOUSES - SHADE

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

1

ADJUSTMENTS	COST RANGE
Humidifiers, each	$ 415.00 – $2,070.00
Exhaust fan cooling assembly, per unit	725.00 – 1,950.00
Water-drip humidity pad assembly, per square foot of pad	13.20 – 21.05
Automatic vent and/or environmental controls, per unit	725.00 – 1,870.00
Automatic chemical injectors (excluding tanks), per unit	2,420.00 – 4,300.00
Automatic water controls, per unit	275.00 – 690.00
Traveling boom sprayer, per linear foot of rail	44.25 – 93.00
Roof shade curtains, per square foot of cover, manual (automated, add 100%)	.72 – .89
Hinged vents, manual, per linear foot (automatic, add 20%)	30.25 – 35.75
Automatic sidewall curtain assembly, per linear foot	12.35 – 16.25
Concrete curb, per linear foot	2.69 – 5.95
Stem, knee walls, per linear foot	11.50 – 14.30

MISCELLANEOUS SQUARE FOOT COSTS

Electrical: Low cost, $.23; Average, $.71; Good, $.1.43; Excellent, $2.49

Floors or walks: Dirt, $.23 – $.36; Gravel, $.51 – $.74; Asphalt, $1.94 – $3.16; Concrete, $2.86 – $4.17

Water system, plastic: Spray, $.18 – $.31; Mist, $.27 – $.46; Drip tube, $.33 – $.54

Planting benches, per square foot of bench: Plastic, $3.48 – $5.54; Wood slat, $5.49 – $6.27; Solid propagating, $5.95 – $10.65

2

HEATING AND COOLING

These costs are averages of total installed costs 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 Unit-in-Place costs.

HEATING & COOLING	Sq. Ft. Costs
Hot water or steam	$4.85
Gas furnaces	3.25
Suspended gas heaters	2.79
add for fan-jet duct distribution	.98

VENTILATION ONLY	Sq. Ft. Costs
Ventilation (fans only)	$ .57

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
7	.973	12	1.018
8	.983	13	1.027
9	.991	14	1.036
10	1.000 (base)	16	1.055
11	1.009	18	1.074

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER 90	120	200	300	500	600	800	1000	1200	1400	1600	1800	2000	Average Floor Area Sq. Ft./Story
500	1.710	1.750	1.840	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	**500**
1,000	1.650	1.670	1.720	1.780	-----	-----	-----	-----	-----	-----	-----	-----	-----	**1,000**
2,000	1.360	1.370	1.410	1.450	-----	-----	-----	-----	-----	-----	-----	-----	-----	**2,000**
4,000	-----	1.170	1.200	1.240	1.320	-----	-----	-----	-----	-----	-----	-----	-----	**4,000**
5,000	-----	-----	1.150	1.160	1.180	1.190	-----	-----	-----	-----	-----	-----	-----	**5,000**
6,000	-----	-----	-----	1.110	1.130	1.140	-----	-----	-----	-----	-----	-----	-----	**6,000**
8,000	-----	-----	-----	1.040	1.060	1.070	1.080	-----	-----	-----	-----	-----	-----	**8,000**
10,000	-----	-----	-----	.950	.990	1.000	1.020	1.040	-----	-----	-----	-----	-----	**10,000**
20,000	-----	-----	-----	-----	.830	.840	.860	.880	-----	-----	-----	-----	-----	**20,000**
25,000	-----	-----	-----	-----	-----	.800	.820	.840	.860	-----	-----	-----	-----	**25,000**
50,000	-----	-----	-----	-----	-----	-----	.680	.700	.720	.740	-----	-----	-----	**50,000**
100,000	-----	-----	-----	-----	-----	-----	-----	.580	.590	.600	.610	-----	-----	**100,000**
200,000	-----	-----	-----	-----	-----	-----	-----	-----	.550	.560	.570	.580	.590	**200,000**

5 **USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.**

GREENHOUSES - STRUCTURES

GOOD CLASS S HOOP (ARCH RIB)

OCCUPANCY DESCRIPTION: Enclosures used to regulate the climatic conditions for germinating and growing various plants and vegetables.

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

NOT INCLUDED IN COSTS: Heating or automated watering systems, shade curtains and planting benches are not included.

SQUARE FOOT COST TABLE

STRAIGHT-WALL STRUCTURES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
D	Average	$ 9.92	Wood frame, glass or fiberglass covering, some vents	Gravel, some concrete	Adequate electrical and hose bibs	None
	Fair	6.46	Wood frame, fiberglass walls, double polyethylene roof cover	Gravel floor	Minimum electrical, lighting and water	None
	Low cost	4.21	Post frame, fiberglass end walls, double polyethylene cover	Dirt floor	Minimum equipment outlet and hose bibs	None
	Cheap	3.74	Light post frame, wide spacing, polyethylene cover	Dirt floor	No electrical, hose bib only	None
S	Excellent	32.09	Best frame, translucent sandwich panels and venting	Concrete floor, drains	Good lighting and plumbing	None
	Very good	26.47	Heavy frame, good sandwich panels, good wall and roof vents	Good concrete walks	Adequate electrical, good fixtures and water service	None
	Good	21.80	Good metal frame, tempered glass, polycarbonate or acrylic, good vents	Concrete walks	Adequate electrical and water service	None
	Average	10.15	Metal frame, glass or fiberglass covering, some vents	Gravel, some concrete	Adequate electrical and hose bibs	None
	Fair	6.91	Metal frame, double polythylene arch roof, fiberglass walls	Gravel floor	Minimum electrical, lighting and water	None
	Low cost	4.71	Metal frame, fiberglass end walls, double polyethylene cover	Dirt floor	Minimum equipment outlet and hose bib	None
	Cheap	4.19	Light tubular frame, gable or arch roof, polyethylene cover	Dirt floor	No electrical, hose bib only	None

HOOP (ARCH-RIB/QUONSET) STRUCTURES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
D	Low cost	$ 3.92	Light built-up wood arch, fiberglass ends, double polyethylene cover	Dirt floor	Minimum equipment outlet and hose bibs	None
S	Very good	18.54	Good translucent sandwich panels, heavy frame, pitched peak, vents	Good concrete walks	Adequate electrical, good fixtures and water service	None
	Good	15.30	Good polycarbonate or acrylic cover, roof and wall vents	Concrete walks	Adequate electrical and water service	None
	Average	7.21	Fiberglass panels on light arch frame, some vents	Gravel, some concrete	Adequate electrical and hose bibs	None
	Fair	4.94	Pipe or light tubular arch, double poly., fiberglass ends and knee walls	Gravel floor	Minimum electrical, lighting and water	None
	Low cost	3.39	Trussed pipe arch, double polyethylene cover, fiberglass end walls	Dirt floor	Minimum equipment outlet and hose bibs	None
	Cheap	3.02	Light pipe arch, wide spacing, polyethylene cover	Dirt floor	No electrical, hose bib only	None

For modified hoop structures (3' straight side wall), add 5%.

GREENHOUSES - STRUCTURES

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

1

ADJUSTMENTS	COST RANGE
Humidifiers, each	$ 415.00 – $2,070.00
Exhaust fan cooling assembly, per unit	725.00 – 1,950.00
Water-drip humidity pad assembly, per square foot of pad	13.20 – 21.05
Automatic vent and/or environmental controls, per unit	725.00 – 1,870.00
Automatic chemical injectors (excluding tanks), per unit	2,420.00 – 4,300.00
Automatic water controls, per unit	275.00 – 690.00
Traveling boom sprayer, per linear foot of rail	44.25 – 93.00
Roof shade curtains, per square foot of cover, manual (automated, add 100%)	.72 – .89
Hinged vents, manual, per linear foot (automatic, add 20%)	30.25 – 35.75
Automatic sidewall curtain assembly, per linear foot	12.35 – 16.25
Concrete curb, per linear foot	2.69 – 5.95
Stem, knee walls, per linear foot	11.50 – 14.30

MISCELLANEOUS SQUARE FOOT COSTS

Electrical: Low cost, $.23; Average, $.71; Good, $.1.43; Excellent, $2.49

Floors or walks: Dirt, $.23 – $.36; Gravel, $.51 – $.74; Asphalt, $1.94 – $3.16; Concrete, $2.86 – $4.17

Water system, plastic: Spray, $.18 – $.31; Mist, $.27 – $.46; Drip tube, $.33 – $.54

Planting benches, per square foot of bench: Plastic, $3.48 – $5.54; Wood slat, $5.49 – $6.27; Solid propagating, $5.95 – $10.65

2

HEATING AND COOLING

These costs are averages of total installed costs 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 Unit-in-Place costs.

HEATING & COOLING	Sq. Ft. Costs
Hot water or steam	$4.85
Gas furnaces	3.25
Suspended gas heaters	2.79
add for fan-jet duct distribution	.98

VENTILATION ONLY	Sq. Ft. Costs
Vent. (fans only)	$ .57

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
7	.973	12	1.018
8	.983	13	1.027
9	.991	14	1.036
10	1.000 (base)	16	1.055
11	1.009	18	1.074

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER 90	120	200	300	500	600	800	1000	1200	1400	1600	1800	2000	Average Floor Area Sq. Ft./Story
500	1.710	1.750	1.840	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	**500**
1,000	1.650	1.670	1.720	1.780	-----	-----	-----	-----	-----	-----	-----	-----	-----	**1,000**
2,000	1.360	1.370	1.410	1.450	-----	-----	-----	-----	-----	-----	-----	-----	-----	**2,000**
4,000	-----	1.170	1.200	1.240	1.320	-----	-----	-----	-----	-----	-----	-----	-----	**4,000**
5,000	-----	-----	1.150	1.160	1.180	1.190	-----	-----	-----	-----	-----	-----	-----	**5,000**
6,000	-----	-----	-----	1.110	1.130	1.140	-----	-----	-----	-----	-----	-----	-----	**6,000**
8,000	-----	-----	-----	1.040	1.060	1.070	1.080	-----	-----	-----	-----	-----	-----	**8,000**
10,000	-----	-----	-----	.950	.990	1.000	1.020	1.040	-----	-----	-----	-----	-----	**10,000**
20,000	-----	-----	-----	-----	.830	.840	.860	.880	-----	-----	-----	-----	-----	**20,000**
25,000	-----	-----	-----	-----	-----	.800	.820	.840	.860	-----	-----	-----	-----	**25,000**
50,000	-----	-----	-----	-----	-----	-----	.680	.700	.720	.740	-----	-----	-----	**50,000**
100,000	-----	-----	-----	-----	-----	-----	-----	.580	.590	.600	.610	-----	-----	**100,000**
200,000	-----	-----	-----	-----	-----	-----	-----	-----	.550	.560	.570	.580	.590	**200,000**

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

GROUP CARE HOMES

AVERAGE CLASS D

OCCUPANCY DESCRIPTION: These structures are small congregate care or special needs buildings that are more family or residential style in character than convalescent hospitals. Therapy or lounge and administrative rooms commensurate with the quality are included.

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

NOT INCLUDED IN COSTS: Sprinklers, kitchen equipment, balconies, therapy or recreational equipment.

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
C	Excellent	$214.78	Face brick, stone, best windows, shakes/shingles on good struc.	Plaster or drywall, enamel or vinyl walls, vinyl floor, carpet and ceramic	Signal system, therapy facilities, good lighting and plumbing	Warm & cool air (zoned)
	Very good	173.59	Brick or good block and stucco, good fenestration and roof	Good plaster or drywall, some detail, carpet and ceramic	Special fixtures, more than one bath per bedroom	Warm & cool air (zoned)
	Good	137.61	Brick or block, wood or good asphalt shingle roof	Plaster or drywall, good ceilings and floor covering	Individual baths, large kitchen, good electrical fixtures	Heat pump system
	Average	109.40	Brick or block, some trim	Plaster or drywall, carpet, vinyl	Adequate lighting/plumbing	Package A.C.
	Low cost	84.63	Concrete block, very plain	Painted block, low cost flooring	Minimum quantity/quality	Forced air
D	Excellent	203.86	Best siding/stucco, brick ven., stone trim, shakes, shingles	Plaster or drywall, enamel or vinyl walls, vinyl floor, carpet and ceramic	Signal system, therapy facilities, good lighting and plumbing	Warm & cool air (zoned)
	Very good	164.01	Good siding/stucco, good trim, light shakes or good shingles	Good plaster or drywall, some detail, carpet and ceramic	Special fixtures, more than one bath per bedroom	Warm & cool air (zoned)
	Good	129.29	Siding or stucco, some trim, wood or good asphalt shingles	Plaster or drywall, good ceilings and floor covering	Individual baths, large kitchen, good electrical fixtures	Heat pump system
	Average	102.26	Siding or stucco, standard sash, asphalt shingles or built-up	Drywall, carpet, some ceramic tile, vinyl composition	Adequate lighting/plumbing, minimum extra facilities	Package A.C.
	Low cost	78.54	Low cost siding or stucco	Drywall, low cost carpet, asphalt	Minimum quantity/quality	Forced air
C-D	Finished basement	36.89	Finished interior, add for recreation 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 drains	None

GROUP CARE HOMES

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

1

BUILT-IN APPLIANCES: For individual listings, see Segregated cost, Section SEG 1.

	LOW	AVG.	GOOD	EXCL.
Allowance (if not itemized)	$1,540	$3,475	$6,400	$10,700

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.
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

BALCONIES: Balcony cost include the supporting structure, decking and rails. Apply costs to the balcony area.

	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

HEATING AND COOLING

These costs are averages of total installed costs 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.

HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	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/convector	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				
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

MULTISTORY BUILDINGS: Add .5% (1/2%) 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	11	1.027
9	.973	12	1.055
10	1.000 (base)		

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER 150	200	250	300	350	400	450	500	550	600	650	700	750	800	Average Floor Area Sq. Ft./Story
2,000	1.020	1.083	1.143	1.206	1.267	-----	-----	-----	-----	-----	-----	-----	-----	-----	**2,000**
4,000	.930	.959	.989	1.021	1.052	1.083	1.113	-----	-----	-----	-----	-----	-----	-----	**4,000**
6,000	-----	.917	.938	.959	.980	1.000	1.021	1.042	1.063	1.083	-----	-----	-----	-----	**6,000**
8,000	-----	-----	.913	.929	.944	.959	.974	.989	1.005	1.021	1.037	-----	-----	-----	**8,000**
10,000	-----	-----	-----	.910	.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	-----	-----	-----	-----	-----	-----	-----	-----	.881	.885	.889	.894	.898	.902	**30,000**

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.