# **OFFICE BUILDINGS**



**EXCELLENT CLASS A** 

**OCCUPANCY DESCRIPTION:** These buildings are designed for commercial occupancies and are normally subdivided into smaller units for tenant use.



**EXCELLENT CLASS A** 

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.

| CLASS        | TYPE             | COST/<br>SQ. FT. | EXTERIOR WALLS  | INTERIOR FINISH   | LIGHTING, PLUMBING<br>AND MECHANICAL                             | HEAT                          |
|--------------|------------------|------------------|---|---|--|-------------------------------|
|              | Excellent        | \$284.92         | Best metal or stone, brick or block backup, solar glass           | Plaster, best veneers, vinyl wall coverings, vinyl, terrazzo, carpet    | *Luminous ceilings, many outlets, many private restrooms         | Hot and chilled water (zoned) |
| <sub>A</sub> | Good             | 228.66           | Good metal/solar glass, face brick, precast concrete panels       | Drywall and plaster, some wall cover, acoustic tile, vinyl tile, carpet | *Good fluorescent, high intensity lighting, good restrooms       | Hot and chilled water (zoned) |
| ^            | Average          | 173.60           | Brick, concrete or metal and glass panels, little trim            | Average partitions, acoustic tile, vinyl composition, some extras       | *Average intensity fluorescent lighting, average restrooms       | Warm and cool air (zoned)     |
|              |                  |                  | Minimum cost walls and fenestration, little trim                  | Drywall, acoustic ceilings, asphalt tile, few partitions                | *Minimum office lighting and plumbing                            | Warm and cool air (zoned)     |
|              | Excellent        | 276.97           | Best metal or stone, brick or block backup, tinted glass          | Plaster, best veneers, vinyl wall coverings, vinyl tile, terrazzo       | *Luminous ceilings, many out-<br>lets, many private restrooms    | Hot and chilled water (zoned) |
| В            | Good             | 221.06           | Good metal/solar glass, face brick, precast concrete panels       | Drywall/plaster, some wall cover, acoustic tile, vinyl tile, carpet     | *Good fluorescent, high intensity lighting, good restrooms       | Hot and chilled water (zoned) |
|              | Average          | 166.61           | Brick, concrete or metal and glass panels, little trim            | Average partitions, acoustic tile, vinyl composition, some extras       | *Average intensity fluorescent lighting, average restrooms       | Warm and cool air (zoned)     |
|              | Low cost         | 134.53           | Minimum cost walls and fenestration, little trim                  | Drywall, acoustic ceilings, asphalt tile, few partitions                | *Minimum office lighting and plumbing                            | Warm and cool air (zoned)     |
| A-B          | Basement offices | 132.85           | Plaster interior  | Average office finish, acoustic tile, vinyl composition                 | Adequate office lighting and plumbing                            | Warm and cool air (zoned)     |
| A-D          | Stor. bsmt.      | 58.16            | Painted interior  | Partitions for storage and heating                                      | Minimum lighting/plumbing  | Space heaters                 |
|              | Pkg. bsmt.       | 62.56            | Unfinished interior   | Unfinished, small service area  | Minimum lighting/plumbing  | Ventilation                   |
|              | Excellent        | 232.80           | Steel frame, masonry & glass, stone ornament., top quality        | Plaster, paneling, carpet and terraz-<br>zo, suspended ceilings         | *Best fluorescent ceiling panels, tiled restrooms, good fixtures | Warm and cool air (zoned)     |
| c            | Good             | 161.95           | Steel frame or bearing walls, brick/conc. panels, some orn.       | Plaster or drywall, good partitions, acoustic tile, carpet and vinyl    | *Good fluorescent lighting, good restrooms and fixtures          | Package A.C.                  |
|              | Average          | 114.78           | Steel or concrete frame, or bearing walls, some trim              | Paint, drywall partitions, acoustic tile, vinyl composition             | *Fluorescent lighting, adequate outlets and plumbing             | Forced air                    |
|              | Low cost         | 74.69            | Masonry bearing walls, light rafters, very plain                  | Paint, few low cost partitions, acoustic tile, asphalt tile             | Minimum office lighting and plumbing                             | Wall furnace                  |
|              | Excellent        | 224.10           | Studs or steel columns, bar or web joists, brick/stone ven., EIFS | Best plaster, paneling, carpet and vinyl tile                           | *Fluorescent panels, many outlets, good tiled restrooms          | Warm and cool air (zoned)     |
| <sub>D</sub> | Good             | 155.45           | Best stucco on good frame, brick or stone trim, good front        | Plaster or drywall, good partitions, acoustic tile, carpet and vinyl    | *Good fluorescent lighting, good restrooms and fixtures          | Package A.C.                  |
|              | Average          | 109.93           | Stucco or wood siding on wood or steel studs, some trim           | Drywall, acoustic tile, low-cost carpet or vinyl composition            | *Adequate lighting and plumbing                                  | Forced air                    |
|              | Low cost         | 71.08            | Light stucco or siding on wood or steel studs, very plain         | Drywall, few partitions, acoustic tile, asphalt tile                    | Minimum lighting and plumbing                                    | Wall furnace                  |
|              | Good             | 143.40           | Good metal panels, fenestration, some brick or stone trim         | Plaster or drywall, good partitions, acoustic tile, carpet and vinyl    | *Good fluorescent, lighting, good restrooms and fixtures         | Package A.C.                  |
| D POLE       | Average          | 98.17            | Pole frame, insulated metal panels, some ornamentation            | Drywall, acoustic tile, low-cost carpet or vinyl composition            | Adequate lighting and plumbing                                   | Forced air                    |
|              | Low cost         | 63.63            | Pole frame, finished interior, some insulation                    | Drywall, few partitions, acoustic tile, asphalt tile                    | Minimum lighting and plumbing                                    | Wall furnace                  |
|              | Good             | 149.13           | Good sandwich panels & fenestration, some brick or stone          | Plaster or drywall, good partitions, acoustic tile, carpet and vinyl    | *Good fluorescent lighting, good restrooms and fixtures          | Package A.C.                  |
| S            | Average          | 102.50           | Insulated wall or sandwich panels, adequate fenestration          | Drywall, acoustic tile, low-cost carpet or vinyl composition            | Adequate lighting and plumbing                                   | Forced air                    |
|              | Low cost         | 66.83            | Steel or alum. on light frame, finished interior, some insul.     | Drywall, few partitions, acoustic tile, asphalt tile                    | Minimum lighting and plumbing                                    | Wall furnace                  |
| +            | Basement office  | 83.42            | Plaster or drywall interior                                       | Average office finish, acoustic tile, vinyl composition                 | Typical office lighting and plumbing                             | Forced air                    |
| CDS          | Stor. bsmt.      | 33.91            | Painted interior  | Paint only, few partitions  | Minimum lighting, drains   | None                          |
|              | Pkg. bsmt.       | 42.12            | †Unfinished interior  | Finished ceiling, concrete floor  | Minimum lighting, drains   | Ventilation                   |

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

## **OFFICE BUILDINGS**

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

SPRINKLERS: Apply to area covered by sprinklers. **ELEVATORS:** Buildings whose base costs include elevators are marked with an asterisk (\*). If the building under consideration has no elevators, Sq. Ft. LOW AVG. GOOD EXCL. deduct the following from the base costs so marked. For detailed costs 1,000 \$5.97 \$4.59 \$7.78 \$10.12 For detailed costs, see Section UIP 8. 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 Classes A/B Sq. Ft. Class C/D Sq. Ft. 15,000 3.01 3.80 4.80 6.06 20,000 4.56 5.74 Costs Costs 2.88 3.62 Excellent .... Excellent . . . . . . \$12.10 \$6.10 30,000 2 70 3 38 4 24 5.32 Good ..... Good ..... 8.25 3.70 50,000 2.49 3.11 3.87 4.83 75,000 2.34 2.90 3.60 4.47 Average . . . . . . . . Average . . . . . . Low cost . . . . . . . 3.85 100.000 2.24 2 77 3.42 4 23 BALCONIES: Balcony cost include the supporting structure, decking and rails. Apply costs to the balcony area. **ELEVATOR STOPS:** For basements stops, add \$6,400 to \$9,850 per stop. AVG. GOOD EXCL. LOW A small passenger elevator with simple call system and push button con-\$21.90 \$28.25 \$36.75 \$47.25 Concrete . . . . . . trol, four-passenger cab, and two or three stops, costs \$56,250 to \$77,250. Steel . . . . . . . . . 20.60 28 00 38 00 52 00 17.80 23.80 31.50 42.25 19.00 23.40 28.50 35.25 balustrades .... 10.50 13.90 18.50 24.60 Add for roofs or awnings

## 2 HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

|                             | Sq. Ft. | Sq. Ft.   | Sq. Ft.  |
|-----------------------------|---------|---|--|
| HEATING ONLY                | Costs   | HEATING & COOLING Costs                         | COOLING ONLY Costs                               |
| Electric cable or baseboard | \$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 | Avenage                                |       |       |       |       |       | Α.    | VEDACI        | - DEDIM        | ICTED |       |       |       |       |       | Avenage                                |
|---|--|-------|-------|-------|-------|-------|-------|---------------|----------------|-------|-------|-------|-------|-------|-------|--|
| 4 | Average<br>Floor Area<br>Sq. Ft./Story | 125   | 150   | 200   | 250   | 300   | 400   | VERAGI<br>500 | E PERIN<br>600 | 700   | 800   | 900   | 1000  | 1200  | 1500  | Average<br>Floor Area<br>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                                |

# OFFICE BUILDINGS (ALTERNATE METHOD) CLASSES A AND B



**EXCELLENT CLASS A** 

OCCUPANCY DESCRIPTION: Shell This occupancy, together with occupancy Interior Build-out, Office Building, allows you to individually price the shell and the tenant improvement costs for an office building. This provides an alternative to occupancy Office Building, which includes both the shell and tenant improvement costs.

These building shells are designed for commercial occupancies and are normally subdivided into smaller units for tenant use. Costs include the basic building shell and service core (lobby) area finishes only (commensurate with the building class and rank). Only rough electrical and plumbing are included, except for the lobby finishes and core restrooms.

#### Interior Build-out

This occupancy, together with occupancy Shell, Office Building, allows you to individually price the shell and the tenant improvement costs for an office building. This provides an alternative to occupancy Office Building, which includes both the shell and tenant improvement costs.

Office building build-out finish costs include typical partition density and finishes commensurate with the quality. Floor finishes are carpet, terrazzo or vinyl. Ceiling finishes vary with the quality. Luminous ceilings and high intensity fluorescent lighting are found in the better qualities.

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

**NOT INCLUDED IN COSTS:** Sprinklers, equipment, parking or balconies.

# **CLASSES A AND B: OFFICE SHELL BUILDINGS**

## SQUARE FOOT COST TABLE

| CLASS | TYPE      | COST/<br>SQ. FT.                                     | EXTERIOR WALLS   | INTERIOR FINISH   | LIGHTING, PLUMBING<br>AND MECHANICAL                      | HEAT |
|-------|-----------|--|--|---|---|------|
|       | Excellent | \$164.96   | Best metal or stone curtain pan-<br>els, solar glass, atrium, highly<br>ornamental | Plaster, best veneers, vinyl, best marble and carpet, top lobby finishes      | *Luminous lobby ceilings,<br>good tiled core restrooms    | None |
| A     | Good      | face brick, best precast concrete terraz panels bies |  |   | *Good fluorescent core ceilings, adequate restrooms       | None |
|       | Average   |  | Brick, concrete or metal and glass, steel stud panels, some trim                   | Drywall or plaster, vinyl, terrazzo, carpet, adequate entry lobby             | *Average-intensity core lighting, average restrooms       | None |
|       | Low cost  |  | Minimum-cost walls and fenestration, little trim                                   | Drywall, paint or paper, acoustic ceilings, vinyl comp., plain lobbies        | *Minimum lobby lighting, few core extras, small restrooms | None |
|       | Excellent | 157.78   | Best metal or stone curtain panels, tinted glass, atrium, very ornamental          | Plaster, best veneers, vinyl, best marble and carpet, top lobby finishes      | *Luminous lobby ceilings, good tiled core restrooms       | None |
| В     | Good      | 121.36   | Good metal and solar glass, face brick, best precast concrete panels               | Plaster, paneling, vinyl, good pavers, terrazzo, carpet, good entry & lobbies | *Good fluorescent core, ceilings, adequate restrooms      | None |
|       | Average   |  | Brick, concrete or metal and glass panels, some trim, entry ornament               | Drywall or plaster, vinyl, terrazzo, carpet, adequate entry lobby             | *Average-intensity core lighting, average restrooms       | None |
|       | Low cost  | 72.22  | Minimum-cost walls, precast elements and fenestration, little trim                 | Drywall, paint or paper, acoustic ceilings, vinyl comp., plain lobbies        | *Minimum lobby lighting, few core extras, small restrooms | None |

## **CLASSES A AND B: INTERIOR OFFICE BUILD-OUT**

| CLASS | TYPE      | COST/<br>SQ. FT. | INTERIOR FINISH   | LIGHTING, PLUMBING<br>AND MECHANICAL                                | HEAT                          |
|-------|-----------|------------------|---|---|-------------------------------|
|       | Excellent | \$119.64         | High-cost partitions, insulated, many private suites, high-<br>density build-out, many workstations, best conference and reception finishes, standard administrative areas      | Good private office lighting and restrooms, best upgrades           | Hot and chilled water (zoned) |
| A-B   | Good      | 100.05           | Good plaster, partitions, paneling, suspended acoustic, carpet, tile or vinyl, good reception and meeting-room space, good cabinetry, some communication room build-out         | Good fluorescent lighting, wiring, outlets and cabling, some extras | Hot and chilled water (zoned) |
| A-B   | Average   | 73.29            | Average drywall or plaster, acoustic tile, vinyl composition or carpet, adequate shelving and counters, small reception area, few plain meeting rooms, typical clerical         | Adequate lighting and outlets, average break room and fixtures      | Warm and cool air (zoned)     |
|       | Low cost  | 62.50            | Low-cost partitions, paint, suspended ceiling, vinyl com-<br>position, low-cost carpet,<br>minimal counters and shelving, low-density build-out,<br>minimum workletter finishes | Minimum lighting and outlets, few extras, small break room          | Warm and cool air (zoned)     |

# OFFICE BUILDINGS (ALTERNATE METHOD) CLASSES A AND B

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            | SPRINKLERS: Apply        | to area cov | ered by sprin   | klers.        |
|---|---|--------------------------|-------------|-----------------|---------------|
| • | with an asterisk (*). If the building under consideration has no elevators,   | Sq. Ft. LOW              | AVG.        | GOOD            | EXCL.         |
|   | deduct the following from the base costs so marked. For detailed costs        | 1,000 \$4.59             | \$5.97      | \$7.78          | \$10.12       |
|   | For detailed costs, see Section UIP 8.  | 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          |
|   | Classes A/B Sq. Ft.   | 15,000 3.01              | 3.80        | 4.80            | 6.06          |
|   | Costs   | 20,000 2.88              | 3.62        | 4.56            | 5.74          |
|   | Excellent \$12.10   | 30,000 2.70              | 3.38        | 4.24            | 5.32          |
|   | Good 8.25   | 50,000 2.49              | 3.11        | 3.87            | 4.83          |
|   | Average 5.65  | 75,000 2.34              | 2.90        | 3.60            | 4.47          |
|   | Low cost 3.85   | 100,000 2.24             | 2.77        | 3.42            | 4.23          |
|   |   | BALCONIES: Balcony       | cost includ | le the supporti | ng structure. |
|   |   | decking and rails. Apply | costs to th | ne balcony are  | a. a.         |
|   | <b>ELEVATOR STOPS:</b> For basements stops, add \$6,400 to \$9,850 per stop.  |                          | LOW         | AVG. GOOI       | D EXCL.       |
|   |   | Concrete                 | \$21.90     | \$28.25 \$36.7  | 5 \$47.25     |
|   | A small passenger elevator with simple call system and push button con-       | Steel                    | 20.60       | 28.00 38.0      | 0 52.00       |
|   | trol, four-passenger cab, and two or three stops, costs \$56,250 to \$77,250. | Wood                     | 17.80       | 23.80 31.5      | 0 42.25       |
|   |   | Add for ornate finishes, | 40.00       | 00.40 00.5      | 0 05 05       |
|   |   | balustrades              | 19.00       | 23.40 28.5      |               |
|   |   | Add for roofs or awnings | 10.50       | 13.90 18.5      | 0 24.60       |

#### 2 HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

|                             | Sq. Ft. | Sq. Ft.   | Sq. Ft.  |
|-----------------------------|---------|---|--|
| HEATING ONLY                | Costs   | HEATING & COOLING Costs                         | COOLING ONLY Costs                               |
| Electric cable or baseboard | \$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                    |       |       |       |       |       | Α     | VERAG | E PERIN | IETER |       |       |       |       |       | Average                     |
| _ | Floor Area<br>Sq.Ft./Story | 125   | 150   | 200   | 250   | 300   | 400   | 500   | 600     | 700   | 800   | 1000  | 1200  | 1400  | 1600  | Floor Area<br>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                     |

# OFFICE BUILDINGS (ALTERNATE METHOD) CLASSES C, D and S



**EXCELLENT CLASS C** 

**OCCUPANCY DESCRIPTION:** Shell This occupancy, together with occupancy Interior Build-out, Office Building, allows you to individually price the shell and the tenant improvement costs for an office building. This provides an alternative to occupancy Office Building, which includes both the shell and tenant improvement costs.

These building shells are designed for commercial occupancies and are normally subdivided into smaller units for tenant use. Costs include the basic building shell and service core (lobby) area finishes only (commensurate with the building class and rank). Only rough electrical and plumbing are included, except for the lobby finishes and core restrooms.

#### Interior Build-out

This occupancy, together with occupancy Shell, Office Building, allows you to individually price the shell and the tenant improve-

ment costs for an office building. This provides an alternative to occupancy Office Building, which includes both the shell and tenant improvement costs.

Office building build-out finish costs include typical partition density and finishes commensurate with the quality. Floor finishes are carpet, terrazzo or vinyl. Celling finishes vary with the quality. Luminous ceilings and high intensity fluorescent lighting are found in the better qualities.

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

NOT INCLUDED IN COSTS: Sprinklers, equipment, parking or balconies

# **CLASSES C, D AND S: OFFICE SHELL BUILDINGS**

#### **SQUARE FOOT COST TABLE**

| CLASS  | TYPE      | COST/<br>SQ. FT. | EXTERIOR WALLS   | INTERIOR FINISH  | LIGHTING, PLUMBING<br>AND MECHANICAL   | HEAT |
|--------|-----------|------------------|--|--|--|------|
|        | Excellent | \$133.40         | Steel frame, masonry and glass, stone ornamentation, high quality        | Core finish only, veneers, vinyl, marble, carpet, good lobby finishes    | *Luminous lobby ceilings,<br>good core restrooms                             | None |
| С      | Good      | 89.08            | Steel frame or bearing walls, brick/<br>conc. panels, some ornamentation | Core finish only, vinyl, standard terrazzo, carpet, adequate entry lobby | *Good fluorescent core ceilings,<br>average restrooms, service fix-<br>tures | None |
|        | Average   | 58.98            | Steel or concrete frame, or bearing walls, some trim                     | Bare office space, unfinished floor, some service areas                  | *Rough office electrical and plumbing, some service outlets                  | None |
|        | Low cost  | 37.30            | Masonry bearing walls, light rafters, very plain                         | Bare office space, floor slab, no service areas                          | Rough electrical and plumbing  | None |
|        | Excellent | 124.79           | Studs or steel columns, bar or web joists, best brick or stone veneer    | Core finish only, veneers, vinyl, marble, carpet, good lobby finishes    | *Luminous lobby ceilings, good core restrooms                                | None |
| D      | Good      | 82.66            | Best stucco on good frame, brick or stone trim, good front               | Core finish only, vinyl, standard terrazzo, carpet, adequate entry lobby | *Good fluorescent core ceilings,<br>average restrooms, service fix-<br>tures | None |
|        | Average   | 54.19            | Stucco or wood siding on wood studs, some trim                           | Bare office space, unfinished floor, some service areas                  | *Rough office electrical and plumbing, some service outlets                  | None |
|        | Low cost  | 33.73            | Light stucco or siding on wood studs, very plain                         | Bare office space, floor slab, no service areas                          | Rough electrical and plumbing  | None |
| D POLE | Average   | 42.63            | Pole frame, insulated metal panels, some ornamentation                   | Bare office space, unfinished floor, some service areas                  | Rough office electrical and plumbing, some service outlets                   | None |
| DFOLE  | Low cost  | 26.44            | Pole frame, metal panels, finished inside, little trim                   | Bare office space, floor slab, no service areas                          | Rough electrical and plumbing  | None |
|        | Good      | 75.64            | Good sandwich panels and fenestration, some brick or stone               | Core finish only, vinyl, standard terrazzo, carpet, adequate entry lobby | *Good fluorescent core ceilings, average restrooms, service fixtures         | None |
| S      | Average   | 46.21            | Insulated wall or sandwich panels, adequate fenestration                 | Bare office space, unfinished floor, some service areas                  | Rough office electrical and plumbing, some service outlets                   | None |
|        | Low cost  | 29.05            | Steel or aluminum on light frame, finished interior, some insulation     | Bare office space, floor slab, no service areas                          | Rough electrical and plumbing  | None |

# **CLASSES C, D AND S: INTERIOR OFFICE BUILD-OUT**

| CLASS | TYPE      | COST/<br>SQ. FT. | INTERIOR FINISH   | LIGHTING, PLUMBING<br>AND MECHANICAL                                | HEAT                      |
|-------|-----------|------------------|---|---|---------------------------|
|       | Excellent |                  | High-cost partitions, conference and reception finishes, standard administrative areas, good workstations, break room, some private suites, high-density build-out          | Good fluorescent lighting, wiring, outlets and cabling, good extras | Warm and cool air (zoned) |
| CDS   | Good      | 73.09            | Plaster or drywall, good partitions, paneling, suspended acoustic, carpet, tile or vinyl, good reception and meeting-room space, some good cabinetry and management offices | Good fluorescent lighting, outlets, average break room and fixtures | Package A.C.              |
| CDS   | Average   |                  | Average drywall, acoustic tile, vinyl composition or carpet, adequate shelving, counters, small reception area, few plain management and meeting rooms, typical clerical    | Adequate lighting and outlets, average restrooms and fixtures       | Forced air                |
|       | Low cost  | 37.19            | Low-cost partitions, paint, suspended ceiling, vinyl composition, low-cost carpet, minimal counters and shelving, low-density build-out                                     | Minimum lighting and plumbing, few extras, small restrooms          | Electric wall heaters     |

# OFFICE BUILDINGS (ALTERNATE METHOD) CLASSES C, D and S

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            | SPRINKLERS: Ap         | ply to area c | overed by  | sprinkle | rs.        |
|---|---|------------------------|---------------|------------|----------|------------|
| • | with an asterisk (*). If the building under consideration has no elevators,   | Sq. Ft. LO             | N AVG         | . GO       | DD E     | XCL.       |
|   | deduct the following from the base costs so marked. For detailed costs        | 1,000 \$4.5            | 59 \$5.97     | \$7.7      | 78 \$1   | 0.12       |
|   | For detailed costs, see Section UIP 8.  | 2,500 3.9              | 98 5.13       | 6.6        | 31       | 8.51       |
|   |   | 5,000 3.5              | 57 4.57       | 5.8        | 34       | 7.46       |
|   |   | 10,000 3.2             | 20 4.07       | 5.1        | 16       | 6.55       |
|   | Classes C/D Sq. Ft.   | 15,000 3.0             | )1 3.80       | 4.8        | 30       | 6.06       |
|   | Costs   | 20,000 2.8             | 3.62          | 4.5        | 6        | 5.74       |
|   | Excellent \$6.10  | 30,000 2.7             | 70 3.38       | 4.2        | 24 5     | .32        |
|   | Good 3.70   | 50,000 2.4             | 19 3.11       | 3.8        | 37 4     | .83        |
|   | Average 2.20  | 75,000 2.3             | 34 2.90       | 3.6        | 60 4     | .47        |
|   |   | 100,000 2.2            | 24 2.77       | 3.4        | 12 4     | .23        |
|   |   | BALCONIES: Balo        | ony cost incl | ude the su | pporting | structure, |
|   |   | decking and rails. A   | pply costs to | the balcon | iy area. |            |
|   | <b>ELEVATOR STOPS:</b> For basements stops, add \$6,400 to \$9,850 per stop.  |                        | LOW           | AVG.       | GOOD     | EXCL.      |
|   |   | Concrete               | \$21.90       | \$28.25    | \$36.75  | \$47.25    |
|   | A small passenger elevator with simple call system and push button con-       | Steel                  | 20.60         | 28.00      | 38.00    | 52.00      |
|   | trol, four-passenger cab, and two or three stops, costs \$56,250 to \$77,250. | Wood                   | 17.80         | 23.80      | 31.50    | 42.25      |
|   |   | Add for ornate finishe |               | 00.40      | 00.50    | 25.05      |
|   |   | balustrades            | 19.00         | 23.40      | 28.50    | 35.25      |
|   |   | Add for roofs or awn   | ings 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.

|                             | Sq. Ft. |                                      | Sq. Ft.    |  | Sq. Ft.    |
|-----------------------------|---------|--------------------------------------|------------|--|------------|
| HEATING ONLY                | Costs   | <b>HEATING &amp; COOLING</b>         | Costs      | COOLING ONLY                           | 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 to  | n capacity |
| Space heaters, with fan     | 4.38    |                                      |            | Evap. coolers . \$295 to \$515 per MCF | M 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<br>Floor Area |       |       |       |       |       | A     | VERAGI | PERIN | IETER |       |       |       |       |       | Average<br>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                |
|     | 75,000                |       |       |       |       |       |       |        |       |       | .873  | .879  | .885  | .892  | .900  | 75,000                |
|     | 100,000               |       |       |       |       |       |       |        |       |       | .866  | .871  | .876  | .881  | .887  | 100,000               |

# **OFFICE BUILDINGS – REFINEMENTS**

**OCCUPANCY DESCRIPTION:** Atrium/vestibule entries or lobbies are glassed structures which usually abut or are underneath elevated buildings.

Mechanical penthouses shelter the buildings' elevators and other mechanical equipment that is generally located on the roof. The excellent cost rank represents a full intermediate mechanical utility floor found in large high-rise construction. For finished penthouses, i.e., those containing roof apartments, restaurants, use the proper costs for that occupancy.

Mezzanines are generally partial floors between two finished floors, or between the ground floor and the roof, occupying a lesser area than the full floor or floors. The area may be open for general storage or to house the building's mechanicals, or it may be finished for a particular use, such as offices.

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

**NOT INCLUDED IN COSTS:** Sprinklers, elevators or other mechanical equipment.

## ATRIUMS/VESTIBULES

#### SQUARE FOOT COST TABLE

| CLASS | TYPE      | COST/<br>SQ. FT. | EXTERIOR WALLS  | INTERIOR FINISH  | LIGHTING, PLUMBING<br>AND MECHANICAL            | HEAT                          |
|-------|-----------|------------------|---|--|---|-------------------------------|
|       | Excellent | \$505.47         | Structural glass, decorative space frame/shed atrium glazing    | Granite, marble, high cost pavers, ornate finishes                       | Best lighting, adequate electrical and plumbing | Hot and chilled water (zoned) |
|       | Good      | 329.20           | Architectural glazed shed atrium, good space frame              | Good stone, masonry pavers, good lobby wall treatment, trim              | Good lighting and plumbing                      | Hot and chilled water (zoned) |
| А-В   | Average   | 220.44           | Glass shed curtain wall, glass and some exposed roof deck       | Terrazzo, masonry pavers, few partitions or extras                       | Adequate electrical and plumbing                | Hot and chilled water (zoned) |
|       | Low cost  | 140.86           | Metal and glass, some concrete, brick or stucco panels, no roof | Under elevated building vestibule, low cost terrazzo, vinyl and acoustic | Minimum electrical and plumbing                 | Warm and cool air (zoned)     |
|       | Cheap     | 68.39            | Brick, block, concrete, very plain, no roof structure           | Under elevated building, low-cost elevator/stairway vestibule            | Minimum electrical                              | None                          |
|       | Good      | 266.30           | Good glazed shed atrium   | Stone or masonry pavers, some good lobby wall treatment, trim            | Good lighting and plumbing                      | Hot and chilled water (zoned) |
| CDS   | Average   | 166.13           | Glass shed curtain wall, sky-<br>lights, some exposed roof deck | Low-cost terrazzo, masonry pavers, few partitions or extras              | Adequate electrical and plumbing                | Warm and cool air (zoned)     |
| CDS   | Low cost  | 112.90           | Glass panels, block, brick veneer or stucco, no roof            | Under building vestibule, vinyl composition and acoustic tile            | Minimum electrical and plumbing                 | Warm and cool air (zoned)     |
|       | Cheap     | 49.89            | Block, brick veneer or stucco, very plain, no roof structure    | Under elevated building, low-cost elevator/stairway vestibule            | Minimum electrical                              | None                          |

## **MECHANICAL PENTHOUSES**

| CLASS | TYPE                   | COST/<br>SQ. FT. | EXTERIOR WALLS  | INTERIOR FINISH   | LIGHTING, PLUMBING<br>AND MECHANICAL          | HEAT |
|-------|------------------------|------------------|---|---|---|------|
|       | Excellent (Full floor) | \$91.62          | Louvers, best curtain wall panels, matching spandrel              | Intermediate full mechanical floor, utility space, some storage | Adequate lighting, utility outlets and drains | None |
| A-B   | Good                   | 82.63            | Good curtain panels, masonry, louvers, concrete roof              | Mechanical and storage, some finish and partitions              | Adequate lighting, utility outlets and drains | None |
| A-D   | Average                | 58.50            | Curtain panels or masonry, steel roof deck                        | Unfinished equipment and storage, few partitions                | Exposed lighting, adequate drains             | None |
|       | Low cost               | 41.42            | Low cost panels, masonry, very plain                              | Unfinished interior, roof access only                           | Minimum lighting, floor drains                | None |
| CDS   | Average                | 45.17            | Frame or bearing walls, good panels, louvers/masonry, trim        | Unfinished equipment and storage, few partitions                | Exposed lighting, adequate drains             | None |
|       | Low cost               | 31.57            | Light frame or stud single wall, low-cost metal, stucco or siding | Unfinished interior   | Minimum lighting, floor drains                | None |

## **MEZZANINES**

| CLASS | TYPE                      | COST/<br>SQ. FT. | EXTERIOR WALLS | INTERIOR FINISH  | LIGHTING, PLUMBING<br>AND MECHANICAL | HEAT                |
|-------|---------------------------|------------------|----------------|--|--------------------------------------|---------------------|
|       | Office                    | 82.41            | Not included   | Enclosed, average office finish, plaster soffit                            | Average office lighting and plumbing | In building cost    |
|       | Open                      | 46.73            | Not included   | Carpet and vinyl composition, plaster soffit                               | Average lighting and plumbing        | In building cost    |
| A-B   | Good stor./<br>mechanical | 56.18            | Not included   | Metal grating on steel structure   | Adequate lighting, no plumbing       | In building cost    |
|       | Average storage           | 31.37            | Not included   | Painted soffit, light storage, unfinished floor                            | Minimum, exposed lighting            | In building cost    |
|       | Low stor./<br>mechanical  | 13.64            | Not included   | Interstitial space, walk-on platform ceiling assembly, unfinished interior | Minimum lighting, drains             | In building cost    |
|       | Office                    | 60.66            | Not included   | Enclosed, average office finish, acoustic tile soffit                      | Average office lighting and plumbing | In building cost    |
| CDS   | Open                      | 33.50            | Not included   | Open, finished floors and soffit   | Average lighting, no plumbing        | In building cost    |
|       | Average storage           | 22.52            | Not included   | Drywall soffit, wood floor, light storage                                  | Minimum lighting, no plumbing        | In building<br>cost |

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

# **OFFICE BUILDINGS – REFINEMENTS**

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

**ELEVATOR STOPS:** For vestibule, penthouse or mezzanine elevator stops, SPRINKLERS: Apply to area covered by sprinklers. add \$6,400 to \$9,850 per stop. Sq. Ft. LOW AVG. GOOD EXCL. \$4.59 \$7.78 \$10.12 1,000 \$5.97 2.500 3 98 5 13 6 61 8 51 5.000 3.57 4.57 5.84 7 46 10,000 3.20 5.16 6.55 4.07 15,000 3.01 3.80 4.80 6.06 20,000 2.88 3.62 4.56 5.74 30,000 2.70 4.24 5.32 3.38 50,000 2.49 3.11 3.87 4.83 For intermediate or ground-floor parking levels under elevated office buildings, see Parking Levels.

## 2 HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

|                             | Sq. Ft. | Sq. Ft.   |   | Sq. Ft.  |
|-----------------------------|---------|---|---|----------|
| HEATING ONLY                | Costs   | HEATING & COOLING Costs                         | COOLING ONLY                              | Costs    |
| Electric cable or baseboard | \$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 of | 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 | Average Wall Height | <b>Square Foot Multiplier</b> |
|---------------------|------------------------|---------------------|------------------------|---------------------|-------------------------------|
| 8                   | .900                   | 13                  | 1.023                  | 24                  | 1.276                         |
| 9                   | .928                   | 14                  | 1.046                  | 28                  | 1.367                         |
| 10                  | .953                   | 15                  | 1.069                  | 32                  | 1.459                         |
| 11                  | .977                   | 16                  | 1.092                  | 36                  | 1.552                         |
| 12                  | 1.000 (base)           | 20                  | 1.184                  |                     |                               |

| Average<br>Floor Area |       |       |       |       |       | A     | VERAGE | PERIM | ETER  |       |       |       |       |       | Average<br>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                |

# **PASSENGER TERMINALS**



**AVERAGE CLASS C** 

**OCCUPANCY DESCRIPTION:** These passenger or commuter terminal buildings include low-quality bus or train stop waiting structures to the high cost major airport type facility with separate baggage, ticket lobby, concession, lounge and concourse facilities.



**FAIR CLASS C** 

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit. Elevators are included in costs designated with an asterisk (\*). **NOT INCLUDED IN COSTS:** Ticket, baggage, boarding, concession or other food service equipment.

| CLASS  | TYPE                  | COST/<br>SQ. FT. | EXTERIOR WALLS  | INTERIOR FINISH   | LIGHTING, PLUMBING<br>AND MECHANICAL                                    | HEAT                          |
|--------|-----------------------|------------------|---|---|---|-------------------------------|
|        | Excellent             | \$452.47         | Special architecture, metal<br>and glass, stone, concrete,<br>skylights     | Special finishes, acoustic design,<br>high cost lobby, concourse finishes | *High quality specialty lighting, best wiring throughout, good plumbing | Complete<br>H.V.A.C.          |
| A-B    | Good                  | 322.27           | Face brick, metal and glass,<br>limestone, architectural<br>concrete        | Good finishes throughout, some extras, typical major terminal facility    | *Special lighting, good sound sys-<br>tems and plumbing, some extras    | Complete<br>H.V.A.C.          |
|        | Average               | 229.65           | Brick, concrete or metal<br>panels, formed concrete,<br>decorative lobby    | Vaulted ceilings, pavers, terrazzo, good air or train type terminal       | *Good lighting, sound systems and plumbing, food service                | Complete<br>H.V.A.C.          |
|        | Low cost              | 164.06           | Brick, precast concrete, good block, some trim                              | Finished interior, suspended ceiling, terrazzo lobby, small main terminal | *Average lighting, good sound and plumbing, lounge                      | Complete<br>H.V.A.C.          |
| A-B    | Semi-fin.<br>basement | 82.37            | Low cost finishes   | Minimum lounge area, restrooms, some utility and storage                  | Minimum lighting, adequate plumbing                                     | None                          |
| A-D    | Utility basement      | 47.83            | Reinforced concrete, unfinished interior                                    | Unfinished storage areas, some partitions                                 | Minimum lighting and plumbing, drains                                   | None                          |
|        | Excellent             | 313.36           | High cost roof, large arched entries and domed skylights                    | Special finishes, acoustic design, high cost lobby, concourse finishes    | *High quality specialty lighting, best wiring throughout, good plumbing | Complete<br>H.V.A.C.          |
|        | Very good             | 247.54           | Face brick, stone, terra cotta, ornamental entrance and lobby               | Good finishes throughout, some extras, typical major terminal facility    | *Special lighting, good sound systems and plumbing, some extras         | Complete<br>H.V.A.C.          |
| •      | Good                  | 191.18           | Brick, block, concrete, good decorative front and lobby                     | Vaulted ceilings, pavers, terrazzo, good air or train type terminal       | Good lighting, sound systems and plumbing, food service                 | Hot and chilled water (zoned) |
| С      | Average               | 117.58           | Brick, block, concrete, good front and lobby, some trim                     | Finished interior, suspended ceiling, terrazzo lobby, small main terminal | Average lighting, good sound and plumbing, lounge                       | Warm and cool air (zoned)     |
|        | Fair                  | 95.04            | Brick, block, concrete panels,<br>plain commercial building,<br>small entry | Drywall, acoustic tile, vinyl comp. lobby, small city bus station         | Minimum lighting, adequate sound, minimum plumbing                      | Heat pump<br>system           |
|        | Low cost              | 75.02            | Low cost block, tilt-up, very plain, acoustic sound walls                   | Few partitions, very plain, minimum waiting and concession/ticket area    | Minimum code, public address system                                     | Package A.C.                  |
|        | Very good             | 233.90           | Face brick or stone veneer, ornamental entrance and lobby                   | Good finishes throughout, some extras, typical major terminal facility    | *Special lighting, good sound systems and plumbing, some extras         | Complete<br>H.V.A.C.          |
|        | Good                  | 180.16           | Stucco, some brick or stone trim, decorative front and lobby                | Vaulted ceilings, pavers, terrazzo, good air or train type terminal       | Good lighting, sound systems and plumbing, food service                 | Hot and chilled water (zoned) |
| D      | Average               | 110.28           | Stucco or siding, good front and lobby, some trim                           | Finished interior, suspended ceiling, terrazzo lobby, small main terminal | Average lighting, good sound and plumbing, lounge                       | Warm and cool air (zoned)     |
|        | Fair                  | 89.09            | Siding or stucco, small entrance  | Drywall, acoustic tile, vinyl comp. lobby, small city bus station         | Minimum lighting, adequate sound, minimum plumbing                      | Heat pump<br>system           |
|        | Low cost              | 70.19            | Low-cost wood or stucco, very plain   | Few partitions, very plain, minimum waiting and concession/ticket area    | Minimum code, public address system                                     | Package A.C.                  |
| D POLE | Fair                  | 83.67            | Metal panels on pole frame, finished interior, small entrance               | Drywall, acoustic tile, vinyl comp. lobby, small city bus station         | Minimum lighting, adequate sound, minimum plumbing                      | Heat pump system              |
| DFOLL  | Low cost              | 65.63            | Pole frame and truss, metal siding, low cost finish & insul.                | Few partitions, very plain, minimum waiting and concession/ticket area    | Minimum code, public address system                                     | Package A.C.                  |
|        | Average               | 110.79           | Good metal panels, roof, front and lobby, some trim                         | Finished interior, suspended ceiling, terrazzo lobby, small main terminal | Average lighting, good sound and plumbing, lounge                       | Warm and cool air (zoned)     |
| S      | Fair                  | 89.29            | Metal panels, fin. interior, small entrance, masonry sound walls            | Drywall, acoustic tile, vinyl comp. lobby, small city bus station         | Minimum lighting, adequate sound, minimum plumbing                      | Heat pump system              |
|        | Low cost              | 70.18            | Single wall, low-cost interior finish and insulation                        | Few partitions, very plain, minimum waiting and concession/ticket area    | Minimum code, public address system                                     | Package A.C.                  |
| CDS    | Semi-fin.<br>basement | 56.37            | Low cost finishes   | Minimum lounge area, restrooms, some utility and storage                  | Minimum lighting, adequate plumbing                                     | None                          |
| CDS    | Utility basement      | 31.03            | Reinforced concrete, unfinished interior                                    | Unfinished storage area   | Minimum lighting and drains   | None                          |

# PASSENGER TERMINALS

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

| <b>ELEVATORS</b> : Bu | uildings whose bas     | se costs include service e | elevators are | SPRINKLEF | RS: Apply to | o area cov | ered by spr | inklers. |
|-----------------------|------------------------|----------------------------|---------------|-----------|--------------|------------|-------------|----------|
| marked with an a      | sterisk (*). If the bu | ilding under consideration | n has no ele- | Sq. Ft.   | LOW          | AVG.       | GOOD        | EXCL.    |
| vators, deduct the    | e following from th    | e base costs so marked.    | For detailed  | 5,000     | \$2.86       | \$3.79     | \$5.01      | \$6.63   |
| costs see Section     | n UIP 8.               |                            |               | 10,000    | 2.58         | 3.38       | 4.44        | 5.82     |
|                       |                        |                            |               | 20,000    | 2.32         | 3.02       | 3.93        | 5.11     |
| Classes A/B           | Sq. Ft.                | Classes C/D/S              | Sq. Ft.       | 40,000    | 2.09         | 2.70       | 3.48        | 4.49     |
|                       | Costs                  |                            | Costs         | 50,000    | 2.02         | 2.60       | 3.35        | 4.31     |
| Excellent             | \$12.15                | Excellent                  | \$7.59        | 80,000    | 1.88         | 2.41       | 3.08        | 3.95     |
| Good                  | 8.91                   | Very good                  | 5.44          | 100,000   | 1.82         | 2.32       | 2.96        | 3.79     |
| Average               | 6.50                   |                            |               | 200,000   | 1.64         | 2.07       | 2.63        | 3.33     |
| Low-cost              | 4.75                   |                            |               | 400.000   | 1.47         | 1.85       | 2.33        | 2.92     |

#### 2 PASSENGER TERMINAL HEATING, COOLING AND AIR CONDITIONING

Costs of some high-quality terminal mechanical items are listed separately from those of other buildings because of special requirements. 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.

| COMPLETE H.V.A.C.        |         | COMPLETE H.V.A.C.                               | COMPLETE H.V.A.C.             |         |
|--------------------------|---------|---|-------------------------------|---------|
| Classes A/B              | Sq. Ft. | Classes A/B Sq. Ft.                             | Classes C/D                   | Sq. Ft. |
|                          | Costs   | Costs   |                               | Costs   |
| Excellent                | \$62.00 | Average   | Excellent                     | \$47.00 |
| Good                     | 48.75   | Low 30.00                                       | Very good                     | 36.75   |
| HEATING ONLY             |         | HEATING & COOLING                               | COOLING ONLY                  |         |
| Forced air furnace       | 7.01    | Package A.C. (short ductwork) \$13.65           | Central refrigeration (zoned) | \$11.50 |
| Hot water                | 12.40   | Warm and cool air (zoned) 18.65                 | package (short ductwork)      | 7.63    |
| Space heaters, with fan  | 3.54    | Hot/chilled water (zoned) 31.25                 | Central evaporative           | 4.77    |
| radiant                  | 3.96    | Heat pump system 17.10                          |                               |         |
| 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  |

**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 Squar .885 1.086 18 28 1.331 10 .921 20 1.133 30 1.382 12 .960 22 1.181 35 1.515 14 1.000 (base) 24 1.231 40 1.650 16 1.041 26 1.281 50 1.930

| Average<br>Floor Area |       |       |       |       |       | Α     | VERAG | E PERIM | ETER |       |      |       |      |      | Average<br>Floor Area |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|---------|------|-------|------|-------|------|------|-----------------------|
| Sq.Ft./Story          | 300   | 400   | 500   | 600   | 800   | 1000  | 1200  | 1400    | 1600 | 1800  | 2000 | 2200  | 2400 | 3000 | Sq.Ft./Story          |
| 5,000                 | 1.083 | 1.168 | 1.252 |       |       |       |       |         |      |       |      |       |      |      | 5,000                 |
| 10,000                |       | .996  | 1.040 | 1.083 | 1.168 |       |       |         |      |       |      |       |      |      | 10,000                |
| 14,000                |       | .945  | .977  | 1.008 | 1.071 | 1.132 |       |         |      |       |      |       |      |      | 14,000                |
| 20,000                |       |       | .926  | .949  | .996  | 1.040 | 1.083 |         |      |       |      |       |      |      | 20,000                |
| 25,000                |       |       | .907  | .924  | .959  | .996  | 1.032 | 1.066   |      |       |      |       |      |      | 25,000                |
| 30,000                |       |       |       | .907  | .935  | .965  | .995  | 1.025   |      |       |      |       |      |      | 30,000                |
| 40,000                |       |       |       |       | .907  | .926  | .949  | .972    | .995 | 1.019 |      |       |      |      | 40,000                |
| 50,000                |       |       |       |       | .891  | .907  | .924  | .942    | .959 | .977  | .996 | 1.015 |      |      | 50,000                |
| 80,000                |       |       |       |       |       | .875  | .887  | .898    | .907 | .916  | .926 | .937  | .949 | .984 | 80,000                |
| 100,000               |       |       |       |       |       | .863  | .872  | .882    | .891 | .899  | .907 | .916  | .924 | .950 | 100,000               |
| 200,000               |       |       |       |       |       |       | .846  | .850    | .855 | .859  | .863 | .868  | .873 | .887 | 200,000               |
| 400,000               |       |       |       |       |       |       |       |         | .835 | .838  | .841 | .843  | .846 | .853 | 400,000               |

# **PAVILIONS**



## **AVERAGE CLASS D**

**OCCUPANCY DESCRIPTION:** These structures range from a low quality open park/picnic shelter structure to a high cost bandstand pavilion. The average to good pavilion is an average of a gazebo, bandstand and walled pavilion.



## LOW COST CLASS D

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

**NOT INCLUDED IN COSTS:** Picnic units, benches or audio visual equipment.

| CLASS | TYPE      | COST/<br>SQ.FT. | EXTERIOR WALLS   | INTERIOR FINISH   | LIGHTING, PLUMBING<br>AND MECHANICAL              | HEAT   |
|-------|-----------|-----------------|--|---|---|--------|
|       | Excellent | \$237.19        | Face brick, cast stone, ornate trim and railings, slate, copper cover                  | Raised colored slab, pavers, plank ceiling, best bandstand                      | Good electrical, ornamental lighting, some extras | None   |
|       | Very Good | 184.00          | Brick or face block, stone trim, concrete or clay tile cover                           | Raised slab, decorative balustrading, ornate bandstand pavillion                | Good electrical and lighting                      | None   |
|       | Good      | 142.60          | Enclosed, arched openings, brick or block, good trim, heavy shingles                   | Raised slab on fill, good balustrades, good bandstand                           | Adequate electrical, outlets and lighting         | None   |
| С     | Average   | 86.20           | Enclosed, concrete block, little trim, composition shingle cover                       | Unfinished, concrete slab, walled park pavillion                                | Adequate electrical and lighting                  | None   |
|       | Fair      | 66.95           | Open, face block, brick columns, timber roof framing, trellis, tile                    | Unfinished, concrete slab, exposed roof deck, best picnic shelter               | Minimum electrical or water service, service wall | None   |
|       | Low cost  | 52.00           | Open, no walls, block columns,<br>some trim, wood trusses, architec-<br>tural shingles | Unfinished, concrete slab, good park shelter                                    | Minimum lighting                                  | None   |
|       | Cheap     | 40.41           | Open air, no walls, masonry supports, composition shingle cover                        | Unfinished, concrete slab, minimum park picnic shelter                          | None  | None   |
|       | Excellent | 231.73          | Face brick veneer, cast stone trim, heavy trusses, slate, copper cover                 | Raised colored slab, pavers, plank ceiling                                      | Good electrical, ornamental lighting, some extras | None   |
|       | Very Good | 178.57          | Masonry veneer, custom woods, trim, concrete or clay tile cover                        | Raised deck or slab, decorative balustrading, ornate bandstand                  | Good electrical and lighting                      | None   |
| D     | Good      | 137.47          | Enclosed, arched openings, best sidings, trim, trellis, heavy shingles                 | Raised wood deck on piers, good balustrades, good bandstand                     | Adequate electrical, outlets and lighting         | None . |
| D     | Average   | 82.00           | Enclosed, siding or stucco, some trim  | Unfinished, slab or light plank, walled pavillion, average bandstand, gazebo    | Adequate electrical and lighting                  | None   |
|       | Fair      | 63.24           | Open timber framing, trellis, heavy shingle or tile cover                              | Unfinished, concrete slab, exposed roof deck, best picnic shelter, plain gazebo | Minimum electrical or water service, service wall | None   |
|       | Low cost  | 48.82           | Open, no walls, wood columns, some trim, composition shingles                          | Unfinished, concrete slab, good shelter, minimum gazebo                         | Minimum lighting                                  | None   |
|       | Cheap     | 37.68           | Open air, no walls, wood posts, composition, roll or shingle cover                     | Unfinished, concrete slab, prefabricated shelter                                | None  | None   |
|       | Fair      | 58.35           | Open, pole frame, wide span, formed metal cover, good trim                             | Unfinished, concrete slab, brick ribbons, best picnic shelter                   | Minimum electrical or water service, service wall | None   |
| POLE  | Low cost  | 45.06           | Open, no walls, pole frame, metal cover, some trim                                     | Unfinished, concrete slab, good picnic shelter                                  | Minimum lighting                                  | None   |
|       | Cheap     | 34.80           | Open air, no walls, light metal cover on pole frame                                    | Unfinished, concrete slab, prefabricated picnic shelter                         | None  | None   |
|       | Average   | 78.09           | Enclosed, steel frame, metal siding, masonry trim                                      | Unfinished, concrete slab, walled park pavillion                                | Adequate electrical and lighting                  | None   |
| S     | Fair      | 60.46           | Open, wide span truss, formed metal cover, good trim                                   | Unfinished, concrete slab, brick ribbons, best picnic shelter                   | Minimum electrical or water service, service wall | None   |
| 3     | Low cost  | 46.86           | Open, partial wall panels, steel frame, metal cover, some trim                         | Unfinished, concrete slab, good picnic or play shelter                          | Minimum lighting                                  | None   |
|       | Cheap     | 36.31           | Open air, no walls, light steel, colored panels or heavy canvas                        | Unfinished, concrete slab, prefabricted picnic shelter                          | None  | None   |

# **PAVILIONS**

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

SPRINKLERS: Apply to area covered by sprinklers. LOW AVG. GOOD EXCL. Sq. Ft. 5,000 \$3.56 \$4.51 \$5.71 \$7.22 10,000 3.21 4.02 5.05 6.33 15,000 3.01 3.76 4.70 5.86 20,000 2.88 3.59 4.46 5.55 30,000 2.71 3.35 4.15 5.14 40,000 2.59 3.20 3.94 4.87 60,000 2.44 2.99 3.67 4.50 80,000 2.33 2.85 3.49 4.27 100,000 2.25 2.75 3.35 4.09

## 2 HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

|                             | Sq. Ft. | Sq.   | . Ft. |   | Sq. Ft.    |
|-----------------------------|---------|---|-------|---|------------|
| HEATING ONLY                | Costs   | HEATING & COOLING Co.                         | osts  | COOLING ONLY                            | Costs      |
| Electric cable or baseboard | \$ 9.25 | Package A.C. (short ductwork) \$20.           | 0.00  | Central refrigeration (zoned)           | \$14.20    |
| Electric wall heaters       | 3.40    | Warm and cool air (zoned) 30.                 | 0.00  | package (short ductwork)                | 9.90       |
| Forced air furnace          | 12.60   | Hot/chilled water (zoned) 40.                 | 0.25  | Central evaporative                     | 5.50       |
| Hot water                   | 17.10   | Heat pump system 24.                          | 4.90  | Pkg. refrig \$1,980 to \$2,575 per tor  | n capacity |
| Space heaters, with fan     | 3.88    |   |       | Evap. coolers . \$295 to \$485 per MCFN | M capacity |
| radiant                     | 4.44    |   |       |   |            |
| Steam (including boiler)    | 15.50   |   |       |   |            |
| without boiler              | 13.90   | Small indiv. heat pumps cost \$1,750 to \$2,4 | 440   | VENTILATION ONLY                        |            |
| Wall or floor furnace       | 3.75    | per ton of rated capacity.                    |       | Vent. (blowers/ducts)                   | \$3.17     |

3 HEIGHT REFINEMENTS

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

| STORT HEIGHT MULTIPL | IERS: Multiply base cost by follow | virig multipliers for any variation | in average story neight.      |
|----------------------|------------------------------------|-------------------------------------|-------------------------------|
| Average Wall Height  | <b>Square Foot Multiplier</b>      | Average Wall Height                 | <b>Square Foot Multiplier</b> |
| 8                    | .776                               | 18                                  | 1.054                         |
| 10                   | .833                               | 20                                  | 1.106                         |
| 12                   | .889                               | 22                                  | 1.158                         |
| 14                   | .945                               | 24                                  | 1.210                         |
| 16                   | 1.000 (base)                       | 28                                  | 1.313                         |
|                      |                                    |                                     |                               |

| 4 | Average<br>Floor Area |       |       |       |       |       | Α     | VERAG | E PERIM | IETER |       |       |       |       |       | Average<br>Floor Area |
|---|-----------------------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-----------------------|
|   | Sq.Ft./Story          | 250   | 300   | 350   | 400   | 450   | 500   | 600   | 700     | 800   | 900   | 1000  | 1200  | 1400  | 1600  | Sq.Ft./Story          |
|   | 2,000                 | 1.205 | 1.264 | 1.322 | 1.381 |       |       |       |         |       |       |       |       |       |       | 2,000                 |
|   | 5,000                 | 1.034 | 1.056 | 1.078 | 1.100 |       |       |       |         |       |       |       |       |       |       | 5,000                 |
|   | 10,000                |       |       | .999  | 1.011 | 1.023 | 1.034 | 1.056 | 1.078   | 1.100 |       |       |       |       |       | 10,000                |
|   | 14,000                |       |       |       | .982  | .992  | 1.001 | 1.018 | 1.034   | 1.049 | 1.063 |       |       |       |       | 14,000                |
|   | 20,000                |       |       |       |       |       | .971  | .986  | .999    | 1.011 | 1.023 | 1.034 | 1.056 |       |       | 20,000                |
|   | 25,000                |       |       |       |       |       | .954  | .967  | .980    | .992  | 1.003 | 1.011 | 1.027 |       |       | 25,000                |
|   | 30,000                |       |       |       |       |       | .943  | .954  | .965    | .976  | .986  | .995  | 1.011 | 1.026 |       | 30,000                |
|   | 40,000                |       |       |       |       |       |       | .938  | .945    | .954  | .963  | .971  | .986  | .999  | 1.011 | 40,000                |
|   | 45,000                |       |       |       |       |       |       | .934  | .939    | .946  | .954  | .962  | .976  | .989  | 1.001 | 45,000                |
|   | 50,000                |       |       |       |       |       |       | .930  | .935    | .941  | .947  | .954  | .967  | .980  | .992  | 50,000                |
|   | 75,000                |       |       |       |       |       |       | .920  | .923    | .926  | .930  | .934  | .941  | .949  | .958  | 75,000                |
|   | 100,000               |       |       |       |       |       |       | .914  | .917    | .920  | .922  | .925  | .930  | .935  | .941  | 100,000               |

## POST OFFICES - BRANCH/MAIL PROCESSING FACILITIES



#### **GOOD CLASS C BRANCH**

**OCCUPANCY DESCRIPTION:** Branch post offices are small buildings, typically under 10,000 square feet, usually built under lease agreements with the U.S. Postal Service. The exteriors vary, but generally include some ornamentation even at the low quality levels. Interiors are generally drywall. The most common floor finish is vinyl composition.

Mail and package sorting centers are usually built under lease agreements with the U.S. Postal Service, or by commercial package delivery companies. They are designed with large areas to accommodate the processing and shipment of small lots of packages and mail. They have more plumbing and lighting than main post offices in order to service the large personnel load.



#### **AVERAGE CLASS C BRANCH**

A post office commonly has work space, lobby, office, restrooms, directory, loading area and mechanical rooms. The area associated with each of these segments varies due to the overall size of the building and community served. The better quality levels include some security wiring.

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit. Elevators are included in costs designated with an asterisk (\*). Costs for mail-processing facilities include lookout galleries and security wiring.

**NOT INCLUDED IN COSTS:** Material-handling equipment, dock levelers, signs and furnishings.

#### SQUARE FOOT COST TABLE

#### **BRANCH POST OFFICES**

| SQUARE            | - 1001 60 | JOI IADLE        | וואוט  |  |   |                           |
|-------------------|-----------|------------------|--|--|---|---------------------------|
| CLASS             | TYPE      | COST/<br>SQ. FT. | EXTERIOR WALLS   | INTERIOR FINISH  | LIGHTING, PLUMBING<br>AND MECHANICAL                  | HEAT                      |
| A-B               | Average   | \$151.22         | Concrete, metal/glass, or masonry panels, usually part of a building | Plaster and drywall, vinyl wall finish, resilient floors                   | Good illumination and wiring, adequate plumbing       | Warm and cool air (zoned) |
|                   | Excellent | 217.55           | Best brick ashlar on block, stone trim, good ornamentation           | Plaster/drywall, vinyl wall finishes, tiled lobby                          | Good lighting and security wiring, good plumbing      | Heat pump<br>system       |
| С                 | Good      | 160.30           | Ornamental brick or block, precast concrete, good trim               | Plaster/drywall, vinyl or enamel wall finish, resilient floors, good lobby | Good illumination, adequate plumbing and wiring,      | Package A.C.              |
|                   | Average   | 120.82           | Brick, block, tilt-up, some trim                                     | Drywall interiors, vinyl composition tile, acoustic tile, adequate lobby   | Adequate illumination and plumbing, standard fixtures | Package A.C.              |
|                   | Low cost  | 85.16            | Block or brick, stock plans, plain, minimum fenestration             | Gypsum board and paint, vinyl composition, very small lobby                | Adequate lighting, minimum plumbing and wiring        | Forced air                |
|                   | Excellent | 198.74           | Best siding, shingles, EIFS, elastometric roof cover                 | Plaster/drywall, vinyl wall finishes, tiled lobby                          | Good lighting and security wiring, good plumbing      | Heat pump system          |
| D                 | Good      | 148.57           | Good siding or stucco, good trim                                     | Plaster/drywall, vinyl or enamel wall finish, resilent floors, good lobby  | Good illumination, adequate plumbing and wiring,      | Package A.C.              |
| Ь                 | Average   | 113.66           | Stucco, EIFS, or siding, some trim                                   | Drywall interiors, vinyl composition tile, acoustic tile, adequate lobby   | Adequate lighting and plumbing, standard fixtures     | Package A.C.              |
|                   | Low cost  | 81.13            | Stucco or siding, stock plans, plain, minimum fenestration           | Drywall, few partitions, asphalt tile, few extras, very small lobby        | Adequate lighting, minimum plumbing and wiring        | Forced air                |
|                   | Excellent | 209.25           | Brick or stone veneer, good ornamentation                            | Plaster/drywall, vinyl wall finishes, tiled lobby                          | Good lighting and security wiring, good plumbing      | Heat pump system          |
| . D               | Good      | 154.92           | Good brick veneer, good trim   | Plaster/drywall, vinyl or enamel wall finish, resilient floors, good lobby | Good illumination, adequate plumbing and wiring       | Package A.C.              |
| Masonry<br>Veneer | Average   | 117.29           | Brick veneer, built-up or shin-<br>gle roof, some trim               | Drywall interiors, vinyl composition tile, acoustic tile, adequate lobby   | Adequate illumination and plumbing, standard fixtures | Package A.C.              |
|                   | Low cost  | 82.96            | Brick veneer, stock plans, plain, minimum fenestration               | Gypsum board and paint, vinyl composition, very small lobby                | Adequate lighting, minimum plumbing and wiring        | Forced air                |
| S                 | Average   | 117.11           | Sandwich panels, some ornamentation                                  | Drywall interiors, vinyl composition tile, acoustic tile, adequate lobby   | Adequate illumination and plumbing, standard fixtures | Package A.C.              |

## **MAIL-PROCESSING FACILITIES**

| CLASS | TYPE            | COST/<br>SQ. FT. | EXTERIOR WALLS  | INTERIOR FINISH  | LIGHTING, PLUMBING<br>AND MECHANICAL  | HEAT  |
|-------|-----------------|------------------|---|--|---|---|
| A-B   | Average         | \$153.75         | Brick, precast or metal and glass panels, good trim   | Plaster and drywall, good office and sorting areas, lookout galleries  | *Good illumination, security wiring, adequate plumbing  | Hot and chilled water (zoned)                                   |
| С     | Good            | 134.12<br>92.49  | Ornamental brick or block,<br>precast concrete, good trim<br>Brick, block, tilt up, some trim,<br>bar or web joists | Some good offices and interior finish, sorting areas, lookout galleries Painted walls, finished offices and sorting areas, hardened slab | High level lighting and good plumbing and wiring Reading level lighting, adequate plumbing, security wiring | Hot and chilled<br>water(zoned)<br>Warm and cool<br>air (zoned) |
| S     | Good<br>Average | 90.97<br>69.54   | Steel frame, sandwich panels, good trim Sandwich panels, some trim,   | Some good offices and interior finish, sorting areas, lookout galleries  Drywall interiors, finished offices and                         | High level lighting and good plumbing and wiring Reading level lighting, adequate                           | Hot and chilled water (zoned) Warm and cool                     |
|       |                 |                  | bar or web joists   | sorting areas, hardened slab   | plumbing, security wiring   | air (zoned)   |

NOTE: Basement and mezzanine costs are listed under Main Post Offices.

# POST OFFICES - BRANCH/MAIL-PROCESSING FACILITIES

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

| <b>ELEVATORS</b> : Buil | dings whose base costs include service elevators are    | SPRINKLE    | RS: Apply to | o area cove | ered by spri | nklers. |
|-------------------------|---|-------------|--------------|-------------|--------------|---------|
| marked with an as       | sterisk (*). If the building under consideration has no | Sq. Ft.     | LOW          | AVG.        | GOOD         | EXCL.   |
| elevators, deduct t     | he following from the base costs so marked. For de-     | 1,000       | \$3.65       | \$4.92      | \$6.64       | \$8.95  |
| tailed costs, see Se    | ection UIP 8.   | 2,500       | 3.18         | 4.24        | 5.66         | 7.55    |
|                         |   | 5,000       | 2.86         | 3.79        | 5.01         | 6.63    |
| Classes A/B             | Sq. Ft.   | 10,000      | 2.58         | 3.38        | 4.44         | 5.82    |
|                         | Costs   | 15,000      | 2.42         | 3.16        | 4.13         | 5.40    |
| Average                 | 6.16  | 20,000      | 2.32         | 3.02        | 3.93         | 5.11    |
| -                       |   | 30,000      | 2.18         | 2.83        | 3.66         | 4.74    |
| <b>ELEVATOR STOP</b>    | S: For basement or mezzanine elevator stops, add        | 40,000      | 2.09         | 2.70        | 3.48         | 4.49    |
| \$6,400 to \$9,650 p    | per stop.   | 50,000      | 2.02         | 2.60        | 3.35         | 4.31    |
|                         |   | 80,000      | 1.88         | 2.41        | 3.08         | 3.95    |
| <b>DOCK HEIGHT FI</b>   | LOORS: Add \$1.64 to \$6.20 per square foot to base     | 100,000     | 1.82         | 2.32        | 2.96         | 3.79    |
| cost of first floor.    | ·   | 150,000     | 1.71         | 2.17        | 2.76         | 3.51    |
|                         | CK LEVELERS: Cost \$6,100 to \$11,600 each. See         |             |              |             |              |         |
| Section UIP 15 for      | greater detail.   | Loading doc | ks, see Pa   | ge CAL 39   | 8.           |         |

## 2 HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

|                             | Sq. Ft. |   | Sq. Ft. |  | Sq. Ft.    |
|-----------------------------|---------|---|---------|--|------------|
| HEATING ONLY                | Costs   | <b>HEATING &amp; COOLING</b>            | Costs   | COOLING ONLY                           | Costs      |
| Electric cable or baseboard | \$ 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                   | 12.40   | Heat pump system                        | 17.10   | Pkg. refrig \$1,660 to \$2,180 per to  | n capacity |
| Space heaters, with fan     | 3.54    |   |         | Evap. coolers . \$235 to \$385 per MCF | M 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

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

| 4 | Average<br>Floor Area |       |       |       |       |       | -     | VERAG |       |       |       |       |       |       |      | Average<br>Floor Area |
|---|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-----------------------|
|   | Sq.Ft./Story          | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 800   | 1000  | 1200  | 1500  | 2000 | Sq.Ft./Story          |
|   | 1,000                 | 1.252 | 1.468 |       |       |       |       |       |       |       |       |       |       |       |      | 1,000                 |
|   | 2,000                 |       | 1.147 | 1.252 | 1.360 |       |       |       |       |       |       |       |       |       |      | 2,000                 |
|   | 5,000                 |       |       | .996  | 1.040 | 1.083 | 1.125 | 1.168 | 1.210 | 1.252 |       |       |       |       |      | 5,000                 |
|   | 10,000                |       |       |       |       |       | .972  | .996  | 1.019 | 1.040 | 1.168 |       |       |       |      | 10,000                |
|   | 14,000                |       |       |       |       |       |       | .945  | .961  | .977  | 1.071 | 1.132 |       |       |      | 15,000                |
|   | 20,000                |       |       |       |       |       |       |       |       | .926  | .996  | 1.040 | 1.083 |       |      | 20,000                |
|   | 25,000                |       |       |       |       |       |       |       |       | .907  | .959  | .996  | 1.032 |       |      | 25,000                |
|   | 30,000                |       |       |       |       |       |       |       |       |       | .935  | .965  | .995  | 1.040 |      | 30,000                |
|   | 40,000                |       |       |       |       |       |       |       |       |       | .907  | .926  | .949  | .984  |      | 40,000                |
|   | 50,000                |       |       |       |       |       |       |       |       |       | .891  | .907  | .924  | .950  | .996 | 50,000                |
|   | 70,000                |       |       |       |       |       |       |       |       |       |       | .884  | .896  | .913  | .945 | 70,000                |
|   | 100,000               |       |       |       |       |       |       |       |       |       |       | .863  | .872  | .887  | .907 | 100,000               |

## **POST OFFICES - MAIN**



GOOD CLASS C



**AVERAGE CLASS C** 

**OCCUPANCY DESCRIPTION:** These larger buildings, typically between 10,000 and 30,000 square feet, are usually built under lease agreements with the U.S. Postal Service. The exteriors vary, but generally include some ornamentation even at the low quality levels. Interiors are plaster or drywall. The most common floor finishes are vinyl composition with terrazzo or pavers in the lobby areas.

A post office commonly has work space, lobby, office, restrooms, directory, loading area and mechanical rooms. The area associated

with each of these segments varies due to the overall size of the building and community served. The better quality levels include lookout galleries, as well as good security wiring.

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

**NOT INCLUDED IN COSTS:** Material handling equipment, dock levelers, signs and furnishings.

| CLASS            | TYPE                    | COST/<br>SQ. FT. | EXTERIOR WALLS   | INTERIOR FINISH   | LIGHTING, PLUMBING<br>AND MECHANICAL                      | HEAT                          |
|------------------|-------------------------|------------------|--|---|---|-------------------------------|
|                  | Good                    | \$264.61         | Face brick, metal panels, good   | Plaster, vinyl wall finishes, vinyl   | *High-quality lighting and                                | Hot and chilled               |
| A-B              |                         |                  | glass, ornamentation   | composition, some terrazzo/pavers   | security wiring, good plumbing                            | water (zoned)                 |
| A-D              | Average                 | 198.45           | Brick, precast or metal and  | Plaster and drywall, vinyl wall finish,   | *Good illumination, security                              | Warm and cool                 |
|                  |                         |                  | glass panels, ornamentation  | vinyl composition tile  | wiring, adequate plumbing                                 | air (zoned)                   |
|                  | Parking basement        | 60.46            | Unfinished concrete, water-<br>proofed walls                                   | Unfinished, concrete floor, striped   | Minimum lighting, adequate drains                         | Ventilation                   |
| A-B              | Good storage bsmt.      | 64.39            | Reinforced concrete, semifinished, painted interior                            | Some partitions, heavy floor, good storage or work areas                        | Adequate lighting and plumbing, good drains               | Space heaters                 |
|                  | Avg. stor-<br>age bsmt. | 47.83            | Reinforced concrete, unfinished interior                                       | Unfinished storage areas, some partitions                                       | Minimum lighting and plumbing, drains                     | None                          |
|                  | Excellent               | 247.69           | Stone, ashlar or panels, highly ornamental                                     | Plaster, vinyl wall finishes, vinyl composition, some terrazzo or pavers        | High-quality lighting and security wiring, good plumbing  | Hot and chilled water (zoned) |
| С                | Good                    | 181.26           | Ornamental brick or block, precast concrete, good trim                         | Plaster/drywall, vinyl or enamel wall finish, good resilient floors             | Good illumination, security wiring, adequate plumbing     | Warm and cool air (zoned)     |
|                  | Average                 | 139.15           | Brick, block, tilt-up, some good ornamentation                                 | Drywall, vinyl or enamel wall finish, resilient floors, adequate offices        | Adequate illumination, security wiring and plumbing       | Heat pump<br>system           |
|                  | Very Good               | 191.52           | Best siding, much trim, highly or-<br>namentated, complex roof skylights       | Plaster/drywall, vinyl wall finishes, vinyl composition some terrazzo or pavers | Good-quality, lighting and security wiring, good plumbing | Warm and cool air (zoned)     |
| D                | Good                    | 169.06           | Best stucco or siding, good ornamentation                                      | Plaster/drywall, vinyl or enamel wall finish, good resilient floors             | Good illumination, security wiring, adequate plumbing     | Warm and cool air (zoned)     |
|                  | Average                 | 130.86           | Stucco, EIFS, or siding, some good ornamentation                               | Drywall, vinyl or enamel wall finish, resilient floors, adequate offices        | Adequate illumination, security wiring and plumbing       | Heat pump system              |
|                  | Excellent               | 226.89           | Best stone or brick veneer, good trim  | Plaster, vinyl wall finishes, vinyl composition, some terrazzo/pavers           | High-quality lighting and security wiring, good plumbing  | Warm and cool air (zoned)     |
| D<br>Masonry     | Good                    | 174.96           | Brick veneer, good built-up or shingle roof and trim                           | Plaster/drywall, vinyl or enamel wall finish, good resilient floors             | Good illumination, security wiring, adequate plumbing     | Warm and cool air (zoned)     |
| Veneer           | Average                 | 134.32           | Brick or block veneer, shingle<br>or built-up roof, some good<br>ornamentation | Drywall, vinyl or enamel wall finish, resilient floors, adequate offices        | Adequate illumination, security wiring and plumbing       | Heat pump<br>system           |
| S                | Average                 | 134.16           | Steel frame, best sandwich panels, some good ornamentation                     | Drywall, vinyl or enamel wall finish, resilient floors, adequate offices        | Adequate illumination, security wiring and plumbing       | Heat pump system              |
| CDC <sup>†</sup> | Parking basement        | 39.56            | Unfinished concrete, waterproofed  | Plaster or drywall ceiling, concrete floor, striped                             | Minimum lighting, adequate drains                         | Ventilation                   |
| CDS <sup>†</sup> | Storage basement        | 31.03            | Reinforced concrete, unfinished interior                                       | Unfinished storage areas, some partitions                                       | Minimum lighting and drains                               | None                          |

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

# **POST OFFICES - MAIN**

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

SPRINKLERS: Apply to area covered by sprinklers. **ELEVATORS:** Buildings whose base costs include service elevators are marked with an asterisk (\*). If the building under consideration has no Sq. Ft. LOW AVG. GOOD EXCL. elevators, deduct the following from the base costs so marked. For de-5,000 \$2.86 \$3.79 \$5.01 \$6.63 tailed costs, see Section UIP 8. 10,000 2.58 3.38 4.44 5.82 5.40 15,000 2.42 3.16 4.13 20,000 Classes A/B Sq. Ft. 2.32 3.02 3.93 5.11 Costs 30,000 2.18 2.83 3.66 4.74 40,000 4 49 \$8 41 2.09 2 70 3 48 Good . . . . . . . . . . . . . . Average ...... 6.16 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 ELEVATOR STOPS: For basement or mezzanine elevator stops, add \$6,400 to \$9,650 per stop. DOCK HEIGHT FLOORS: Add \$1.64 to \$6.20 per square foot to base cost of first floor. AUTOMATIC DOCK LEVELERS: Cost \$6,100 to \$11,600 each. See Section UIP 15 for greater detail. For loading docks, see Page CAL 398.

#### 2 HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

|                             | Sq. Ft. |   | Sq. Ft. |   | Sq. Ft.     |
|-----------------------------|---------|---|---------|---|-------------|
| HEATING ONLY                | Costs   | HEATING & COOLING                       | Costs   | COOLING ONLY                            | Costs       |
| Electric cable or baseboard | \$ 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                   | 12.40   | Heat pump system                        | 17.10   | Pkg. refrig \$1,660 to \$2,180 per tor  | n capacity  |
| Space heaters, with fan     | 3.54    |   |         | Evap. coolers . \$235 to \$385 per MCFN | of 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      |
|                             |         |   |         |   | I           |

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

| 4 | Average<br>Floor Area | AVERAGE PERIMETER |       |       |       |       |       |       |       |       |       | Average<br>Floor Area |      |      |      |              |
|---|-----------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------|------|------|------|--------------|
|   | Sq.Ft./Story          | 250               | 300   | 350   | 400   | 450   | 500   | 600   | 800   | 1000  | 1200  | 1500                  | 2000 | 2400 | 2600 | 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 | 1.168 |       |       |                       |      |      |      | 10,000       |
|   | 14,000                |                   |       |       | .945  | .961  | .977  | 1.008 | 1.071 | 1.132 |       |                       |      |      |      | 14,000       |
|   | 20,000                |                   |       |       |       |       | .926  | .949  | .996  | 1.040 | 1.083 |                       |      |      |      | 20,000       |
|   | 25,000                |                   |       |       |       |       | .907  | .924  | .959  | .996  | 1.032 |                       |      |      |      | 25,000       |
|   | 30,000                |                   |       |       |       |       |       | .907  | .935  | .965  | .995  | 1.040                 |      |      |      | 30,000       |
|   | 40,000                |                   |       |       |       |       |       |       | .907  | .926  | .949  | .984                  |      |      |      | 40,000       |
|   | 50,000                |                   |       |       |       |       |       |       | .891  | .907  | .924  | .950                  | .996 |      |      | 50,000       |
|   | 70,000                |                   |       |       |       |       |       |       |       | .884  | .896  | .913                  | .945 | .969 | .982 | 70,000       |
|   | 80,000                |                   |       |       |       |       |       |       |       | .875  | .887  | .903                  | .926 | .949 | .961 | 80,000       |
|   | 100,000               |                   |       |       |       |       |       |       |       | .863  | .872  | .887                  | .907 | .924 | .933 | 100,000      |