## Nominal Life Expectancy for Building Components

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<tr>
<td>HVAC</td>
<td>a. Air Conditioner</td>
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<tr>
<td></td>
<td>i. Window Unit</td>
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<td></td>
<td>ii. Residential Single or Split Package</td>
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<td>iii. Commercial Through-the-Wall</td>
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<td></td>
<td>iv. Water-Cooled Package</td>
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<td>v. Computer Room Unit</td>
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<td>b. Air Handling Units</td>
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<tr>
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<td>i. Built-Up</td>
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<td>ii. Packaged</td>
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<td>c. Heat Pumps</td>
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<tr>
<td></td>
<td>i. Residential Air-to-Air</td>
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<td></td>
<td>ii. Commercial Air-to-Air</td>
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<td>iii. Commercial Water-to-Air</td>
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<td>d. Roof-Top Air Conditioners</td>
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<tr>
<td></td>
<td>i. Single Zone</td>
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<td>ii. Multi-zone</td>
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<td>iii. VAV</td>
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<td>e. Boilers, Hot Water</td>
</tr>
<tr>
<td></td>
<td>i. Steel Water-Tube</td>
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<td>ii. Steel Fire-tube</td>
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<td>iii. Cast Iron</td>
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<td>iv. Electric</td>
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<td>f. Boilers, Steam</td>
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<td></td>
<td>i. Steel Water-Tube</td>
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<td>ii. Steel Fire-Tube</td>
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<td>iii. Cast Iron</td>
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<td>iv. Electric</td>
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<td>v. Burners</td>
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<td>g. Furnaces</td>
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<tr>
<td></td>
<td>i. Gas Fired</td>
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<td>ii. Oil Fired</td>
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<td>h. Unit Heaters</td>
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<tr>
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<td>i. Gas</td>
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</tbody>
</table>
ii. Electric 10
iii. Hot Water 20
iv. Steam 19

i. Radiant Heaters
   i. Electric 10
   ii. Hot Water 25
   iii. Gas 18

j. Air Terminals
   i. Diffusers, Grilles, Registers 27
   ii. Induction Units 25
   iii. Fan-Coil Units 20
   iv. VAV Boxes Cooling Only 25
   v. CAV Boxes 25
   vi. Double Duct Boxes 25
   vii. Fan Powered VAV Boxes 17
   viii. Variable Volume Temperature Boxes 15

k. Air Washers 15

l. Ductwork 30

m. Dampers 20

n. Fans
   i. Centrifugal 25
   ii. Axial 20
   iii. Propeller 15
   iv. Ventilating Roof-Mounted 20

o. Coils
   i. Direct Expansion 18
   ii. Water 18
   iii. Steam 22
   iv. Electric 12

p. Heat Exchangers
   i. Commercial – Shell and Tube
      1. Steam to Domestic Water 13
      2. Steam to Heating Water 20
      3. Water to Domestic Water 20
      4. Water to Water 25
ii. Residential Immersion Coil 25
iii. Plate and Frame 25

q. Reciprocating Air Compressors 15

r. Package Chillers
   i. Reciprocating 20
   ii. Centrifugal 28
   iii. Absorption 30
   iv. Screw 20
   v. Scroll 15

s. Cooling Towers
   i. Galvanized Metal 18
   ii. Wood 20
   iii. Ceramic 34
   iv. Fiberglass 35

t. Condensers
   i. Air-Cooled 20
   ii. Evaporative 15

u. Insulation
   i. Molded 20
   ii. Blanket 24

v. Pumps
   i. Base Mounted 25
   ii. Pipe Mounted 10
   iii. Sump-Submerged 10
   iv. Well-Submerged 10
   v. Condensate 15

w. Reciprocating Engines
   i. Continuous Service 5
   ii. Back-Up Service 20

x. Steam Turbines 30

y. Electric Motors 18

z. Motor Starters 20

aa. Electric Transformers
   i. Oil-Filled 30
   ii. Dry Type 30
bb. Controls
   i. Pneumatic  18
   ii. Electric  20
   iii. Electronic  20
   iv. Computer-Direct Digital Controls  20
cc. Valve Actuators
   i. Hydraulic  15
   ii. Pneumatic  20
   iii. Self-Contained  10
dd. Damper Actuators
   i. Pneumatic  20
   ii. Electric  18
ee. Heating and Cooling Piping System  30
B. Elevator/Escalator

a. Elevator
   i. Hydraulic
      1. High Use 15
      2. Low Use 35
   ii. Gearless Traction 50
   iii. Geared Traction
      1. High Use 20
      2. Low Use 35
   iv. Cab Interior Finish 10
   v. Carpet – Cab 0.5

b. Escalator 40

c. Controllers – Computer Based 20

d. Elevator Door Operations 20
C. Plumbing

a. Hot Water Heaters
   i. Electric 10
   ii. Oil Fired 10
   iii. Gas Fired 10

b. Flush Valves 12

c. Fixtures - Commercial
   i. Faucets 7
   ii. Water Closets 30
   iii. Urinals 30
   iv. Sinks 30

d. Pumps
   i. Base Mounted 25
   ii. Pipe Mounted 10
   iii. Sewage Ejector 10
   iv. Sump-Submerged 10
   v. Well-Submerged 10

e. Backflow Preventers 5

f. Domestic Water Piping System 30
D. Roofing

a. 4-Ply Built-Up
   i. Asphalt
      1. Flat (dead level) 18
      2. Sloped (1/4 “ per foot) 25
   ii. Cold Tar 35
   iii. Hot Applied Rubberized Asphalt 30
       (Protected Membrane Assembly)

b. Ply Modified Bitumen (Mopped Down)
   i. Flat (dead level) 15
   ii. Sloped (1/4” per foot) 20

c. Single Ply
   i. EPDM
      1. Flat (dead level) 5
      2. Sloped (1/4” per foot) 20
   ii. Thermoplastic (Hypalon, PVC) 15
   iii. Modified Bitumen (Touched On)
      1. Flat (dead level) 10
      2. Sloped (1/4” per foot) 15

d. Metal
   i. Structural Roof Panels (Prefinished Galv. Steel) 25
   ii. Pre-manufactured Architectural Roof Panels
       (Alum or Galvanized Steel) 25
   iii. Custom Fabricated Standing Seam Roofing
       (Copper, Lead Coated Copper, Terne Coated
       Stainless Steel) 75
   iv. Custom Fabricated Flat Seam (Copper, Lead
       Coated Copper, Terne Coated Stainless Steel) 50

e. Asphalt Shingles
   i. 15 Year 15
   ii. 20 Year 20
   iii. 25 Year 25
   iv. 30 Year 30

f. Slate
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Cost</th>
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<tbody>
<tr>
<td>i</td>
<td>S-1</td>
<td>100</td>
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<tr>
<td>ii</td>
<td>S-2</td>
<td>75</td>
</tr>
<tr>
<td>iii</td>
<td>S-3</td>
<td>50</td>
</tr>
<tr>
<td>g</td>
<td>Clay/Concrete Tile</td>
<td>50+</td>
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<td>h</td>
<td>Spray-On Polyurethane Foam Roofing</td>
<td>10</td>
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</tbody>
</table>
E. Electrical

a. Electric Motors 18
b. Electric Transformers
   i. Oil Filled 30
   ii. Dry Type 30
c. Motor Control Center 30
d. Uninterrupted Power Supply
   i. Battery 10
   ii. Rotary 15
e. Batteries 5
f. Main Service Panels 30
g. Sub Panels
   i. 120/280 V 30
   ii. 277/480 V 30
h. Circuit Breakers 30
i. Light Fixtures 20
j. Emergency Engine Generator Set 20
k. Ground Fault Switch 30
F. Fire Life Safety, Access Control, Security System

a. Fire Alarm  15
b. Fire Pumps  25
c. Sprinklers  25
d. Security System  10
e. Access Control System  10
f. CCTV
   i. Monitors  5
   ii. Pan & Tilt Motors  5
   iii. Cameras – Tube  2
   iv. Cameras – Chip  6
   v. Computer Control  10
   vi. Standby Power Supply – Battery  5
G. Interior Finishes

a. Flooring
   i. Vinyl
      1. Tile 12
      2. Sheet 12
   ii. Carpet – Common Area
      1. Broad Loom 6
      2. Carpet Tiles 6
      3. Loop Pile 7
   iii. Epoxy 15
   iv. Ceramic Tile 20
   v. Stone
      1. Granite 75+
      2. Marble 50
      3. Slate 50
   vi. Terrazzo 50
   vii. Wood 15
   viii. Concrete 50

b. Walls
   i. Plaster/Drywall with skim coat 30
   ii. Vinyl Wall Covering 10
   iii. Paint 5
   iv. Wall Paper 4
   v. Epoxy (two part) 7
   vi. Fabric 5
   vii. Wood 15

c. Ceilings
   i. Plaster/Drywall with skim coat 30
   ii. Suspended
      1. Spline System 20
      2. Lay-In System 25
      3. Ceiling Tiles 13
   iii. Metal 25
   iv. Wood 30

d. Door Hardware
i. Entry Lock sets 10
ii. Door Closures 10
iii. Coordinating Door Mechanism 7
iv. Handicap Door Opener 10
v. Rollup Door (Commercial) 15
vi. Rollup Door (Industrial) 20
H. Structural

a. Steel

b. Concrete

c. Wood  
   30

d. Facade
   i. Brick, Block and Stone
   ii. Concrete – Poured in Place
   iii. Metal Curtain Wall  
   iv. Glass Curtain Wall  
   v. Precast Panels  
   vi. Stone Veneer  
   vii. Windows  

Life of Building
I. Parking Decks
   a. Underground Structures
   b. Outside
      i. Exposed
      ii. Covered

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