Segregated Estimator Program

Component Master List

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Overview

This *Component Master List* contains a listing of the components available for use in the Segregated Estimator, part of the SwiftEstimator Suite from Marshall & Swift. It includes brief descriptive information about many of the individual components, as well as notes indicating any limitations or special use instructions.

For complete definitions of the components in this manual, see the *Component Reference* manual.

The components are organized by Construction System. See the following page for further information. When a Construction System contains a large number of components, they have been further organized by the occupancy in which they are most frequently used or by the type of equipment.

Component Listings

The list of components in each Construction System has the following three columns:

- **Component Code:** The code that identifies the component if you are directly entering components into Segregated Estimator.
- **Component Name:** The name of the component that prints in the report.
- **Component Quantity and Sizes:** The quantity that you need to enter for the component, together with any component sizes (if required):
  - **Quantity**: For some components, the quantity is listed as "% or Floor Area (SF)." This indicates that you can enter either of the following for the component: Percentage of the Total Floor Area, or the Floor Area covered or served by the component. For other components, only a quantity is listed.
  - **Size(s):** Some components require that you enter one or two sizes (named Size 1 and Size 2 on the Worksheets). The third column has "S1:" followed by a size name if the component requires a Size 1, and "S2:" followed by a size name if the component requires a Size 2 (see the second example below).

Example: Two components in the "Interior Construction" Construction System are:

HA	Interior Construction, Framed	% or Floor Area (SF)
HF	Brick	Wall Partition Area (SF)

The first component (HA) is a "Square Foot" component that requires you to enter either the percentage of the Total Floor Area with Interior Construction or the Square Feet of Floor Area with Interior Construction. The second component (HF) is an "Alternate Method" component that requires you to enter the area of the brick partitions in square feet. Neither of these components requires a size.

The following illustrates how to enter Framed Interior Construction covering 100% on the General Worksheet:

Code	System	Pct	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life
HA		***100***							

The following illustrates how to enter 1,200 square feet of brick interior partitions:

Code	System	Pct	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life
HF			***1200***						

Note: Typically, when a Construction system has both Square Foot and Alternate Method components, you should not mix the two methods. In the previous example, you should either use the Square Foot components (such as HA) to enter typical interior construction (frame or masonry) based on the floor area, or the Alternate Method components (such as HF) to enter specific interior construction materials based on the partition area. You would not, for example, enter 80% for HA and 1,200 square feet for HF.

Example: Two components in the "Elevator" Construction System are:

TPAS	Passenger Elevator, Automatic, Stops	# Stops S1: Capacity (2000-5000 Lbs)
TPA	Passenger Elevator, Automatic	# Elevators S1: Capacity (2000-5000 Lbs) S2: Speed (300-1400 Feet/Minute)

The first component (TPAS) requires the following:

- Quantity: Number of Stops
- Size 1: Capacity in pounds, with a minimum of 2,000 and a maximum of 5,000.

The second component (TPA) requires the following:

- Quantity: Number of Elevators

- Size 1: Capacity in pounds, with a minimum of 2,000 and a maximum of 5,000.
- Size 2: Speed in feet per minute, with a minimum of 300 and a maximum of 1400

The following illustrates how you would enter 2 elevators with a capacity of 4,000 pounds, a speed of 1,000 feet/minute and 5 stops per elevator:

Code	System	Pct	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life
TPA			***2***	***4000***	***1000***				
TPAS			***10***	***4000***					

Construction Systems

Components and additions in Segregated Estimator are divided into Construction Systems. There are three different groups of Construction Systems: Building (Superstructure), Building (Nonsuperstructure) and Nonbuilding. Construction Systems, and the components in them, are printed in reports in the following order:

Building (Superstructure) Construction Systems
Building (Nonsuperstructure) Construction Systems
Nonbuilding Construction Systems (following Depreciation)

The following lists the Construction Systems in each group, and explains how Segregated Estimator handles depreciation for components and additions in each group.

Building (Superstructure) Construction Systems

Components (and additions) in the following Construction Systems are included in Subtotal Superstructure Cost in the report. Segregated Estimator automatically depreciates all components and additions within these Construction Systems using the depreciation percentage you set for the section (if any). You can override this automatic depreciation for individual components or additions by entering a specific depreciation percentage or an age and life (for straight line depreciation) for the component (or addition).

Page	Construction System
7	Excavation & Site Preparation
9	Foundation
11	Frame
16	Floor Structure
18	Floor Cover
19	Ceiling
21	Interior Construction
24	Plumbing
25	Fire Protection
26	Heating, Cooling & Ventilation
29	Electrical
30	Exterior Wall
35	Stained Glass Windows
36	Storefront
37	Wall Ornamentation
38	Roof Structure
40	Roof Cover
41	Elevators

44	Miscellaneous Built-in Construction
47	Shopping Center Mall
48	Mezzanine/Interior Balcony
50	Residential Porch
51	Exterior Balcony
52	Stairs
53	Other Superstructure

Building (Nonsuperstructure) Construction Systems

Components and additions in the following Construction Systems are included in Replacement Cost New in the report, but are not part of the Superstructure Cost. Segregated Estimator automatically depreciates all components and additions within these Construction Systems using the depreciation percentage you set for the section (if any). You can override this automatic depreciation for individual components or additions by entering a specific depreciation percentage or an age and life (for straight line depreciation) for the component or addition.

Page	Construction System
57	Other Nonsuperstructure
62	Basement
64	Garage
65	Carport
66	Breezeway

Nonbuilding Construction Systems

Components and additions in the following Construction Systems are included in the Miscellaneous Costs that print below the Depreciated Cost in the report. Segregated Estimator does not automatically depreciate components or additions in these construction systems. The only way to depreciate them is to enter an individual depreciation percentage (or an effective age and typical life for straight line depreciation).

Page	Construction System
68	Yard Improvements
74	Shed and Farm Building Equipment
76	Feeders, Waterers and Waste Equipment
78	Stock and Equestrian Equipment
80	Barn and Dairy Equipment
82	Poultry Equipment
84	Sheep and Swine Equipment
86	Grain Handling and Storage

91 Miscellaneous Agricultural Equipment

Building (Superstructure) Construction Systems

Components (and additions) in the following Construction Systems are included in Subtotal Superstructure Cost in the report. Segregated Estimator automatically depreciates all components and additions within these Construction Systems using the depreciation percentage you set for the section (if any). You can override this automatic depreciation for individual components or additions by entering a specific depreciation percentage or an age and life (for straight line depreciation) for the component (or addition).

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Excavation & Site Preparation

Components include bulk excavation, clearing and site grading, but do not include demolition or trenching for the foundation or footings. These components can be used for areas beyond the building lines where entire building site improvements are being valued (e.g., parking lot areas).

BC	Site Preparation	% or Ground Floor Area (SF)
BA	Excavation, Bulk	Volume Excavated (CF)
BB	Fill	Volume Excavated (CF)

Foundation

Components include concrete or masonry piers, footings or pads which support posts or columns, and continuous footings or foundation walls. The costs for trenching, excavating and backfill for the footings are included.

Square Foot Method

Square foot method foundation costs contemplate normal perimeter and interior foundations typical of a load-bearing or fully framed structure for the occupancy and quality. For commercial structures, include both superstructure and basement areas. For residential structures, include superstructure area only. **CAUTION:** Do not use square foot method components in combination with alternate method components.

Complete Foundations

CAB	Concrete, Bearing Wall	% or Floor Area (SF)
CA	Concrete, Nonbearing Wall	% or Floor Area (SF)
CAE	Concrete, Siding/Stucco	% or Floor Area (SF)
CAF	Concrete, Masonry Veneer	% or Floor Area (SF)
CAD	Concrete, Pole Type	% or Floor Area (SF)
CAC	Concrete, Open Shell Type	% or Floor Area (SF)
CAG	Treated Wood, Masonry Veneer	% or Floor Area (SF)
CAH	Treated Wood, Siding/Stucco	% or Floor Area (SF)
CJ	Masonry	% or Floor Area (SF)
CK	Masonry Blocks	% or Floor Area (SF)

Column Footings Only

CEB	Conc. Col. Footings, Steel Column, Light Pre-eng.	% or Floor Area (SF)
CDC	Concrete Column Footing, Wood Column	% or Floor Area (SF)
CDB	Conc. Col. Footings, Wood Col., Light Pole Frame	% or Floor Area (SF)
CDD	Piers, Concrete Footing	% or Floor Area (SF)
CB	Wood Blocks and Sills	% or Floor Area (SF)

Alternate Method

For low-rise Class C, D or S shell-type construction with minimal interior construction. **CAUTION:** Do not use alternate method components in combination with square foot method components.

Continuous Foundations – Linear Feet

CC	Concrete	Length (LF)
CCE	Concrete, Siding/Stucco	Length (LF)
CCF	Concrete, Masonry Veneer	Length (LF)
CCJ	Concrete, Light Reinf. Grade Beam	Length (LF)
CCK	Concrete, Unreinf. Grade Beam	Length (LF)
CCH	Treated Wood, Siding/Stucco	Length (LF)
CCG	Treated Wood, Masonry Veneer	Length (LF)
CBA	Wood Sills	Length (LF)

Concrete Column Footings - Each

CF	Concrete Column Footings, Concrete Column	# Footings
CE	Concrete Column Footings, Steel Column	# Footings
CEA	Conc. Col. Footings, Steel Column, Light Pre-eng.	# Footings
CD	Concrete Column Footings, Wood Column	# Footings
CDA	Conc. Col. Footings, Wood Col., Light Pole Frame	# Footings
CDE	Piers, Concrete Footing	# Piers
	Add (Additions to any alternate method above)	

ADD – Use in addition to any Alternate Method component selected above.

CL	Insulation (Add)	Length (LF)

Frame

Components include posts, columns, beams, girders, sills, underpinning and bracing which are the primary means of support for the building. When walls are load bearing and separate interior framing exists, include frame only for interior area. **Do not** include interior framing when normal interior partitions exist. In addition, there are special considerations for partially-framed buildings (see Entering Partially Framed Buildings for details)

Square Foot Method

Square foot method frame costs are based on a frame assembly typical for the occupancy and quality and providing sufficient load bearing to support floor and roof assemblies. **CAUTION:** Do not use square foot method components in combination with alternate method components.

DB	Floor Supports (Ground Floor Only)	% or Floor Area (SF)
DBA	Floor Supports, Masonry (Ground Floor Only)	% or Floor Area (SF)
DC	Concrete, Reinforced, Class B	% or Floor Area (SF)
DI	Steel, Fireproofed, Class A	% or Floor Area (SF)
DJ	Steel, Not Fireproofed	% or Floor Area (SF)
DNA	Steel, Pre-engineered	% or Floor Area (SF)
DV	Steel Columns, Wood Beams	% or Floor Area (SF)
DK	Wood Posts & Beams	% or Floor Area (SF)
DP	Wood, Light Pole Type	% or Floor Area (SF)
DL	Wood, Mill Type	% or Floor Area (SF)
DU	Wood A-Frame	% or Floor Area (SF)
DH	Laminated Bents and Arches	% or Floor Area (SF)

Alternate Method – Linear Feet

Use these components for low-rise Class C, D or S shell-type construction with minimal interior construction. **CAUTION:** Do not use alternate method components in combination with square foot method components.

DMB4	Concrete Beams, 4"	Length (LF) S1: Depth (6-6")
DMB6	Concrete Beams, 6"	Length (LF) S1: Depth (8-8")
DMB8	Concrete Beams, 8"	Length (LF) S1: Depth (10-10")

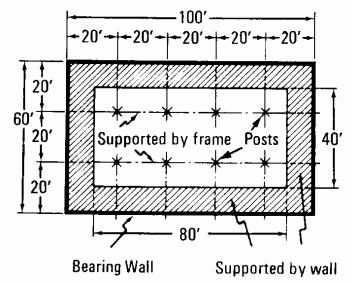
DMB10	Concrete Beams, 10"	Length (LF) S1: Depth (12-18")
DMB12	Concrete Beams, 12"	Length (LF) S1: Depth (16-24")
DMC	Concrete Columns, Circular	Length (LF) S1: Diameter (12-36")
DMS	Concrete Columns, Square	Length (LF) S1: Diameter (12-36")
DGH3	H Beams, 3"	Length (LF) S1: Width (2-3")
DGH4	H Beams, 4"	Length (LF) S1: Width (3-4")
DGH5	H Beams, 5"	Length (LF) S1: Width (3-5")
DGH6	H Beams, 6"	Length (LF) S1: Width (4-6")
DGH8	H Beams, 8"	Length (LF) S1: Width (4-8")
DGH10	H Beams, 10"	Length (LF) S1: Width (5-10")
DGH12	H Beams, 12"	Length (LF) S1: Width (6-12")
DGH14	H Beams, 14"	Length (LF) S1: Width (6-16")
DGH18	H Beams, 18"	Length (LF) S1: Width (7-11")
DGH21	H Beams, 21"	Length (LF) S1: Width (8-12")
DGH24	H Beams, 24"	Length (LF) S1: Width (9-13")
DGH27	H Beams, 27"	Length (LF) S1: Width (10-14")
DGH30	H Beams, 30"	Length (LF) S1: Width (11-15")
DGH33	H Beams, 33"	Length (LF) S1: Width (12-15")
DGH36	H Beams, 36"	Length (LF) S1: Width (12-16")
DOR	Pipe Columns, Round	Length (LF) S1: Diameter (3-12")

DOSQ	Pipe Columns, Square	Length (LF) S1: Side (3-12")
DFT4	Wood Beams and Columns, 4"	Length (LF) S1: Depth (4-12")
DFT6	Wood Beams and Columns, 6"	Length (LF) S1: Depth (6-20")
DFT8	Wood Beams and Columns, 8"	Length (LF) S1: Depth (8-24")
DFT10	Wood Beams and Columns, 10"	Length (LF) S1: Depth (10-30")
DFT12	Wood Beams and Columns, 12"	Length (LF) S1: Depth (12-36")
DFT14	Wood Beams and Columns, 14"	Length (LF) S1: Depth (14-28")
DFT16	Wood Beams and Columns, 16"	Length (LF) S1: Depth (32-32")
DFG3	Wood Glulam Beams, 3"	Length (LF) S1: Depth (9-15")
DFG5	Wood Glulam Beams, 5"	Length (LF) S1: Depth (12-24")
DFG7	Wood Glulam Beams, 7"	Length (LF) S1: Depth (15-33")
DFG9	Wood Glulam Beams, 9"	Length (LF) S1: Depth (18-42")
DFG11	Wood Glulam Beams, 11"	Length (LF) S1: Depth (21-45")

Entering Partially Framed Buildings

When a building has a combination of frame and bearing walls, it is more accurate to first price the bearing walls with pilasters and bond beams and then price the frame on the basis of the area supported by the frame, or to price the columns and girders separately.

In the following drawing, each wall supports the roof halfway to the posts or columns (as shown by the shaded area) and the balance is supported by the frame.



Area supported by frame: 40' x 80' = 3200 square feet

Total area supported by walls and frame: 60' x 100' = 6000 square feet

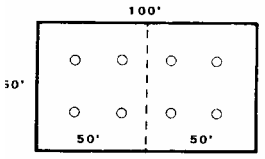
Percentage of total supported by frame: 53%

If the frame component used in this example is DI (Fireproofed Steel), select this component and enter 53% for its percentage to indicate that the frame cost for DI is applied to 53% of the total floor area.

If the exact proportion is difficult to determine using the method shown above, the following table can be used. The distances listed are the smallest dimension between bearing walls.

Shortest Distance	Percentage of Floor Area	Shortest Distance	Percentage of Floor Area
30'	30%	75'	60%
40'	40%	90'	70%
50'	50%	120' and over	75%

For example, the building in the drawing to the left is 60' by 100' without interior walls. Thus the shortest dimension is 60'.



From the table:	50' span, use 50% of full frame cost
	75' span, use 60% of full frame cost
By interpolation:	60' span, use 54% of full frame cost

If there is an interior bearing wall such as shown by the broken line, the shortest dimension is 50', so 50% of the full frame cost is used.

Floor Structure

Components include floor assemblies throughout a structure that maintain the structural strength required to support load requirements of the occupancy. Add components from the Floor Cover construction system for the cost of the floor cover.

EA	Asphalt on Ground	% or Floor Area (SF)
EB	Concrete on Ground	% or Floor Area (SF)
EC	Concrete, Elevated Slab	% or Floor Area (SF)
ED	Concrete, Lift Slab	% or Floor Area (SF)
EE	Concrete, Pan	% or Floor Area (SF)
EV	Concrete Plank on Bearing Wall	% or Floor Area (SF)
EF	Concrete, Precast Joist, Slab	% or Floor Area (SF)
EAC	Concrete, Precast Joists, Wood Sheathing	% or Floor Area (SF)
EH	Steel Joists, Corrugated Deck and Concrete	% or Floor Area (SF)
EJ	Steel Joists, Concrete Slab	% or Floor Area (SF)
EI	Steel Joists, Cellular Deck and Concrete	% or Floor Area (SF)
EK	Steel Joists, Precast Deck	% or Floor Area (SF)
EAD	Steel Joists, Open Metal Grating	% or Floor Area (SF)
EL	Steel Joists, Wood Sheathing	% or Floor Area (SF)
EM	Wood Joists and Sheathing	% or Floor Area (SF)
EN	Wood Joists, Bridging Only	% or Floor Area (SF)

ADD - Use in addition to any component above.

EW	Foamed Concrete Subfloor (Add)	% or Floor Area (SF)
EU	Sheathing over 1 Inch (Add)	% or Floor Area (SF) S1: Thickness (1-6")
EO	Insulation (Add)	% or Floor Area (SF)
EP	Vapor Barrier (Add)	% or Floor Area (SF)
EAE	Superflat Slab (Add)	% or Floor Area (SF)

Farm Occupancy Floors

The following floor structures are specific to farm occupancies.

EAA	Compacted Earth	% or Floor Area (SF)
EAB	Gravel	% or Floor Area (SF)
EZD	Manure Gutter	% or Floor Area (SF)
EZA	Slotted Floor, Concrete	% or Floor Area (SF)

EZB	Slotted Floor, Metal	% or Floor Area (SF)
EZC	Slotted Floor, Wood	% or Floor Area (SF)

Floor Cover

Components include finish materials applied to the floor structure. Add components from the Floor Structure construction system for the cost of the floor structure itself.

FA	Asphalt Tile	% or Floor Area (SF)
FB	Brick, Common in Mortar	% or Floor Area (SF)
FD	Brick Pavers in Concrete	% or Floor Area (SF)
FC	Brick, Acidproof	% or Floor Area (SF)
FE	Carpet and Pad	% or Floor Area (SF)
FG	Computer Floor on Stanchions	% or Floor Area (SF)
FF	Concrete Color	% or Floor Area (SF)
FH	Cork	% or Floor Area (SF)
FI	Diato	% or Floor Area (SF)
FL	Flagstone	% or Floor Area (SF)
FN	Hardener and Sealer on Concrete	% or Floor Area (SF)
FP	Linoleum	% or Floor Area (SF)
FR	Marble	% or Floor Area (SF)
FAG	Metal Grating	% or Floor Area (SF)
FUA	Rubber Fabric Tile	% or Floor Area (SF)
FU	Rubber Tile	% or Floor Area (SF)
FJ	Seamless Plastic, Thincoat	% or Floor Area (SF)
FK	Seamless Plastic, Troweled	% or Floor Area (SF)
FTA	Seamless, Colored Chips (Add)	% or Floor Area (SF)
FV	Slate	% or Floor Area (SF)
FOA	Synthetic Sports Surface	% or Floor Area (SF)
FX	Terrazzo	% or Floor Area (SF)
FY	Tile, Ceramic	% or Floor Area (SF)
FZ	Tile, Quarry	% or Floor Area (SF)
FAH	Vinyl Composition Tile	% or Floor Area (SF)
FAB	Vinyl Sheet	% or Floor Area (SF)
FAC	Vinyl Tile	% or Floor Area (SF)
FAD	Wood Block, Treated	% or Floor Area (SF)
FO	Hardwood	% or Floor Area (SF)
FQ	Hardwood Gym Floor	% or Floor Area (SF)
FW	Softwood	% or Floor Area (SF)
FAF	Hardwood over Concrete	% or Floor Area (SF)
FS	Wood over Concrete, Parquet	% or Floor Area (SF)
FAE	Softwood over Concrete	% or Floor Area (SF)

Ceiling

Components include the costs of an exposed ceiling finish, but do not include the cost of the supporting structure. Add components from the Floor Structure or Roof Structure construction systems for the cost of the supporting structure itself.

GGA	Acoustical, Metal Panel (See Note 1)	% or Ceiling Area (SF)
GGB	Acoustical, Mineral Fiber (See Note 1)	% or Ceiling Area (SF)
GGC	Acoustical, Organic Fiber (See Note 1)	% or Ceiling Area (SF)
GH	Drywall, Taped & Painted	% or Ceiling Area (SF)
GZ	Drywall, Spray-on Texture	% or Ceiling Area (SF)
GHA	Fiber Sports Court Panel (See Note 1)	% or Ceiling Area (SF)
GY	Fiberboard Sheets	% or Ceiling Area (SF)
GI	Finish Only on Exposed Roof Structure	% or Ceiling Area (SF)
GGD	Embossed Metal	% or Ceiling Area (SF)
GAD	Mirror-Faced Panels (See Note 1)	% or Ceiling Area (SF)
GJ	Plaster on Lath, Acoustical	% or Ceiling Area (SF)
GK	Plaster on Lath, Spray-on	% or Ceiling Area (SF)
GL	Plaster on Lath, Standard	% or Ceiling Area (SF)
GM	Plaster on Masonry, Acoustical	% or Ceiling Area (SF)
GN	Plaster on Masonry, Spray-on	% or Ceiling Area (SF)
GO	Plaster on Masonry, Standard	% or Ceiling Area (SF)
GR	Plastic Panels (See Note 1)	% or Ceiling Area (SF)
GP	Plywood, Hardwood	% or Ceiling Area (SF)
GQ	Plywood, Softwood	% or Ceiling Area (SF)
GS	Printed Hardboard	% or Ceiling Area (SF)
GTA	Decorative Ceiling, Carved Wood	% or Ceiling Area (SF)
GT	Wood Boards	% or Ceiling Area (SF)

Note 1: These costs include the panels or tiles only. You must add the method of attachment (i.e., suspension or furring) using the "Add" components below.

Special Decorative Ceilings

GTD	Decorative Ceiling, Extensive Decorating	% or Ceiling Area (SF)
GTC	Decorative Ceiling, Moderate Decorating	% or Ceiling Area (SF)
GTB	Decorative Ceiling, Plain Decorating	% or Ceiling Area (SF)

Add

Use the following components in addition to any component selected above.

GW	Ceiling Insulation (Add)	% or Ceiling Area (SF)
GV	Suspended Ceiling (Add)	% or Ceiling Area (SF)
GAA	Metal Furring (Add)	% or Ceiling Area (SF)
GAB	Metal Lath (Add)	% or Ceiling Area (SF)
GU	Wood Furring (Add)	% or Ceiling Area (SF)
GX	Ceiling Joists (Add)	% or Ceiling Area (SF)

Interior Construction

CAUTION – Do not use components HA or HB in combination with components contained in the alternate method, except where noted.

Square Foot Method - Complete

The square foot method components include costs for partitions, doors, stairways, closets, cabinetwork, shelves, restroom partitions and miscellany (mirrors, towel and soap dispensers, etc.), and other interior finish items typical for the occupancy and quality (e.g., blackboards in schools).

HA	Interior Construction, Framed	% or Floor Area (SF)
HB	Interior Construction, Masonry	% or Floor Area (SF)

Alternate Method

Do not use with components HA or HB unless noted.

Interior Partitions Only

HE	Accordion	Wall Partition Area (SF)
HF	Brick	Wall Partition Area (SF)
HG	Clay Tile and Plaster	Wall Partition Area (SF)
HV	Concrete	Wall Partition Area (SF)
HH	Concrete Block	Wall Partition Area (SF)
HI	Gypsum Block	Wall Partition Area (SF)
HJ	Gypsum Block & Plaster	Wall Partition Area (SF)
HL	Metal	Wall Partition Area (SF)
HM	Metal and Glass	Wall Partition Area (SF)
HN	Steel Channels & Drywall	Wall Partition Area (SF)
HO	Steel Studs & Drywall	Wall Partition Area (SF)
HP	Steel Studs & Plaster	Wall Partition Area (SF)
HR	Wood Frame, Drywall Finish	Wall Partition Area (SF)
HS	Wood Frame, Plaster Finish	Wall Partition Area (SF)
HT	Wood Frame, Wood Finish	Wall Partition Area (SF)

Special Wall Finish (ADD to Wall Area)

Use these in addition to any other alternate method interior construction component.

HZG	Granite	Wall Partition Area (SF)
HZH	Limestone	Wall Partition Area (SF)
HZI	Local Stone	Wall Partition Area (SF)
HZJ	Marble	Wall Partition Area (SF)
HU	Tile	Wall Partition Area (SF)

Residential Cabinets and Built-ins

HWA	Base Cabinet	Length (LF)
HWC	Broom Closet	Length (LF)
HWI	Built-in Desk	Length (LF)
HWY	Garage Storage	Area (SF)
HWX	Garage Workbench	Length (LF)
HWE	Linen Cabinet	Length (LF)
HWH	Open Shelves	Length (LF)
HWF	Pullman Cabinet	Length (LF)
HWB	Wall Cabinet	Length (LF)
HWG	Wardrobe	Length (LF)
HWD	Water Heater Cabinet	Length (LF)

Residential Sinks and Countertops

HWK	Laminated Plastic Countertop	Length (LF)
HWL	Stainless Steel Countertop	Length (LF)
HWJ	Tile Countertop	Length (LF)
HWP	Cultured Marble Pullman Top	Length (LF)
HWN	Laminated Plastic Pullman Top	Length (LF)
HWO	Marble Pullman Top	Length (LF)
HWM	Tile Pullman Top	Length (LF)

Residential Bathrooms

HWT	Prefabricated Shower Stall	# Shower Stalls
HWU	Prefabricated Tub/Shower	# Tub/Showers
SPRA	Sauna Bath	Sauna Area (15-100 SF)
HWW	Shower Door	# Shower Stalls
HWR	Shower Tile, Floor and Base Only	# Shower Stalls

HWS	Shower Tile, Floor and Walls Only	# Shower Stalls
HWV	Tub Enclosure	# Tubs
HWQ	Tub Tile	# Tubs

Commercial Restroom Partitions

HKA	Laminated Plastic Toilet Partition	# Stall Units
HKB	Marble Toilet Partition	# Stall Units
HKC	Metal Toilet Partition	# Stall Units
HKD	Wood Toilet Partition	# Stall Units

Cold Storage Facilities

HZ	Cold Storage Door	Door Area (SF) S1: Thickness (2-12")
HZW	Cooler Door, Walk-in Box (Add)	# Doors
HX	Fiberglass Batt Insulation	Area (SF) S1: Thickness (1-20")
HY	Rigid Insulation	Area (SF) S1: Thickness (1-20")

Clean Rooms

You can use these components in addition to HA or HB.

KYC	Clean Room, Class 100000 to 10000	Area (SF)
KYD	Clean Room, Class 1000 to 100	Area (SF)
KYE	Clean Room, Class 100 to 10	Area (SF)

Farm Interior Construction

Use with Farm occupancies only.

HTE	Concrete Curb	Length (LF)
HTA	Wood Stud, Unfin. Boards, One Side	Wall Partition Area (SF)
HTB	Wood Stud, Unfin. Boards, Two Sides	Wall Partition Area (SF)
HTC	Wood Boards Over One Inch (Add)	Wall Partition Area (SF)
HTD	Wood Stud, Spaced Boards, One Side	Wall Partition Area (SF)

Plumbing

Components include the complete plumbing installation, rough and finished, and include supply and waste lines to the property line of a typical building.

Square Foot Method

The plumbing costs included with the square foot method are based on plumbing fixtures, pipe runs and drains typical of a structure of that occupancy and quality. **CAUTION:** Do not use IA in combination with any of the components in the alternate method.

IA	Plumbing	% or Floor Area (SF)

Alternate Method (per fixture)

IB	Plumbing Fixtures	# Fixtures
IZ	Plumbing Drain	# Drains
UC	Drinking Fountain	# Fountains
UZ	Refrigerated Water Cooler	# Units

Alternate Method, Residential (per specified fixture)

Use the following components for residential quality, and short pipe and drain runs typical of a residential structure. Do not use these codes in a commercial or institutional building.

IC	Bathtub	# Tubs
IN	Bidet	# Bidets
IM	Hydro-tub	# Hydro-Tubs
IE	Kitchen Sink	# Sinks
IF	Laundry Tray	# Laundry Trays
IG	Lavatory	# Lavatories
IL	Rough-in	# Rough-ins
ID	Shower Over Tub	# Tubs
ISW	Solar Hot Water Heater	# Water Heaters
IJ	Stall Shower	# Shower Stalls
IH	Toilet	# Toilets
IK	Water Heater	# Water Heaters
IW	Wet Bar, Residential	# Wet Bars

Fire Protection

Components include costs of the system and associated supply lines and electrical connections, but not tanks, towers or high-pressure pumps.

Automatic Sprinkler and Fire Control Systems

JA	Sprinklers	% or Floor Area (SF)
JAC	Sprinklers, Double Heads	% or Floor Area (SF)
JAB	Sprinklers, Extra Hazard	% or Floor Area (SF)
JBQ	Inside Standpipe	# Standpipes per Story
JBP	Outside Standpipe	# Standpipes per Story
JBR	Siamese Connection	# Connections
JFH	Fire Hydrant	# Hydrants

Fire Detection/Alarm Systems

JBD	Fire Alarm Control Panel, 1 Zone	# Panels
JBE	Additional Zones	# Additional Zones
JBN	Battery Standby System	# Systems
JBM	Date/Time/Location Printer	# Printers
JBK	Emergency Telephone	# Sets of 5 Jacks
JBH	Fire Control Room Panel, 75 Zones	# Panels
JC	Heat Rate of Rise Detector	# Detectors
JBJ	Panel Speaker	# Speakers
JBF	Pull Station	# Pull Stations
UEA	Smoke Detector, Battery Operated	# Detectors
JBG	Smoke Detector, Wired	# Detectors
JBL	Water Flow Detector	# Detectors

Heating, Cooling and Ventilation Systems

Components include the basic heating and/or cooling unit for the particular system, and any boilers, pumps, oil or gas burners, cooling towers, piping, ducts, registers, operating motors and fans.

Heating Only

KA	Electric	% or Floor Area (SF)
KB	Electric Wall Heater	% or Floor Area (SF)
KD	Floor Furnace	% or Floor Area (SF)
KDO	Floor Furnace, Oil Fired	% or Floor Area (SF)
KC	Forced Air	% or Floor Area (SF)
KCO	Forced Air, Oil Fired	% or Floor Area (SF)
KF	Gravity Furnace	% or Floor Area (SF)
KFO	Gravity Furnace, Oil Fired	% or Floor Area (SF)
KH	Hot Water	% or Floor Area (SF)
KHO	Hot Water, Oil Fired	% or Floor Area (SF)
KZ	Radiant Gas	% or Floor Area (SF)
KI	Radiant Hot Water	% or Floor Area (SF)
KIO	Radiant Hot Water, Oil Fired	% or Floor Area (SF)
KAZ	Solar Heating, Air System	Collector Area (SF)
KAY	Solar Heating, Liquid System	Collector Area (SF)
KJ	Space Heat	% or Floor Area (SF)
KJO	Space Heat, Oil Fired	% or Floor Area (SF)
KK	Space Heat, Steam	% or Floor Area (SF)
KKO	Space Heat, Steam, Oil Fired	% or Floor Area (SF)
KX	Space Heat, Steam w/o Boiler	% or Floor Area (SF)
KL	Steam with Boiler	% or Floor Area (SF)
KLO	Steam with Boiler, Oil Fired	% or Floor Area (SF)
KM	Steam, without Boiler	% or Floor Area (SF)
KG	Vented Heater	% or Floor Area (SF)
KGO	Vented Heater, Oil Fired	% or Floor Area (SF)
KU	Wall Furnace	% or Floor Area (SF)

Cooling Only

KSP	Refrigerated Air Conditioning, Package Unit	% or Floor Area (SF)
KS	Refrigerated Air Conditioning, Zoned	% or Floor Area (SF)

KR	Evaporative Cooling	% or Floor Area (SF)
UAM	Window Air Conditioner	# Air Conditioners
UAN	Window Evaporative Cooler	# Units

Heating and Cooling

KYA	Complete HVAC	% or Floor Area (SF)
KQ	Heat Pump	% or Floor Area (SF)
KBM	Individual Thru-Wall Heat Pump	% or Floor Area (SF)
KN	Hot and Chilled Water	% or Floor Area (SF)
KNO	Hot and Chilled Water, Oil Fired	% or Floor Area (SF)
KP	Package Heating & Cooling	% or Floor Area (SF)
KPO	Package Heating & Cooling, Oil Fired	% or Floor Area (SF)
KO	Warm and Cooled Air	% or Floor Area (SF)
KOO	Warm and Cooled Air, Oil Fired	% or Floor Area (SF)
UBQ	Window Heat Pump	# Heat Pumps

Ventilation and Air Curtains

KT	Ventilation	% or Floor Area (SF)
HQA	Air Curtain	Opening Area (SF)
HQB	Air Curtain, Heat Filtered	Opening Area (SF)

Controlled Atmosphere & Nonenvironmental Buildings

KYE5	Controlled Atmosphere, Conditioned Air	% or Floor Area (SF)
KYE1	Controlled Atmosphere, Livestock	% or Floor Area (SF)
KYE2	Controlled Atmosphere, Vegetables, High to Precise	% or Floor Area (SF)
KYE3	Controlled Atmosphere, Warmed and Cooled Air	% or Floor Area (SF)

Cold Storage Refrigeration

HZC	Refrigeration, Chiller	# Chillers (1-1000) S1: Volume Cooled (5000-5000000 CF)
HZD	Refrigeration, Cooler	# Coolers (1-1000) S1: Volume Cooled (5000-5000000 CF)

HZB	Refrigeration, Freezer	# Freezers (1-1000) S1: Volume Cooled (5000-5000000 CF)
HZA	Refrigeration, Sharp Freezer	# Freezers (1-1000) S1: Volume Cooled (5000-500000 CF)

Electrical

Square Foot Method

Square foot components include all costs associated with the electrical system, including the building's general distribution service, wiring, outlets and fixtures. Costs do not include power distribution, wiring, fixtures or equipment for industrial applications.

LA	Electrical, Finished	% or Floor Area (SF)
LB	Electrical, Unfinished	% or Floor Area (SF)

Emergency Lighting Units and Generators

The cost for auxiliary power generators and battery-powered emergency lighting is not included in the base electrical costs, and must be added using the following components.

JBB	Auxiliary Light Packs, Double Heads	# Packs
JBC	Auxiliary Light Packs, Multiple Heads	# Packs
JBA	Auxiliary Light Packs, Single Head	# Packs
JDB	Standby Generator, Diesel	# KW (30-10000) S1: KW Rating(30-1000)
JDA	Standby Generator, Gas	# KW (10-1500) S1: KW Rating(10-150)

Exterior Walls

Components include sash and doors, interior and exterior wall finishes where applicable, and interior and exterior wall covering. When you enter the exterior wall area for components in this system, do not include the storefront area you entered in the Storefront construction system.

Curtain Walls

Curtain Walls are not load bearing. When using these components, you must also enter a frame using one or more of the components from Frame construction system.

MU	Concrete and Glass Panels	Wall Area (SF)
MUA	Glass Fiber Concrete Panels	Wall Area (SF)
MY3	Granite Panels	Wall Area (SF)
MY2	Limestone Panels	Wall Area (SF)
MY1	Local Stone Panels	Wall Area (SF)
MY4	Composite Stone Panels	Wall Area (SF)
MYC	Marble Panels	Wall Area (SF)
MY5	Slate Panels	Wall Area (SF)
MYG	Masonry and Glass Panels	Wall Area (SF)
MV	Metal & Glass Panels	Wall Area (SF)
MX	Bronze and Glass Panels	Wall Area (SF)
MW	Stainless Steel and Glass	Wall Area (SF)
MAA	Steel Studs & Stucco	Wall Area (SF)
MYD	Synthetic Plaster on Rigid Insulation	Wall Area (SF)
MYH	Wood and Glass Panels	Wall Area (SF)
MAC	Insulation for Curtain Walls (Add)	Wall Area (SF)

Masonry Walls

XU	Adobe Block	Wall Area (SF) S1: Thickness (6-16")
MCG	Brick, SCR Modular	Wall Area (SF) S1: Thickness (6-8")
MB	Brick, Block Backup	Wall Area (SF) S1: Thickness (6-36")
MD	Cavity Brick	Wall Area (SF) S1: Thickness (6-16")
XZ	Cavity Brick,Block Backup	Wall Area (SF)

		S1: Thickness (6-16")
MC	Common Brick	Wall Area (SF)
		S1: Thickness (4-36")
XV	Clay Block, Hollow	Wall Area (SF)
		S1: Thickness (6-16")
MZ	Clay Tile	Wall Area (SF)
		S1: Thickness (4-16")
XW	Concrete Block, Cavity	Wall Area (SF)
		S1: Thickness (8-16")
XY	Concrete Block, Cavity Slumpstone	Wall Area (SF)
		S1: Thickness (8-16")
XX	Concrete Block, Slumpstone	Wall Area (SF)
		S1: Thickness (6-16")
MG	Standard Block	Wall Area (SF)
		S1: Thickness (6-36")
XA	Concrete, Precast	Wall Area (SF)
		S1: Thickness (2-16")
MR	Reinforced Concrete	Wall Area (SF)
		S1: Thickness (4-60")
MH	Tilt-Up Concrete	Wall Area (SF)
		S1: Thickness (4-16")
MBV	Glass Block Wall	Wall Area (SF)
WX	Rammed Earth	Wall Area (SF)
		S1: Thickness (12-36")
MI	Stone Ashlar Veneer, Block Back-up	Wall Area (SF)
		S1: Thickness (6-36")
MJ	Stone Rubble Veneer, Block Back-up	Wall Area (SF)
		S1: Thickness (8-36")
XG	Granite, rough cut, soild block	Wall Area (SF)
		S1: Thickness (6-36")
XH	Limestone, rough cut, solid block	Wall Area (SF)
		S1: Thickness (6-36")
XI	Local Stone, rough cut, solid block	Wall Area (SF)
		S1: Thickness (6-36")
WZ	Stucco on Cavity Block	Wall Area (SF)
		S1: Thickness (8-18")
WY	Stucco on Standard Block	Wall Area (SF)
		S1: Thickness (6-36")

ADD - Use in addition to any component selected above.

ML	Bond Beams (Add)	Wall Area (SF)
MK	Pilaster (Add)	Wall Area (SF)
MFA	Stay-in Place Frm, Above Grade	Wall Area (SF)
MBU	Synthetic Plaster on Rigid Insulation (Add)	Wall Area (SF)
MEA	Face Block (Add)	Wall Area (SF)
ME	Face Brick (Add)	Wall Area (SF)
MAB	Face Tile (Add)	Wall Area (SF), Per Side
MM	Insulation (Add)	Wall Area (SF)
MM1	Waterproofing	Wall Area (SF)

Single-Wall Construction (Wood or Skeleton Steel-Framed Walls)

Except for component MAS (Rustic Log), these walls are not load bearing. When using these components, you must also enter a frame using one or more of the components in the Frame construction system.

MAY	Metal Cover, Steel Frame	Wall Area (SF)
MAZ	Metal Cover, Wood Frame	Wall Area (SF)
MBA	Cement Fiber, Steel Frame	Wall Area (SF)
MEB	Cement Fiber, Wood Frame	Wall Area (SF)
MED	Fiberglass, Wood Frame	Wall Area (SF)
MBB	Siding, Wood Frame	Wall Area (SF)
MEE	Stucco, Wood Frame	Wall Area (SF)
MEC	Asphalt Siding, Wood Frame	Wall Area (SF)
MSTR	Stucco on Baled Straw	Wall Area (SF)
MAS	Rustic Log	Wall Area (SF)
MBF	Glass Panel Wall	Wall Area (SF)
MEG	Spaced Boards, Wood Frame	Wall Area (SF)

ADD - Use in addition to any component above.

MEF	Boards Over One Inch (Add)	Wall Area (SF)
MBS	Sheathing, Exterior (Add)	Wall Area (SF)
MBC	Sheathing, Interior (Add)	Wall Area (SF)
MBT	Insulation (Add)	Wall Area (SF)

Pre-Engineered Walls

MBJ	Sand Pan, Cement Fiber, 2 Sides	Wall Area (SF)
MBH	Sand Pan, Glass Ext, Metal Int	Wall Area (SF)

MBP	Sand Pan, Metal, 2 Sides	Wall Area (SF)
MBW	Sand Panel, Metal, 2 sides, Cold Storage	Wall Area (SF)
MBK	Sand Pan, Metal Ext, Gyp Bd Int.	Wall Area (SF)

Pre-Fabricated Walls

MP	Masonry on Steel Panels	Wall Area (SF)
MS	Steel Panels, Block Backup	Wall Area (SF)
MSR	Steel & Glass Painted Panels	Wall Area (SF)
MSP	Steel & Glass Porcelainized Panels	Wall Area (SF)

Stud Walls (Wood or Steel)

Walls can be load bearing.

MBN	Siding, Asphalt	Wall Area (SF)
MAE	Siding, Cement Fiber	Wall Area (SF)
MCB	Siding, Hardboard	Wall Area (SF)
MCF	Siding, Hardboard Sheet	Wall Area (SF)
MAD	Siding, Metal	Wall Area (SF)
MAQ	Siding, Textured Plywood	Wall Area (SF)
MAP	Siding, Vinyl	Wall Area (SF)
MAJ	Siding, Wood	Wall Area (SF)
MAG	Siding, Wood Shakes	Wall Area (SF)
MAF	Siding, Wood Shingles	Wall Area (SF)
MAH	Stucco	Wall Area (SF)
MCC	Synthetic Plaster on Rigid Insulation	Wall Area (SF)
MAL	Veneer, Common Brick	Wall Area (SF)
MCH	Veneer, Face Block	Wall Area (SF)
MAM	Veneer, Face Brick	Wall Area (SF)
MAO	Veneer, Used Brick	Wall Area (SF)
MAN	Veneer, Ashlar Stone	Wall Area (SF)
MAN1	Veneer, Rubble Stone	Wall Area (SF)

ADD - Use in addition to any component selected above.

MBR	Sheathing (Add)	Wall Area (SF)
MCE	Air Infiltration Wrap (Add)	Wall Area (SF)
MAU	Insulation (Add)	Wall Area (SF)

Buttresses

XB	Buttress, Brick	Buttress Area (SF)
XBA	Buttress, Concrete	Buttress Area (SF)
XC	Buttress, Granite	Buttress Area (SF)
XD	Buttress, Limestone	Buttress Area (SF)
XE	Buttress, Local Stone	Buttress Area (SF)

Architectural Columns

These columns are not load bearing.

XT	Base/Capital, Aluminum Column	# Bases/Capitals S1: Diameter (4-30")
XN	Base/Capital, Concrete Column	# Bases/Capitals S1: Diameter (12-36")
XP	Base/Capital, Granite Column	# Bases/Capitals S1: Diameter (8-44")
XR	Base/Capital, Wood Column	# Bases/Capitals S1: Diameter (6-36")
XS	Aluminum Column	Length (LF) S1: Diameter (4-30")
XK	Concrete Column	Length (LF) S1: Diameter (12-36")
XL	Granite Column	Length (LF) S1: Diameter (8-44")
XM	Wood Column	Length (LF) S1: Diameter (6-36")

Hangar Doors

The following are for use with occupancies 328 (Hangar, Storage), 329 (Hangar, Maintenance and Office) and 409 (T-Hangar). Exterior wall area entered for other components in this section does not include area entered for these components.

MDA	Steel Hangar Door, up to 20'	Door Area (SF)
MDB	Steel Hangar Door, 20'-40'	Door Area (SF)
MDC	Steel Hangar Door, over 40'	Door Area (SF)

Stained Glass Windows

Refer to Section 56 of the *Marshall Valuation Service* for referenced figures and further information.

SGCA	Contemporary Abstract	Window Area (SF) S1: Typical Piece Size (1-24")
SGDF	Detailed Figures, Large Decor. Background	Window Area (SF) S1: Typical Piece Size (1-24")
SGCC	Faceted Glass in Concrete, Contemporary	Window Area (SF) S1: Typical Piece Size (1-24")
SGEC	Faceted Glass in Epoxy, Contemporary	Window Area (SF) S1: Typical Piece Size (1-24")
SGEF	Faceted Glass in Epoxy, Figures & Scenes	Window Area (SF) S1: Typical Piece Size (1-24")
SGCF	Faceted in Concrete, Figures & Scenes	Window Area (SF) S1: Typical Piece Size (1-24")
SGHD	Highly Detailed Figures & Scenes	Window Area (SF) S1: Typical Piece Size (1-24")
SGMP	Minimum Field and Borders	Window Area (SF) S1: Typical Piece Size (1-24")
SGPM	Plain Mosaic, Regular Pieces	Window Area (SF) S1: Typical Piece Size (1-24")
SGCG	Residential Type, Clear Glass	Window Area (SF) S1: Typical Piece Size (1-24")
SGMC	Residential Type, Multicolor	Window Area (SF) S1: Typical Piece Size (1-24")
SGN	Residential Type, Rondels & Accidental Designs	Window Area (SF)
SGSC	Residential Type, Single Color	Window Area (SF) S1: Pieces (1-24")
SGRW	Rose/Wheel, Intricate Designs	Window Area (SF) S1: Pieces (1-24")
SGSD	Simple Designs, Geometric Patterns	Window Area (SF) S1: Typical Piece Size (1-24")
SGSF	Simple Figures & Scenes	Window Area (SF) S1: Typical Piece Size (1-24")
SGP	Simulated Art Glass, Acrylic Resin Panels	Window Area (SF)

Storefront

Typically found with department and retail stores, the components include the display platform or any special flooring required by the front, ornamentation, dropped display or entrance ceilings, bulkhead walls, lighting and the sign area.

When entering any components from the Exterior Wall construction system, do not include the storefront area you entered for any of the components below.

Storefronts - Exterior Walls

OD	Storefront with Display Areas	Storefront Area (SF)
OB	Storefront without Display Areas	Storefront Area (SF)

Storefronts - Interior Malls

OG	Interior Mall Fronts	Storefront Area (SF)

Wall Ornamentation

These components refer to the portion of the exterior wall surface having a different type of finish than the majority of the building and adding to the architectural attractiveness of the building. They are treated as an addition to the components in the Exterior Wall construction system, and should be used with a supporting wall.

PA	Brick Face, Split (Add)	Ornamented Area (SF)
PC	Brick, Face	Ornamented Area (SF)
PD	Brick, Select Common	Ornamented Area (SF)
PEA	Brick, Simulated Veneer	Ornamented Area (SF)
PE	Brick, Used	Ornamented Area (SF)
PG	Concrete Block, Imitation Flagstone	Ornamented Area (SF)
PI	Concrete Block, Ornamental Face	Ornamented Area (SF)
PH	Concrete Block, Screen	Ornamented Area (SF)
PGA	Concrete, Ornamental Cast Stone	Ornamented Area (SF)
PFB	Glass Block, Colored	Ornamented Area (SF)
PFA	Glass Block, White	Ornamented Area (SF)
PM	Metal Screen	Ornamented Area (SF)
PJ	Granite	Ornamented Area (SF)
PK	Limestone	Ornamented Area (SF)
PL	Marble	Ornamented Area (SF)
PNA	Stone, Simulated	Ornamented Area (SF)
PR	Slate	Ornamented Area (SF)
PO	Stone Veneer, Ashlar	Ornamented Area (SF)
PP	Stone Veneer, Rubble	Ornamented Area (SF)
PS	Stucco on Masonry	Ornamented Area (SF)
PT	Terra Cotta	Ornamented Area (SF)
PU	Tile, Ceramic	Ornamented Area (SF)
PV	Tile, Mosaic	Ornamented Area (SF)
PW	Vitrolite	Ornamented Area (SF)
PX	Textured Plywood	Ornamented Area (SF)

Roof Structure

Cost variations are affected by the size and spacing of the framing members, and the thickness and quality of the sheathing materials.

QD	Concrete Slab	% or Roof Area (SF)
QA	Concrete Joists, Slab	% or Roof Area (SF)
QAG	Concrete Joists, Lift Slab	% or Roof Area (SF)
QAE	Concrete Plank on Bearing Wall	% or Roof Area (SF)
QE	Thin Shell Concrete	% or Roof Area (SF)
QC	Precast Joists and Deck	% or Roof Area (SF)
QDA	Concrete Joists, Wood Sheathing	% or Roof Area (SF)
QSA	Open Steel System, Light Purlin Supports Only	% or Roof Area (SF)
QS	Open Steel System for Corrugated Metal	% or Roof Area (SF)
QK	Steel Joists, Steel Deck	% or Roof Area (SF)
QJ	Steel Joists, Steel Deck, Gypsum	% or Roof Area (SF)
QH	Steel Joists, Gypsum	% or Roof Area (SF)
QI	Steel Joists, Precast Plank	% or Roof Area (SF)
QG	Steel Joists, Concrete Slab	% or Roof Area (SF)
QM	Steel Joists, Wood Deck	% or Roof Area (SF)
QL	Steel Joists, Composition Deck	% or Roof Area (SF)
QX	Steel Space Frame	% or Roof Area (SF)
QXA	Architectural Space Frame	% or Roof Area (SF)
QTA	Open Wood System, Light Purlin Supports Only	% or Roof Area (SF)
QT	Open Wood System for Corrugated Metal	% or Roof Area (SF)
QAA	Wood Joists, Wood Deck	% or Roof Area (SF)
QO	Wood Joists, Composition Deck	% or Roof Area (SF)
QF	Wood, Lamella	% or Roof Area (SF)
QCA	Tongue & Groove, Exposed Rafters	% or Roof Area (SF)
QAF	Wood Joists, Prefab. Panels	% or Roof Area (SF)

Monitor and Sawtooth Roofs

QSM	Open Steel System for Corr. Metal, Monitor	% or Roof Area (SF)
QSS	Open Steel System for Corr. Metal, Sawtooth	% or Roof Area (SF)
QKM	Steel Joists, Steel Deck, Monitor	% or Roof Area (SF)
QKS	Steel Joists, Steel Deck, Sawtooth	% or Roof Area (SF)
QMM	Steel Joists, Wood Deck, Monitor	% or Roof Area (SF)

QMS	Steel Joists, Wood Deck, Sawtooth	% or Roof Area (SF)
QLM	Steel Joists, Comp Deck, Monitor	% or Roof Area (SF)
QLS	Steel Joists, Comp Deck, Sawtooth	% or Roof Area (SF)
QTM	Open Wood System for Corr. Metal, Monitor	% or Roof Area (SF)
QTS	Open Wood System for Corr. Metal, Sawtooth	% or Roof Area (SF)
QAAM	Wood Joists, Wood Deck, Monitor	% or Roof Area (SF)
QAAS	Wood Joists, Wood Deck, Sawtooth	% or Roof Area (SF)
QOM	Wood Joists, Comp Deck, Monitor	% or Roof Area (SF)
QOS	Wood Joists, Comp Deck, Sawtooth	% or Roof Area (SF)
QCAM	T & G, Exposed Rafters, Monitor	% or Roof Area (SF)
QCAS	T & G, Exposed Rafters, Sawtooth	% or Roof Area (SF)

False-mansard Fascia

QAC	False Mansard Fascia, Metal w/Wood Sheathing	Fascia Area (SF)
QAD	False Mansard Fascia, Wood w/Wood Sheathing	Fascia Area (SF)

Marquees & Canopies

QZC	Canopy, Steel Frame	Canopy Area (SF)
QZD	Canopy, Mansard Metal Frame	Canopy Area (SF)
QYC	Canopy, Wood Frame	Canopy Area (SF)
QYD	Canopy, Mansard Wood Frame	Canopy Area (SF)
QZ	Marquee, Steel Frame	Marquee Area (SF)
QY	Marquee, Wood Frame	Marquee Area (SF)

Trusses and Girders

CAUTION: These components are generally not used with a full frame that includes the horizontal members.

QW	Glued Laminated Girders	% or Roof Area (SF)
QAB	Longspan Girders	% or Roof Area (SF)
QU	Steel Trusses	% or Roof Area (SF)
QV	Timber Trusses	% or Roof Area (SF)

Roof Cover

Components include only the cost of the roof cover. They do not include the roof structure cost, which you can include using the components in the Roof Structure construction system. Costs include any necessary roof flashing, gravel stops, gutters, etc.

RD	Built-Up Composition	% or Roof Area (SF)
RS	Cement Fiber Panel	% or Roof Area (SF)
RC	Cement Fiber Shingles	% or Roof Area (SF)
RR	Clay Tile	% or Roof Area (SF)
RE	Composition Roll	% or Roof Area (SF)
RF	Composition Shingles	% or Roof Area (SF)
RG	Concrete Tile	% or Roof Area (SF)
RH	Copper	% or Roof Area (SF)
RJC	Elastomeric, Fluid Coat	% or Roof Area (SF)
RJB	Elastomeric, Reinf. Sheet	% or Roof Area (SF)
RJA	Elastomeric, Single Ply	% or Roof Area (SF)
RAA	Fiberglass Sheets	% or Roof Area (SF)
QBA	Metal Atrium Frame & Glazing	% or Roof Area (SF)
RW	Metal Sandwich Panel	% or Roof Area (SF)
RX	Metal Sandwich Panel, Cold Storage	% or Roof Area (SF)
RBA	Metal Shingles	% or Roof Area (SF)
RZ	Metal, Formed Seams	% or Roof Area (SF)
RY	Metal, Preformed Sheets	% or Roof Area (SF)
RV	Plastic Tile	% or Roof Area (SF)
RO	Slate	% or Roof Area (SF)
RQ	Terne	% or Roof Area (SF)
RTA	Wood Fiber Shingles	% or Roof Area (SF)
RM	Wood Shakes	% or Roof Area (SF)
RN	Wood Shakes, Fire Resistant	% or Roof Area (SF)
RT	Wood Shingles	% or Roof Area (SF)

ADD - Use in addition to any component selected above.

RU	Insulation (Add)	% or Roof Area (SF)
RBB	Interior Metal Liner (Add)	% or Roof Area (SF)
RBC	Porcelain Enamel Finish (Add)	% or Roof Area (SF)

Elevators

Components include the cost of elevator cars, tracks, cables, motors and controllers, and lobby hardware.

Basic Count Method

Use the following components when you know the number of elevators and stops, but do not know at least one of the following: Elevator type, capacity or speed. Use the elevator components for the elevators themselves, and the stop or door components for the total number of stops/doors.

TPU	Passenger Elevator	# Elevators S1: # Stories/Elevator (2-999)
TPS	Passenger Elevator, Stops	# Stops
TF	Freight Elevator	# Elevators S1: # Stories/Elevator (2-999)
TFMS	Freight Elevator, Manual Doors	# Stops
TFPS	Freight Elevator, Power Doors	# Stops

Detailed Count Method

Use the following components when you know the elevator type, capacity and speed. Use the elevator components for the elevators themselves, and the stop or door components for the total number of stops/doors.

TPH	Passenger Elevator, Hydraulic	# Elevators S1: Capacity (1500-5000 Lbs) S2: Speed (50-200 Feet/Minute)
TPHS	Passenger Elevator, Hydraulic, Stops	# Stops S1: Capacity (1500-5000 Lbs)
TPE	Passenger Elevator, Electric	# Elevators S1: Capacity (1500-5000 Lbs) S2: Speed (100-400 Feet/Minute)
TPES	Passenger Elevator, Electric, Stops	# Stops S1: Capacity (1500-5000 Lbs)
TPA	Passenger Elevator, Automatic	# Elevators S1: Capacity (2000-5000 Lbs) S2: Speed (300-1400 Feet/Minute)
TPAS	Passenger Elevator, Automatic, Stops	# Stops S1: Capacity (2000-5000 Lbs)

TR	Bypassed Floors	# Bypassed Floors
TFH	Freight Elevator, Hydraulic	# Elevators S1: Capacity (2000-20000 Lbs) S2: Speed (50-150 Feet/Minute)
TFHM	Freight Elevator, Hydraulic, Manual Doors	# Stops S1: Capacity (2000-20000 Lbs)
TFHP	Freight Elevator, Hydraulic, Power Doors	# Stops S1: Capacity (2000-20000 Lbs)
TFE	Freight Elevator, Electric	# Elevators S1: Capacity (2500-20000 Lbs) S2: Speed (100-400 Feet/Minute)
TFEM	Freight Elevator, Electric, Manual Doors	# Stops S1: Capacity (2500-20000 Lbs)
TFEP	Freight Elevator, Electric, Power Doors	# Stops S1: Capacity (2500-20000 Lbs)

Miscellaneous Conveyance

TQ	Handicap Lift	# Lifts
TL32	Escalator - 32" Width	# Escalators S1: Rise (10-25')
TL48	Escalator - 48" Width	# Escalators S1: Rise (10-25')
TVW	Moving Walk	# Walkways S1: Length (40-1800')
TK	Sidewalk Elevator	# Elevators
TH	Personnel Lift	# Lifts
TJ	Dumbwaiter, Electric	# Dumbwaiters
TJ2	Dumbwaiter Stops, Electric	# Stops
TM	Dumbwaiter, Hand Operated	# Dumbwaiters
TM2	Dumbwaiter Stops, Hand Operated	# Stops

Residential Elevators

The following components should be used for Residential occupancies only:

TO	Three-Story Elevator, Single Family	# Elevators
TN	Two-Story Elevator, Single Family	# Elevators
TP	Inclinator	# Inclinators

Square Foot Method

Only use this component if you do not know the number of elevators and the number of stops. Otherwise, use either the components listed under Detailed Count Method or Basic Count Method.

TA	Elevator	% or Floor Area (SF)

Miscellaneous Built-in Construction

The following components represent built-in items frequently found in structures. The components are organized by occupancy or type of equipment. Additional components associated with specific occupancies are found in the Other Superstructure and Other Nonsuperstructure construction systems.

Bank Vaults

UAD	Money Bank Vault	Vault Area (SF)
UAG	Record Storage Bank Vault	Vault Area (SF)

Hospital Equipment

UAA	Hospital Pneumatic Conveyor	% or Floor Area (SF)

Residential Built-ins and Appliances

APP	Appliance Allowance	# Kitchens
UAOE	Appliance Vent	# Vents
UAE	Bathroom Heater	# Heaters
APPD	Clothes Dryer	# Dryers
APPW	Clothes Washer	# Washers
APPC	Clothes Washer/Dryer Combo.	# Washer/Dryers
UAF	Dishwasher	# Dishwashers
UAO	Exhaust Fan	# Fans
UD	Exhaust Fan & Hood	# Hoods
UE	Garbage Disposal	# Disposals
UO	Gas Incinerator	# Incinerators
APK	Kitchen, Single Unit	# Kitchens
UV	Microwave Oven	# Ovens
UF	Mixer-Blender	# Mixer-Blenders
UL	Oven	# Ovens
ULA	Oven, Microwave Combination	# Units
UG	Radio-Intercom	# Base Units
UH	Radio-Intercom, Satellite	# Satellites
UK	Range Top	# Range Tops
UKA	Range Top, Induction	# Range Tops
UJA	Range & Microwave Oven Comb.	# Units
UJ	Range and Oven	# Units

UM	Refrigerator	# Refrigerators
UN	T.V. Outlet	# Outlets
UR	Trash Compactor	# Central Units
US	Trash Compactor, Residential	# Single Units
UP	Vacuum Cleaner System	# Systems
UT	Vacuum Cleaner System, Extra Outlet	# Outlets

Residential Chimneys

Do not use these components with residential fireplaces or heating components. Use them for additional chimneys built to service added heating appliances.

JBZ	Galvanized Chimney,10" Diameter	Height (LF)
JBX	Galvanized Chimney, 6" Diameter	Height (LF)
JBY	Galvanized Chimney, 8" Diameter	Height (LF)
JBV	Masonry Chimney, 12" Flue	Height (LF)
JBW	Masonry Chimney, Two 8" Flues	Height (LF)
JBU	Masonry Chimney, 8" Flue	Height (LF)
JCA	Metal Chimney Stack, Double Wall	Height (LF)
JCB	Metal Chimney Stack, Triple Wall	Height (LF)

Residential Fireplaces

VDA	Fireplace, One Story, Single	# Fireplaces
VDJ	Fireplace, Two Story, Single	# Fireplaces
VDB	Fireplace, One Story, Double	# Fireplaces
VDC	Fireplace, Two Story, Both Single	# Fireplaces
VDD	Fireplace, Two Story, One Single, One Double	# Fireplaces
VDE	Fireplace, Two Story, Both Double	# Fireplaces
VDM	Chimney Flue, Extra Story (Add)	# Stories Over 1
VDP	Fireplace, Extra Opening (Add)	# Openings Over 1
VDF	Prefabricated Fireplace	# Fireplaces
VDN	Chimney Stack, Extra Story (Add)	# Stories Over 1
VDG	Heatilator (Add)	# Heatilators
VDI	Log Lighter (Add)	# Log Lighters
VDH	Raised Hearth (Add)	# Hearths

Security Systems and Equipment

UAP	TV Security System	# Systems

UAQ	TV Security System, Extra Camera	# Cameras
UAR	TV Security System, Extra Monitor	# Monitors
UAS	TV Security System, Video Tape Recorder	# Recorders

Sound Systems

UDL	Public Address System	# Systems
UDN	Speaker, Music and Voice	# Speakers
UDM	Speaker, Paging Only	# Speakers

Stages and Theater Fixtures

UAK	Speakers Platform	Platform Area (SF)
UAH	Stage and Fixtures, Live Performance	Stage Area (SF)
UAJ	Stage and Fixtures, Motion Pictures	Stage Area (SF)

Shopping Center Mall

Use the following components in the shopping center occupancies 412 (Neighborhood Shopping Center), 413 (Community Shopping Center) and 414 (Regional Shopping Center).

Mall Areas

MLC	Covered Mall	Concourse Area (SF)
MLE	Enclosed Mall	Concourse Area (SF)
MLH	Enclosed Mall (Without HVAC)	Concourse Area (SF)
MLO	Open Mall	Concourse Area (SF)

Elevators and Escalators

Use the following component only with components MLE (Enclosed Mall, Including HVAC) or MLH (Enclosed Mall, Not Including HVAC) in occupancy 414 Regional Shopping Center.

MTA	Elevator	Area (SF)

Heating, Cooling & Ventilation

Use the following component only with component MLH (Enclosed Mall, Not Including HVAC) in occupancy 414 Regional Shopping Center.

KYB	Complete HVAC	% or Floor Area (SF)

Mezzanine/Interior Balcony

Component Calculation Method

To use the component calculation method, build up the cost for a mezzanine or interior balcony using components from the following construction systems:

Floor Structure or the special components below (for the floor structure)
Floor Cover
Ceiling (for the soffit)

You can print these components within this Construction System (i.e., under the "Mezzanine and Balcony" construction system in the report) by selecting it in the Construction System field when you are entering the components.

In addition, you can use the miscellaneous construction component for miscellaneous mezzanine and interior balcony costs (railings, stairs, etc.).

Floor Structure, Stepped Interior Balconies

ER	Stepped Interior Balcony, Concrete & Steel	Balcony Area (SF)
ES	Stepped Interior Balcony, Wood	Balcony Area (SF)
ET	Stepped Interior Balcony, Wood & Steel	Balcony Area (SF)

Miscellaneous Construction

MMC	Miscellaneous Construction	Mezzanine or Balcony Area (SF)

Square Foot Method

The components below include the complete mezzanine or balcony cost, including floor structure, floor cover, soffit, railings and stairs. You should not use these components if you have used the Component Calculation Method.

Mezzanines

MZM	Display Mezzanine	Mezzanine Area (SF)
MZB	Office Mezzanine	Mezzanine Area (SF)
MZD	Open Mezzanine	Mezzanine Area (SF)
MZC	Storage Mezzanine	Mezzanine Area (SF)
MZH	Heavy Storage Mezzanine	Mezzanine Area (SF)

Stepped Interior Balconies

BCD	Balcony, Auditorium Stepped Interior	Balcony Area (SF)
BCC	Balcony, Church Stepped Interior	Balcony Area (SF)
BCT	Balcony, Theater Stepped Interior	Balcony Area (SF)

Attics and Lofts

HAA	Attic, Finished	Attic Area (SF)
HAL	Loft, Open	Loft Area (SF)
LOF	Loft (Farm Buildings)	Loft Area (SF)

Porch

Porch costs include the supporting structure and decking. Roofing and other items of finish must be selected from the appropriate superstructure section and included with the porch entry. The quality selected determines the type of wood used, with fir and pine at the lower qualities and redwood at the higher qualities.

Concrete Porches and Patios

VAC	Open Porch, Concrete Slab with Steps	Porch Area (1-3000 SF)
POR	Open Porch/Patio	Porch Area (SF)
VAD	Open Porch, Concrete Slab without Steps	Porch Area (1-3000 SF)
POT	Open Porch/Patio w/Steps	Porch Area (SF)
PORE	Porch, Enclosed	Porch Area (SF)
POTE	Porch/Patio w/Steps, Enclosed	Porch Area (SF)

Wood Decks

POXE	Wood Deck/Roof w/o Steps, Encl.	Deck Area (1-3000 SF)
POWE	Wood Deck w/Steps, Roof, Encl.	Deck Area (1-3000 SF)
VAE	Wood Deck with Steps	Deck Area (1-3000 SF)
POW	Wood Deck w/Steps w/Roof	Deck Area (1-3000 SF)
VAF	Wood Deck without Steps	Deck Area (1-3000 SF)
POX	Wood Deck w/Roof w/o Steps	Deck Area (1-3000 SF)

Additional Items

POA	Awning, Metal	Area Covered (SF)
POS	Awning, Slatted/Louvered	Porch Area (SF)
POD	Awning, Wood Cover	Area Covered (SF)
VAH	Ceiling (Add)	Ceiling Area (SF)

Exterior Balcony

Balcony costs include the supporting structure, decking and rails. Roofing and other items of finish must be selected from the appropriate superstructure section and included with the balcony entry.

Commercial Exterior Balconies

BDA	Balcony, Concrete Exterior	Balcony Area (SF)
BDB	Balcony, Steel Exterior	Balcony Area (SF)
BDC	Balcony, Wood Exterior	Balcony Area (SF)

Residential Exterior Balconies

VAL	Cement Composition Balcony, Iron Rails	Balcony Area (SF)
VAK	Cement Composition Balcony, Wood Rails	Balcony Area (SF)
VAJ	Wood Balcony, Iron rails	Balcony Area (SF)
VAI	Wood Balcony, Wood rails	Balcony Area (SF)
VAM	Balcony, Finished Soffit	Balcony Area (SF)

`Exterior Stairs

Commercial Exterior Stairs and Fire Escapes

ND	Concrete Stairways	# Flights
NE	Concrete & Steel Exterior Stairways	# Flights
NA	Steel Exterior Stairways	# Flights
NB	Wood Exterior Stairways	# Flights
NDA	Concrete Stairs	# Stairs
NEA	Concrete & Steel Stairs	# Stairs
NAA	Steel Stairs	# Stairs
NBA	Wood Stairs	# Stairs
NCA	Fire Escape, 2 Story	# Fire Escapes
NCB	Fire Escape, Additional Flights (Add)	# Additional Flights

Residential Exterior Stairs

VAQ	Cement Composition Stairs, Iron Rails	# Flights
VAP	Cement Composition Stairs, Wood Rails	# Flights
VAR	Steel Stairs, Ornamental Iron Rails	# Flights
VAO	Wood Stairs, Iron Rails	# Flights
VAN	Wood Stairs, Wood Rails	# Flights
VAS	Stairs, Finished Soffit (Add)	# Flights

Other Superstructure

This section contains miscellaneous items of building construction including shipping/loading docks, church construction and other miscellaneous items. Additional components associated with specific occupancies are found in Miscellaneous Built-in Construction and Other Nonsuperstructure construction systems.

Church Construction

The church components for this section are listed here in three subsections, domes, steeples and stained-glass windows.

Church Domes

SSG	Dome, Fiberglass	Diam. (LF) of Base
SSH	Dome, Metal	Diam. (LF) of Base
SSI	Dome, Stucco	Diam. (LF) of Base
SSJ	Dome, Wood	Diam. (LF) of Base

Church Steeples

For cost purposes, church steeples have been divided into towers, cupolas and spires, with additional costs provided for clocks, crosses and other toppings.

Church Towers - Masonry

STE	Tower, Adobe	Wall Area (SF)
STH	Tower, Brick Veneer (Add)	Wall Area (SF)
SSQ	Tower, Common Brick	Wall Area (SF)
SST	Tower, Concrete	Wall Area (SF)
SSU	Tower, Concrete Block	Wall Area (SF)
SSR	Tower, Face Brick (Add)	Wall Area (SF)
SSX	Tower, Stone Masonry	Wall Area (SF)
SSW	Tower, Stone Veneer (Add)	Wall Area (SF)
STF	Tower, Stucco (Add)	Wall Area (SF)
STG	Tower, Tile (Add)	Wall Area (SF)

Church Towers - Wood or Steel Frame

STK	Tower, Brick Veneer	Wall Area (SF)
SSV	Tower, Metal	Wall Area (SF)

STJ	Tower, Shingle	Wall Area (SF)
STL	Tower, Stone Veneer	Wall Area (SF)
SSZ	Tower, Stucco	Wall Area (SF)
SSY	Tower, Wood Siding	Wall Area (SF)

Church Towers - Miscellaneous

STN	Tower Stairs (Add)	Height (LF)
STM	Tower, Interior Facing (Add)	Wall Area (SF)

Cupolas

SCA	Cupola, Copper	# Cupolas S1: Height (1-40')
SCB	Cupola, Fiberglass	# Cupolas S1: Height (1-40')
SCC	Cupola, Metal	# Cupolas S1: Height (1-40')
SCI	Cupola, Terne	# Cupolas S1: Height (1-40')
SCD	Cupola, Wood	# Cupolas S1: Height (1-40')

Spires

SCE	Spire, Copper	# Spires S1: Height (1-40')
SCF	Spire, Fiberglass	# Spires S1: Height (1-40')
SCG	Spire, Metal	# Spires S1: Height (1-40')
SCJ	Spire, Terne	# Spires S1: Height (1-40')
SCH	Spire, Wood	# Spires S1: Height (1-40')

Miscellaneous Steeple Components

SSD	Cupola Clock	# Faces
SSC	Steeple Ball	# Balls
SSA	Steeple Cross	Height (LF)

SSB	Steeple Spike	Height (LF)

Miscellaneous

UBI	Bleachers, Grandstand	Area (SF) of Projection
UBOM	Bleachers, Municipal Stadium	Area of Projection (SF)
UBO	Bleachers, Stadium	Area of Projection (SF)
RCA	Railings, Controlled Area	Linear Feet
SLR	Solar Room	Floor Area (50-800 SF)
SPW	Spiral Stairs, Aluminum	# Flights

Shipping and Loading Docks - Commercial

Shipping docks are covered structures that include adequate lighting, plumbing and, depending on quality, some office or storage area. Loading docks are raised to facilitate loading and unloading. Dock-height floors are an addition to the regular floors of a building that have been raised to make them the same height as the loading docks.

DLR	Loading Dock with Roof	Dock Area (SF)
DLW	Loading Dock without Roof	Dock Area (SF)
DLX	Loading Well, Double	# Double Wells
DLY	Loading Well, Single	# Wells
DOS	Shipping Dock	Dock Area (SF)
DBU	Dock Bumpers, Horizontal	Length (LF)
DBV	Dock Bumpers, Vertical	Length (LF)
DBY	Dock Levelers, Edge of Dock	# Levelers
DBX	Dock Levelers, Hydraulic	# Levelers
DBW	Dock Levelers, Mechanical	# Levelers
DOF	Dock Height Floor - Complete	Floor Area (SF)

Building (Nonsuperstructure) Construction Systems

Components and additions in the following Construction Systems are included in Replacement Cost New in the report, but are not part of the Superstructure Cost. Segregated Estimator automatically depreciates all components and additions within these Construction Systems using the depreciation percentage you set for the section (if any). You can override this automatic depreciation for individual components or additions by entering a specific depreciation percentage or an age and life (for straight line depreciation) for the component or addition.

Page	Construction System
57	Other Nonsuperstructure
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64	Garage
65	Carport
66	Breezeway

Other Nonsuperstructure

This section contains various occupancy-oriented additional and built-in construction items for various occupancies. See the Miscellaneous Built-in Construction and Other Superstructure construction systems for additional components associated with specific occupancies.

Bank Equipment

ATM	ATM, Drive-up or Through-Wall	# ATMs
ATS	ATM, Lobby or Retail Unit	# ATMs
UW	Bank Equipment	% or Total Bank Area (SF)
TWC	Drive-up Teller's Booth	# Booths
TWB	Drive-up Pneumatic Tube System	# Lanes
TWA	Drive-up Window	# Windows
TWD	Night Deposit Chutes/Boxes	# Chutes/Boxes
TW	Rectangular Vault Doors	# Doors S1: Thickness (2-16")

Car Wash Equipment

UZA	Car Wash Equipment	Line Length (25-160')
UZC	Roll-Over Car Wash, Elevated Track	#
UZB	Roll-Over Car Wash, Track on Ground	#
UZD	Self-Serve Car Wash, Equipment, Base, One Bay	# Base Wash Units
UZE	Self-Serve Car Wash, Equipment, Additional Bay	# Bays
UZH	Self-Serve Car Wash, Brush Cleaner, One Bay	# Units
UZJ	Self-Serve Car Wash, Brush Cleaner, Additional Bay	# Bays
UZK	Car Wash Vacuum	# Systems
UZG	Water Reclamation	# Units
UZF	Water Softener	# Water Softeners

Church Furnishings and Equipment

Church Furnishings

CFA	Altar	# Altars
CFB	Ark	# Arks
CFD	Fiberglass Baptistry	# Baptistries
CFC	Baptismal Font	# Baptismal Fonts
CFM	Church Pews, Hardwood	Length (LF)
CFO	Church Pews, Seat Type	Length (LF)
CFN	Church Pews, Upholstered	Length (LF)
CFP	Kneelers for Church Pews (Add)	Length (LF)
CFE	Communion Rail	Length (LF)
CFJ	Confessional, Double	# Double Confessionals
CFH	Confessional, Single	# Confessionals
CFK	Lectern	# Lecterns
CFR	Pulpit	# Pulpits

Church Organs, Chimes and Carillon Bells

ORB	Electric Organ	# Organs
ORA	Pipe Organ, Complete	# Stops
BED	Bronze Bells	# Bells
		S1: Diameter (9-48")
CHB	Carillon, Cast Bell	# Carillions
CHD	Carillon, Electronic	# Carillions
CHA	Cast Bell Chimes	# Chimes
CHC	Chimes, Electronic	# Chimes

Market/Dairy/Store Equipment

UCL	Checkout Stand	# Stands
UCD	Dairy Case, Single Shelf	Length (LF)
UCF	Dairy Case, Multideck	Length (LF)
UCG	Frozen Food Case	Length (LF)
UDP	Pneumatic Tube System	# Stations
UCJ	Produce Case, Nonrefrigerated	Length (LF)
UCK	Produce Case, Refrigerated	Length (LF)
UCH	Reach-in Case	Length (LF)

Miscellaneous Occupancy Equipment

UBN	Bowling Lane incl. Ball Return	# Lanes
UAW	Bowling Pin Setter, Automatic	# Lanes

UY	Hospital Equipment	% or Total Hospital Area (SF)
UX	Jail Equipment	Total Jail Building Area (SF)
UYA	Library Equipment	% or Total Library Area (SF)

Restaurant & Commercial Cooking Equipment

UBG	Bar	Length (LF)
UBD	Commercial Kitchen Sink	Length (LF)
UBK	Commercial Oven	# Ovens
UBH	Commercial Range	# Ranges
UBE	Commercial Refrigerator	# Refrigerators
UAV	Cooking Hood and Duct System	Length (LF)
UDR	Counter Stool	# Stools
UBJ	Countertop	Length (LF)
UAZ	Deep Fat Fryer	# Fryers
UDK	Fast Food Window	# Windows
UAY	Griddle	# Griddles
UAX	Hood and Duct Fire Ext. System	# Heads
UBF	Ice Machine	# Ice Machines
UBC	Rack Dishwasher	# Dishwashers
UBB	Restaurant Booth, Upholstered, Straight	# Booths
UBA	Restaurant Booth, Upholstered, Semicircular	# Booths
UBM	Soda Fountains	Length (LF)
UBL	Steam Table	Length (LF)

School Equipment and Fixtures

UBZ	Auditorium Seating	# Seats
UBY	Bleachers, Permanent, Steel/Fiberglass	Area of Projection (SF)
UBX	Bleachers, Permanent, Wood	Area of Projection (SF)
UBW	Bleachers, Power Operation (Add)	Area of Projection (SF)
UBV	Bleachers, Telescoping	Area of Projection (SF)
UAB	College Commons Kitchen Equipment	% or Floor Area (SF)
UBU	Lockers, Box Type	# Openings
UBS	Lockers, Double Tier	# Openings
UBR	Lockers, Single Tier	# Openings
UBT	Lockers, Triple Tier	# Openings
UAC	Science Building Lab Equipment	% or Floor Area (SF)

Service Station Equipment

SY	Air Hydrant	# Hydrants
SU	Air/Water Well, Retracting Hose	# Hoses
SV	Automatic Tire Inflator	# Inflators
UCX	Commercial/Industrial Pump	# Pumps
SZ	Compressor	# Compressors S1: Horsepower(1-20)
UCZ	Electric Consumer Pump	# Pumps
UDA	Electric Utility Pump, Farm Type	# Pumps
UCR	Electronic Dispenser w/o Pump, Single	# Dispensers
UCS	Electronic Dispenser w/o Pump, Twin	# Dispensers
UDH	Fume Exhauster	# Exhausters
UDB	Hand Pump, Farm Type	# Pumps
HSE	Hoist, Drive On, Single Auto	# Hoists
HSB	Hoist, Frame Lift, Double Auto	# Hoists
HSD	Hoist, Frame Lift, Double Truck	# Hoists
HSA	Hoist, Frame Lift, Single Auto	# Hoists
HSC	Hoist, Frame Lift, Single Truck	# Hoists
UCP	Mechanical Dispenser w/o Pump, Single	# Dispensers
UCQ	Mechanical Dispenser w/o Pump, Twin	# Dispensers
UCM	Mechanical Pump, Single	# Pumps
UCN	Mechanical Pump, Twin	# Pumps
SW	Single Swing-arm Stand	# Stands
UCU	Submerged Pump, 1/3 HP (Add)	# Pumps
UCV	Submerged Pump, 3/4 HP (Add)	# Pumps
UCY	Ticket Printer and Counter	# Printers
UDG	Totalizer	# Totalizers
UCT	Twin Pumps for Two Products (Add)	# Twin Pumps
SX	Water Hydrant	# Hydrants

Tanks and Fuel Storage

UDF	Aboveground Horizontal Bulk Storage Tank	Capacity (1000-30000 Gallons)
UDE	Aboveground Vertical Bulk Storage Tank	Capacity (2000-60000 Gallons)
UDC	Underground Fiberglass Fuel Storage Tank	Capacity (550-50000 Gallons)
UDD	Underground Steel Fuel Storage Tank	Capacity (300-50000 Gallons)

Bulk Oil Plant Loading Rack

UFD	Equipment at Rack	# Assemblies

UFE	Equipment at Tank	# Assemblies
UFB	Loading Rack, Double Sided	Loading Rack Area (SF)
UFA	Loading Rack, Single Sided	Loading Rack Area (SF)
UFF	Piping	Length (LF)
UFC	Loading Platform Steps	# Stairways

Basement

The components listed below are specifically for basements. You will frequently encounter other items in basements, such as floor coverings, ceilings, plumbing, etc. Enter these by selecting the appropriate component from another construction system, then changing the system for the component to the Basement system.

Basement Walls

C	Concrete, Reinforced Wall	Basement Wall Area (SF) S1: Thickness (6-96")
B	Concrete Block Wall	Basement Wall Area (SF) S1: Thickness (6-36")
MFB	Stay-in Place Frm, Below Grade	Wall Area (SF)
A	Brick Masonry Wall	Basement Wall Area (SF) S1: Thickness (8-36")
D	Rubble Masonry Wall	Basement Wall Area (SF) S1: Thickness (8-36")
F	Stone Masonry Wall	Basement Wall Area (SF) S1: Thickness (8-36")
G	Wood, Treated	Basement Wall Area (SF)
H	Insulation (Add)	Basement Wall Area (SF)
E	Waterproofing (Add)	Basement Wall Area (SF)

Basement Interior Construction

NO	Bsmt. Interior Const., Finished	Basement Area (SF)
NR	Basement Parking	Basement Area (SF)
NP	Bsmt. Interior Const., Part Finished	Basement Area (SF)
NQ	Bsmt. Interior Const., Unfinished	Basement Area (SF)
NG	Basement Garage Door	# Doors
NH	Church Basement, Classrooms & Offices	Basement Area (SF)
NK	Church Basement, Dining Hall & Kitchen	Basement Area (SF)
NJ	Church Basement, Recreation	Basement Area (SF)
NL	Church Basement, Unfinished	Basement Area (SF)

Basement Stairs

NT	Basement Stairs, Enclosed	# Flights
NS	Basement Stairs, Open	# Flights

Basement Electrical and Lighting

NX	Basement Electrical, Finished	Basement Area (SF)
NY	Basement Electrical, Partially Finished	Basement Area (SF)
NZ	Basement Electrical, Unfinished	Basement Area (SF)

Garage

Component Calculation Method

The components listed below are specifically for garages. You will frequently encounter other items of construction or finish in garages, such as foundations, floors, roof, electric, etc. Enter these by selecting the appropriate components from the superstructure systems, then changing the system for the components to the Garage system.

Garage Walls

VA	Metal Siding Walls	Garage Wall Area (SF)
VB	Cement Fiber Walls	Garage Wall Area (SF)
VF	Brick Veneer Walls	Garage Wall Area (SF)
VH	Brick Walls	Garage Wall Area (SF)
VK	Concrete Block Walls	Garage Wall Area (SF)
VI	Face Brick Walls	Garage Wall Area (SF)
VG	Stone Veneer Walls	Garage Wall Area (SF)
VJ	Stone Walls	Garage Wall Area (SF)
VC	Stucco Walls	Garage Wall Area (SF)
VE	Wood Shingle Walls	Garage Wall Area (SF)
VD	Wood Siding Walls	Garage Wall Area (SF)
VL	Interior Finish on Wall (Add)	Garage Wall Area (SF)

Miscellaneous Garage Built-ins

See the Interior Construction system for additional components.

VM	Garage Door Opener	# Openers

Square Foot Method

The components below include foundation, floor, exterior walls, roof, car and pedestrian doors and electrical lighting, and are available for Class C, D, and S only.

GAT	Attached Garage	Garage Area (180-4000 SF)
GBU	Built In Garage	Garage Area (180-4000 SF)
GDT	Detached Garage	Garage Area (180-4000 SF)
GDTL	Detached Garage w/Living Area	Garage Area (180-4000 SF)

Carport

Component Cost Method

The following component includes the cost of the wood posts to support the roof structure and the column footings that support the posts. You will frequently encounter other items of construction or finish, such as floors, roof, electric, etc. Enter these by selecting the appropriate items from the superstructure sections, and entering the component codes and corresponding units of measure on the blank lines in the carport section of the form.

VN	Supporting Posts and Beams, Carport	Carport Area (SF)

Square Foot Method

The following component includes the cost of the floor structure, roof support system (including posts and beams) and roof cover.

CPT	Carport	Carport Area (SF)

Breezeway

The following component includes the cost of the wood posts to support the roof structure and the column footings that support the posts. You will frequently encounter other items of construction or finish, such as floors, roof, electric, etc. Enter these by selecting the appropriate items from the superstructure sections, and entering the component codes and corresponding units of measure on the blank lines in the breezeway section of the form.

VP	Supporting Posts and Beams, Breezeway	Breezeway Area (SF)

Nonbuilding Construction Systems

Components and additions in the following Construction Systems are included in the Miscellaneous Costs that print below the Depreciated Cost in the report. Segregated Estimator does not automatically depreciate components or additions in these construction systems. The only way to depreciate them is to enter an individual depreciation percentage (or an effective age and typical life for straight line depreciation).

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Yard Improvements

The yard improvements section contains components for construction items located outside of the structure. The costs for these items are printed after the final cost of the superstructure, basement, garage, carport and breezeway.

Fences, Gates and Walls

WCL	Chain Link Fence	Fence Area (SF)
WCV	Chain Link Fence, Vinyl Coated	Fence Area (SF)
WCD	Barbed Coil (Add)	Length (LF)
WCB	Barbed Wire (Add)	Length (LF)
WMF	Decorative Metal Fence	Fence Area (SF)
WFR	Split Redwood Fence	Length (LF)
WPFV	Picket Fence, Vinyl	Length (LF)
WPEV	Privacy Fence, Vinyl	Length (LF)
WFB	Wood Basketweave Fence	Length (LF)
WFP	Wood Picket Fence	Length (LF)
WFA	Solid Wood Board Fence	Length (LF)
WFC	Wood Split Rail Fence	Length (LF)
WFS	Wood Stockade Fence	Length (LF)
WCG	Gate, Chain Link	Gate Area (SF)
WMG	Gate, Metal	Gate Area (SF)
WPGV	Gate, Vinyl	Gate Area (SF)
WFG	Gate, Wood	Gate Area (SF)
WAB	Brick Wall	Wall Area (SF)
WAC	Concrete Block Wall	Wall Area (SF)
WACS	Concrete Block Wall, Subdivision	Wall Area (SF)
WAD	Concrete Block Wall w/ Stucco	Wall Area (SF)
WADS	Conc Blk Wall w/Stucco, Subdivisions	Wall Area (SF)
WAA	Ornamental Screen Block Wall	Wall Area (SF)
WAS	Slumpstone Block Wall	Wall Area (SF)
TRE	Trash Enclosure	# Enclosures

Drive-in Theater Components

DTA	Drive-in Theater, Car Speaker	# Speakers
DTB	Drive-in Theater, Car Speaker Post	# Posts
DTD	Drive-in Theater, Heater	# Heaters

DTC	Drive-in Theater, Directional Lighting	# Signs
DTE	Drive-in Theater, Lighting, Ground Level	# Lights
DTF	Drive-in Theater, Projection Equipment	# Projectors
DTG	Drive-in Theater, Paved Ramps	# Car Spaces
DTH	Drive-in Theater, Remote Speaker System	# Speakers
DTJ	Drive-in Theater, Screen, Concrete Frame	Screen Area (SF)
DTK	Drive-in Theater, Screen, Steel Frame	Screen Area (SF)
DTL	Drive-in Theater, Screen, Wood Frame, Braced	Screen Area (SF)
DTM	Drive-in Theater, Screen, Wood Frame, Guyed	Screen Area (SF)
DTN	Drive-in Theater, Screen, Wood Frame, Timbers	Screen Area (SF)
DTT	Drive-in Theater, Ticket Booth	# Booths

Golf Courses

Base Costs

GCD	Golf Course, Championship	# Holes
GCJ	Golf Course, Executive	# Holes
GCE	Golf Course, Miniature, Budget	# Holes
GCF	Golf Course, Miniature, Standard	# Holes
GCA	Golf Course, Minimal Quality	# Holes
GCH	Golf Course, Par 3	# Holes
GCG	Golf Course, Pitch and Putt	# Holes
GCC	Golf Course, Private Club	# Holes
GCB	Golf Course, Simple Design	# Holes

Additional Items

GCP	Bridge, Golf Cart	Bridge Area (SF)
GCN	Bridge, Pedestrian	Bridge Area (SF)
GCQ	Bridge, Vehicular	Bridge Area (SF)
GCK	Driving Range	# Stations
GCL	Driving Range Cover (Add)	# Stations
GCR	Lake	Lake Area (SF)
GCS	Lake Liner, Asphalt	Lake Area (SF)
GCT	Lake Liner, Clay	Lake Area (SF)
GCU	Lake Liner, Concrete	Lake Area (SF)
GCV	Lake Liner, Plastic and Sand	Lake Area (SF)

GCX	Golf Course, Lighting	# Poles
GCW	Golf Course, Player Shelter	# Shelters

Landscaping

LAC	Landscaping	Landscaped Area (SF)
LAB	Lawn	Lawn Area (SF)
LAS	Sprinklers	Irrigated Area (SF)
LAND	Land	Land Value

Lighting - Exterior and Parking Lots

LGL	Exterior Lighting, Decorative	# Lights
LF	Fluorescent Lighting w/o Pole	# Fixtures
LG	High Intensity Sodium/Mercury Lighting w/o Pole	# Fixtures
LE	Incandescent Lighting w/o Pole	# Fixtures
LH	Light Pole	Total Height (LF)
LGP	Lighting	# 12' Poles
LIG	Parking Lot Lighting	Lighted Area (SF)

Miscellaneous

WBR	Brick/Block Barbecue	# Barbecues
FLP	Flagpole	Height (LF)
FTB	Fountain Bowl, Residential	# Bowls
FTP	Fountain Pool, Commercial	Pool Area (SF)
FTC	Fountain, Commercial	# Fountains
FTR	Fountain, Residential	# Fountains
WMR	Guardrail	Length (LF)
RRS	Railroad Spur	# Spurs S1: Weight (30-150 Lbs)
RRT	Railroad Spur Switch & Turnout	# Switch/Turnouts S1: Weight (30-130 Lbs)
ISX	Septic Tank	# Tanks
SBC	Shuffleboard Court	# Courts
WEL	Water Well	Well Depth

Paving and Parking Lots

PAS	Paving, Asphalt	Paved Area (SF)
PCO	Paving, Concrete, Reinforced	Paved Area (SF)
PCU	Concrete Paving, Unreinforced	Paved Area (SF)
PAC	Curbing, Asphalt	Length (LF)
PCC	Curbing, Concrete	Length (LF)
PCD	Decorative Finish, Paved Areas (Add)	Paved Area (SF)
PCM	Parking Cover, Metal	Canopy Area (SF)
BUM	Parking Lot Bumpers	Total Length (LF)

Railroad Spurs

RRS	Railroad Spur
RRT	Railroad Spur Switch and Turnout

Service Station Miscellaneous Construction

PCI	Concrete Islands	Island Area (SF)
SIO	Service Island Office	Window Area (25-200 SF)
SNK	Sign Pole	Height (LF) S1: Diameter (4-14")
SNA	Sign, Illuminated Plastic, 1 Side	Sign Area (SF)
SNB	Sign, Illuminated Plastic, 2 Sides	Sign Area (SF)
SNC	Sign, Metal, 1 Side	Sign Area (SF)
SND	Sign, Metal, 2 Sides	Sign Area (SF)
SNE	Sign, Sphere	Diam. (LF)
CPX	Canopy, Concrete, Double T	Area Covered (SF)
CPS	Steel Canopy	Area Covered (SF)
CPW	Wood Canopy	Area Covered (SF)

Swimming Pools and Spas

Residential Pools

Residential pool costs are based on the linear feet of perimeter of the pool, and include the cost of excavation and pool construction. The costs of required filtering, chlorinating and heating equipment and diving boards **are not** included in the base cost and must be entered separately.

SPE	Chlorinator	# Chlorinators
SPN	Diving Board	# Diving Boards
SPM	Filter	# Filters

SPD	Pool Heater	# Heaters
SPP	Hydrosweep	# Hydrosweeps
SPG	Swim Pool, Concrete	Perimeter (60-150')
SPF	Swim Pool, Fiberglass	Perimeter (60-150')
SPB	Swim Pool, Gunnite	Perimeter (60-150')
SPH	Swim Pool, Plastic Lined	Perimeter (60-150')

Commercial Pools

Commercial pool costs are based on the square foot area of the pool, and include the cost of excavation and pool construction. The costs of required filtering, chlorinating and heating equipment and diving boards **are** included in the base cost.

SPK	Swim Pool, Gunnite	Pool Area (1000-20000 SF)
SPC	Swim Pool, Poured Concrete	Pool Area (1000-20000 SF)

Spas

SPA	Spa, Attached to Pool	# Spas
SPR	Spa, Detached	# Spas

Tennis Courts

TCF	Fence, Tennis Court	# Courts
TCL	Lighting, Tennis Court	# Courts
TCA	Tennis Court, Asphalt	# Courts
TCC	Tennis Court, Concrete	# Courts

Utility Piping

UPB	Utility Piping, Cast Iron	Length (LF) S1: Diameter (20-48")
UPC	Utility Piping, Concrete	Length (LF) S1: Diameter (16-42")
UPJ	Utility Piping, Plain Concrete	Length (LF) S1: Diameter (6-21")
UPK	Utility Piping, Reinforced Concrete	Length (LF) S1: Diameter (12-96")
UPG	Utility Piping, Corrugated Metal	Length (LF) S1: Diameter (6-72")

UPA	Utility Piping, Ductile Iron	Length (LF) S1: Diameter (4-18")
GPUM	Grinder Pump	# Pumps
UPH	Utility Piping, Plastic	Length (LF) S1: Diameter (4-15")
UPD	Utility Piping, Plastic	Length (LF) S1: Diameter (4-12")
UPE	Utility Piping, Steel	Length (LF) S1: Diameter (4-48")
UPF	Utility Piping, Valves	# Valves S1: Diameter (4-48")
UPL	Utility Piping, Vitrified Clay	Length (LF) S1: Diameter (4-48")

Shed & Farm Building Equipment

The following components are available in the Shed & Farm Building Equipment Construction System of the Segregated Estimator:

1004	Automatic Curtain Machine	# Machines (1-25) S1: Travel Length (24-74")
1005	Automatic Curtain Control Box	# Control Boxes (1-25)
1006	Potentiometer Feedback	# Potentiometers (1-10)
1007	Curtain Drop Safety System	# Systems (1-25)
1008	Curtain Operator	# Operators (1-25) S1: Travel Length (26-66")
1009	Sidewall Curtain, Winch	# Winches (1-10)
1010	Bird Barrier	Length (20-5000') S1: Height (3-6')
1020	Shutter	# Shutters (1-1000) S1: Diameter (9-60")
1021	Shutter, Motor Kit	# Kits (1-1000)
1022	Electronic Ventilation Control System	# Systems (1-1000)
1030	Inlet, Ceiling	# Inlets (1-1000)
1031	Inlet, Wall	# Inlets (1-1000)
1033	Inlet, Automatic Baffle Machine	# Machines (1-100)
1034	Inlet, Automatic Control Box	# Control Boxes (1-100)
1040	Fan, Box Stir	# Fans (1-1000) S1: Diameter (18-48")
1041	Fan, Sidewall Cone	# Fans (1-1000) S1: Diameter (9-60")
1042	Fan, Pit Plenum, Stainless Steel	# Fans (1-1000) S1: Diameter (12-24")
1043	Fan, Pit Plenum, Poly-Stainless	# Fans (1-1000) S1: Diameter (12-24")
1044	Fan, Horizontal Pit	# Fans (1-1000) S1: Diameter (12-20")
1045	Fan, Under Floor Pit	# Fans (1-1000) S1: Diameter (8-12")
1050	Heater, Suspension Mounted	# Heaters (1-100) S1: Capacity (40000-225000 BTUs)
1051	Heater, Infraconic Radiant	# Heaters (1-1000) S1: Capacity (17000-34000 BTUs)

1052	Heater, Infra-Red	# Heaters (1-1000) S1: Capacity (3000-19000 BTUs)
1053	Evaporative Cooling, Spray	Length (10-10000')
1054	Evaporative Cooling, Drip	Length (10-10000')
1055	Evaporative Cooling, Pad, Wall Mounted	# Systems (1-10) S1: Height (2-6') S2: Length (4-72')

Feeders, Waterers & Waste

The following components are available in the Feeders, Waterers & Waste Construction System of the Segregated Estimator:

1100	Feeder, Yard, Hay	# Feeders (1-100)
1101	Feeder, Yard, Round Grain	# Feeders (1-100)
1102	Feeder, Pen Grain	# Feeders (1-1000)
1103	Feeder, Hay Baskets	# Feeders (1-1000)
1104	Feeder, Fenceline, 8' Long	# Feeders (1-100)
1105	Feeder, Fenceline, Each Add'l 8'	# Additional 8 Feet (1-100)
1106	Feeder, Portable Steel Bunk	# Feeders (1-100)
1107	Feeder, Portable Steel Bunk w/ Hay Rack	# Feeders (1-100)
1122	Feeder, Mechanical, Control Box	# Control Boxes (1-10)
1125	Feeder, Paddock	# Feeders (1-100)
1126	Feeder, Portable, Steel, Bale	# Feeders (1-25)
1127	Feeder, Portable, Steel Bunk	# Feeders (1-25)
1130	Feeding Trough, 1-Sided, Concrete	Length (10-1000')
1131	Feeding Trough, 1-Sided, Steel	Length (10-1000')
1132	Feeding Trough, 1-Sided, Wood	Length (10-1000')
1133	Feeding Trough, 2-Sided, Concrete	Length (10-1000')
1134	Feeding Trough, 2-Sided, Steel	Length (10-1000')
1135	Feeding Trough, 2-Sided, Wood	Length (10-1000')
1136	Feeding Trough Roof, Metal Struct.	Length (10-1000')
1137	Feeding Trough Roof, Wood Struct.	Length (10-1000')
1138	Sloped Feed Rail Guard, Galvanized	Length (10-1000') S1: Rail Spacing (7-12")
1139	Sloped Feed Rail Guard, Zinc Coated	Length (10-1000') S1: Rail Spacing (7-12")
1140	Headrail, Double Swing, Self Locking	# Headrails (1-1000)
1150	Watering Trough, Concrete	Length (1-100')
1151	Watering Trough, Steel	Length (1-100')
1152	Watering Tank, Galvanized	# Tanks (1-25) S1: Capacity (44-1100 Gal)
1153	Automatic Drinker Kit with Float	# Kits (1-100)
1154	Automatic Waterer	# Systems (1-25)
1155	Automatic Waterer, Feed Lot	# Systems (1-25)
1156	Automatic Water Fountain	# Systems (1-25)
1157	Automatic Water Fountain, Heated	# Systems (1-25)

1158	Electric Stall Waterer	# Stall Waterers (1-25)
1159	Electric Pen Waterer	# Pen Waterers (1-25)
1170	Liquid Manure Tank, Concrete Rectangular	Capacity (100-50000 CF)
1171	Liquid Manure Tank, Concrete Round	Capacity (100-50000 CF)
1172	Liquid Manure Tank, No Cover	Size (300-10000 SF)
1173	Liquid Manure Tank, Plank Cover	Size (300-10000 SF)
1174	Manure, Agitator & Pumps	# Agitator & Pumps (1-10)
1175	Manure, Concrete Open Pit	Capacity (100-100000 CF)
1176	Manure, Clay Lagoon	Capacity (3500-999999 CF)
1177	Manure, Lagoon Flotation System	# Systems (1-10)
1178	Slurry Tank	# Tanks (1-10) S1: Diameter (25-101') S2: Height (14-23')
1179	Slurry Tank, Concrete Slab	Size (100-10000 CF of Concrete)
1180	Alley Scraper	# Systems (1-10) S1: Length (200-1200')
1181	Barn Cleaner, Elevator and Drive	# Systems (1-10)
1182	Barn Cleaner, Gutter	Length (10-1000')
1183	Flush Tank, Tip-Type Waterer	# Tip-Tanks (1-10) S1: Capacity (70-105 Gal)
1184	Floor-Type Flooding Flush System	# Flush Valves (1-20)

Stock & Equestrian Equipment

The following components are available in the Stock & Equestrian Equipment Construction System of the Segregated Estimator:

1283	Barbed Wire Fencing	Length (LF)
1200	Horse Corral, Wood	Length (10-10000')
1201	Horse Corral, Polymer Grid	Length (10-10000')
1202	Horse Corral, Vinyl	Length (10-10000')
1203	Horse Corral, 8' Gate, Steel	# Gates (1-100)
1204	Horse Corral, 8' Gate, Vinyl	# Gates (1-100)
1205	Portable Pipe Corral, 4-Rail	# Panels (1-1000)
1206	Portable Pipe Corral, 5-Rail	# Panels (1-1000)
1207	Electrified Fence Charger	# Chargers (1-25)
1208	Electrified Fence Strands	Length (10-100000')
1220	Box Stall, 10' Square	# Stalls (1-1000)
1221	Box Stall, 12' Square	# Stalls (1-1000)
1222	Horse Walker-2	# Walkers (1-25)
1223	Horse Walker-4	# Walkers (1-25)
1224	Horse Walker-6	# Walkers (1-25)
1240	Stock Corral, Pipe Rails	Length (10-10000')
1241	Stock Corral, Cable Rails	Length (10-10000')
1242	Stock Corral, Split Rails, 4"x4" Posts	Length (10-10000')
1243	Stock Corral, Wood Rails, 4"x4" Posts	Length (10-10000')
1244	Stock Corral, Split Rails, 6"x6" Posts	Length (10-10000')
1245	Stock Corral, Wood Rails, 6"x6" Posts	Length (10-10000')
1246	Stock Corral Gate	# Gates (1-100) S1: Gate Length (4-20')
1260	Flow Control Unit, Portable	# Units (1-50)
1261	Headgate, Portable	# Headgates (1-50)
1262	Cattle Crossing Guard	# Crossing Guards (1-50)
1263	Loading Chute, Portable	# Chutes (1-50)
1264	Loading Chute, Stationary, Steel	# Chutes (1-50)
1265	Loading Chute, Stationary, Wood	# Chutes (1-50)
1266	Manual Squeeze Chute, Portable	# Chutes (1-50)
1267	Sweep Tub, Portable, Open	# Tubs (1-50) S1: Number of Panels(2-3)
1268	Sweep Tub, Portable, Sheeted	# Tubs (1-50) S1: Number of Panels(2-4)

1269	Work Alley, Portable, Curved	# Panels (1-50)
1270	Work Alley, Portable, Straight	# Panels (1-50)
1271	Working Chute, Portable	# Chutes (1-50)
1280	Scale, Large Animal, Electronic	# Scales (1-10)
1281	Scale, Printer	# Printers (1-10)
1282	Scale, Weighbridge, Livestock	# Scales (1-10) S1: Capacity (5-20 Tons)

Barn & Dairy Equipment

The following components are available in the Barn & Dairy Equipment Construction System of the Segregated Estimator:

1300	Free-Stall, Wood Posts	# Stalls (25-1000)
1301	Free-Stall, Wood Posts, Head To Head	# Stalls (25-1000)
1302	Free-Stall, with Mounting Rail	# Stalls (25-1000)
1303	Free-Stall, with Mounting Rail, Head To Head	# Stalls (25-1000)
1304	Free-Stall, Welded on Steel Posts	# Stalls (25-1000)
1305	Free-Stall, Welded on Steel Posts, Head To Head	# Stalls (25-1000)
1306	Free-Stall, Floor Mounted	# Stalls (25-1000)
1307	Free-Stall, Floor Mounted, Head To Head	# Stalls (25-1000)
1310	Stall Mats	Size (1-1000 SF)
1311	Barn Elevator, Reversible Belt Conveyor	# Elevators (1-10) S1: Width (14-18")
1330	Parlor Stall, Fully Automatic System	# Stalls (12-40)
1331	Parlor Stall, Manual System	# Stalls (1-10)
1332	Parlor Stall, Walk-Thru	# Stalls (10-50)
1333	Parlor Stall, Parallel	# Stalls (10-50)
1334	Parlor Stall, Herringbone	# Stalls (10-50)
1335	Parlor Stall, Rotary System	# Stalls (25-80)
1336	Parlor Stall, Feed System	# Stalls (10-50)
1337	Parlor Stall, Computerized Automation	# Stalls (10-50)
1338	I.D. Tags	# I.D. Tags (50-2000)
1339	Parlor Stall, Power Gates	# Gates (10-50)
1340	Floor Matting, Parlor Work Area	Size (1-1000 SF)
1362	Compressor	# Compressors (1-10)
1363	Plate Cooler, Floor Mounted	# Coolers (1-10)
1364	Chiller	# Chillers (1-10)
1365	Water Heater, Gas	# Water Heaters (1-10)
1366	Wash System, Automatic	# Wash Systems (1-5)
1381	Holding Pen, Wash Area w/o Roof	Pen Size (10-1000 SF)
1382	Holding Pen, Wash Area w/ Roof	Pen Size (10-1000 SF)
1383	Power Crowd Gate	Pen Size (10-1000 SF)
1384	Cow Wash	Pen Size (10-1000 SF)
1385	Paved Transfer Lane without Curbing	Length (10-10000')
1386	Paved Transfer Lane with Curbing	Length (10-10000')

1387	Fence, Pipe, Cable Rails	Length (10-10000')
1388	Fence, Pipe, Pipe Rails	Length (10-10000')
1389	Fence, Galvanized Rub Panel (Add)	Length (10-10000')
1390	Fence, 8' Gate	# Gates (1-100)
1391	Fence, Gate, Each Additional 4'	# Add'L 4 Feet (1-4)

Poultry Equipment

The following components are available in the Poultry Equipment Construction System of the Segregated Estimator.

1400	Breeder, Feeder, Chain System, Female	# Birds (1000-999999)
1401	Breeder, Feeder, Pan System, Male	# Birds (1000-999999)
1402	Breeder, Watering System, Nipple	# Birds (1000-999999)
1403	Breeder, Bin, Scale and Fill System, Female	# Birds (1000-999999)
1404	Breeder, Bin and Fill System, Female	# Birds (1000-999999)
1405	Breeder, Bin and Fill System, Male	# Birds (1000-999999)
1406	Breeder, Nest and Egg Collection System	# Birds (1000-999999)
1407	Breeder, House Fan System	# Birds (1000-999999)
1408	Breeder, Evaporative Cooling Pad System	# Birds (1000-999999)
1409	Breeder, Sidewall Curtain and Air Inlet System	# Birds (1000-999999)
1420	Broiler, Feeder, Pan System	# Birds (1000-999999)
1421	Broiler, Auger Feeder Bin and Fill System	# Birds (1000-999999)
1422	Broiler, Watering System	# Birds (1000-999999)
1423	Broiler, Heating System	# Birds (1000-999999)
1424	Broiler, House Fan System	# Birds (1000-999999)
1425	Broiler, Evaporative Cooling Pad System	# Birds (1000-999999)
1426	Broiler, Sidewall Curtain and Air Inlet System	# Birds (1000-999999)
1430	Layer, A-Frame Cage System, 5 Tier	# Birds (1000-999999)
1431	Layer, A-Frame, Watering System, Nipple	# Birds (1000-999999)
1432	Layer, A-Frame, Feed Bin and Fill System	# Birds (1000-999999)
1433	Layer, A-Frame, Egg Cross Collection System	# Birds (1000-999999)
1434	Layer, A-Frame, Cage Fan System	# Birds (1000-999999)
1435	Layer, A-Frame, Cooling Pad System	# Birds (1000-999999)
1436	Layer, A-Frame, Curtain and Air Inlet System	# Birds (1000-999999)
1440	Layer, Battery Cage System, 8 Tier	# Birds (1000-999999)
1441	Layer, Battery, Watering System, Nipple	# Birds (1000-999999)
1442	Layer, Battery, Feed Bin and Fill System	# Birds (1000-999999)
1443	Layer, Battery, Egg Cross Collection System	# Birds (1000-999999)
1444	Layer, Battery, Manure Removal System	# Birds (1000-999999)
1445	Layer, Battery, Cage Fan System	# Birds (1000-999999)
1446	Layer, Battery, Cooling Pad System	# Birds (1000-999999)
1447	Layer, Battery, Curtain and Air Inlet System	# Birds (1000-999999)
1460	Turkey Finishing, Feeder, Pan System	# Birds (500-999999)

1461	Turkey Finishing, Auger Feeder Bin and Fill System	# Birds (500-999999)
1462	Turkey Finishing, Watering System, Nipple	# Birds (500-999999)
1463	Turkey Finishing, Heating System	# Birds (500-999999)
1464	Turkey Finishing, House Fan System	# Birds (500-999999)
1465	Turkey Finishing, Cooling Pad System	# Birds (500-999999)
1466	Turkey Finishing, Curtain and Air Inlet System	# Birds (500-999999)

Sheep & Swine Equipment

The following components are available in the Sheep & Swine Equipment Construction System of the Segregated Estimator:

1500	Lambing Pen with Safety Zone	# Pens (1-1000)
1501	Sheep Pen, Split Rails	Length (10-100000')
1502	Sheep Pen, 2x6 Rails	Length (10-100000')
1510	Confinement Partition, PVC	Length (10-100000') S1: Height (20-38")
1511	Confinement Partition, Solid Rod	Length (10-100000') S1: Height (27-46")
1512	Confinement Partition, Galvanized Panel	Length (10-100000') S1: Height (34-42")
1520	Farrowing Crate, Complete Package	# Crates (1-10000)
1521	Farrowing Crate, Finger	# Crates (1-10000)
1522	Farrowing Crate, Riser	# Risers (1-10000)
1523	Gestation Stall	# Stalls (1-10000)
1530	Heating Pad, Farrowing-1 Litter, 1X3	# Heating Pads (1-1000)
1531	Heating Pad, Farrowing-1 Litter, 1X4	# Heating Pads (1-1000)
1532	Heating Pad, Farrowing-1 Litter, 1X5	# Heating Pads (1-1000)
1533	Heating Pad, Farrowing-2 Litter, 2X3	# Heating Pads (1-1000)
1534	Heating Pad, Farrowing-2 Litter, 2X4	# Heating Pads (1-1000)
1535	Heating Pad, Farrowing-2 Litter, 2X5	# Heating Pads (1-1000)
1536	Heating Pad, Nursery, 2X3	# Heating Pads (1-1000)
1537	Heating Pad, Nursery, 3X3	# Heating Pads (1-1000)
1538	Heating Pad, Nursery, 3X4	# Heating Pads (1-1000)
1539	Heating Pad, Nursery, 3X6	# Heating Pads (1-1000)
1540	Heating Pad, Automatic Controller	# Controllers (1-1000)
1551	Slotted Floor, Farrowing	Size (10-100000 SF)
1552	Slotted Floor, Finishing	Size (10-100000 SF)
1553	Slotted Floor, Nursery	Size (10-100000 SF)
1560	Feeder, Bulk, 1 Sided Rect.	# Feeders (1-1000) S1: Size (26-61 BU)
1561	Feeder, Bulk, 2 Sided Rect.	# Feeders (1-1000) S1: Size (24-90 BU)
1562	Feeder, Bulk, Round	# Feeders (1-1000) S1: Size (25-105 BU)

1563	Feeder, Grower/Finishing, 1 Sided Rect.	# Feeders (1-1000) S1: Size (3-13 BU)
1564	Feeder, Grower/Finishing, 2 Sided Rect.	# Feeders (1-1000) S1: Size (4-21 BU)
1565	Feeder, Grower/Finishing, Round	# Feeders (1-1000) S1: Size (5-15 BU)
1566	Feeder, Nursery, 1 Sided Rect.	# Feeders (1-1000) S1: Size (1-5 BU)
1567	Feeder, Nursery, 2 Sided Rect.	# Feeders (1-1000) S1: Size (4-9 BU)
1568	Feeder, Nursery, Round	# Feeders (1-1000) S1: Size (1-5 BU)
1570	Small Animal Scale, Dial	# Scales (1-10) S1: Capacity (400-600 Lbs)
1571	Small Animal Scale, Electronic	# Scales (1-10) S1: Capacity (500-1000 Lbs)
1572	Watering System, Nipple	# Pens (1-1000)

Grain Handling & Storage

The following components are available in the Grain Handling & Storage Construction System of the Segregated Estimator:

1600	Grain Elevator, Wood Crib, Metal Clad	Capacity (8000-500000 Bu)
1601	Elevator Annex, Wood Crib, Metal Clad	Capacity (20000-500000 Bu)
1602	Grain Elevator, Slip Form Concrete	Capacity (20000-2000000 Bu)
1603	Elevator Annex, Slip Form Concrete	Capacity (10000-2000000 Bu)
1604	Bucket Elevator	# Elevators (1-50) S1: Capacity (3000-8000 BU/Hr) S2: Discharge Height (20-150')
1610	Discharge Transition	# Transitions (1-50) S1: Diameter (10-16")
1611	Spouting	Length (1-2000') S1: Diameter (10-16")
1612	Receiving Pit	Capacity (3000-8000 Bu/Hr)
1620	Dryer, Batch Type, Grain	# Dryers (1-50) S1: Capacity (150-390 BU/Hr)
1621	Dryer, Continuous-Flow, Grain	# Dryers (1-50) S1: Capacity (300-4500 BU/Hr)
1622	Dryer, Continuous-Flow, Rice	# Dryers (1-50) S1: Capacity (575-8550 BU/Hr)
1640	Silo, Concrete Stave, 10' - 15' Dia.	# Silos (1-10) S1: Diameter (10-15') S2: Height (30-70')
1641	Silo, Concrete Stave, 16' - 23' Dia.	# Silos (1-10) S1: Diameter (16-23') S2: Height (30-90')
1642	Silo, Concrete Stave, 24' - 30' Dia.	# Silos (1-10) S1: Diameter (24-30') S2: Height (50-100')
1645	Silo, Concrete Stave, No Roof, 10' - 15' Dia.	# Silos (1-10) S1: Diameter (10-15') S2: Height (30-70')
1646	Silo, Concrete Stave, No Roof, 16' - 23' Dia.	# Silos (1-10) S1: Diameter (16-23') S2: Height (30-90')

1647	Silo, Concrete Stave, No Roof, 24' - 30' Dia.	# Silos (1-10) S1: Diameter (24-30') S2: Height (50-100')
1650	Silo, Concrete Poured, 12' - 15' Dia.	# Silos (1-10) S1: Diameter (12-15') S2: Height (30-70')
1651	Silo, Concrete Poured, 16' - 23' Dia.	# Silos (1-10) S1: Diameter (16-23') S2: Height (30-90')
1652	Silo, Concrete Poured, 24' - 30' Dia.	# Silos (1-10) S1: Diameter (24-30') S2: Height (50-130')
1655	Silo, Concrete Poured, No Roof, 12' - 15' Dia.	# Silos (1-10) S1: Diameter (12-15') S2: Height (30-70')
1656	Silo, Concrete Poured, No Roof, 16' - 23' Dia.	# Silos (1-10) S1: Diameter (16-23') S2: Height (30-90')
1657	Silo, Concrete Poured, No Roof, 24' - 30' Dia.	# Silos (1-10) S1: Diameter (24-30') S2: Height (50-130')
1660	Silo, Unloader, Top	# Unloaders (1-10) S1: Diameter (10-30')
1661	Silo, Access Piping	# Access Pipes (1-10) S1: Height (30-100')
1670	Silo, Porcelain, 14' Dia.	# Silos (1-10) S1: Height (23-41')
1671	Silo, Porcelain, 17' Dia.	# Silos (1-10) S1: Height (31-49')
1672	Silo, Porcelain, 20' Dia.	# Silos (1-10) S1: Height (28-87')
1673	Silo, Porcelain, 25' Dia.	# Silos (1-10) S1: Height (34-88')
1674	Silo, Porcelain, 31' Dia.	# Silos (1-10) S1: Height (70-89')
1675	Silo, Porcelain, Pre-Owned/Rebuilt, 14' Dia.	# Silos (1-10) S1: Height (23-41')
1676	Silo, Porcelain, Pre-Owned/Rebuilt, 17' Dia.	# Silos (1-10) S1: Height (31-49')
1677	Silo, Porcelain, Pre-Owned/Rebuilt, 20' Dia.	# Silos (1-10) S1: Height (28-87')

1678	Silo, Porcelain, Pre-Owned/Rebuilt, 25' Dia.	# Silos (1-10) S1: Height (34-88')
1679	Silo, Porcelain, Pre-Owned/Rebuilt, 31' Dia.	# Silos (1-10) S1: Height (70-89')
1685	Silo, Automatic Unloader	# Unloaders (1-10) S1: Diameter (14-31')
1686	Silo, Sweep-Arm Auger, New	# Augers (1-10) S1: Length (14-20')
1687	Silo, Sweep-Arm Auger, Used	# Augers (1-10) S1: Length (14-20')
1690	Bunker Silo, Tilt-up Conc., Precast Support	Length (1-1000') S1: Width (20-100') S2: Height (8-20')
1691	Bunker Silo, Tilt-up Conc., Poles/Braces	Length (1-1000') S1: Width (20-100') S2: Height (8-20')
1692	Bunker Silo, Wood, Cantilevered Poles	Length (1-1000') S1: Width (20-100') S2: Height (8-20')
1695	Trench Silo, Concrete	Length (1-1000') S1: Width (20-100') S2: Depth (8-20')
1696	Trench Silo, Wood	Length (1-1000') S1: Width (20-100') S2: Depth (8-20')
1697	Trench Silo, Plastic Lined	Length (1-1000') S1: Width (20-100') S2: Depth (8-20')
1700	Steel Bin, without Drying, 15' - 29' Dia.	# Bins (1-50) S1: Diameter (15-29') S2: Height (7-48')
1701	Steel Bin, without Drying, 30' - 59' Dia.	# Bins (1-50) S1: Diameter (30-59') S2: Height (15-59')
1702	Steel Bin, without Drying, 60' - 89' Dia.	# Bins (1-50) S1: Diameter (60-89') S2: Height (18-64')
1703	Steel Bin, without Drying, 90' - 105' Dia.	# Bins (1-50) S1: Diameter (90-105') S2: Height (33-59')

1706	Steel Bin, with Drying, 15' - 29' Dia.	# Bins (1-50) S1: Diameter (15-29') S2: Height (7-18')
1707	Steel Bin, with Drying, 30' - 48' Dia.	# Bins (1-50) S1: Diameter (30-48') S2: Height (15-18')
1710	Steel Bin, Concrete Slab Floor	# Bins (1-50) S1: Diameter (15-105') S2: Height (7-64')
1712	Steel Bin, Ladder Safety Cage	Height (LF) (8-100')
1713	Steel Bin, Spreader	# Spreaders (1-50)
1716	Steel Tank	# Tanks (1-50) S1: Capacity (500000-1000000 BU)
1720	Steel Bin, Hopper Bottom, 15' Dia.	# Bins (1-50) S1: Height (33-57')
1721	Steel Bin, Hopper Bottom, 18' Dia.	# Bins (1-50) S1: Height (34-63')
1722	Steel Bin, Hopper Bottom, 21' Dia.	# Bins (1-50) S1: Height (35-64')
1723	Steel Bin, Hopper Bottom, 24' Dia.	# Bins (1-50) S1: Height (36-66')
1724	Steel Bin, Hopper Bottom, 30' Dia.	# Bins (1-50) S1: Height (39-68')
1730	Feed Bin, Fiberglass Hopper Bottom, 6' Dia.	# Bins (1-50)
1731	Feed Bin, Fiberglass Hopper Bottom, 7' Dia.	# Bins (1-50)
1732	Feed Bin, Fiberglass Hopper Bottom, 8' Dia.	# Bins (1-50) S1: Height (16-21')
1733	Feed Bin, Fiberglass Hopper Bottom, 10' Dia.	# Bins (1-50) S1: Height (19-39')
1740	Feed Bin, Steel Hopper Bottom, 6' Dia.	# Bins (1-50) S1: Height (10-28')
1741	Feed Bin, Steel Hopper Bottom, 7' Dia.	# Bins (1-50) S1: Height (11-19')
1742	Feed Bin, Steel Hopper Bottom, 9' Dia.	# Bins (1-50) S1: Height (14-31')
1743	Feed Bin, Steel Hopper Bottom, 12' Dia.	# Bins (1-50) S1: Height (20-42')

1750	Cylindrical Wire Mesh Corn Crib Bin	# Bins (1-50) S1: Diameter (8-16') S2: Height to Eave (8-28')

Miscellaneous Agricultural Equipment

The following components are available in the Miscellaneous Agricultural Equipment Construction System of the Segregated Estimator:

1901	Dehydrator, Burner	# Burners (1-1000)
1902	Dehydrator, Fans and Motors	# Fans & Motors (1-1000)
1903	Dehydrator, Yard Tray Track	Length (10-1000')
1904	Dehydrator, Turntable	# Turntables (1-1000)
1920	Scale, Hopper	# Injectors (1-10) S1: Capacity (25-100 Tons)
1921	Scale, Railroad Track	# Scales (1-10) S1: Capacity (150-350 Tons)
1922	Scale, Truck, Concrete Platform	# Scales (1-10) S1: Capacity (20-70 Tons)
1923	Scale, Truck, Steel Platform	# Scales (1-10) S1: Capacity (20-70 Tons)
1924	Scale, Truck, Wood Platform	# Scales (1-10) S1: Capacity (20-70 Tons)
1925	Scale, Card Printer	# Printers (1-10)
1926	Scale, Remote-Control Electronic Reader	# Readers (1-10)