



Segregated Estimator Program Worksheet Reference

December 2002



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Overview

This *Worksheet Reference* contains detailed instructions for the entry of information on the Segregated Estimator worksheet. Use the worksheet to collect information about buildings for Marshall & Swift's Segregated Estimator Program in the SwiftEstimator Suite.

The worksheet has several major divisions, each for a different type of information. These divisions correspond to the data entry screens in the Segregated Estimator, which are accessed using the following navigation links on the left side of the data entry screens:

Gen. Information

Sections

Building Data

Components

Additions

Remarks

Adjustments

Reports/Totals

Close Estimate

This *Worksheet Reference* includes line by line instructions for entering information in each of the worksheet divisions. This includes guidelines for completing the following divisions of the worksheet:

- General Information (page 6)
- Building Data (page 10)
- Components (page 33)
- Additions (page 38)
- Remarks and Notes (page 41)
- Cost Adjustments (page 42)

Worksheet Reference

Available Worksheets

Segregated Estimator includes the following worksheets:

- **Commercial Detailed:** Contains pre-printed components specifically for commercial, industrial and institutional occupancies.
- **Residential Detailed:** Contains pre-printed components specifically for residential occupancies.
- **Agricultural Detailed:** Contains pre-printed components specifically for agricultural occupancies.
- **Comprehensive (All Components):** Contains pre-printed components for all components available in Segregated Estimator. You can use this worksheet to create your own specialized worksheet, and as a reference guide when using the General Worksheet.
- **General:** Contains a blank component table (instead of pre-printed components) in which you enter components using their codes.

Worksheets with Pre-Printed Components

The following illustrates the component section of a worksheet with pre-printed components:

Component Name	Code	Pct	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life	Quantity; S1=Size 1; S2=Size 2
Excavation & Site Preparation										
Site Preparation	BC									Ground Floor Area (SF)
Excavation, Bulk	BA									Volume Excavated (CF)
Fill	BB									Volume Excavated (CF)
Exterior Walls										
Adobe Block	XU									Wall Area (SF); S1: Thickness (6-16")
Brick, SCR Modular	MCG									Wall Area (SF); S1: Thickness (6-8")

With these worksheets, do the following to include a component in the estimate:

- Circle the component Code.
- Enter the Quantity (or if the Pct column is not shaded for the component, the percent of Total Floor Area). The Quantity type is indicated in the last column.

Example: The quantity for component BC (Site Preparation) is the Ground Floor Area in Square Feet.

- If the Size 1 field is not shaded, enter the size indicated in the last column (denoted S1). You must enter a value between the minimum and maximum indicated in the last column. The same applies for the Size 2 field.

Example: The quantity for component XU (Adobe Block) is Wall Area in Square Feet, and Size 1 for this component is Thickness, with a minimum Thickness of 6’ and a maximum Thickness of 16”.

- Optionally enter a quality for the component. If you do not enter a quality, Segregated Estimator automatically uses the quality you entered in the Building Data for the section.
- Optionally enter either a depreciation percentage or a component age and life (for straight line depreciation). If you do not enter either of these, Segregated Estimator automatically applies the depreciation percentage for the section if the component is in one of the Building Construction Systems. If the component is in a Nonbuilding Construction System, Segregated Estimator only depreciates the component if you make an entry for either the depreciation percentage or the age and life. See page 49 for more information on Building and Nonbuilding Construction Systems.

Example: The following worksheet has Site Preparation for 100% of the Ground Floor Area, and 5,200 square feet of 12” thick Adobe Block wall, which is depreciated 20% (overriding the section depreciation):

Component Name	Code	Pct	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life	Quantity; S1=Size 1; S2=Size 2
Excavation & Site Preparation										
Site Preparation	BC	100								Ground Floor Area (SF)
Excavation, Bulk	BA									Volume Excavated (CF)
Fill	BB									Volume Excavated (CF)
Exterior Walls										
Adobe Block	XU		5200	12			20			Wall Area (SF); S1: Thick (6-16")
Brick, SCR Modular	MCG									Wall Area (SF); S1: Thick (6-8")

General Worksheet

The following illustrates the component section of the general worksheet:

Code	System	%	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life

With this worksheet, you enter the component code, in the first column, and enter the remaining data in the other columns the same way you enter it on the Pre-Printed Component worksheets. You only need to enter a Construction System in the System column if you want the component to print in a system other than its standard system.

Worksheet Reference

Example: The following illustrates the entries for the components in the previous example:

Code	System	%	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life
<i>BC</i>		<i>100</i>							
<i>XU</i>			<i>5200</i>	<i>12</i>			<i>20</i>		

Worksheet Fields

The worksheet has three different types of areas to enter information:

- **Individual Fields:** These have a field name followed by a line for you to write the information.

Example: The individual field for total floor area is:

Total Floor Area _____ **Square Feet**

- **Data Entry Grids:** These are tables with several rows and several columns for entering sets of related data.

Example: The component data entry grid on the General Worksheet is:

Code	System	%	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life

You enter the information about one component in each row of this grid, with the column headings indicating the specific data to enter (component code, system name, percentage of total floor area, quantity, etc.).

- **Check Boxes:** These allow you to choose items to include in the estimate.

Example: The check boxes for depreciation type are:

Depreciation Type

- Marshall & Swift Tables**
- Separate Physical** _____ %
and Functional _____ %
- Combined Phys. & Func.** _____ %
- Age/Life (Straight Line)** _____

In the descriptions on the following pages, some of the field names have the word “Required” to indicate that the field is required for calculating your estimate.

General Information

Estimate ID	_____
Property Owner	_____
Property Address	_____
Property City	_____
State/Province	_____
ZIP/Postal Code	_____
Survey Date	_____
Surveyed By	_____
Comment	_____

Use this section of the worksheet to enter information about the owner, location and other identifying items about the building. The fields available in this section are:

- **Estimate ID (Required):** Enter an ID to identify the estimate. This can be any type of data you want, and can have no more than 50 characters, including spaces.
- **Property Owner:** Name of the owner of the property (no more than 50 characters including spaces).
- **Property Address:** Street address of the building being analyzed (no more than 50 characters including spaces).
- **Property City:** City of the building being analyzed (no more than 50 characters including spaces).
- **State/Province:** State or province of the building being analyzed (no more than 30 characters including spaces).
- **ZIP Code/Postal Code (Required):** 5-digit United States ZIP Code or 6-character Canadian Postal Code for the building being analyzed. This entry is a required field. Segregated Estimator uses the ZIP/Postal Code to determine the default local multiplier, region and climate for the cost report. The local multiplier adjusts the costs for a specific geographical location, and is taken by the Segregated Estimator from Section 99 of the *Marshall Valuation Service*. See page 49 for further information about entering Canadian Postal Codes.
- **Survey Date:** Date of the survey, inspection, appraisal, etc. This prints in the report but does not have an effect on the cost calculations. Use the Report Date field in the Cost Adjustments section to change the month and year of the costs.
- **Surveyed By:** Name of the person performing the survey, inspection, appraisal, etc. (no more than 50 characters including spaces).

- **Comment:** You can use this field to enter any information desired, either to be printed in the reports or to be used when searching for estimates. It can have no more than 50 characters, including spaces.

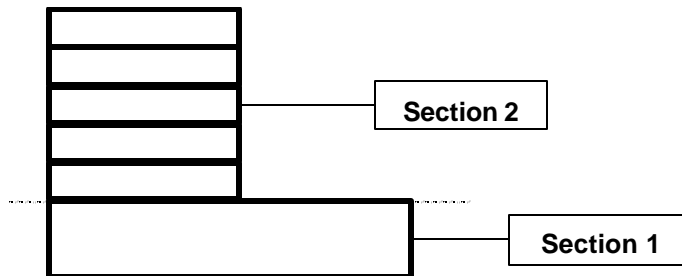
Except for Estimate ID and ZIP/Postal Code, entry of information into these fields is optional (you do not have to make entries in them to produce a cost report).

Sections

You enter the detailed information for the estimate in the “Section” portion of the worksheet. The term “section” is used because the Segregated Estimator allows the building or buildings in the estimate to be optionally divided into two or more sections. Each section can have one occupancy, construction class and quality. In many estimates, you will have only one section. However, you can divide the building (or buildings) into sections in the following cases:

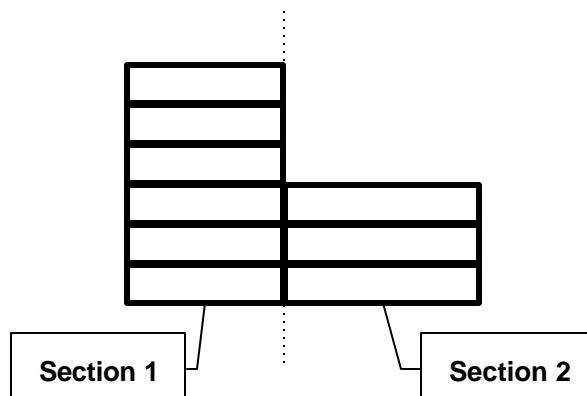
- **Horizontal Sectioning:** When a building has setbacks (some floors are significantly larger than other floors), you can use one section for the lower floors and another section for the upper floors.

Example:



- **Vertical Sectioning:** When a building has wings with different number of stories, you can use one section for the main part of the building and other sections for the other portions of the building.

Example:



- **Multiple Buildings:** When you want a single report for two or more buildings, you can use a section for each building.

- **Multiple Occupancies or Construction Classes.** If a building has more than one occupancy (building use) or construction class, use a different section for each occupancy/class combination.

You may use combinations of these cases. As a general rule, use a separate section to describe each homogeneous division of the building or each building in the estimate.

The data for each section is divided into three different parts on the worksheet, each corresponding to a different data entry screen:

- **Building Data**, which includes occupancy, size, height, shape, age and depreciation information.
- **Components**, which includes the construction components for such construction systems as exterior walls, heating and cooling, sprinklers and elevators.
- **Additions**, which allows you to enter costs for items not available in Segregated Estimator.
- **Remarks and Notes**, which allows you to enter comments to print in the cost reports (remarks) and data entry report (both remarks and notes).

These section items are the front and back of a page in the worksheet. This allows you to use a separate worksheet page for each section in the estimate.

Building Data

Section Title	_____	
Occupancy	_____	
Construction Class	_____	A (Fireproof Steel Frame) B (Reinf. Conc. Frame) C (Masonry Bearing Walls) D (Stud Frame/Walls) S (Metal Frame & Walls)
Total Floor Area	_____	Square Feet
Number of Stories	_____	
Average Story Height	_____	Feet
Quality (Rank)	_____	Low, Average, Good, Excellent
Condition	_____	Worn Out, Badly Worn, Average Good, Very Good, Excellent
		Depreciation Type
		<input type="checkbox"/> Marshall & Swift Tables
		<input type="checkbox"/> Separate Physical _____ % and Functional _____ %
		<input type="checkbox"/> Combined Phys. & Func. _____ %
		<input type="checkbox"/> Age/Life (Straight Line) _____ %
		Additional Func. Depreciation _____ %
		External Depreciation _____ %
		Effective Age _____ Years
		Typical Life _____ Years

Building Data consists of the following items:

- Section Title (page 11)
- Occupancy (page 12)
- Construction Class (page 14)
- Total Floor Area (page 20)
- Number of Stories (page 21)
- Average Story Height (page 22)
- Quality (page 23)
- Condition (page 26)
- Depreciation Information (page 27)
- Effective Age (page 30)
- Typical Life (page 32)

Section Title

Section Title _____

The section title prints at the top of each section in the report to identify the section. Segregated Estimator automatically sets the section titles to "Section 1," "Section 2," etc. You can optionally change the Section Title to better identify a section by typing a different section title in this field.

Example: If Section 1 is the original portion of the building and Section 2 is an addition built in 1995, you could change the section titles as follows:

Section 1	Original Building
Section 2	1995 Addition

Occupancy

Occupancy _____

The occupancy is the use of the building (office, bank, etc.) as it was originally designed. See the *Occupancy Reference* for complete descriptions of all occupancies available in Segregated Estimator. These descriptions are also available in Segregated Estimator's help system. Since buildings vary in cost depending upon how they are designed and used, the occupancy influences the costs used in the report.

If there is more than one occupancy in a building, use a multi-section report, entering each occupancy as a separate section.

Base your occupancy selection on the design of the building, which is not necessarily the current use of the building.

Example: Suppose a large residential dwelling has been converted into a restaurant, and little, if any, interior or exterior renovations have been made to the building itself. To obtain the most accurate cost, do the following:

1. Select the single-family residence occupancy (occupancy code 352):

Occupancy _____ 352 _____

When you select the occupancy code in the program, the standard occupancy name displays:

Occupancy *

2. Change the name of the occupancy to "Restaurant." You can do this on the Worksheet by writing the new name following the Occupancy Code:

Occupancy _____ 352 _____ Restaurant

You can directly change the occupancy name in the program by typing the new name in the occupancy field:

Occupancy *

3. Use components or additions to make any cost modifications necessary to adjust the cost of the original design to conform with the current use.

If you encounter a building with an occupancy not available in Segregated Estimator, you can value it as follows:

1. Select an occupancy for a building with similar design characteristics.
2. Change the occupancy name in this Occupancy field to fit the type of structure being valued.
3. Use components or additions to make any cost modifications necessary to adjust the cost of the original design to conform with the current use.

When entering occupancies on the worksheet, you can enter either of the following:

- **Occupancy Code:** When you know the occupancy code, you can directly enter it into the occupancy code field in the program. Segregated Estimator will automatically display the occupancy name.
- **Occupancy Name:** When you do not know the occupancy code, you can use the occupancy search function in Segregated Estimator to locate the desired occupancy. Segregated Estimator will automatically display the occupancy code.

In most cases, you only need to enter either the occupancy code or the occupancy name on the worksheet. You only need to enter both when you want to change the occupancy name.

Occupancy is required.

Construction Class

Construction Class _____ A (Fireproof Steel Frame) B (Reinf. Conc. Frame)
C (Masonry Bearing Walls) D (Stud Frame/Walls)
S (Metal Frame & Walls)

Construction Class divides all buildings into basic cost groups by type of framing (supporting columns and beams), walls, floor and roof structures, and fireproofing. Segregated Estimator has the following Marshall & Swift construction classes (each of which is defined beginning on the following page):

- **A** - Fireproof Structural Steel Frame
- **B** - Reinforced Concrete Frame
- **C** - Masonry Bearing Walls
- **D** – Wood or Steel Stud Framed Exterior Walls
- **S** - Metal Frame and Walls

Not all classes are available for all occupancies. See the *Occupancy Reference*, or the occupancy help when using Segregated Estimator, for a list of classes available for each occupancy.

Construction class is required.

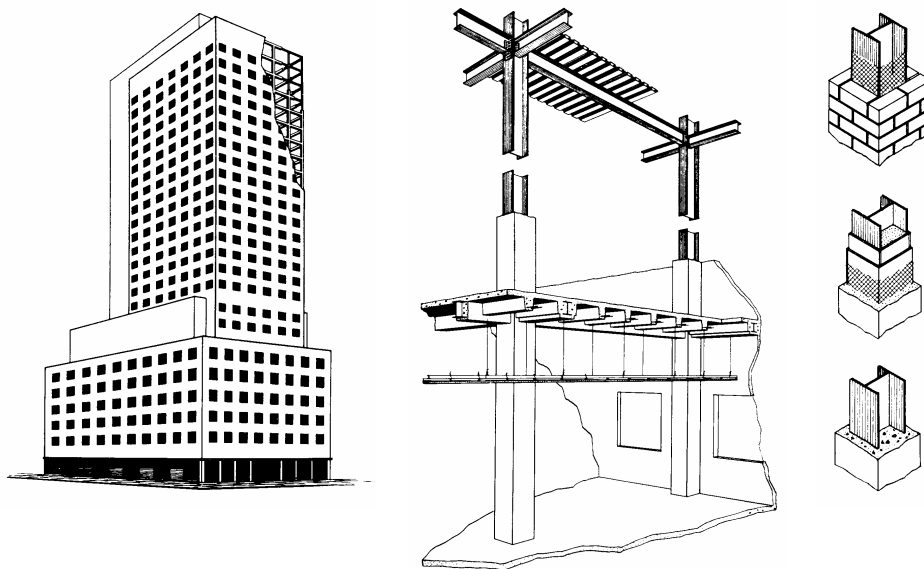
Class A: Fireproof Structural Steel Frame

The primary feature of class A buildings is the fireproofed structural steel frame, which may be welded, bolted or riveted together. The fireproofing may be masonry, poured concrete, plaster, sprayed fiber or any other method, which gives a high fire-resistance rating.

Floor and roof in class A structures are normally reinforced concrete on steel decking or formed slabs resting on the frame or poured to become integral with it. They may also be composed of prefabricated panels and may be mechanically stressed.

Exterior walls are curtain walls of masonry, concrete, steel studs and stucco, or one of the many types of panels of metal, glass, masonry or concrete. Interior partitions frequently are of masonry or gypsum block, although many movable and lightweight steel partitions are used.

Included in this class are Uniform, Basic and Standard Building Code construction, Types I and II (noncombustible) and ISO classes 5 and 6, if the framing is protected steel. ISO class 5 and 6 buildings with load-bearing walls and no interior framing, and most low-rise buildings, should be classified as class C for pricing purposes. This class is also referred to as Modified Fire Resistive or Two to Four-hour construction.

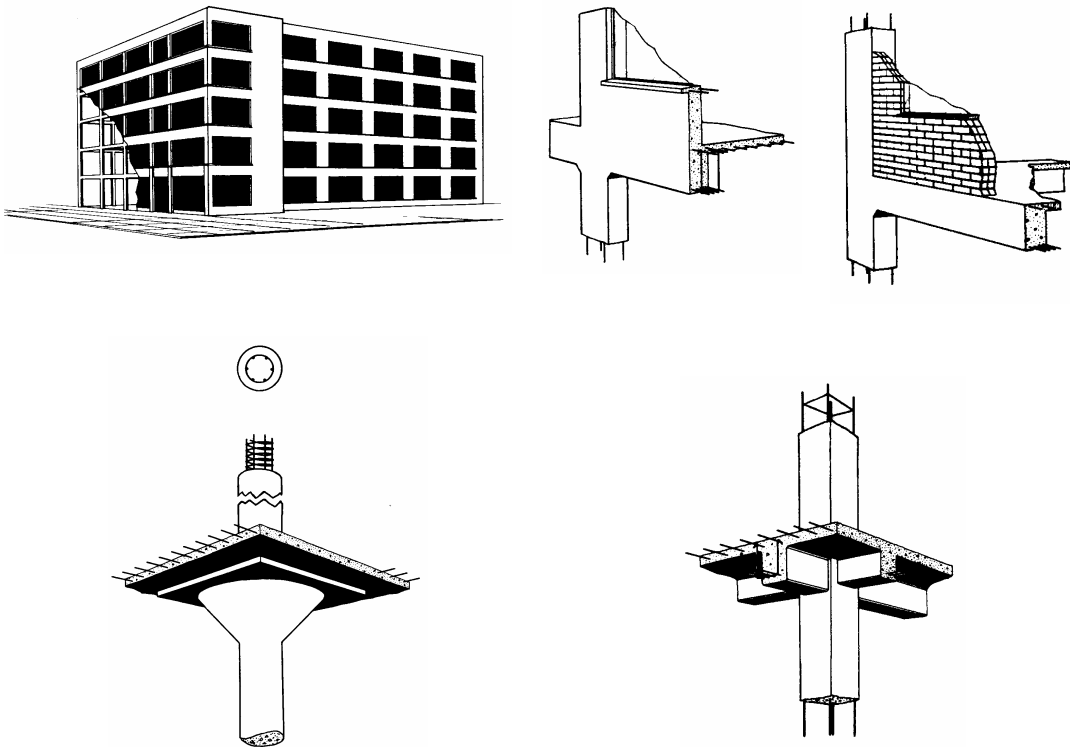


Class B: Reinforced Concrete Frame

The primary characteristic of class B buildings is the reinforced concrete frame in which the columns and beams can be either formed or precast concrete. They may be mechanically stressed. Class B buildings are fire-resistant structures.

Floors and roofs in class B structures are formed or precast concrete slabs. The exterior walls, generally, are masonry or reinforced concrete curtain walls or any of the many types of wall panels of concrete, metal, glass or stone. In some class B buildings the walls may be partially load bearing. Interior partitions are often masonry, reinforced concrete or gypsum block. Many lightweight and movable partitions are used where structural walls are not needed.

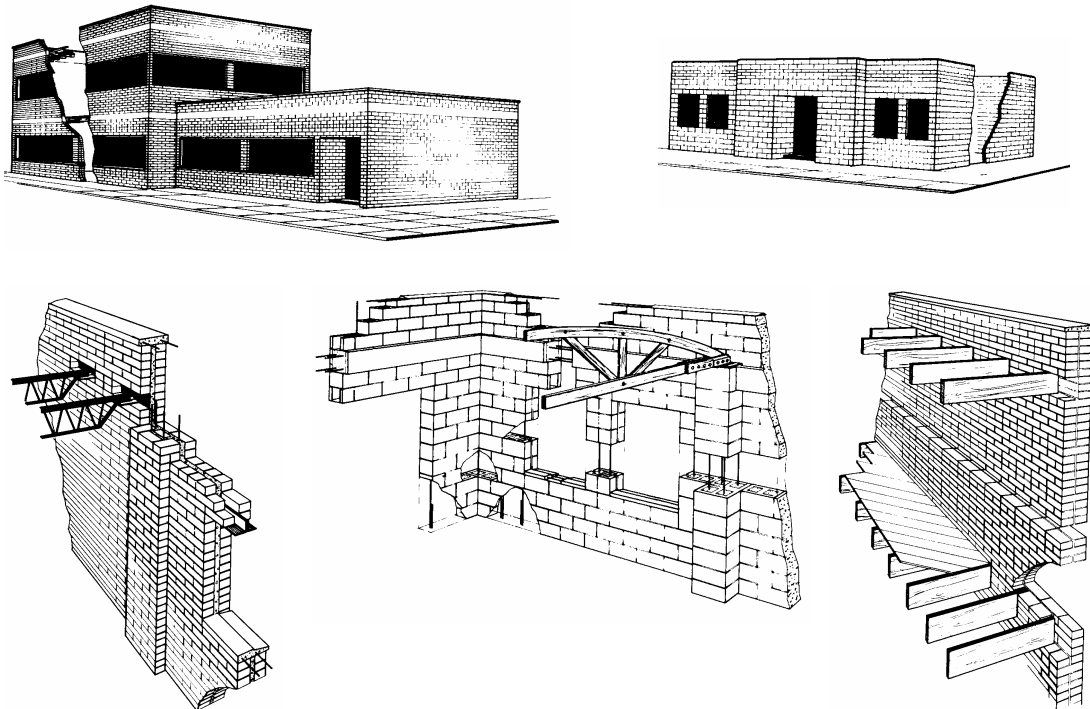
Included in this class are Uniform, Basic and Standard Building Code construction, Types I and II (noncombustible) and ISO classes 5 and 6, if the framing is concrete. ISO class 5 and 6 buildings with load-bearing walls and no interior framing and most low-rise buildings should be classified as class C for pricing purposes. This class is also referred to as Fire Resistive or Two to Four-hour construction.



Class C: Masonry Bearing Walls

Masonry or reinforced concrete (including tilt-up) construction characterizes class C buildings. The walls may be load-bearing, i.e., supporting roof and upper floor loads, or nonbearing with concrete, steel or wood columns, bents or arches supporting the load. Wood or steel joists or trusses support upper floors and roofs. Ground floors may be concrete slabs. Upper floors may be of concrete plank, steel deck or wood. Bearing walls are frequently strengthened by concrete bond beams and pilasters. Class C buildings are not fire-resistant structures.

Included in this class are Uniform and Basic Building Code, Type III (noncombustible wall), Standard Code Type V and ISO classes 2 and 4, and those ISO class 5 and 6 buildings that have load-bearing walls without interior framing and of low-rise design (3 stories or less). This class is also referred to as Masonry or Unprotected Noncombustible, Joisted or Unprotected Masonry, or Ordinary or Unprotected One-hour, and includes certain Two-hour or heavy timber construction.

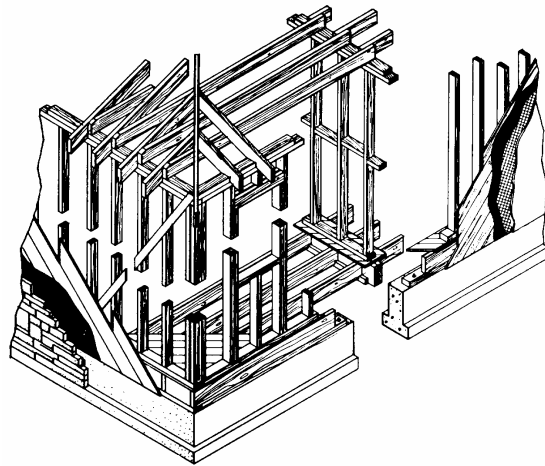


Class D: Wood- or Steel-Framed Exterior Walls

Class D buildings are characterized by combustible construction. The exterior walls may be made up of closely spaced wood or steel studs, as in the case of a typical frame house. Exterior covers may be wood siding, shingles, stucco, brick or stone veneer or some other type of material.

Floors and roofs are supported on wood or steel joists or trusses. The floor may be a concrete slab on the ground.

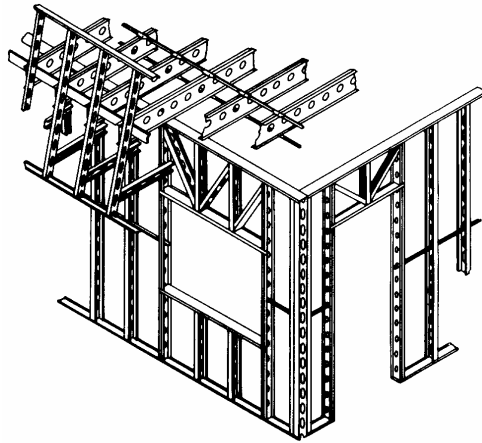
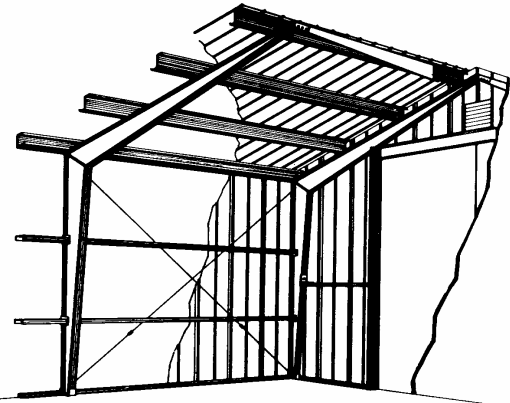
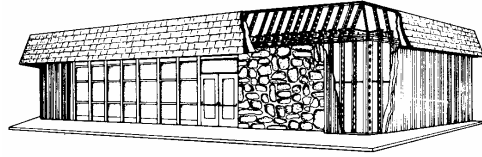
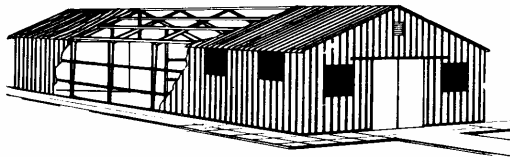
Construction Type V (wood-frame) of the Uniform, Type IV Basic and Type VI Standard Building Code are included in this class, as are ISO class 1 buildings. This class is also referred to as Unprotected-protected One-hour Construction.



Class S: Metal Frame and Walls

Class S buildings are characterized by incombustible construction and prefabricated structural members. They are not fire-resistant buildings. The exterior walls may be steel studs or an open-steel-skeleton frame with exterior coverings of prefabricated panels or sheet siding. Upper floors and roof are supported on steel joists or beams. Ground floors are typically concrete slabs.

Included in this class are Uniform and Standard Building Code construction, Type IV (noncombustible), Basic code Type V and ISO class 3 buildings. This class is also referred to as Noncombustible and can be One-hour Type II construction.



Total Floor Area

Total Floor Area _____ **Square Feet**

The total floor area of a section is the total area on all floors based on the building's exterior dimensions. When calculating total floor area, do not include any of the following: Basements, mezzanines, balconies, unfinished attics, exterior porches, decks, patios or garages.

When entering total floor area on the worksheet and into the program, do not include commas.

Example: The entry for 24,525 square feet is:

Total Floor Area 24525 **Square Feet**

Total floor area is required.

Number of Stories

Number of Stories _____

Enter the total number of floors above ground in the building. When calculating the number of stories, do not include any basement or mezzanine floors.

For a multistory building, Segregated Estimator uses the number of stories to adjust the costs for high-rise construction (by taking into consideration the additional framing required in multi-level buildings as well as the cost of raising material and labor to the upper floors).

In a multistory building that you section horizontally (i.e., you put some of the floors in one section and the other floors in another section), you must enter the total number of floors above ground in the building for each section.

Example: If Section 1 of a building has 2 floors and Section 2 has 8 floors, enter 10 stories in both Section 1 and Section 2.

Number of Stories is required.

Average Story Height

Average Story Height _____ **Feet**

Average Story Height is the vertical distance from the top of one floor to the top of the next floor. In a one-story building, measure story height from the floor surface to the roof eave. Do not include parapets (extensions of the wall above the roofline) in story height.

If the story heights vary in a multistory building, compute the average story height by dividing the total building height by the number of stories.

Example: If the first floor of a three-story building is 18 feet high and each of the other two floors are 10 feet high, compute the average story height by adding up the heights for each floor and dividing by the number of stories:

$$\text{Average Story Height} = \frac{18 \text{ feet} + 2 \times 10 \text{ feet}}{3 \text{ Stories}} = \frac{38 \text{ feet}}{3 \text{ Stories}} = 12.67 \text{ feet}$$

For a building with a very high pitched roof, (e.g., A-frame):

- Compute the cubic area (length x width x height) of the lower building portion, excluding A-frame roof section.
- Compute the cubic area of the A-frame roof section by multiplying the length x width x height and divide by 2.
- Add both sections of the building together and divide total by square foot area (excluding mezzanines) to determine building height.

For unfinished attics, include half of the increased height of the attic area when computing average story height.

Example: A two-story building with a height of 10 feet on each of the two floors and an unfinished 8-foot-high attic has an effective height of 24 feet, computed as follows:

$$10 \text{ feet} + 10 \text{ feet} + \frac{8 \text{ Feet}}{2} = 24 \text{ feet}$$

The average story height entered on the worksheet for this building is 12 feet (the 24-foot effective height divided by the 2 floors).

Average Story Height is required

Quality (Rank)

Quality (Rank) _____ **Low, Average, Good, Excellent**

Select the overall quality of the building, which determines the cost level in the report, from the following choices:

.5	Lowest
1	Low
1.5	Fair
2	Average
2.5	Above Average
3	Good
3.5	Very Good
4	Excellent
4.5	High
5	Highest

Segregated Estimator automatically uses this overall quality for all components in the estimate. You can specify a different quality for individual components.

You should examine both materials and workmanship when determining the overall quality. The quality of materials and workmanship of individual building components may vary. However, the overall quality tends to be consistent for the entire building. Furthermore, the quality of materials and workmanship tend to influence each other.

Workmanship is often superficial, allowing you to easily observe its quality. The following are all indicators of better quality workmanship:

- Solid and level floor structures
- Plumb walls
- Smooth finish on concrete and plastered surfaces
- Mitered joints in both exterior and interior woodwork
- Properly fitting doors and windows

As with workmanship, the quality of materials is usually apparent during the inspection of the building. Grade of wood, floor cover and fixtures (either standard or custom) are primary indications of material quality.

Worksheet Reference

Since quality determines the cost level used in the report, you should exercise extreme care in choosing it. Refer to Sections 11-18 of the *Marshall Valuation Service* or *Commercial Cost Explorer* for pictures to aid in the quality selection. Also refer to the help for individual occupancies for a quality selection guide for each construction class available in an occupancy. This guide lists the type of exterior walls, interior finish, mechanicals and heating/cooling typically found for each common quality level for the construction class.

Example: The following is the quality selection guide for a Class A (Fireproof Steel Frame) Office Building:

Quality	Exterior Walls	Interior Finish	Mechanicals	HVAC
Low	Minimum-cost walls and fenestration, little trim	Drywall, acoustic ceilings, asphalt tile, few partitions	Minimum office lighting & plumbing	Warm and cool air (zoned)
Average	Brick, concrete or metal and glass panels, little trim	Average partitions, acoustic tile, vinyl composition, some extras	Average intensity fluorescent lighting, average restrooms	Warm and cool air (zoned)
Good	Good metal and solar glass, face brick, precast concrete panels	Drywall or plaster, some wall cover, acoustic tile, vinyl tile, carpet	Good fluorescent, high intensity lighting, good restrooms	Hot and chilled water (zoned)
Excellent	Best metal or stone, brick or block backup, solar glass	Plaster, best veneers, vinyl wall coverings, vinyl, terrazzo, carpet	Luminous ceilings, many outlets, many private restrooms	Hot and chilled water (zoned)

The quality determines the overall cost level in the report. You can override this quality for any individual construction component.

The four basic qualities are:

- **Low (Quality 1)** - These tend to be very plain buildings that conform to minimum building code requirements. Interiors are plain with little attention given to detail or finish. Typically, there are minimum mechanical and low-cost finishes throughout.
- **Average (Quality 2)** - These buildings are the most commonly found and meet building code requirements. There is some ornamentation on the exterior with interiors having some trim items. Lighting and plumbing are adequate to service the occupants of the building.

- **Good (Quality 3)** - These are generally well designed buildings. Exterior walls usually have a mix of ornamental finishes. Interior walls are nicely finished and there are good quality floor covers. Lighting and plumbing include better quality fixtures.
- **Excellent (Quality 4)** - Usually, these buildings are specially designed, have high-cost materials and exhibit excellent workmanship. Both exteriors and interiors have custom and ornamental features. Lighting and plumbing include high-cost fixtures.

Condition

Condition _____ **Worn Out, Badly Worn, Average
Good, Very Good, Excellent**

Select one of the following conditions:

- Worn Out
- Badly Worn
- Average
- Good
- Very Good
- Excellent

Condition does not affect the cost calculations, but does print at the top of the report.

Depreciation

Depreciation Type

- Marshall & Swift Tables**
- Separate Physical** _____ %
and Functional _____ %
- Combined Phys. & Func.** _____ %
- Age/Life (Straight Line)** _____ %
- Additional Func. Depreciation** _____ %
- External Depreciation** _____ %

The Depreciation section of the worksheet allows you to set the Physical and/or Functional Depreciation Percentage for the section, together with Additional Functional Depreciation and External Depreciation Percentages.

Physical & Functional Depreciation

Segregated Estimator has the following methods for computing the section's physical and functional depreciation:

- Using Marshall & Swift Tables
- Combined Physical & Functional Depreciation
- Separate Physical & Functional Depreciation
- Age/Life (Straight Line)

Each of these methods is described below. Segregated Estimator applies the section's physical and functional depreciation to all components in Construction Systems that are included in Replacement Cost New, except those components that you depreciate individually (see page 49 for an explanation).

Using Marshall & Swift Tables

With this option, Segregated Estimator calculates the combined physical and functional depreciation percentage using the tables in the *Marshall Valuation Service* and *Commercial Cost Explorer*. This calculation is based on the Occupancy, Construction Class, Quality, Effective Age and Typical Life. This calculation does not include either of the following:

- Abnormal or Excessive Functional Depreciation, which you can add using the Additional Functional Depreciation field.
- External Obsolescence, which you can add using the External Depreciation field.

Combined Physical & Functional Depreciation

This is the combined percentage for normal physical and functional depreciation to be subtracted from the replacement cost new when computing the depreciated cost. This prints in the report as a single line, "Physical and Functional Depreciation."

Example: If you enter 12.5% for combined physical and functional depreciation, the report includes the following:

	Units	Cost
Total		
Replacement Cost New	20,000	68.53
1,370,600		
Less Depreciation		
Physical & Functional	12.5%	
171,325		
Depreciated Cost	20,000	59.96
1,199,275		

Separate Physical & Functional Depreciation

These fields set separate values for physical and functional depreciation, which are printed as separate lines in the report.

Example: If you enter 12% for physical depreciation and 7.5% for functional depreciation, the report includes the following:

	Units	Cost
Total		
Replacement Cost New	20,000	68.53
1,370,600		
Less Depreciation		
Physical	12.0%	
164,472		
Functional	7.5%	
102,795		
Depreciated Cost	20,000	55.17
1,103,333		

Note: If you set separate Physical and Functional Depreciation percentages, only the physical percentage is applied to each building component that you do not individually depreciate.

Age/Life (Straight Line)

Select this method to set the combined Physical and Functional Depreciation Percentage using Age/Life of Straight Line depreciation. With this method, the percentage is calculated as the Effective Age divided by the Typical Life.

Example: If the Effective Age is 15 years and the Typical Life 60 years, the calculated depreciation percentage is 25%.

Additional Functional Depreciation

Functional depreciation (or technical obsolescence) is the loss in value due to lack of utility or desirability of part or all of the property, inherent to the improvement or equipment. Thus, a new structure may suffer obsolescence when built.

Enter the percentage for additional functional depreciation. Use this field if you set a combined Physical and Functional Depreciation Percentage (by entering a percentage directly, or using the Marshall & Swift or Age/Life methods) and need to add some additional functional depreciation).

External Depreciation

Enter the percentage of external depreciation to be subtracted from the replacement cost new when computing depreciated costs.

Example: If you enter 12.5% for external depreciation, the report contains the following:

	Units	Cost
Total		
Replacement Cost New	20,000	68.53
1,370,600		
Less Depreciation		
External	12.5%	
171,325		
Depreciated Cost	20,000	59.96
1,199,275		

Effective Age

Effective Age _____ Years

The effective age of a building is its age in years as compared with other buildings performing like functions. It is the actual age less any years that have been taken off by face-lifting, structural reconstruction, removal of functional inadequacies, etc.

Use the following steps to determine the effective age of a building:

- **Typical Life:** Determine the building's typical life, based on its occupancy and quality, using the "Typical Lives" table contained in the occupancy's help.
- **Remaining Useful Life:** Estimate the building's remaining useful life, based on an evaluation of its condition, construction quality, actual age and any renovations or repairs that have been made.
- **Effective Age:** Subtract the remaining useful life from the typical building life to obtain the effective age.

Example: For a good quality, Class C office building built 30 years ago, the following renovations and repairs have been completed:

- The electrical system was replaced 10 years ago.
- The heating plant was replaced 4 years ago.
- The roof was repaired 8 years ago.
- The interior was completely renovated 10 years ago, with new floor covering, wall finish and plumbing fixtures.

Based on the office building's current condition and a subjective evaluation of the effect of these changes, you estimate that the remaining useful life is now 45 years. The Typical Lives table in the help for occupancy 344 (Office Building) is:

	Class				
Quality	A	B	C	D	S
Low	50	50	45	40	40
Average	55	55	50	45	45
Good	60	60	55	50	50
Excellent	60	60	55	50	50

From this table, the typical life is 55 years. Therefore, the effective age is:

Typical Building Life	55 years
Minus: Remaining Useful Life	-45 years
Effective Age	10 years

The entry of Effective Age is optional, except if you select either of the following options for calculating Physical and Functional Depreciation:

- **Using Marshall & Swift Tables:** With this option, Segregated Estimator calculates the amount of normal physical and functional depreciation using the depreciation schedule in the Marshall Valuation Service, based on the occupancy, construction class and quality in addition to effective age.
- **Age/Life (Straight Line):** With this option, Segregated Estimator calculates the amount of physical and functional depreciation by dividing the Effective Age by the Typical Life.

Typical Life

Typical
Life _____ Years

The typical life of a building is its expected life, based on its occupancy, class and quality (rank). You can set typical life by entering a value in this field. If you do not enter a value, Segregated Estimator automatically sets the Typical Life using the tables in Section 97 of the *Marshall Valuation Service*, based on the occupancy, class and quality.

Segregated Estimator uses typical life to calculate the section's combined physical and functional depreciation percentage if you use either of the following methods:

- **Marshall & Swift Tables:** With this method, Segregated Estimator uses the Typical life, together with the Effective Age, to calculate the amount of normal physical and functional depreciation using the depreciation table in Section 97 of the Marshall Valuation Service.
- **Age/Life (Straight Line):** With this method, Segregated Estimator calculates the depreciation percentage as the Effective Age divided by the Typical Life.

Components

Component Name	Code	Pct	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life	Quantity; S1=Size 1; S2=Size 2
Exterior Walls										
Tilt-Up Concrete	MH									Wall Area (SF); S1: Thickness (4-16")

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

The Components section of the worksheet is for the entry of building components for each of the Construction Systems available in Segregated Estimator (Foundation, Exterior Walls, Heating & Cooling, etc.). See page 49 for further details about Construction Systems.

The worksheet sections above illustrate the two types of worksheets available in Segregated Estimator:

- **Pre-Printed Component Worksheet:** The Components section contains pre-printed Construction Systems and components within these systems.
- **General Worksheet:** Contains a blank component table (instead of pre-printed components) in which you enter components using their codes. When using the General Worksheet, see the *Component Master List* manual or the Comprehensive Pre-Printed Worksheet for a list of all components available within Segregated Estimator.

Code

Segregated Estimator identifies components by their component code. On Worksheets with pre-printed components, circle the code of the components you want in the estimate. On the General Worksheet, enter the codes in the Code column.

Construction System

Segregated Estimator automatically prints components under their standard Construction Systems. If you want to print a component in a different Construction System, do one of the following:

- **Pre-Printed Component Worksheet:** Enter the component on one of the blank lines at the end of the Construction System in which you want the component to print. In some of the Construction Systems (Basement, Garage, etc.), there are also several blank lines indicating the types of components you can include in the Construction System (see next example).

Worksheet Reference

- **General Worksheet:** Enter the Construction System name in the System column.

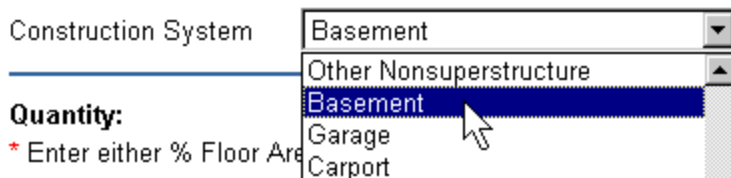
Example: The standard Construction System for components "Carpet and Pad" (component code FE) and Ceramic Tile (component code) is "Floor Cover." If you are describing the finishes in a basement, and want them to print in the "Basement" Construction System, you can enter the component FE and on one of the blank lines in the Basement Construction System on a Worksheet with pre-printed components:

Component Name	Code	Pct	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life
Basement									
Basement Walls									
Concrete, Reinforced Wall	C								Bsmt. Wall Area (SF) ; S1: Thickness (6-96")
Concrete Block Wall	B								Bsmt. Wall Area (SF) ; S1: Thickness (6-36")
Other Basement Components									
Excavation									
Foundation									
Frame									
Floor Structure									
Floor Cover	FE		520						
Ceiling									
Heat									
	FY		80						

On the General Worksheet, enter "Basement" in the Systems column for these two components.

Code	System	Pct	Quantity	Size 1	Size 2
FE	Basement		520		
FY	Basement	80			

When entering the components in the program, select "Basement" in the Construction System drop-down list:



Quantity and Size

For components measured in Square Feet of Floor (or Ceiling) Area, you can enter either of the following (but not both):

- **Percentage of Total Floor Area:** Enter the percentage (1-100) of the Total Floor Area for the section served or covered by the component.

Example: For Floor Cover component Carpet with Pad covering 15,000 square feet in a 20,000 square foot building, you can enter 75 for the Percentage of Total Floor Area:

Component Name	Code	Pct	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life	Quantity; S1=Size 1; S2=Size 2
Floor Cover										
Carpet and Pad	FE	75								Floor Area (SF)

Code	System	%	Quantity	Size 1	Size 2
<i>FE</i>		<i>75</i>			

- **Floor Area (or Ceiling Area):** Enter the area (in square feet) served or covered by the component.

Example: In the previous example, you can also enter 15000 for the Floor Area itself:

Component Name	Code	Pct	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life	Quantity; S1=Size 1; S2=Size 2
Floor Cover										
Carpet and Pad	FE		15000							Floor Area (SF)

Code	System	%	Quantity	Size 1	Size 2
<i>FE</i>			<i>15000</i>		

For other components, you must enter a quantity instead of a percentage or floor area. In addition to the quantity, some components require one or two sizes. The type of quantity and size(s), together with the minimum and maximum values for each, are indicated in the following places (illustrated for Exterior Wall component MH, Tilt-Up Concrete):

- On the Worksheets with pre-printed components.

Example: In the Pre-Printed Worksheets with component MH, the last column indicates to enter Wall Area (in Square Feet) in the Quantity column and Thickness (in Inches, minimum 4" and maximum 16") in the Size 1 column (denoted S1):

Component Name	Code	Pct	Quantity	Size 1	Size 2	Quality	Dep %	Age	Life	Quantity; S1=Size 1; S2=Size 2
Exterior Walls										
Tilt-Up Concrete	MH									Wall Area (SF); S1: Thickness (4-16")

- In the definition for the component in *Component Reference* manual and in the help system.

Example: The help for component MH has the following:

Entry Information: Enter the following for this component:

Worksheet Reference

Wall Area (Square Feet)

Thickness (Inches): 4 - 16

- On the component data entry screens, with the size type to the left of the field and the minimum and maximum sizes to the right.

Example: The component data entry screen for component MH includes the following fields:

Quantity/Size:

Wall Area (SF) * Enter 0 - 99999999
Thickness (Inches) * Enter 4 - 16

The asterisks following the Quantity and Size 1 descriptions indicate that these are both required fields.

Example: For the Elevator component "Passenger Elevator, Automatic," the quantity is "Number of Elevators" and the sizes are "Capacity (Pounds)" and "Speed (Feet/Minute)":

For 2 elevators with a capacity of 3,500 pounds and a speed of 550 feet per minute, make the following entries on the data entry screen:

Quantity/Size:

Number of Elevators * Enter 0 - 99999999
Capacity (Pounds) * Enter 2000 - 5000
Speed (Feet/Minute) * Enter 300 - 1400

Quality

Component quality is an optional field. If you do not make an entry for the quality, Segregated Estimator automatically sets the component's quality to the quality for the section.

If you enter a component quality, the following are the standard qualities:

.5 Lowest
1 Low
1.5 Fair
2 Average
2.5 Above Average

3	Good
3.5	Very Good
4	Excellent

Depreciation, Effective Age and Typical Life

You can depreciate a component in three different ways:

- **Section Depreciation:** Segregated Estimator automatically depreciates a component using the depreciation percentage set in the Physical and Functional Depreciation section of the **Building Data** screen for the section if both of the following occur:
 - The component is in a Construction System that is part of Replacement Cost New.
 - You do not individually depreciate the component using one of the other methods.
- **Depreciation Percentage:** Enter a depreciation percentage to depreciate the component using this percentage. If you do not want to depreciate the component, enter 0 for depreciation percentage.
- **Age/Life (Straight Line):** Enter an Effective Age and a Typical Life to depreciate the component using age/life depreciation.

Additions

Const. System	Description	Units	Cost	Dep %	Age	Life	LM	Trend	Base Date
							<input type="checkbox"/>	<input type="checkbox"/>	/
							<input type="checkbox"/>	<input type="checkbox"/>	/
							<input type="checkbox"/>	<input type="checkbox"/>	/

Additions allow you to add additional items to the report for items that are not available in Segregated Estimator.

Construction System

The Construction System indicates where to print the addition in the report. See page 49 for further information on Construction Systems, including a list of the available Construction Systems. These systems are also listed on the General Worksheet.

Description

Enter a description for the addition that prints in the report (up to 30 characters, including spaces).

You can also use this column to enter a comment that prints in the body of the report (if you do not enter a cost in the cost column or units in the units column).

Units and Cost

Use the Number of Units field, together with the Cost field, as follows:

- **Number of Units and Unit Cost:** To have both the Number of Units and a Unit Cost print in the report, make entries in both fields. Segregated Estimator calculates the addition's total cost as the Number of Units times the Unit Cost.

Example: For a 200 foot long chain link fence that costs \$9.80 per linear foot, enter 200 for the number of units and 9.80 for the unit cost:

Const. System	Description	Units	Cost
<i>Yard Improvements</i>	<i>Chain Link Fence</i>	<i>200</i>	<i>9.80</i>

Segregated Estimator includes the following in the report:

	Units	Cost	Total
Chain Link Fence	200	9.80	1,960

- **Total Cost:** To have only the Total Cost print in the report, enter the Total Cost in the Cost column and leave the Number of Units column blank.

Example: To print only the total cost for the chain link fence in the previous example, enter 1960 for the cost and do not enter a Number of units:

Const. System	Description	Units	Cost
<i>Yard Improvements</i>	<i>Chain Link Fence</i>		<i>1960</i>

Segregated Estimator includes the following in the report:

	Units	Cost	Total
Chain Link Fence			1,960

- **Comment:** To have the addition print as a comment with no costs, leave both these fields blank.

Example: The following illustrates how an addition with no Cost or Number of Units prints in the report:

	Units	Cost	Total
This is a comment			

Depreciation, Effective Age and Typical Life

You can depreciate an addition in three different ways:

- **Section Depreciation:** Segregated Estimator automatically depreciates an addition if both of the following occur:
 - You do not individually depreciate the addition using one of the other methods (entering a depreciation percentage or an age and life).
 - The addition is in a Construction System that is part of Replacement Cost New. See page 49 for further details.

The depreciation percentage used is the section depreciation percentage set in the Physical and Functional Depreciation portion of the Building Data section.

- **Depreciation Percentage:** Enter a depreciation percentage to depreciate the addition using this percentage.
- **Age/Life (Straight Line):** Enter an Effective Age and a Typical Life to depreciate the addition using age/life depreciation.

Local Multiplier, Trend and Base Date

These three options for additions allow you to enter costs from the *Marshall Valuation Service* as follows:

- **Local Multiplier:** Select this check box to apply the local multiplier to the addition's cost. The costs in the *Marshall Valuation Service* are National Average costs. You must apply the Local Multiplier to adjust the cost to the local area.
- **Trend:** Select this check box to trend the addition's cost from its base date to the report date.
- **Base Date:** Enter the date on the *Marshall Valuation Service* page containing the cost as the Base Date. When you select the Trend option and set the Base Date, Segregated Estimator adjusts the cost from this date to the report date.

Example: If you add the cost for a raised computer floor taken from a page in the *Marshall Valuation Service* dated March, 2001, check both the Local Multiplier and Trend boxes, and set the base date to 03/2001.

Const. System	Description	Units	Cost	Dep %	Age	Life	LM	Trend	Base Date
<i>Floor Cover</i>	<i>Raised Floor</i>	<i>150</i>	<i>11.75</i>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>3/2001</i>

Note: If you select the Trend option, but do not enter a Base Date, Segregated Estimator uses the Base Date from the Cost Adjustments section as the Base Date for the addition.

You can also use the Trend option and Base Date to adjust a cost from another source. Select the Trend option and enter the date of the cost as the Base Date. This is useful in the following cases:

- If the cost's date is not the report date.

Example: To include an interior fountain installed in October, 2000, enter the Base date as 10/2000 and select the Trend check box.

- If you will be recalculating the estimate at a later date and want the Segregated Estimator to automatically update the addition's cost.

Example: To include an interior fountain installed in October, 2000, in the estimate, enter the Base date as 10/2000 and select the Trend check box.

Remarks and Notes

Segregated Estimator gives you an unlimited number of free-format text lines to use as follows:

- **Remarks:** Any text you want to print in the reports.
- **Notes:** Any text you want to record about an estimate but do not want to print in the report (such as internal notes about the estimate). Notes only print in the Data Entry Report.

Cost Adjustments

	Valid Values	Default
Local Multiplier _____	0.4 – 6.0	Based on occupancy, class, quality
Local Multiplier Adjustment (%) _____	-100 – 100	0
Architect's Fee (%) _____	0 – 20	Based on occupancy, class, quality
Rounding Value (\$) _____	0 – 100000	None
Report Date (mm/yyyy) _____	10/1975 through current	Current month/year
Single Line Backdate (mm/yyyy) _____	10/1975 through current	None
Base Date (mm/yyyy) _____	10/1975 through current	Current month/year
Effective Age Adjustment Value _____	0 – 10	0
Depreciation % Adjustment Value _____	0 – 10	0
Maximum Depreciation % _____	0 – 100	80
Assessment Items _____		
Overall Assessment % _____	0 – 100	0
Assessed Value Rounding Value _____	0 – 100000	0

Use the **Cost Adjustments** screen to enter or select any of the items listed. All Cost Adjustments are optional. If you do not make an entry for the option, Segregated Estimator uses the default listed on the right side of the Worksheet.

Local Multiplier

The local multiplier adjusts the calculated costs to the location of the building. Segregated Estimator automatically uses a local multiplier based on the ZIP or Postal Code entered on the **General Information** screen (using the local multipliers in Section 99 of the *Marshall Valuation Service*). To override the automatic local multiplier for an estimate, enter the desired multiplier in this field (using a number between 0.4 and 6.00).

Example: The entry to set the Local Multiplier to 1.15 is:

	Valid Values	Default
Local Multiplier <u> 1.15 </u>	0.4 – 6.0	Based on occupancy, class, quality

Local Multiplier Adjustment

Use the Local Multiplier Adjustment to increase or decrease the costs for unusual situations, such as remote locations, resort locations, shortages, surpluses, etc. Enter a positive percentage to increase the local multiplier, or a negative percentage to decrease the local multiplier.

Example: To increase all costs by 7.5%, enter 7.5 in this field:

	Valid Values	Default
Local Multiplier Adjustment (%)	<u>7.5</u> -100 – 100	0

If the local multiplier is 1.10 in this example, the adjusted local multiplier used in the cost calculations is 1.1825, which is 1.10 increased by 7.5% (1.10 times 1.075)

Example: To decrease all costs by 7.5%, enter -7.5 in this field:

	Valid Values	Default
Local Multiplier Adjustment (%)	<u>-7.5</u> -100 – 100	0

If the local multiplier is 1.10 in this example, the adjusted local multiplier used in the cost calculations is 1.0175, which is 1.10 decreased by 7.5% (1.10 times 0.925).

The following are rough percentage ranges to apply for certain unusual conditions:

- **Add for the Following:**

- Abnormal material shortage: 2% to 10%
- Hillside buildings: 5% to 20%
- Remote areas: 5% to 15%
- Resort locations: 15% to 30%

- **Subtract for the Following:**

- Quantity or development construction: 1% to 3%
- Abnormal labor surplus: 1% to 5%
- Amateur workmanship: 15% to 30%

- **Special Local Conditions:** Smaller cities and suburbs near larger cities generally fall under the same cost influences as the larger cities; however, local inspection practices, licenses, codes and fees may vary, you should consider these possible deviations. Within a large city, costs will often vary by distance from sources of materials, such as ready-mix plants, and the Local Multipliers apply only to typical conditions prevailing.
- **Natural Disasters:** Major natural disasters can create isolated material and/or labor shortages requiring some upward adjustment to the multipliers. Some specific materials, such as roofing, can increase 30% to 50% or more above normal repair estimates.
- **Abnormal Material Shortages:** Abnormal material shortages can occur because of temporary supply/demand imbalances caused by major natural disasters, factory closures, strikes, environmental legislation, trade embargoes, commodities speculation, etc. Some upward adjustment to the multipliers may be required. Note: Even though a

Worksheet Reference

particular material may increase 30% to 50% in a short span of time, you should use caution since it may only be a small part of an entire structure.

- **Remote/Resort Locations:** If a building or other structure is far removed from supplies of labor and materials or if its location is accessible with difficulty, requiring higher freight charges on materials, noncompetitive conditions for labor or materials, labor per diem charges or unusual climatic conditions, some upward modification of the multipliers is appropriate. Examples are mountain, desert, island or resort locations and others not enjoying reasonable and adequate transportation facilities.
- **Quantity or Development Construction:** There are usually cost savings in quantity construction, which may or may not be passed on to the prospective owner. Usually, only part of the saving is passed on, and since costs in Residential Estimator are for the types of buildings typically built in this manner and are based to some extent on such construction, the costs may require only small percentage reductions or none to reflect actual sales conditions in the area. This is particularly true in tract development, where a large number of identical or similar dwellings are built at one time, which may effect savings in construction costs. However, in evaluating a single residence in a tract, you must use your own judgment as to whether there was a saving that is pertinent to a specific estimate.
- **Amateur Workmanship:** All costs in Residential Estimator are based on professional labor supervised by a contractor or his job foreman. For amateur workmanship, costs should be decreased to reflect the proper wage rate and lack of supervision relative to the quality of the work.
- **Repair and Remodel:** All costs in Residential Estimator are based on new construction. Typical repair work will run 10% to 20% higher because of restricted area, movement of materials, temporary supports, shoring, etc., and other contingencies not encountered in new construction, not including demolition and removal. For detailed costs we would recommend using our repair and claims products.

Architect's Fee Percentage

Segregated Estimator automatically includes an appropriate amount of architect's fees in the calculated costs, based on the building's occupancy, class and quality. To override this for an estimate, enter the architect's fee percentage in this field (as a number between 0 and 99.9). To eliminate architect's fees from the calculations, set the architect's fee percentage to 0.

Example: To set the architect's fee percentage to 7.5%, enter 7.5 in this field.

	Valid Values	Default
Architect's Fee (%)	<u>7.5</u> 0 – 20	Based on occupancy, class, quality

Rounding Value (Dollars)

Enter a rounding value to print an additional line in the report with the total cost rounded to the value entered.

Example: To round the total cost to the nearest \$1000, enter 1000 in this field.

	Valid Values	Default
Rounding Value (\$)	<u>1000</u> 0 – 100000	None

Report Date (mm/yyyy)

The report date is the date of the costs in the report. To get costs for a different date, enter the date of the report for the cost data you want to use (in the format of mm/yyyy).

Costs are available for current or prior dates only. The earliest date available is October 1975, and the latest date is the current month and year.

Example: To calculate the costs as of March, 1997, enter 3/1997 in this field.

	Valid Values	Default
Report Date (mm/yyyy)	<u>3/1997</u> 10/1975 through current	Current month/year

Note: When you enter a Report Date, all costs in the report will be as of this date. To have all the costs in the report be as of one date, and also have an additional line in the report with the total cost indexed to a different date, use the Single Line Backdate in the Cost Adjustments.

Single Line Backdate (mm/yyyy)

Enter a date in this field to print an additional line in the cost report containing the total cost of the building indexed to the date entered. Enter this date in the format mm/yyyy.

The earliest date available is October 1975, and the latest date is the current month and year.

Example: To set the Base Date to April, 1995, enter 4/1995 in this field.

	Valid Values	Default
Single Line Backdate (mm/yyyy)	<u>4/1995</u> 10/1975 through current	None

Note: To have all the costs in the report be a given date, use the Report Date in the Cost Adjustments..

Base Date (mm/yyyy)

The Base Date indicates when the data values in the estimate were collected. Segregated Estimator uses this date as follows when the Base Date differs from the Report Date:

- To adjust all Effective Ages from the Base Date to the Report Date, when you have entered an Effective Age Adjustment Value.
- To adjust the following depreciation percentages from the Base Date to the Report Date, when you have entered a Depreciation Percentage Adjustment Value.
 - Each section's Combined Physical and Functional Depreciation Percentage, or Separate Physical Depreciation Percentage.
 - Each component's depreciation percentage, if entered.
 - Each addition's depreciation percentage, if entered (and if you have not entered a separate Base Date for the addition)
- To trend addition costs from the Base Date to the Report Date for each addition for which you have set the Trend option to Yes and have not entered a separate addition Base Date.

The earliest date available is October 1975, and the latest date is the current month and year.

Example: To set the Base Date to April, 1995, enter 4/1995 in this field.

	Valid Values	Default
Base Date (mm/yyyy)	<u>4/1995</u> 10/1975 through current	Current month/year

Effective Age Adjustment Value

Enter the number of years to adjust each effective age in the section for each year between the base date and the report date.

Example: To set the effective age adjustment value to 1½ years, enter 1.5 in this field.

	Valid Values	Default
Effective Age Adjustment Value	_____ 0 – 10	0

Depreciation Percentage Adjustment Value

Enter the number of years to adjust the combined physical and functional or physical depreciation percentage in the Building Data for the section, and the depreciation

percentages entered for components and additions, for each year between the base date and the report date.

Example: To set the depreciation percentage adjustment value to 1% per year, enter 1 in this field.

	Valid Values	Default
Depreciation % Adjustment Value <u> 1 </u>	0 – 10	0

Maximum Depreciation Percentage

Enter the maximum allowable depreciation percentage. When you enter a depreciation percentage adjustment value, Segregated Estimator adjusts the depreciation percentages, then checks the adjusted percentages against this value. If the adjusted percentage is greater than the maximum percentage, Segregated Estimator sets the adjusted percentage to the maximum.

Example: To set the maximum depreciation percentage to 80%, enter 80 in this field:

	Valid Values	Default
Maximum Depreciation % <u> 80 </u>	0 – 100	80

How to Apply Depreciation Percentages

Use the check box labeled “Check here to apply all depreciation % to Replacement Cost New” to indicate how to apply the depreciation percentages as follows:

- **Checked:** Check this box if you want all depreciation percentages applied to the Replacement Cost New.
- **Unchecked:** If you do not check this box, Segregated Estimator subtracts physical depreciation from the Replacement Cost New, then multiplies functional depreciation percentage by the result. It then subtracts the functional depreciation from this value and multiplies the external depreciation percentage by that result.

Example: The following illustrates the calculations with and without this box checked, assuming each depreciation percentage is 10%:

	Checked	Not
Checked		
Replacement Cost New	\$100,000	
\$100,000		
Phys. & Func. Depreciation (10%)	10,000	
10,000		

Worksheet Reference

Subtotal	90,000
90,000	
Additional Func. Depr. (10%)	10,000
9,000	
Subtotal	80,000
81,000	
External Depreciation (10%)	10,000
8,100	
Depreciated Cost	70,000
72,900	

Assessment Items

Segregated Estimator has the following assessment items:

- **Overall Assessment (%):** Prints an additional line in the report with the overall assessed value, calculated as the total cost times this percentage.
- **Assessed Value Rounding Value (\$):** Prints an additional line in the report with the assessed value rounded to the value entered.

Example: To enter the overall assessment percentage as 10% and the assessed value rounding value as \$1000, enter 10 and 1000 respectively in these fields:

	Valid Values	Default
Assessment Items		
Overall Assessment %	<u>10</u> 0 – 100	0
Assessed Value Rounding Value	<u>100</u> 0 – 100000	0

When these values are entered, the report would contain the following:

	Units	Cost
Total		
Total Cost		
		1,399,275
Total Assessed Value	10.0%	
139,927		
Rounded to Nearest \$1,000		
140,000		

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 list 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).

Construction System

- Excavation & Site Preparation
- Foundation
- Frame
- Floor Structure
- Floor Cover
- Ceiling
- Interior Construction
- Plumbing
- Fire Protection
- Heating, Cooling & Ventilation
- Electrical
- Exterior Wall
- Stained Glass Windows
- Storefront
- Wall Ornamentation
- Roof Structure
- Roof Cover
- Elevators

Worksheet Reference

Miscellaneous Built-in Construction
Shopping Center Mall
Mezzanine/Interior Balcony
Residential Porch
Exterior Balcony
Stairs
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.

Construction System
Other Nonsuperstructure
Basement
Garage
Carport
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.

Construction System
Yard Improvements
Shed and Farm Building Equipment
Feeders, Waterers and Waste Equipment
Stock and Equestrian Equipment
Barn and Dairy Equipment
Poultry Equipment
Sheep and Swine Equipment
Grain Handling and Storage
Miscellaneous Agricultural Equipment

Entering Canadian Postal Codes

In most areas of Canada, Segregated Estimator localizes costs using Local Multipliers based on the Postal Codes (see the Postal Code ranges listed below). However, it does not have Local Multipliers for all Postal Codes in Canada. If a Local Multiplier is not available for a given Postal Code, the message “Invalid ZIP/Postal Code” displays.

In areas outside of the Postal Code ranges listed below, you can enter one of the following standard Province and Territory Symbols to localize the costs using the Province or Territory average Local Multiplier:

AB Alberta
 BC British Columbia
 MB Manitoba
 NB New Brunswick
 NF Newfoundland
 NS Nova Scotia
 NT Northwest Territories
 NU Nunavut
 ON Ontario
 PE Prince Edward Island
 QC Quebec
 SK Saskatchewan
 YT Yukon

The following list contains the Postal Code ranges for which Segregated Estimator has Local Multipliers in Canada. You can enter any Postal Code within a range. For example, in the first range, you can enter A0A0A0, A0B6F2 or A0C9Z9. If the Postal Code of the building is not in one of the ranges below, you can use one of the Province/Territory Symbols listed above.

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
A0A 0A0	A0C 9Z9	Newfoundland Average
A0E 0A0	A0E 9Z9	Newfoundland Average
A0G 0A0	A0H 9Z9	Newfoundland Average
A0J 0A0	A0N 9Z9	Newfoundland Average
A0P 0A0	A0P 9Z9	Newfoundland Average
A0R 0A0	A0R 9Z9	Newfoundland Average
A1A 0A0	A1S 9Z9	St. Johns
A1V 0A0	A1V 9Z9	Gander
A1W 1A1	A1Y 1C6	St. Johns

Worksheet Reference

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
A2A 1A1	A2B 1K5	Gander
A2H 0A0	A2N 9Z9	Corner Brook
A2V 1A1	A2V 2Y9	Sept Iles
B0A 0A0	B0A 9Z9	Cape Breton
B0B 0A0	B0W 9Z9	Nova Scotia Average
B1A 0A0	B2A 9Z9	Sydney
B2C 0A0	B2H 9Z9	New Glasgow
B2J 1A1	B2N 9Z9	Truro
B2T 0A0	B3G 9Z9	Dartmouth
B3H 0A0	B4G 9Z9	Halifax
B4H 1A1	B4H 4V8	Moncton
B4N 1A1	B4V 4B8	Bridgewater
B5A 1A1	B5A 4S7	Yarmouth
C0A 0A0	C0B 9Z9	Charlottetown
C1A 0A0	C1N 9Z9	Charlottetown
E1A 0A0	E1G 9Z9	Moncton
E1N 0A0	E1N 9Z9	North Shore Area
E1V 4A9	E1V 4G4	Moncton
E1V 4G6	E1V 5J1	Bathurst
E1V 5J3	E1V 5J4	Moncton
E1V 5J5	E1V 7L8	Bathurst
E1V 7L9	E1V 7M5	Moncton
E1V 7M6	E1V 7N1	Bathurst
E1V 7N2	E1V 7N3	Moncton
E1V 7N4	E2A 7S2	Bathurst
E2H 0A0	E2P 9Z9	St. John
E3A 0A0	E3L 9Z9	Fredericton
E3V 0A0	E3Z 9Z9	Edmundston
E4A 1A1	E4E 3H1	St. John
E4E 3H2	E4E 3H3	Moncton
E4E 3H4	E4E 3Y2	St. John
E4E 3Y3	E4E 3Y3	Moncton
E4E 3Y4	E4E 4C2	St. John
E4E 4C3	E4E 4C5	Moncton
E4E 4C6	E4E 4C8	St. John
E4E 4C9	E4E 4C9	Moncton
E4E 4E1	E4E 4J3	St. John
E4E 4J4	E4E 4L8	Moncton
E4E 4L9	E4E 4V8	St. John

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
E4E 4V9	E4E 4Y3	Moncton
E4E 4Y4	E4E 4Z3	St. John
E4E 4Z4	E4E 5C6	Moncton
E4E 5C7	E4E 5T3	St. John
E4E 5T4	E4E 5T4	Moncton
E4E 5T5	E4G 4J2	St. John
E4H 1A2	E4R 5Z2	Moncton
E4S 1A1	E4Z 6L6	St. John
E5A 1A1	E5B 3V3	Fredericton
E5C 1A1	E5K 4W5	St. John
E5L 1A1	E5L 2W5	Fredericton
E5M 1A1	E5N 8J1	St. John
E5P 1A1	E5P 4L5	Sydney
E5R 1A1	E5V 1W6	St. John
E7A 1A1	E7E 2T6	Edmundston
E7G 1A1	E7P 3M9	Fredericton
E8A 1A1	E8B 2C1	Edmundston
E8C 1A1	E9H 2C1	Bathurst
G0A 0A0	G0C 9Z9	Quebec Average
G0E 0C0	G0E 9Z9	Quebec Average
G0G 0A0	G0H 9Z9	Quebec Average
G0J 0A0	G0N 9Z9	Quebec Average
G0P 0A0	G0P 9Z9	Quebec Average
G0R 0A0	G0T 9Z9	Quebec Average
G0V 1A0	G0V 1B0	Jonquiere
G0V 1C0	G0V 1C0	Chicoutimi
G0V 1G0	G0V 1H0	Quebec
G0V 1J0	G0V 1L0	Chicoutimi
G0V 1M0	G0V 1M0	Jonquiere
G0V 1N0	G0V 1T0	Chicoutimi
G0W 0B0	G0Z 9Z9	Quebec Average
G1A 0A0	G3Z 9Z9	Quebec
G4A 1A1	G4A 1L1	Chicoutimi
G4R 0A0	G4S 9Z9	Sept Iles
G4W 1A1	G4Z 3B3	Rimouski
G5A 1A2	G5A 3G1	Chicoutimi
G5B 0A0	G5R 9Z9	Rimouski
G5T 1A1	G5T 2K2	Edmundston
G5V 1A1	G6A 1L6	Quebec

Worksheet Reference

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
G6B 1A1	G6B 3J6	Sherbrooke
G6C 1A1	G6H 2N6	Quebec
G6J 1A1	G6L 3T7	Trois-Rivieres
G6L 3T8	G6L 4K5	Drummondville
G6L 4K6	G6L 4K6	Trois-Rivieres
G6L 4K7	G6L 5A2	Drummondville
G6L 5A3	G6L 5A3	Trois-Rivieres
G6L 5A4	G6L 5G7	Drummondville
G6L 5G8	G6L 5G8	Trois-Rivieres
G6L 5G9	G6T 1W9	Drummondville
G6V 1A1	G7A 5E4	Quebec
G7B 0A0	G7K 9Z9	Chicoutimi
G7N 0A0	G8P 9Z9	Jonquiere
G8T 0A0	G9X 9Z9	Trois-Rivieres
H1A 0A0	H5Z 9Z9	Montreal
H7A 0A0	H7Z 9Z9	Laval
H8N 1A1	H8T 3P7	Montreal
H8Y 1A1	H8Z 3C7	Laval
H8Z 3C8	H8Z 3C8	Montreal
H8Z 3C9	H8Z 3E8	Laval
H8Z 3E8	H8Z 3E8	Montreal
H8Z 3G1	H8Z 3G4	Laval
H8Z 3G5	H8Z 3G5	Montreal
H8Z 3G6	H9A 1L9	Laval
H9A 1M1	H9A 1M1	Montreal
H9A 1M2	H9B 3J5	Laval
H9B 3J6	H9B 3K9	Montreal
H9C 1A1	H9K 1P3	Laval
H9P 0A0	H9S 9Z9	Montreal
H9T 0A0	H9X 9Z9	Laval
J0A 0A0	J0C 9Z9	Quebec Average
J0E 0A0	J0E 9Z9	Quebec Average
J0G 0A0	J0H 9Z9	Quebec Average
J0J 0A0	J0N 9Z9	Quebec Average
J0P 0B0	J0P 9Z9	Quebec Average
J0R 0A0	J0T 9Z9	Quebec Average
J0V 0A0	J0Z 9Z9	Quebec Average
J1A 0A0	J1X 9Z9	Sherbrooke
J1Z 0A0	J2E 9Z9	Drummondville

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
J2G 1A1	J2N 3E4	Granby
J2S 1A1	J2T 5C1	St. Hyacinthe
J2W 1A1	J3E 2M4	Montreal
J3G 1A1	J3H 4W1	St. Hyacinthe
J3H 4W2	J3H 4W4	Montreal
J3H 4W5	J3H 6E9	St. Hyacinthe
J3L 1A2	J3L 6T8	Montreal
J3M 1A1	J3M 1S3	St. Hyacinthe
J3N 1A1	J3N 1T2	Montreal
J3P 1A1	J3R 5S3	Sorel
J3T 1A1	J3T 2A7	Trois-Rivieres
J3V 1A1	J3V 6L8	Montreal
J3X 1A1	J3X 7Y6	Laval
J3Y 1A1	J5R 6H5	Montreal
J5V 1A1	J5V 3A8	Sorel
J5W 1A1	J5X 4V3	Laval
J5Y 1A2	J6E 9B9	Joilette
J6J 1A1	J6R 2P7	Montreal
J6S 1A1	J6S 1B1	Lancaster
J6S 1B3	J6S 1B3	Laval
J6S 1B4	J6S 1C3	Lancaster
J6S 1C4	J6S 1C4	Laval
J6S 1C5	J6S 2H7	Lancaster
J6S 2H8	J6S 2H8	Laval
J6S 2H9	J6S 2M6	Lancaster
J6S 2M7	J6S 2M7	Laval
J6S 2M8	J6S 3E8	Lancaster
J6S 3E9	J6S 3G1	Montreal
J6S 3G2	J6S 4A7	Lancaster
J6S 4A8	J6S 4A9	Montreal
J6S 4B1	J6S 4Z2	Lancaster
J6S 4Z3	J6S 4Z3	Montreal
J6S 4Z4	J6T 6M9	Lancaster
J6V 1A1	J7B 1W1	Laval
J7C 1A1	J7C 5T3	St. Jerome
J7E 1A1	J7H 1S2	Laval
J7J 1A1	J7J 2K1	St. Jerome
J7K 1A1	J7M 2C1	Laval
J7N 1C9	J7N 5A1	St. Jerome

Worksheet Reference

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
J7P 1A2	J7V 8P2	Laval
J7V 8P3	J7V 8P3	St. Jerome
J7V 8P4	J7V 9M9	Laval
J7X 1A1	J7X 1N5	Lancaster
J7Y 1A1	J8H 4N7	St. Jerome
J8L 1A1	J8M 2E4	Ottawa
J8N 1A1	J8N 7X5	Hull
J8N 9A1	J8N 9H3	Ottawa
J8N 9H4	J8N 9H4	Hull
J8N 9H5	J8R 3S6	Ottawa
J8T 0A0	J9A 9Z9	Hull
J9P 0A0	J9T 9Z9	Val d'Or
J9X 0A0	J9Z 9Z9	Rouyn-Noranda
K0A 0A0	K0C 9Z9	Ontario Average
K0E 0A0	K0E 9Z9	Ontario Average
K0G 0A0	K0H 9Z9	Ontario Average
K0J 0B0	K0M 9Z9	Ontario Average
K1A 0A0	K4R 9Z9	Ottawa
K6A 1A1	K6K 1W5	Lancaster
K6V 0A0	K7A 9Z9	Brockville
K7C 1A1	K7C 4T2	Hull
K7G 1A1	K7G 3G3	Kingston
K7H 1A1	K7H 3R2	Brockville
K7K 0A0	K7P 9Z9	Kingston
K7R 1A1	K7R 4C2	Belleville
K7S 1A1	K8H 3P9	Hull
K8N 0A0	K8R 9Z9	Belleville
K8V 0A0	K8V 9Z9	Trenton
K9A 0A0	K9L 9Z9	Peterborough
K9V 0A0	K9V 9Z9	Lindsay
L0A 0A0	L0C 9Z9	Ontario Average
L0E 0A0	L0E 9Z9	Ontario Average
L0G 0A0	L0H 9Z9	Ontario Average
L0J 0A0	L0N 9Z9	Ontario Average
L0P 0B0	L0S 9Z9	Ontario Average
L1A 1A1	L1A 4K2	Peterborough
L1B 0A0	L1Z 9Z9	Oshawa
L2A 0A0	L2J 9Z9	Niagara Falls
L2M 0A0	L3C 9Z9	St. Catharines

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
L3K 1A2	L3K 6C9	Niagara Falls
L3M 1A1	L3M 5N2	Hamilton
L3P 1A1	L3T 7W9	Toronto
L3V 0A0	L3V 9Z9	Orillia
L3X 1A4	L3Y 8T6	Toronto
L3Z 1A1	L3Z 3C5	Barrie
L4A 1A1	L4G 7N5	Toronto
L4H 1A1	L4H 2N3	Brampton
L4J 1A1	L4K 5P6	Toronto
L4L 1A5	L4L 9M2	Brampton
L4M 0A0	L4R 9Z9	Barrie
L4S 1A1	L4S 2M5	Toronto
L4T 1A1	L4W 5M8	Brampton
L4X 1A1	L4X 3A2	Toronto
L4Y 1A1	L5C 4S9	Brampton
L5E 1A1	L5G 4T6	Toronto
L5H 1A1	L5W 1L6	Brampton
L6A 1A1	L6G 1C7	Toronto
L6H 1A1	L6H 6Z8	Hamilton
L6J 1A1	L6J 7W6	Brampton
L6K 1A2	L6M 4C4	Hamilton
L6P 0A0	L7A 9Z9	Brampton
L7B 1A1	L7B 1M1	Toronto
L7C 1A1	L7G 6E9	Brampton
L7J 1A1	L7J 2Y4	Guelph
L7L 0A0	L9K 9Z9	Hamilton
L9L 1A1	L9L 1T4	Oshawa
L9M 1A3	L9N 1R9	Barrie
L9P 1A1	L9P 1X5	Oshawa
L9R 1A1	L9S 4V9	Barrie
L9T 1A1	L9T 5J2	Hamilton
L9V 1A1	L9W 5H3	Guelph
L9Y 1A1	L9Y 5A4	Barrie
M1A 0A0	M9Z 9Z9	Toronto
N0A 0C0	N0C 9Z9	Ontario Average
N0E 0A0	N0E 9Z9	Ontario Average
N0G 0A0	N0H 9Z9	Ontario Average
N0J 0A0	N0M 9Z9	Ontario Average
N0P 0A0	N0P 9Z9	Ontario Average

Worksheet Reference

Lower Postal	Upper Postal	Area of Local Multiplier
Code	Code	
N0R 0A0	N0R 9Z9	Ontario Average
N1A 1A1	N1A 3G8	Hamilton
N1C 0A0	N1M 9Z9	Guelph
N1P 0A0	N1Z 9Z9	Cambridge
N2A 0A0	N2H 9Z9	Kitchener
N2J 0A0	N2L 9Z9	Waterloo
N2M 0A0	N2R 9Z9	Kitchener
N2T 0A0	N2V 9Z9	Waterloo
N2Z 1A1	N2Z 3B9	Owen Sound
N3B 1A1	N3B 3L3	Waterloo
N3C 0A0	N3H 9Z9	Cambridge
N3L 0A0	N3V 9Z9	Brantford
N3W 1A1	N3W 2N4	Hamilton
N3Y 1A1	N4G 5V7	Brantford
N4K 0A0	N4N 9Z9	Owen Sound
N4S 1A1	N4V 8S3	Kitchener
N4W 1A1	N4W 3V5	Waterloo
N4Z 1A1	N5A 7Z8	Waterloo
N5C 0A0	N7G 9Z9	London
N7L 0A0	N8A 9Z9	Sarnia
N8H 0A0	N9Y 9Z9	Windsor
P0A 0A0	P0C 9Z9	Ontario Average
P0E 0E0	P0E 9Z9	Ontario Average
P0G 0A0	P0H 9Z9	Ontario Average
P0J 0A0	P0M 9Z9	Ontario Average
P0N 1A0	P0N 1K0	Timmins
P0P 0A0	P0P 9Z9	Ontario Average
P0R 0A0	P0T 9Z9	Ontario Average
P0V 0B0	P0Y 9Z9	Ontario Average
P1A 0A0	P1C 9Z9	North Bay
P1H 1A1	P2A 3C2	Orillia
P2N 1A1	P2N 3S2	Rouyn-Noranda
P3A 0A0	P3N 9Z9	Sudbury
P3P 1A1	P3P 1S2	North Bay
P3P 1S3	P3P 1S8	Sudbury
P3P 1S9	P3P 1Z2	North Bay
P3Y 1A1	P3Y 1P9	Sudbury
P4N 0A0	P4R 9Z9	Timmins
P5A 1A1	P5A 3T1	Sault Ste. Marie

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
P5E 1A1	P5E 1T3	Sudbury
P5N 1A1	P5N 3J6	Timmins
P6A 0A0	P6C 9Z9	Sault Ste. Marie
P7A 0A0	P8T 9Z9	Thunder Bay
R0A 0B0	R0C 9Z9	Manitoba Average
R0E 0A0	R0E 9Z9	Manitoba Average
R0G 0A0	R0H 9Z9	Manitoba Average
R0J 0A0	R0M 9Z9	Manitoba Average
R1A 0A0	R6W 9Z9	Winnipeg
R7A 0A0	R7N 9Z9	Brandon
R8N 0A0	R9A 9Z9	Thompson
S0A 0A0	S0C 9Z9	Saskatchewan Average
S0E 0A0	S0E 9Z9	Saskatchewan Average
S0G 0A0	S0H 9Z9	Saskatchewan Average
S0J 0A0	S0N 9Z9	Saskatchewan Average
S0P 0A0	S0P 9Z9	Saskatchewan Average
S4N 0A0	S4Z 9Z9	Regina
S6H 0A0	S6K 9Z9	Moose Jaw
S6V 0A0	S6X 9Z9	Prince Albert
S7H 0A0	S8Z 9Z9	Saskatoon
S9A 0A0	S9X 9Z9	North Battleford
T0A 0A0	T0C 9Z9	Alberta Average
T0E 0A0	T0E 9Z9	Alberta Average
T0G 0A0	T0H 9Z9	Alberta Average
T0J 0A0	T0M 9Z9	Alberta Average
T0P 0B0	T0P 9Z9	Alberta Average
T1A 0A0	T1C 9Z9	Medicine Hat
T1G 0A0	T1M 9Z9	Lethbridge
T1P 1A1	T1P 1T8	Calgary
T1R 0A1	T1R 1L1	Lethbridge
T1V 0A0	T4B 9Z9	Calgary
T4C 0A0	T4S 9Z9	Red Deer
T4V 0A0	T6Z 9Z9	Edmonton
T7A 1A1	T7A 2A3	Red Deer
T7E 1A1	T7E 1Y3	Grande Prairie
T7N 1A1	T7S 1V7	Edmonton
T7V 1A2	T7V 2E8	Grande Prairie
T7X 1A1	T8R 1T3	Edmonton
T8S 0A0	T8X 9Z9	Grande Prairie

Worksheet Reference

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
T9A 0A1	T9K 5A7	Edmonton
T9M 1A1	T9N 2P1	North Battleford
T9S 1A1	T9S 3A3	Edmonton
T9V 0A1	T9X 2C1	North Battleford
V0A 0A0	V0B 9Z9	Cranbrook
V0C 0A0	V0C 9Z9	Prince George
V0E 0A0	V0G 9Z9	Kamloops
V0H 0A0	V0H 9Z9	Penticton
V0J 1A0	V0J 1A0	Prince Rupert
V0J 1E0	V0J 1E0	Prince George
V0J 1G0	V0J 1J0	Grande Prairie
V0J 1K0	V0J 1K0	Prince Rupert
V0J 1L0	V0J 1W0	Prince George
V0J 1X0	V0J 2A0	Prince Rupert
V0J 2B0	V0J 2C0	Prince George
V0J 2E0	V0J 2E0	Grande Prairie
V0J 2G0	V0J 2G0	Prince George
V0J 2H0	V0J 2J0	Prince Rupert
V0J 2K0	V0J 2K0	Prince George
V0J 2N0	V0J 2N0	Prince Rupert
V0J 2P0	V0J 2V0	Prince George
V0J 2W0	V0J 2X0	Prince Rupert
V0J 2Y0	V0J 2Y0	Prince George
V0J 2Z0	V0J 2Z0	Prince Rupert
V0J 3A0	V0J 3C0	Prince George
V0J 3E0	V0J 3T0	Prince Rupert
V0K 0A0	V0K 9Z9	Kamloops
V0L 0A0	V0L 9Z9	Prince George
V0N 0A0	V0N 9Z9	Vancouver
V0P 0A0	V0P 9Z9	Port Alberni
V0R 0A0	V0R 9Z9	Prince George
V0S 1L0	V0S 1N0	Victoria
V0T 1B0	V0T 1B0	Prince Rupert
V0T 1C0	V0T 1H0	Port Alberni
V0T 1J0	V0T 1T0	Prince Rupert
V0T 1V0	V0T 1V0	Kelowna
V0T 1W0	V0V 1H0	Prince Rupert
V0W 0A0	V0W 9Z9	Whitehorse
V0X 1C0	V0X 1K0	Penticton

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
V0X 1L0	V0X 1L0	Kamloops
V0X 1N0	V0X 1R0	Penticton
V0X 1T0	V0X 1T0	Vancouver
V0X 1W0	V0X 1W0	Penticton
V0X 1X0	V0X 1X0	Vancouver
V0X 2L0	V0X 2L0	Penticton
V1A 1A1	V1A 3E9	Cranbrook
V1B 1A1	V1B 3X5	Kelowna
V1C 0A0	V1C 9Z9	Cranbrook
V1E 1A1	V1E 4S4	Kelowna
V1G 1A1	V1G 5A1	Grande Prairie
V1H 1A1	V1H 1Y1	Kelowna
V1J 1A2	V1J 7A3	Grande Prairie
V1K 1A1	V1K 1P9	Kamloops
V1L 0A0	V1L 9Z9	Nelson
V1M 1A1	V1M 4B2	Vancouver
V1N 1A1	V1N 4W2	Trail
V1P 1A1	V1P 1N1	Kelowna
V1R 0A0	V1R 9Z9	Trail
V1S 0A0	V1S 9Z9	Kamloops
V1T 0A0	V1Z 9Z9	Kelowna
V2A 0A0	V2A 9Z9	Penticton
V2B 0A0	V2E 9Z9	Kamloops
V2G 1A1	V2G 4V3	Prince George
V2H 0A0	V2H 9Z9	Kamloops
V2J 0A0	V2N 9Z9	Prince George
V2P 0A0	V7Z 9Z9	Vancouver
V8A 1A1	V8A 5V3	Port Alberni
V8C 0A0	V8J 9Z9	Prince Rupert
V8K 1A1	V8K 2X4	Nanaimo
V8L 0A0	V9E 9Z9	Victoria
V9G 1A1	V9K 2S5	Port Alberni
V9L 1A1	V9L 6X8	Nanaimo
V9M 1A2	V9N 9H9	Port Alberni
V9P 0A0	V9V 9Z9	Nanaimo
V9W 1A1	V9W 8E9	Port Alberni
V9X 1A1	V9X 1W9	Nanaimo
V9Y 0A0	V9Y 9Z9	Port Alberni
X0A 0A0	X0C 9Z9	Yellowknife

Worksheet Reference

Lower Postal Code	Upper Postal Code	Area of Local Multiplier
X0D 0A0	X0G 9Z9	Yellowknife
X1A 0A0	X1A 9Z9	Yellowknife
Y0A 0A0	Y0B 9Z9	Whitehorse
Y1A 0A0	Y1A 9Z9	Whitehorse