**Table of Contents**

Overview .......................................................................................................................... 1

Cost Information............................................................................................................... 1

Not Included in the Costs ............................................................................................... 1

Using the Help System .................................................................................................... 3

Individual Field Help .................................................................................................... 3

Screen Help ................................................................................................................... 4

Table of Contents, Index and Search ........................................................................... 5

Table of Contents .......................................................................................................... 6

Index ............................................................................................................................. 9

Creating, Editing and Deleting Estimates ................................................................. 11

Creating a New Estimate ............................................................................................. 11

Searching for, Editing and Deleting Previously-Saved Estimates ......................... 12

Guided Entry Screen Reference .................................................................................. 14

Guided Entry: Building Information .......................................................................... 15

Guided Entry: Occupancies ......................................................................................... 16

Adding an Occupancy ................................................................................................. 17

Deleting an Occupancy ............................................................................................... 18

Occupancy Detail ....................................................................................................... 18

Guided Entry: Exterior Walls ..................................................................................... 20

Guided Entry: Heating & Cooling .............................................................................. 21

Guided Entry: Elevators ............................................................................................. 22

Elevators by Count ....................................................................................................... 23

Elevators by Area ......................................................................................................... 24
Table of Contents

Guided Entry: Sprinklers ................................................................. 25
Guided Entry: Land & Site ............................................................... 26
Land Value .................................................................................... 26
Site Improvements ....................................................................... 27

Estimate Data Screen Reference .................................................. 28

General Information .................................................................... 29
Building Sections ......................................................................... 30
Adding a Section .......................................................................... 30
Deleting a Section ......................................................................... 31
Moving from Section to Section ................................................... 31
Building Data ............................................................................... 32

Occupancies ............................................................................... 36
Adding an Occupancy Using the Occupancy Code ...................... 37
Adding an Occupancy Using Occupancy Search ....................... 38
Deleting an Occupancy ............................................................... 39

Occupancy Detail ....................................................................... 40
Components ................................................................................ 41
Adding a Component Using the Component Code ..................... 42
Adding a Component Using Component Search .......................... 43
Deleting a component ................................................................. 45

Component Detail ....................................................................... 45
Additions Screen ........................................................................ 46
Adding an Addition ..................................................................... 47
Deleting an Addition ................................................................... 48

Addition Detail ........................................................................... 48
Table of Contents

Remarks/Notes Screen ................................................................................................ 50
Adding a Remark or Note ........................................................................................... 51
Deleting a Remark or Note ......................................................................................... 51
Basement Section ....................................................................................................... 52
Basement Building Data Screen ................................................................................. 52
Basement Occupancy Screen ...................................................................................... 53
Reports Screen ............................................................................................................ 54
Calculating Costs ........................................................................................................ 54
Printing Reports .......................................................................................................... 55
Downloading Reports .................................................................................................. 56
How Commercial Estimator Calculates Costs ............................................................. 58
Overview

This Program Reference contains detailed instructions about using the Commercial Estimator Program, part of the SwiftEstimator Suite from Marshall & Swift. As a reference guide, it contains some repetition of instructions for ease of use, and you should use it in a random fashion.

In the instructions throughout this manual, the term “click” or “click on” means that you point at an item using the mouse, then press the left mouse button. The term “right click on” means that you point at an item using the mouse, then press the right mouse button.

Cost Information

Included in the Costs

- In Commercial Estimator, the actual costs used are final costs to the owner and will include average architect's and engineer's fees. These, in turn, include plans, plan check and building permits, and surveys to establish building lines and grades.

- Costs only include normal interest on the actual building funds during period of construction, and processing fees or service charges. Typically, this averages half the going rate over the time period plus the service fee.

- Appropriate local, state and federal sales taxes, GST taxes, etc. on material and/or labor costs.

- Normal site preparation including finish, grading and excavation for foundation and backfill for the structure only.

- Utilities from structure to lot line, figured for typical setback.

- Contractor's overhead and profit, including job supervision, workmen's compensation, fire and liability insurance, unemployment insurance, equipment, temporary facilities, security, etc.

Not Included in the Costs

- Costs of buying or assembling land, such as escrow fees, legal fees, property taxes, right of way costs, demolition, storm drains or rough grading, are considered costs of doing business or land improvement costs.

- Pilings or hillside foundations must be priced separately and are considered an improvement to the land. This also refers to soil compaction and vibration, terracing, etc.
• Costs of land planning or preliminary concept and layout for large developments, inclusive of developer's overhead and profit or entrepreneurial incentive, are not included, nor is interest or taxes on the land, feasibility studies, certificate of need, E.I.R., hazardous materials testing, appraisal or consulting fees, etc.

• Discounts or bonuses paid for financing are considered a cost of doing business, as are funds for operating start up, project bond issues, developmental overhead or fixture and equipment purchases, etc.

• Yard improvements, including signs, landscaping, paving, walls, yard lighting, pools or other recreation facilities, etc., which can be priced separately.

• Offsite costs including roads, utilities, park fees, jurisdictional hookup, tap-in, impact or entitlement fees and assessments, etc.

• Furnishings and fixtures, usually not found in the general contract, that are peculiar to a definite tenant, such as seating or kitchen equipment, etc.

• Marketing costs to create first occupancy including model or advertising expenses, leasing or broker's commissions or temporary operation of property owner's associations.
Using the Help System

There are four types of help available within the Commercial Estimator Program:

- **Individual Occupancy and Component Help:** Help for an occupancy or component.
- **Individual Field Help:** Help for an individual field on a screen.
- **Screen Help:** Help for all fields on a screen.
- **Table of Contents, Index and Search:** Complete help system, including a Table of Contents and an Index, and the ability to search for a given topic.

**Individual Field Help**

Help is available for each field on a screen. Click on the field’s name to display the help for that field (or, press the F1 key when the cursor is in the field).

**Example:** To display the help for Stories in Section on the Building Data screen, click on its name:

```
Building Data

Select Section: [Section 1]  New  Basement  Delete  <  >

Section Title:*  Section 1

Area*  20000  must be at least 200

Stories in Section*  2  must be at least 1

Stories in Building  must be at least 1 or blank
```

The help for this field displays in a separate window:
When finished with the help, close the help window by clicking the close (×) button in the upper right corner.

**Screen Help**

Click the Help button at the top of the screen to display the help for each field on the screen.

**Example:** To display the help for the General Information screen:

The help for all fields on the General Information screen displays:
Using the Help System

The top of screen help contains a list of all fields on the screen. Click on any field name to move to the help for that field. Click on the “Return to Top” link to return to the top of the help. When finished with the help, close the help window by clicking the close button in the upper right corner.

Table of Contents, Index and Search

To display the complete help system, click the link “Show” at the top of any of the other help screens. The complete help system includes a Table of Contents and an Index, and the ability to search for a given topic.

Example: Click the “Show” on the Building Data: Number of Stories help screen:
This displays the Contents, Index and Search area on the left of the help screen, and the help topic on the right of the help screen:

Table of Contents

Commercial Estimator automatically selects the Table of Contents tab when you first display help. The indicates that the main topic (“book”) contains two or more individual topics. To display the topics for a book, click on the book or its title.

Commercial Estimator displays the topics in the book:
To display the help for a topic, click the topic title or on the \( \text{ Hispano } \) to its left. Commercial Estimator displays the help topic on the right side of the help screen:

![Help Screen](image.png)

To display the help topic in the entire screen (closing the Contents, Index and Search area on the left), click the \( \times \) between the Contents, Index and Search buttons and the Table of Contents itself:

![Help Screen Full](image.png)

The help text now fills the entire Help screen:
Click the Contents (or Index or Search) button to return the display of the Contents, Index and Search area on the left of the screen:

Close the Help screen by clicking the close button (×) in the upper right hand corner:
Index

To find a given topic using the index, first click the Index button, then do either of the following:

- Begin typing the text you are looking for at the top of the alphabetical list. As you type, Commercial Estimator automatically moves the index list to the topic you are typing.
- Use the vertical scroll bar on the right side of the index to scroll to the topic desired.

With either method, when the desired topic appears, click on it to display the help for that topic on the help screen to the right.

Example: In the following, if you type the letters “cate,” the index moves to the word “Categories.” Click on this word to display the category help:

If there are several sub-topics associated with the topic selected, Commercial Estimator displays a listing of these sub-topics. Click on the sub-topic desired to display its help.

Example: When you click on the index topic “Warehouses,” several sub-topics display. Click on one of them to display the help for that sub-topic:
Commercial Estimator displays the help.
Creating, Editing and Deleting Estimates

When you first start SwiftEstimator, the New Estimates/Search screen displays:

Use the main part of this screen to create a new estimate or search for a previously saved estimate.

You can also use the buttons at the top of the screen to do the following:

- **Administration**: Edit and view your account and billing information using the Administration option.
- **Log Out**: Disconnect from SwiftEstimator.
- **Help**: Display the help for this screen. When the help displays, click the Show link to display the entire help system.

**Creating a New Estimate**

To create a new Commercial Estimator estimate:

1. Click the **Create a New Estimate** button:

2. The following displays:
Creating, Editing and Deleting Estimates

To create a new estimate, select one of the following options:

**Commercial Estimator**

Create a New Estimate using **Guided Entry**
Create a New Estimate using the **Complete Estimate Data Screens**

**Residential Estimator**

Create a New Estimate using **Guided Entry**
Create a New Estimate using the **Complete Estimate Data Screens**

Click one of the following under “Commercial Estimator”:

- “Create a New Estimate using Guided Entry” to create a new estimate using the Quick Estimate screens, which allow you to enter the basic information about the estimate (see page 2-19).

- “Create a New Estimate using the Complete Estimate Data Screens” to create a new estimate using the detailed estimate screens, which allow you to enter all information available in Commercial Estimator (see page 2-35).

**Searching for, Editing and Deleting Previously-Saved Estimates**

To search for a previously-saved estimate, then edit or delete it:

1. Select one of the Search Types:

   **Search**

   To find an existing estimate, select a Search Type and enter a Search Text below:

<table>
<thead>
<tr>
<th>Search Type</th>
<th>Search Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent Activity</td>
<td></td>
</tr>
<tr>
<td>Estimate ID</td>
<td></td>
</tr>
<tr>
<td>Property Owner</td>
<td></td>
</tr>
<tr>
<td>Property Address</td>
<td></td>
</tr>
<tr>
<td>Property City</td>
<td></td>
</tr>
<tr>
<td>Property Zip/Postal Code</td>
<td></td>
</tr>
<tr>
<td>All Estimates</td>
<td></td>
</tr>
<tr>
<td>Comment (CE Only)</td>
<td></td>
</tr>
</tbody>
</table>

The available Search Types are:

- **Recent Activity**: Lists the ten most recently modified estimates (no Search Text required).

- **Estimate ID**: List estimates with a given Estimate ID.

- **Property Owner**: List estimates for a given Property Owner.
Property Address: List estimates with a given address.

Property City: List estimates in a given city.

Property ZIP/Postal Code: List estimates in a given US ZIP Code.

All Estimates: List all previously-saved estimates (no Search Text required).

Comment: List estimates with a given comment.

2. For all Search Types except Recent Activity and All Estimates, enter the text to search for.

Example: To search for estimates with Estimate ID “ABC-123”:

![Search Form]

3. Click the Search button. A list of estimates matching the search text displays.

Example: The following illustrates the estimates with Estimate ID “ABC-123”:

<table>
<thead>
<tr>
<th>Application</th>
<th>Estimate ID</th>
<th>Property Owner</th>
<th>Updated Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE</td>
<td>ABC-123</td>
<td>David Grant</td>
<td>07-06-2002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Edit Delete</td>
</tr>
<tr>
<td>CCI</td>
<td>ABC-123</td>
<td>David Grant</td>
<td>07-06-2002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Edit Delete</td>
</tr>
</tbody>
</table>

4. When the list displays, do one of the following:
   - Edit: Click Edit to edit the estimate. Commercial Estimator displays the General Information screen with the previously-saved data. You can now move to any screen and make changes, recalculate or print reports.
   - Delete: Click Delete to delete the estimate.
   - Reorder Listing: Click the column title on any of the columns to reorder the listing based on that column.
Guided Entry Screen Reference

Use the Guided Entry screens to enter the basic information about a building using a series of simple data entry screens. When entering an estimate using these screens, you can move from screen to screen using either of the following methods:

- **Sequential Navigation Buttons:** These buttons take you to the previous screen or to the next screen, and are located below the data area on each screen.
  - Next >: Move forward to the next Guided Entry screen.
  - < Previous: Move back to the previous Guided Entry screen.
  - Cancel: Cancel the creation of the new estimate, returning to the New Estimate/Search screen. If you click Cancel, nothing that you entered is saved.
  - Finish: Close Guided Entry and move to the Estimate Data screens to continue data entry, calculate the costs or display reports. Residential Estimator displays the Reports screen.

- **Random Navigation Menu:** This menu allows you to move directly to any of the screens listed on the left.

These are located as follows:

The following pages discuss each of the Guided Entry screens.
Guided Entry: Building Information

Use the Building Information screen to enter the following:

- **Estimate Number**
- **Estimate ID**
- **Property ZIP/Postal Code**
- **Stories in Building**
- **Total Building Area**

- **Estimate Number**: Commercial Estimator automatically displays a unique Estimate Number for each new estimate. Although you cannot change this number, you can use it to search for this estimate when you want to change, recalculate or delete it.

- **Estimate ID**: Enter any type of information to identify the estimate (maximum 50 characters). Examples:
  - **Assessment**: Enter the Parcel Number
  - **Appraisal**: Enter an Appraisal Number or a File Number
  - **Estimate ID** is required, and you can use it to search for an estimate when you want to change, recalculate or delete it.

- **Property ZIP/Postal Code**: Enter the 5-digit United States ZIP Code or 6-character Canadian Postal Code for the property. This entry is required.

Commercial Estimator uses the ZIP/Postal Code to determine the default local multiplier, region and climate. The local multiplier adjusts the costs for a specific geographical location, and is taken by Commercial Estimator from Section F of the *Marshall Valuation Service*. 
Note: Commercial Estimator does not have Local Multipliers for all Postal Codes in Canada. For further information, see Using Canadian Postal Codes in the Worksheet Reference.

- **Stories in Building**: Enter the number of stories in the building. For a multistory building, Commercial 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).

- **Total Building Area**: Enter the total building area, which 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.

### Guided Entry: Occupancies

Use the Occupancy screen to select one or more occupancy (building use).

If you select more than one occupancy, the total percentage of all occupancies must be 100%. This screen has two major parts:
• **Selected Occupancies:** Top portion of screen that lists all the occupancies you have selected. Use this list to see which occupancies you have selected (including the occupancy percentage total), and to delete an occupancy.

• **Occupancy Detail:** Bottom portion of the screen that you use to enter a new occupancy.

The data items that you enter or select for each occupancy (in the Occupancy Detail portion of the screen) are:

**Adding an Occupancy**

Add an occupancy as follows:

1. Select one of the eight **Occupancy Groups**:

<table>
<thead>
<tr>
<th>Occupancy Group*</th>
<th>Residential Multiples, Motels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Apartments, Clubs, Hotels</td>
</tr>
<tr>
<td></td>
<td>Residential Multiples, Motels</td>
</tr>
<tr>
<td></td>
<td>Stores, Commercials</td>
</tr>
<tr>
<td></td>
<td>Garages, Industrials, Lofts, Warehouses</td>
</tr>
<tr>
<td></td>
<td>Offices, Medical, Public Buildings</td>
</tr>
<tr>
<td></td>
<td>Churches, Theaters, Auditoriums</td>
</tr>
<tr>
<td></td>
<td>Sheds, Farm Buildings</td>
</tr>
<tr>
<td></td>
<td>Schools, Classrooms</td>
</tr>
</tbody>
</table>

2. Select an **Occupancy** from a list of available occupancies. Commercial Estimator automatically inserts the occupancy Code and sets default values for the other fields:

<table>
<thead>
<tr>
<th>Occupancy Group*</th>
<th>Offices, Medical, Public Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medical Office</td>
</tr>
<tr>
<td></td>
<td>Office Building</td>
</tr>
<tr>
<td></td>
<td>Veterinary Hospital</td>
</tr>
<tr>
<td></td>
<td>Fire Station (Volunteer)</td>
</tr>
<tr>
<td>Code*</td>
<td>344</td>
</tr>
<tr>
<td>Percentage*</td>
<td>100</td>
</tr>
<tr>
<td>Height*</td>
<td>10</td>
</tr>
<tr>
<td>Class*</td>
<td>Fireproof structural steel frame (A)</td>
</tr>
<tr>
<td>Quality*</td>
<td>2.0 - Average</td>
</tr>
</tbody>
</table>

* = Required
3. Enter the Percentage for that occupancy (or accept the percentage set by Commercial Estimator), keeping in mind that the total occupancy percentage must be 100.

4. Enter the occupancy's Story Height (or accept the height automatically set by Commercial Estimator).

5. Select the Construction Class for the occupancy.

6. Select the overall Quality for the occupancy. This quality will automatically be set for all components not given their own qualities.

7. Click the Add button to add the occupancy to the estimate. Commercial Estimator displays the information you entered in the Selected Occupancies list:

<table>
<thead>
<tr>
<th>Code</th>
<th>Occupancy</th>
<th>Percentage</th>
<th>Height</th>
<th>Class</th>
<th>Quality</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>344</td>
<td>Office Building</td>
<td>100</td>
<td>12.5</td>
<td>A</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: If you know the occupancy code, you can type this code directly in the Cost field instead of using the occupancy selection in Steps 1 and 2.

**Deleting an Occupancy**

To delete an occupancy, click the delete icon for the occupancy in the occupancies list at the top of the screen:

<table>
<thead>
<tr>
<th>Code</th>
<th>Occupancy</th>
<th>Percentage</th>
<th>Height</th>
<th>Class</th>
<th>Quality</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>344</td>
<td>Office Building</td>
<td>40</td>
<td>10</td>
<td>A</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>304</td>
<td>Bank</td>
<td>35</td>
<td>18</td>
<td>A</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>Apartment</td>
<td>25</td>
<td>9</td>
<td>A</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Occupancy Detail**

Use either the Occupancy Group and Occupancy fields or the Code field to select an occupancy to add as follows:

- **Occupancy Group and Occupancy:** To select an occupancy from a list of available occupancies, do the following:
  - Select one of the eight occupancy groups:
• Select one of the occupancies in the selected group:

<table>
<thead>
<tr>
<th>Occupancy Group*</th>
<th>Apartments, Clubs, Hotels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residential Multiples, Motels</td>
</tr>
<tr>
<td></td>
<td>Stores, Commercials</td>
</tr>
<tr>
<td></td>
<td>Garages, Industrials, Lofts, Warehouses</td>
</tr>
<tr>
<td></td>
<td><strong>Offices, Medical, Public Buildings</strong></td>
</tr>
<tr>
<td></td>
<td>Churches, Theaters, Auditoriums</td>
</tr>
<tr>
<td></td>
<td>Sheds, Farm Buildings</td>
</tr>
<tr>
<td></td>
<td><strong>Schools, Classrooms</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupancy*</th>
<th><strong>Office Building</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Veterinary Hospital</td>
</tr>
<tr>
<td></td>
<td>Fire Station (Volunteer)</td>
</tr>
</tbody>
</table>

   | Code*            | 344 |

This automatically displays the code in the code field.

• **Code:** To directly enter an occupancy, enter its code in this field. The occupancy name displays to the right of the code. If the occupancy code field already contains a code, you can type a different code in this field to change the occupancy.

However, if the class selected for the old occupancy is not available for the new occupancy, Commercial Estimator automatically changes the class to the first class available for the new occupancy.

With either of these methods, once you have selected or entered the occupancy, enter or accept its percentage, story height, class and quality, then click the **Add** button to add the occupancy to the Selected Occupancies List.

• **%:** The occupancy’s percentage of the total floor area of the section. Commercial Estimator automatically displays 100% for the first occupancy you enter in a section. For additional occupancies, it displays the difference between the total of all occupancies previously entered and 100%. For example, if you change the percentage for the first occupancy you enter to 40%, Commercial Estimator automatically sets the percentage for the second occupancy you enter to 60%.

• **Height:** The average story height for each occupancy. Commercial Estimator automatically displays the typical story height for the occupancy. You should change this to the average story height for the building if necessary. See the *Worksheet Reference* or the help system for complete details on computing story height.
• **Class:** The class of construction. Commercial Estimator automatically displays the first construction class available for the occupancy. You should change this to the class of the building if necessary.

The Marshall & Swift construction classes available in Commercial Estimator are:

- **A** - Fireproof Structural Steel Frame
- **B** - Reinforced Concrete Frame
- **C** - Masonry Bearing Walls
- **D** - Wood or Steel Stud Framed Exterior Walls
- **H** - Hoop Structure
- **M** - Mill Type Construction
- **P** - Wood Frame and Metal Walls (Pole Frame)
- **S** - Metal Frame and Walls
- **W** - Metal Slant Frame and Walls

See the *Worksheet Reference* or the help system for a description of each class. Not all classes are available for a given occupancy. See the *Occupancy Reference* or the help system for a list of classes available for each occupancy.

• **Quality:** The quality of construction, which determines the level of the calculated costs. See the *Worksheet Reference* or the help system for further details on selecting quality.

**Guided Entry: Exterior Walls**

Use the **Exterior Walls** screen to select the type of exterior walls in the building.
Commercial Estimator has two different methods for selecting exterior walls:

- **Use Typical Wall Type:** Select this option to use the typical walls based on the occupancy, class and quality in the section.

- **Use Selected Exterior Wall:** Select this option to select specific exterior wall types. Once you have selected this option, you can select up to four exterior wall types in the fields below the option. For each type selected, enter the percentage of the exterior wall area with that type.

**Example:**

- Use Typical Exterior Wall
- Use Selected Exterior Wall:
  - Brick with Block Back-up: 60%
  - Block with Stucco: 40%
  - Select Exterior Wall: [Field]
  - Select Exterior Wall: [Field]

**Note:** Exterior wall choices are not available for a number of occupancies.

**Guided Entry: Heating & Cooling**

Use the **Heating & Cooling** Guided Entry screen to select the type of heating & cooling in the building.

**Guided Entry - Heating & Cooling**

Select the type of heating & cooling for the building, or use the heating & cooling type based on occupancy, class and quality. If the building has more than one heating & cooling type, enter the percentage of each type.

- Use Typical Heating & Cooling
- Use Selected Heating & Cooling:
  - Select Heating & Cooling Type: [Field]
  - Select Heating & Cooling Type: [Field]
  - Select Heating & Cooling Type: [Field]
  - Select Heating & Cooling Type: [Field]

**Total 100%**
Commercial Estimator has two different methods for selecting heating & cooling:

- **Use Typical Heating/Cooling Type**: Select this option to use the typical heating & cooling based on the occupancy, class and quality in the section.

- **Use Selected Heating/Cooling**: Select this option to select specific exterior wall types. Once you have selected this option, you can select up to four exterior wall types in the fields below the option. For each type selected, enter the percentage of the exterior wall area with that type.

**Example:**

- **Use Typical Heating & Cooling**
- **Use Selected Heating & Cooling**:
  - Warmed and Cooled Air
  - % Enter: 1 - 100
  - Select Heating & Cooling Type
  - % Enter: 1 - 100
  - Select Heating & Cooling Type
  - % Enter: 1 - 100
  - Total 100%

**Guided Entry: Elevators**

Use the **Elevators** screen to enter the elevators in the building:

<table>
<thead>
<tr>
<th>Guided Entry - Elevators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELEVATORS BY COUNT</strong></td>
</tr>
<tr>
<td>Enter the number of each type of elevator below. Optionally, enter the number of stops for each elevator. If you do not enter the number of stops, Commercial Estimator will automatically use the number of stories in the building.</td>
</tr>
<tr>
<td><strong>Number of Elevators</strong></td>
</tr>
<tr>
<td>651 - Number of Passenger Elevators</td>
</tr>
<tr>
<td>652 - Number of Power Freight Elevators</td>
</tr>
<tr>
<td>653 - Number of Manual Freight Elevators</td>
</tr>
</tbody>
</table>

**ELEVATORS BY AREA**

For selected occupancies, typically high-rise buildings, you can enter the percentage of the building's Total Floor Area served by elevators (instead of using the count method above).

- **% of Total Floor Area**

650 - Square foot elevators (% of floor area) 0
Commercial Estimator has two different methods for entering elevators:

- **Elevators by Count**, for which you enter the number of elevators.
- **Elevators by Area**, for which you enter the area served by the elevators in square feet. This method is only available for selected occupancies.

It is always better to price elevators by the Count Method when you know the type and number of elevators.

**Elevators by Count**

Use one or more of the following components to include the cost for elevators based on the number and type of elevators in the building (and optionally the number of stops):

- 651 Passenger Elevators
- 652 Freight Elevators with Power Doors
- 653 Freight Elevators with Manual Doors

When using these components, enter the following:

- **Quantity**: Enter the number of each type of elevator. This is required.
- **Stops**: Optionally, enter the number of stops per elevator. If you do not enter the number of stops, Commercial Estimator automatically sets it to the number of stories in the building. Therefore, you should only enter the number of stops if it differs from the number of floors. For example, if a 3 story building has an elevator with stops on each of the 3 floors and in the basement, enter 4 for the number of stops.

**Example**: In a three story building with a mezzanine and a basement, the elevators have five stops. The entries for the passenger and freight elevators are:

<table>
<thead>
<tr>
<th>Component</th>
<th>Number of Elevators</th>
<th>Number of Stops (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>651 - Number of Passenger Elevators</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>652 - Number of Power Freight Elevators</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>653 - Number of Manual Freight Elevators</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
Elevators by Area

Use this component to include the cost for elevators on a cost per square foot basis by entering 100 for the quantity (to indicate that the elevators serve 100% of the total floor area). The cost includes consideration of the type of controls, speed, capacity, power door operation, number of stops, series of banks, etc. typical for the occupancy, class and quality rank of the building being evaluated.

Note: It is always better to price elevators by the Count Method when you know the type and number of elevators. In addition, elevators by area are only available for selected occupancies.
Guided Entry: Sprinklers

Use the Sprinklers screen to include a cost for the sprinkler system in the building.

**Guided Entry - Sprinklers**

**Specific Sprinkler System:**

If you know the type of sprinkler system in the building, enter the percentage of the Total Floor Area served by the system:

- 682 Dry Sprinklers % of floor area covered
- 683 Wet Sprinklers % of floor area covered

**Generic Sprinkler System:**

If you do not know whether the sprinkler system is a Wet or Dry System, enter the percentage of the Total Floor Area served by sprinklers:

- 681 Sprinklers % of floor area covered

If you know the type of sprinkler system in the building, enter the percentage of the Total Floor Area served by the system using one of the following:

- **682 Dry Sprinklers:** A dry sprinkler system that is filled with air under pressure until the heat from a fire opens a sprinkler head, allowing water to flow into the piping. These systems are typically found in areas where there is a chance that the water filling a wet system could freeze and damage the system.

- **683 Wet Sprinklers:** A wet sprinkler system that constantly has water in its lines.

If you do not know whether the sprinkler system is a Wet or Dry System, enter the percentage of the Total Floor Area served by sprinklers using the following:

- **681 Sprinklers:** Use this generic sprinkler system when you do not know whether the building’s sprinkler system is a dry or wet system. Its costs range from low quality exposed wet systems to high quality concealed dry systems.
**Guided Entry: Land & Site**

Use the **Land & Site** screen to include a cost for land value and site improvement cost for the estimate.

**Guided Entry - Land & Site**

Enter the land value using either of the following fields, depending on the text you want to have print in the report ("Land Value" or "Site Value"):

- **61 Land Value**: Enter a dollar amount here to have the entered value print in the report as "Land Value."
- **64 Site Value**: Enter a dollar amount here to have the entered value print in the report as "Site Value."

Enter the value of the site improvements: To print site improvements in the Miscellaneous section of the report (below the depreciation, enter a value for "Not Depreciated.") To print site improvements in the Extras section of the report (above the depreciation section), enter a value for "Depreciated."

- **63 Site Improvements (Not Depreciated)**
- **62 Site Improvements (Depreciated)**

**Land Value**

There are two different components for land value:

- **61 Land Value**: Enter a dollar amount here to have the entered value print in the report as "Land Value."
- **64 Site Value**: Enter a dollar amount here to have the entered value print in the report as "Site Value."

**Note**: The maximum land value is $99,999,999. If you need to enter a larger value, enter it as an addition with type Misc. You can also enter a land value as an addition if you want to put in the lot size (in square feet if under an acre, or in acres if over an acre) and the cost per square foot or acre. For example, if the lot is 26,000 square feet and the land value per square foot is $12.50, enter 26000 for the number of units column and 12.50 for the unit cost. You can enter additions on the **Estimate Detail** screens that display when you have completed Guided Entry by clicking **Finish**.
Site Improvements

Use either of the following components to enter the cost of all site improvements in dollars. This includes all items generally associated with the site, including landscaping, fencing, walks, paving, etc.

- **62 Site Improvements (Depreciated):** This site improvement component prints in the report under the "Extras" heading, which is included in the Replacement Cost New and is depreciated with the other parts of the building.

- **63 Site Improvements (Undepreciated):** This site improvement component prints in the report under the "Miscellaneous" heading, which follows the Depreciated Cost.
The **Estimate Data** screens in Commercial Estimator follow the Commercial Estimator worksheet. You can use the worksheet to collect the data needed by the program, or you can enter the data directly into the estimate data screens.

When entering or editing an estimate, you can move from screen to screen using either of the following methods:

- **Sequential Navigation Buttons**: These buttons take you to the previous screen or to the next screen, and are located in the lower right area of the screen.

- **Random Navigation Menu**: This menu, on the left side of the screen, allows you to move directly to any of the screens listed, and to save and close the estimate.

These are located as follows:
There are three types of links in the Random Navigation Menu:

- **Data Screens:** Displays one of the data screens (General Information, Building Data, etc.).

- **Reports:** Allows you to calculate the costs, display any of the available reports (Data Entry, Summary and Detailed) and download reports to files on your computer.

- **Close Estimate:** Closes the current estimate, returning to the **New Estimates/Search** screen.

The following pages explain how to enter data for an estimate on each of these estimate data screens for either of the following estimate types:

- **New Estimates**, which you create with the **New Estimate** option on the **Estimates** screen (see page 2-16 for details).

- **Existing Estimates**, which you access with the **Search** option on the **New Estimates/Search** screen (see page 2-17 for details).

### General Information

Use the **General Information** screen to enter information about the owner, location and other identifying items about the building:
Except for 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). ZIP/Postal Code is required.

**Building Sections**
Commercial Estimator allows you to have more than one section in an estimate. You can use this to divide a building into several different parts, or to include more than one building in an estimate. See the Worksheet Reference for further details on sections.
Use the Section area at the top of the Building Data screen to add or delete a section, or to change to a different section:

![Select Section](image)

Use the Section area at the top of the Occupancy, Components, Additions and Remarks screens to change to a different section:

![Select Section](image)

**Adding a Section**
For each new estimate, Commercial Estimator automatically defines one section. To add a section to an estimate:

1. Move to the Building Screen:

   ![Building Screen](image)

2. Click the **New** button in the Select Section line at the top of the screen:

   ![Select Section](image)

3. Commercial Estimator automatically adds a new section and displays the new section number in the drop-down list at the top of the screen:
Deleting a Section

To delete a section:

1. Move to the Building Data screen:
2. Click the display button ( ) in the section drop-down list, then click on the section you want to delete:

   ![Section Selection Screen](image)

   Commercial Estimator displays the section selected:

3. Click the Delete button:

   ![Delete Button](image)

4. When the message “Are you sure you want to delete this section?” displays, click Yes to delete the section and display the next section in the estimate (or the previous section if you deleted the last section in the estimate).

Note: An estimate must have at least one section, so you cannot delete the last section.

Moving from Section to Section

There are two ways to move from one section to another:

1. **Using the Section Drop-down List:** Using the mouse, click the display button ( ) in the section drop-down list, then click on the section you want to move to:

   ![Section Drop-down List](image)

   Commercial Estimator displays the estimate selected in the drop-down list (and displays the data for that section in the section sub-tab currently selected):

   ![Selected Section](image)
Using the keyboard, press the Tab key until the section drop-down is highlighted, then press the Down Arrow or Up Arrow key until the desired selection displays.

2. **Using the “VCR” Buttons:** Click one of the following buttons at the right side of the top of the screen:

- to move to the previous section

- to move to the next section

Using the mouse, simply click the button.

Using the keyboard, press the Tab key until the desired button is highlighted, then press the Enter key to move from one section to another.

**Building Data**

Use the **Building Data** screen to enter information about the total floor area, number or stories, shape or perimeter, effective age and depreciation for the building (or section):
The fields on the **Building Data** screen are:

- **Section Title:** The section title prints at the top of each section in the report to identify the section. Commercial 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 made to the building in 1995, you could change the section titles as follows:

  - Section 1   Original Building
  - Section 2   1995 Addition

- **Area:** Finished Floor Area on all floors in the section based on the building's exterior dimensions. When calculating the floor area, do not include any of the following: Basements, mezzanines, balconies, unfinished attics, porches, decks, patios or garages. The floor area is required—you must enter it in each section you define.

- **Number of Stories:** Commercial Estimator has two fields for number of stories: the number of stories in the section of the building, and the total number of stories in the building. In many cases, these values will be the same. In such cases, you only need to enter the number of stories in the section—Commercial Estimator automatically sets the number of stories in the building to this value. For new estimates, Commercial Estimator automatically sets the number of stories to 1.

  See the Worksheet Reference for examples of entering the number of stories when you horizontally or vertically section a building.

- **Shape or Perimeter:** Use these fields to enter one (but not both) of the following:

  - **Shape,** using one of the following shapes:

    ![Shape Options](image)

    - 1=Square
    - 2=Rectangular or Slightly Irregular
    - 3=Irregular
    - 4=Very Irregular
• **Perimeter**, the total linear feet of wall that encloses the floor area, based on exterior dimensions. To enter the perimeter (recommended), first select “manual perimeter” for shape, then enter the perimeter itself:

![Shape](manual_perimeter)

Perimeter 290

Whenever possible, it is best to enter the perimeter. For new estimates, Commercial Estimator automatically sets the shape to Rectangular.

• **Effective Age**: 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.

The entry of **Effective Age** is optional. When you enter it, Commercial Estimator automatically calculates the amount of normal physical and functional depreciation. This calculation uses the depreciation schedule in the *Marshall Valuation Service*, based on the occupancy, class and quality in addition to effective age. You can override the automatic calculation by making an entry for combined physical & functional depreciation, or for physical and/or functional depreciation separately.

• **Physical & Functional Depreciation**: Commercial Estimator automatically computes the normal physical and functional depreciation based on the occupancy, class, quality and effective age. This calculation does not include either abnormal or excessive functional depreciation, or any external obsolescence. You must add these separately.

You can override this automatic calculation by making an entry for either combined physical & functional depreciation, or for physical and/or functional depreciation separately.

• **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.” This overrides the automatic calculation based on occupancy, class, quality and effective age.

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

<table>
<thead>
<tr>
<th></th>
<th>Units</th>
<th>Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement Cost New</td>
<td>20,000</td>
<td>68.53</td>
<td>1,370,600</td>
</tr>
<tr>
<td>Less Depreciation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical &amp; Functional</td>
<td>12.5%</td>
<td></td>
<td>171,325</td>
</tr>
<tr>
<td>Depreciated Cost</td>
<td>20,000</td>
<td>59.96</td>
<td>1,199,275</td>
</tr>
</tbody>
</table>
• **Separate Physical & Functional Depreciation:** These fields set separate values for physical and functional depreciation, which are printed as separate lines in the report. Entering either of these overrides the automatic depreciation calculation based on occupancy, class, rank and effective age.

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

<table>
<thead>
<tr>
<th>Units</th>
<th>Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000</td>
<td>68.53</td>
<td>1,370,600</td>
</tr>
<tr>
<td>Less Depreciation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>12.0%</td>
<td>164,472</td>
</tr>
<tr>
<td>Functional</td>
<td>7.5%</td>
<td>102,795</td>
</tr>
<tr>
<td>Depreciated Cost</td>
<td>20,000</td>
<td>55.17</td>
</tr>
</tbody>
</table>

• **External Depreciation:** Enter the percentage of external depreciation to be subtracted from the replacement cost new when computing depreciated costs. Making an entry in this field has no effect on the automatic depreciation calculation.

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

<table>
<thead>
<tr>
<th>Units</th>
<th>Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000</td>
<td>68.53</td>
<td>1,370,600</td>
</tr>
<tr>
<td>Less Depreciation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External</td>
<td>12.5%</td>
<td>171,325</td>
</tr>
<tr>
<td>Depreciated Cost</td>
<td>20,000</td>
<td>59.96</td>
</tr>
</tbody>
</table>
Occupancies

Use the Occupancies screen to enter one or more occupancies (building uses) for the building (or section), together with the height, construction class and quality for each occupancy:

When you enter more than one occupancy, the total percentage of all occupancies in the section must be 100%.

The Occupancies screen has three parts:

- **Selected Occupancies**: Top portion of the screen that lists all the occupancies you have selected. Use this list to add or delete an occupancy, or to select an occupancy to edit.

- **Occupancy Search**: Middle portion of the screen that allows you to select occupancies to add to the section, and to display help for any occupancy.
• **Occupancy Detail:** Bottom portion of the screen that lists the values you entered for the occupancy that is highlighted in the Selected Occupancies list. Use this to enter or change the following for the occupancy:
  
  Occupancy Code Percentage
  Story Height Construction Class Quality

### Adding an Occupancy Using the Occupancy Code

To add an occupancy directly using the occupancy code, do the following:

1. Click the line “Click Here to Add an Occupancy” in the Selected Occupancies list at the top of the screen:

   ![Selected Occupancies Table]

2. Type the occupancy’s code number in the Code field in the Occupancy Detail in the lower part of the screen, then press the Tab key. Commercial Estimator displays the occupancy’s name next to the Code you typed, together with default values for the other fields in this section:

   ![Occupancy Detail]

3. Make any necessary changes in the values in the Occupancy Detail section. See page 2-49 for an outline of the Occupancy Detail fields, or the *Worksheet Reference* for complete details on these fields.

   Commercial Estimator automatically displays the information you have entered in the Selected Occupancies section of the screen:

   ![Selected Occupancies Table]
Adding an Occupancy Using Occupancy Search

To add an occupancy using occupancy search, do the following:

1. Click the line “Click Here to Add an Occupancy” in the Selected Occupancies list at the top of the screen:

   ![Selected Occupancies Table]

   - **Selected Occupancies**
     - [Click Here to Add an Occupancy]

   ![Occupancy Search]

     - **Occupancy Search**
     - **Occupancy Group**
       - Apartments, Clubs, Hotels
       - Residential Multiples, Motels
       - Stores, Commercials
     - **Available Occupancies**
       - 301 | Armory
       - 303 | Automobile Showroom
       - 315 | Creamery
       - 325 | Service Garage (Obsolete)
       - 326 | Storage Garage
       - 328 | Storage Hangar

   ![Occupancy Search]

     - **Occupancy Search**
     - **Occupancy Group**
       - Offices, Medical, Public Buildings
     - **Available Occupancies**
       - 544 | Motel, Office-Apartment
       - 557 | Mixed Retail w/ Office Units
       - 329 | Hangar, Maint & Office
       - 346 | Post Office (Obsolete)
       - 581 | Post Office, Main
       - 582 | Post Office, Branch

2. Do one of the following:
   - **Search Using Occupancy Groups**: Click on one of the Occupancy Groups on the left side of the Occupancy Search section. These groups correspond to the “Calculator” sections in the Marshall Valuation Service (Sections 11-18).

   ![Occupancy Search]

     - **Occupancy Search**
     - **Occupancy Group**
       - Garages, Industrials, Lofts, Warehouses
       - Office
     - **Available Occupancies**
       - Click here for occupancy help.

   ![Occupancy Search]

     - **Occupancy Search**
     - **Occupancy Group**
       - Churches, Theaters, Auditoriums
     - **Available Occupancies**
       - Click here for occupancy help.

   ![Occupancy Search]

     - **Occupancy Search**
     - **Occupancy Group**
       - Churches, Theaters, Auditoriums
     - **Available Occupancies**
       - Double-click an item in the Occupancy list

3. Double click the desired occupancy in the Available Occupancies list on the right. Commercial Estimator displays the occupancy’s code and name in the Occupancy Detail section, together with default values for the other fields in this section:
4. Enter or select the remaining information in the Occupancy Detail section at the bottom of the screen. See page 2-49 for an outline of the Occupancy Detail fields, or the Worksheet Reference for complete details on these fields.

Commercial Estimator automatically displays the information you have entered in the Selected Occupancies section of the screen:

### Deleting an Occupancy

To delete an occupancy, click the delete icon for the occupancy in the Selected Occupancies list at the top of the screen:
**Occupancy Detail**

Use the Occupancy Detail at the bottom of the screen to enter or change the following information for the occupancy:

For each occupancy, you must make an entry or selection in each of the following fields in the Occupancy Detail area at the bottom of the Occupancy screen (see the Worksheet Reference for complete descriptions of each of these items):

- **%**: The occupancy’s percentage of the total floor area of the section. Commercial Estimator automatically displays 100% for the first occupancy you enter in a section. For additional occupancies, it displays the difference between the total of all occupancies previously entered and 100%. For example, if you change the percentage for the first occupancy you enter to 40%, Commercial Estimator automatically sets the percentage for the second occupancy you enter to 60%.

- **Height**: The average story height for each occupancy. Commercial Estimator automatically displays the typical story height for the occupancy. You should change this to the average story height for the building if necessary. See the Worksheet Reference or the help system for complete details on computing story height.

- **Class**: The class of construction. Commercial Estimator automatically displays the first construction class available for the occupancy. You should change this to the class of the building if necessary. The Marshall & Swift construction classes available in Commercial Estimator are:
  - A - Fireproof Structural Steel Frame
  - B - Reinforced Concrete Frame
  - C - Masonry Bearing Walls
  - D - Wood or Steel Stud Framed Exterior Walls
  - H - Hoop Structure
  - M - Mill Type Construction
  - P - Wood Frame and Metal Walls (Pole Frame)
  - S - Metal Frame and Walls
  - W - Metal Slant Frame and Walls

  See the Worksheet Reference or the help system for a description of each class. Not all classes are available for a given occupancy. See the Occupancy Reference or the help system for a list of classes available for each occupancy.

- **Quality**: The quality of construction, which determines the level of the calculated costs.
Components

Use the Components screen to specify the building’s construction components (exterior walls, heating and cooling, elevators, sprinklers, etc.):

Commercial Estimator has components in the following construction systems:

- Exterior Walls
- Heating, Cooling and Ventilation (HVAC) Elevators
- Sprinklers Mezzanines Malls
- Miscellaneous Items (Fire Alarm Systems and Balconies) Custom Components
- Land and Site (Land Value, Site Value and Site Improvements)

Commercial Estimator automatically includes exterior walls and HVAC (where appropriate) in the calculated costs. If you enter an exterior wall or HVAC component in a section, it overrides the system “default.” For all other construction systems, you must enter one or more components to have Commercial Estimator include a cost in the report.
The **Components** screen has three parts:

- **Selected Components:** Top portion of the screen that lists all the components you have selected. Use this list to add or delete a component, or to select a component to edit.

- **Component Search:** Middle portion of the screen that allows you to select components to add to the section, and to display help for any component.

- **Component Detail:** Bottom portion of the screen that lists the values you entered for the component that is highlighted in the Selected Components list. Use this to enter or change the following for the component:
  
  - Component Code
  - Percentage of Floor Area or Number of Units Size (for selected components)
  - Quality
  - Depreciation Percentage

**Adding a Component Using the Component Code**

To add a component directly using the component code, do the following:

1. Click the line “Click Here to Add a Component” in the Selected Components list at the top of the screen:

2. Type the component’s code number in the Code field in the Component Detail in the lower part of the screen, then press the Tab key. Commercial Estimator displays the component’s name next to the Code you typed, together with default values for the other fields in this section:

   - **Component Detail**
     
     - **Code:** 612
     - **% of Total Floor Area:** 100
     - **Climate:** 
     - **Quality:** Use Occupancy Quality
     - **Depreciation:** 0 to 100 or blank

3. Make any necessary changes in the values in the Component Detail section. See page 2-49 for an outline of the Component Detail fields, or the *Worksheet Reference* for complete details on these fields.
Commercial Estimator automatically displays the information you have entered in the Selected Components section of the screen:

**Selected Components**

<table>
<thead>
<tr>
<th>Code</th>
<th>Component</th>
<th>Amount</th>
<th>Other</th>
<th>Size</th>
<th>Depr</th>
<th>Quality</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>892</td>
<td>Exterior Walls : Stud - Stucco</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Adding a Component Using Component Search**

To add a component using component search, do the following:

1. Click the line “Click Here to Add a Component” in the Selected Components list at the top of the screen:

**Selected Occupancies**

<table>
<thead>
<tr>
<th>Code</th>
<th>Occupancy</th>
<th>Percent</th>
<th>Height</th>
<th>Class</th>
<th>Quality</th>
<th>Delete</th>
</tr>
</thead>
</table>

2. Do one of the following:

- **Search Using Component Groups:** Click on one of the Component Groups on the left side of the Component Search section. These groups correspond to the “Calculator” sections in the Marshall Valuation Service (Sections 11-18). Commercial Estimator displays the components in that group:

**Component Search**

- **Search using Text Search:** Type part or all of the component's name in the field below the Component Group list, then click the **Find** button to display components matching the text you entered:
3. Double click the desired component in the Available Components list on the right. Commercial Estimator displays the component’s code and name in the Component Detail section, together with default values for the other fields in this section:

4. Enter or select the remaining information in the Component Detail section at the bottom of the screen. See page 2-49 for an outline of the Component Detail fields, or the Worksheet Reference for complete details on these fields.
   - Commercial Estimator automatically displays the information you have entered in the Selected Components section of the screen:
Deleting a component

To delete a component, click the trash can icon for the component in the Delete column of the Selected Components list at the top of the screen:

Component Detail

The Component Detail section allows you to enter or change component data. This section automatically displays the appropriate fields when you add or edit a component. The component code, name and construction system display in the upper portion of the Component Detail section. This is followed by the information you must enter about the component. This required information varies depending on the component as follows:

- **Exterior Walls**: Percentage of exterior wall area.
- **Heating, Cooling and Ventilation (HVAC)**: Either the percentage of floor area served, or the area served in square feet. Optionally, you can also select the climate if you want to override the default set by Commercial Estimator based on the ZIP Code.
- **Square Foot Elevators and Sprinklers**: Either the percentage of floor area served, or the area served in square feet.
• **Elevators by Count**: Number of Elevators. Optionally, enter a number of stops (per elevator) only if it differs from the number of stories in the section.

• **Mezzanines, Malls, Mall Elevators**: Size in square feet.

• **Land Value (Site Value) and Site Improvements**: Dollar amount. The lower portion of the section contains the following optional items:

• **Quality (Optional)**: Use this field to enter a quality for a component if it differs from the quality you entered for the occupancy or occupancies on the **Occupancy** screen for the section.

• **Depreciation (Optional)**: To depreciate the component differently than the depreciation set on the **Building Data** screen for the section, enter a depreciation percentage in this field.

### Additions Screen

Use the **Additions** screen to enter the costs for additional items that are not available in Commercial Estimator.

![Additions Screen](image)

Commercial Estimator allows you to enter an unlimited number of additions in each section.
The **Additions** screen has two parts:

- **Entered Additions**: Top portion of the screen that lists all the additions you have selected. Use this list to add or delete an addition, or to select an addition to edit.

- **Addition Detail**: Bottom portion of the screen that lists the values you entered for the addition highlighted in theEntered Additions. Use this to enter or change the following for the addition:
  
  Addition Type  
  Description  
  Number of Units  
  Unit Cost  
  Depreciation Percent  
  Whether to Apply the Local Multiplier  
  Base Date (Date of the Addition Cost)

### Adding an Addition

To add an addition, do the following:

1. Click the line “Click here for a new Addition” in the Entered Additions list in the upper portion of the screen:

   **Entered Additions**

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Units</th>
<th>Cost</th>
<th>Depr%</th>
<th>LM</th>
<th>Base Date</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click here for a new Addition</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Enter or select each of the required fields in the Addition Detail section in lower portion of the screen:

   **Addition Detail**

   Type*: Super  
   Description*: Interior Fountains  
   Units*: 2  
   Unit Cost*: 5000  
   Depreciation Percent:  
   Whether to Apply the Local Multiplier:  
   Base Date: mm-yyyy
See page 2-60 for an outline of the Addition Detail fields, or the Worksheet Reference for complete details on these fields.

Commercial Estimator automatically displays the information you have entered in the Entered Additions section of the screen:

| Type   | Description       | Units | Cost | Depr% | LM | | Date | Delete |
|--------|-------------------|-------|------|-------|----| |      |        |
| Super  | Interior Fountains| 2     | 5000 | N     | N  | |      |        |

**Deleting an Addition**

To delete an addition, click the trash can icon for the component in the Delete column of the Entered Additions list at the top of the screen:

**Addition Detail**

The Addition Detail section allows you to enter or change addition data when you add or edit an addition. The required fields are:

- **Type**: The type indicates where to print the addition in the report, using one of the following codes:
  - Basic Basic Structure Cost

- **Description**: Interior Fountains

- **Units**: 2

- **Unit Cost**: 5000

- **Depreciation Percent**: 

- **Local Multiplier**: 

- **Base Date**: mm-yyyy
### Description

The description of the addition that prints in the report. You can use up to 30 characters including spaces.

### Units

Enter a number of units if you want the addition to include the number of units, unit cost and total cost (which Commercial Estimator calculates by multiplying the number of units times the unit cost).

### Unit Cost

Enter the cost per unit if you entered the number of units. Commercial Estimator will multiply this cost times the number of units and print the result as the total cost.

In addition, the following are optional fields:

- **Depreciation**: Use this field to depreciate the items separately. For Basic, Super, Bsmnt and Extra additions, if you do not enter a depreciation percentage, Commercial Estimator automatically depreciates it using the depreciation for the section set on the **Building Data** screen.

  Note that addition codes “Depr” and “Misc” cannot be depreciated.

- **LM (Local Multiplier)**: Use this field to indicate whether or not you want the local multiplier applied to this item. The applicable codes are:
  - **Y** = Yes, apply the local multiplier to this item.
  - **N** = No, do not apply the local multiplier to this item.

- **Base Date**: Enter the date that the cost was collected if you want to trend the cost from this date to the report date. Enter the date in the format mm/yyyy. The earliest date available is January 1977.

**Example**: The following Entered Additions show two additions, one for “Interior Fountains” costing $12,560 and the other for 240 square feet of “Raised Computer Floor” costing $13.25 per square foot in May 1997.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Units</th>
<th>Cost</th>
<th>Depr%</th>
<th>LM</th>
<th>Base Date</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra</td>
<td>Interior Fountains</td>
<td>1</td>
<td>12550</td>
<td></td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>Raised Computer Floor</td>
<td>240</td>
<td>13.25</td>
<td></td>
<td>Y</td>
<td>05-1997</td>
<td></td>
</tr>
</tbody>
</table>
These additions print in the “Basic Structure Cost” section of the report as follows:

<table>
<thead>
<tr>
<th>Basic Structure</th>
<th>Units/%</th>
<th>Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Fountains</td>
<td>1</td>
<td>12,560.00</td>
<td>12,560</td>
</tr>
<tr>
<td>Raised Computer Floor</td>
<td>240</td>
<td>18.35</td>
<td>4,404</td>
</tr>
</tbody>
</table>

Note that the $13.25 entered in the grid for the computer floor has been localized (since the LM column is “Yes”) and indexed to the date of the report (since the Base Date column is “05/1997”), resulting in a cost of $18.35 per square foot.

**Remarks/Notes Screen**

Use the Remarks/Notes screen to enter any text that prints in all reports (remarks) or in the Data Entry Report only (notes):

The Remarks/Notes screen has two parts:

- **Entered Remarks/Notes:** Top portion of the screen that lists all the remarks and notes you have entered. Use this list to add or delete a remark or note, or to select a remark or note to edit.

- **Remark/Note Detail:** Bottom portion of the screen that lists the text you entered for the remark/note highlighted in the Entered Remarks/Notes section. Use this to enter or change the remark or note.
Adding a Remark or Note

To add a remark or note, do the following:

1. Click the line “Click here to add a remark/note” in the Entered Remarks/Notes list in the upper portion of the screen:

   Entered Remarks / Notes

<table>
<thead>
<tr>
<th>Entered</th>
<th>Ref Date</th>
<th>Remark</th>
<th>Notes</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click Here To Add a Remark/Note</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Enter a Reference Date for the remark or note, then enter any text desired for the remark or note. You can enter both a remark and a note in the same entry:

   Remark/Note Detail

   Reference Date* 08-12-2002 mm-dd-yyyy
   
   Remark
   Two blocks from fire station.
   
   Notes
   Fountains were being repaired.

Commercial Estimator automatically displays the information you have entered in the Entered Remarks/Notes section of the screen:

Entered Remarks / Notes

<table>
<thead>
<tr>
<th>Entered</th>
<th>Ref Date</th>
<th>Remark</th>
<th>Notes</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>08-11-2002</td>
<td>08-12-2002</td>
<td>Two blocks from fire station.</td>
<td>Fountains were being repaired.</td>
<td></td>
</tr>
</tbody>
</table>

Deleting a Remark or Note

To delete a remark or note, click the trash can icon for the component in the Delete column of the Entered Remarks/Notes list at the top of the screen:

Entered Remarks / Notes

<table>
<thead>
<tr>
<th>Entered</th>
<th>Ref Date</th>
<th>Remark</th>
<th>Notes</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>08-11-2002</td>
<td>08-12-2002</td>
<td>Two blocks from fire station.</td>
<td>Fountains were being repaired.</td>
<td></td>
</tr>
</tbody>
</table>
**Basement Section**

The items on the **Building Data** and **Occupancy** screens for the basement are similar to those for a regular section, with a few exceptions.

To add a basement, click the **Basement** button at the top of the **Building Data** screen:

![Building Data Screen](image)

Commercial Estimator creates the basement, and displays the **Building Data** screen for the basement.

**Basement Building Data Screen**

The items on this screen that are different from the screen for a regular section are:

- **Number of Levels**: Instead of number of stories, you must enter the number of levels for a basement. Commercial Estimator automatically displays 1 basement level. Change this value if your basement has more than 1 level.

- **Section**: For multi-section buildings, the basement costs are printed in the report in one of the building sections. Use this item to select the section in which you want to print the basement costs. Commercial Estimator automatically assumes section 1.

- **Fireproofing**: Use these option buttons to indicate if a class C, D, S, M or P building's basement has been made fire resistive. If you do not select Yes or No, Commercial Estimator assumes that the basement under these classes is not fireproofed.
The extra costs associated with a type 1 fire resistive basement include a concrete slab separation and installation of fire doors.

Note: For class A & B buildings, the Commercial Estimator assumes that the basement is type 1 fire resistive and ignores the selection you made for this item.

**Basement Occupancy Screen**

Use the methods discussed beginning on page 2-46 to add occupancies into the basement occupancy grid (or delete them from the grid).

The items on this screen that are different from the screen for a regular section are:

- **Basement Type:** In addition to the occupancy of the basement, you must specify the basement type from the following available types:
  - Finished
  - Semifinished
  - Unfinished
  - Display
Office Parking

Resident Living Units

- **Area**: Enter the size of each basement occupancy/type combination (in square feet).

- **Depth**: Instead of story height, you must enter basement depth for basements. Commercial Estimator automatically displays a typical depth for the occupancy and type of basement. You should override this default if the depth of your basement is different.

  Depth is measurement made from top of one level to top of next level. For multilevel basements with varying depths, calculate average depth per level by dividing total basement depth by the number of levels.

- **Depreciation Percentage**: Only enter a depreciation percentage for a basement if you want to depreciate it at a different rate than the overall section depreciation.

### Reports Screen

Use the **Reports** screen to calculate the costs, print reports and download reports to a file on your computer:

<table>
<thead>
<tr>
<th>General Information</th>
<th>Estimate Number:</th>
<th>Estimate ID:</th>
<th>00000004</th>
<th>ABC-123</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sections</td>
<td>Saved Until:</td>
<td>Date Created:</td>
<td>05-05-2002</td>
<td>07-05-2002</td>
</tr>
<tr>
<td>Building Data</td>
<td>Property Owner:</td>
<td>Date Updated:</td>
<td>David Grant</td>
<td>08-11-2002</td>
</tr>
<tr>
<td>Occupancies</td>
<td>Property Address:</td>
<td>Date Calculated:</td>
<td>123 Hill Street</td>
<td>not calculated</td>
</tr>
<tr>
<td>Components</td>
<td>Los Angeles, CA</td>
<td>Cost Data As Of:</td>
<td>90017</td>
<td>not calculated</td>
</tr>
<tr>
<td>Additions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remarks / Notes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Calculating Costs

To calculate the costs for an estimate, select the **Calculate** button. If necessary, Commercial Estimator displays a screen indicating how much you will be charged for the calculation. Click **OK** to complete the calculation.
Printing Reports

Commercial Estimator has three report types:

- **Data Entry Report**: Displays all the data you have entered for the estimate.
- **Summary Report**: Displays a summary of the costs for the estimate. This includes the costs for each of the construction systems (exterior walls, heating and cooling, etc.), but not the individual component costs. If the estimate has more than one section, the report contains the total cost for all the sections but does not include the costs for the individual sections.
- **Detailed Report**: Displays a detailed cost report. This includes showing the costs for each component in the estimate. If the estimate has more than one section, a separate report page prints for each section.

To print a report:

1. Click the **Report** button.
2. When the following displays, select a printer then click the **Print** button:
**Downloading Reports**

The **Download** button on the **Reports** screen allows you to download a report to a file on your computer’s hard disk. This file is in Microsoft Word format. You can print the resulting file from Word or insert it into another Word file.

To download a report to your computer:

1. Click the Download button:

2. When the following displays, right-click the sentence “Right click here and choose ‘Save Target As...’”:

3. Select Save Target As in the following menu:

4. When the following displays, select the folder in which you wish to save the file (default is My Documents), and enter a file name (or accept the name automatically set by Commercial Estimator):
5. When the following displays, click the **Close** button:

6. Use the **Close** button on the following to close this window:
How Commercial Estimator Calculates Costs

Commercial Estimator calculates costs at the component level for each section of an estimate. These costs print in two types of reports:

- **Detailed Report**: Contains a separate listing for each section of a report with the calculated costs for each component in that section.

- **Summary Report**: Contains the total cost for all components within each construction system (walls, heating/cooling, etc.) in all sections of a report.

The following discusses the three cases where the Number of Units times the Unit Costs may not equal the Total Cost in the report: Multiple Components in a Construction System, Multiple Sections in an Estimate and the Report Subtotals.

**Multiple Components in a Construction System**

When you have more than one component in a construction system, the Summary Report contains the Total Cost for all these components. It also contains a Unit Cost, which is this Total Cost divided by the Total Number of Units, rounded to the nearest cent. Because of this rounding, the Number of Units times the Unit Cost may not equal the Total Cost, but the Total Cost is an exact total of the individual component Total Costs.

**Example**: The following are the costs in the Detailed Report for two walls in a building:

<table>
<thead>
<tr>
<th></th>
<th>Number of Units</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior Walls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block with Stucco</td>
<td>12914</td>
<td>14.47</td>
<td>186,866</td>
</tr>
<tr>
<td>Brick with Block Back-up</td>
<td>8610</td>
<td>15.81</td>
<td>136,124</td>
</tr>
</tbody>
</table>

For each component, the Number of Units times the Unit Cost equals the Total Cost (12,914 times $14.47 equals $186,866, and 8,610 times $15.81 equals $136,124).
The sum of these two components prints in the Summary Report as follows:

<table>
<thead>
<tr>
<th></th>
<th>Number of Units</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior Walls</td>
<td>21,524</td>
<td>15.01</td>
<td>322,990</td>
</tr>
</tbody>
</table>

The items here are calculated as follows:

- **Number of Units**: Sum of the Number of Units for these two wall components in the Detailed Report (12,914 plus 8,610 equals 21,524)

- **Total Cost**: Sum of the Total Costs for these two wall components ($186,866 plus $136,124 equals $322,990).

- **Unit Cost**: Total Cost divided by the Total Number of Units, rounded to the nearest cent ($322,990 divided by 21,524 equals $15.00604, which rounds to $15.01). Since the Unit Cost was rounded to the nearest cent, the Number of Units (21,524) times the Unit Cost ($15.01) equals $323,075, which is not the Total Cost printed in the Summary Report.

This illustrates that it is often not possible to have the Total Cost in the Summary Report be both the sum of the Total Costs for each component in the Detailed Report and the product of Number of Units times the Unit Cost. In cases like this, we have chosen to have the Total Cost in the Summary Report be the sum of the component costs from the Detailed Report.

**Multiple Sections in a Report**

Similarly, when you have more than one section in an estimate, the Summary Report contains the Total Cost for all sections for each construction system. It also contains a Unit Cost, which is this Total Cost divided by the Total Number of Units, rounded to the nearest cent. Because of this rounding, the Number of Units times the Unit Cost may not equal the Total Cost, but the Total Cost is an exact total of the individual component Total Costs. This can occur when you have multiple sections in a report, even if you only have one component in a construction system in each section.
Example: The following are the Exterior Wall components in a Detailed Report with two sections:

Section 1: Exterior Walls

<table>
<thead>
<tr>
<th>Units</th>
<th>Number of Units</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block with Stucco</td>
<td>16363</td>
<td>15.14</td>
<td>247,736</td>
</tr>
</tbody>
</table>

Section 2: Exterior Walls

<table>
<thead>
<tr>
<th>Units</th>
<th>Number of Units</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block with Stucco</td>
<td>13808</td>
<td>14.90</td>
<td>205,739</td>
</tr>
</tbody>
</table>

The total of the two sections prints in the Summary Report as follows:

<table>
<thead>
<tr>
<th>Units</th>
<th>Number of Units</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior Walls</td>
<td>30,171</td>
<td>15.03</td>
<td>453,475</td>
</tr>
</tbody>
</table>

The items on this line are calculated as follows:

- **Number of Units**: Sum of the Number of Units for all wall components in all sections of the Detailed Report (16,363 plus 13,808 equals 30,171).

- **Total Cost**: Sum of the Total Costs for all wall components in all sections of the Detailed Report ($247,736 plus $205,839 equals $453,475).

- **Unit Cost**: Total Cost divided by the Total Number of Units, rounded to the nearest cent ($453,475 divided by 30,171 equals $15.03016, which rounds to $15.03). Since the Unit Cost was rounded to the nearest cent, the Number of Units (30,171) times the Unit Cost ($15.03) equals $453,470, which is not the Total Cost printed in the Summary Report.

**Report Subtotals**

Both the Summary Report and the Detailed Report have subtotals at various points in the report (Basic Structure Cost, Total Superstructure Cost, Replacement Cost New, Depreciated Cost, etc.). In these subtotals, the Total Cost is the exact total of the costs for all construction systems up to that point. The Unit Cost in the subtotal line is this Total Cost divided by the Total Floor Area of the Building (or the Section in a Detailed Report), rounded to the nearest cent. Because of this rounding, the Number of Units times the Unit Cost may not equal the Total Cost.
**Example:** The following are the Construction System lines and the Basic Structure Cost in a Summary Report:

<table>
<thead>
<tr>
<th></th>
<th>Number of Units</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Structure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Cost</td>
<td>10,000</td>
<td>64.83</td>
<td>648,300</td>
</tr>
<tr>
<td>Exterior Walls</td>
<td>10,000</td>
<td>16.94</td>
<td>169,400</td>
</tr>
<tr>
<td>Heating &amp; Cooling</td>
<td>10,000</td>
<td>6.77</td>
<td>67,700</td>
</tr>
<tr>
<td>Elevators</td>
<td>1</td>
<td>41,040.00</td>
<td>41,040</td>
</tr>
<tr>
<td>Sprinklers</td>
<td>10,000</td>
<td>2.61</td>
<td>26,100</td>
</tr>
<tr>
<td>Basic Structure Cost</td>
<td>10,000</td>
<td>95.25</td>
<td>952,540</td>
</tr>
</tbody>
</table>

The items on the Basic Structure Cost line are calculated as follows:

- **Number of Units:** Total Floor Area of the estimate (or of the Section in a Detailed Report).

- **Total Cost:** Sum of the Total Costs for each of the construction systems (Base Cost, Exterior Walls, Heating & Cooling, Elevators and Sprinklers ($648,300 plus $169,400 plus $67,700 plus $41,040 plus $26,100 equals $952,540)).

- **Unit Cost:** Total Cost divided by the Number of Units, rounded to the nearest cent ($952,540 divided by 10,000 equals $95.254, which rounds to $95.25). Since the Unit Cost was rounded to the nearest cent, the Number of Units (10,000) times the Unit Cost ($95.25) equals $952,500, which is not the Total Cost printed in the report.