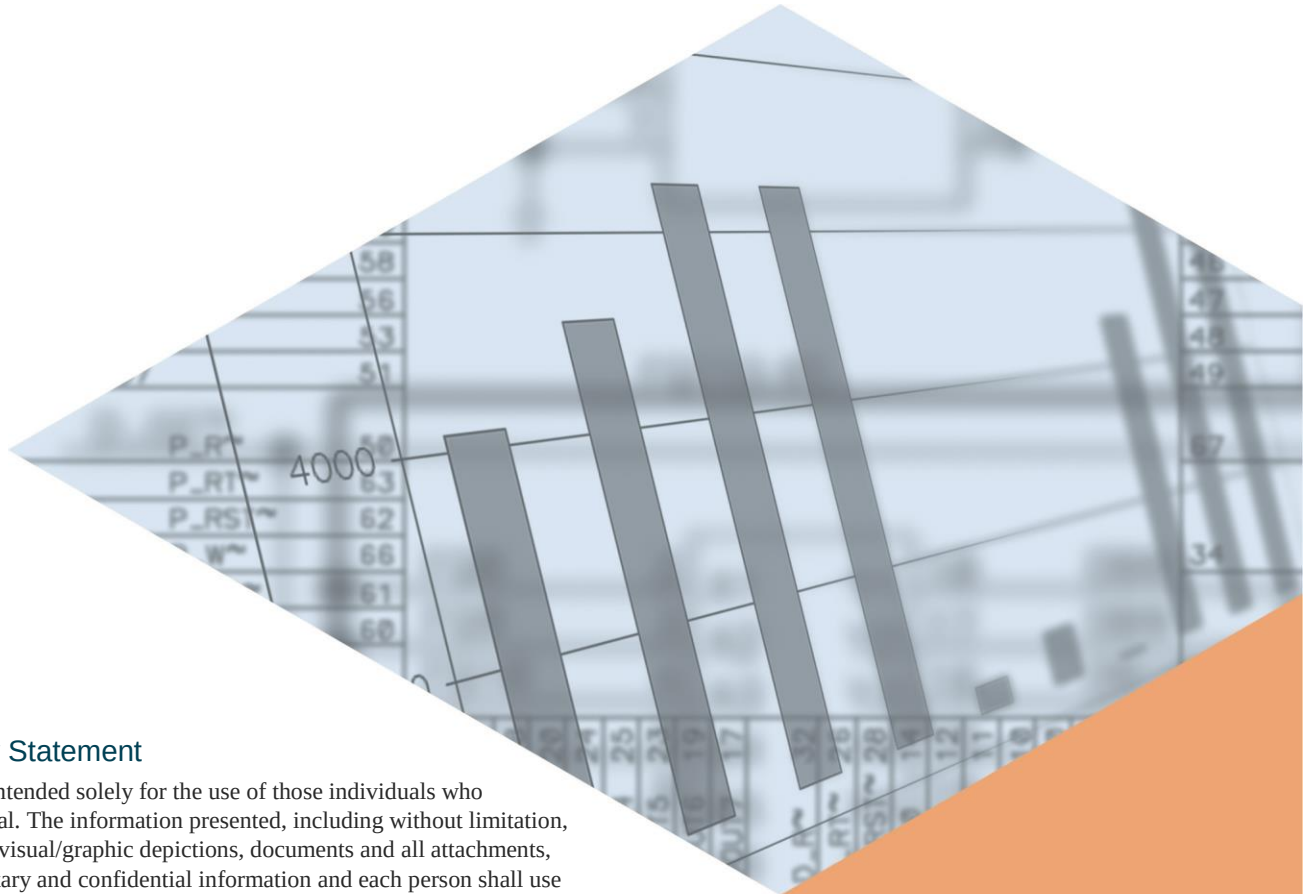
Marshall & Swift®
Commercial Building Cost Data
BEST PRACTICES

April 2018

PRESENTED BY:

Edward Martinez
Principal, Industry Solutions & Content Strategy
CoreLogic
(213) 253-4844
EdwMartinez@CoreLogic.com



Confidentiality Statement

This document is intended solely for the use of those individuals who receive this proposal. The information presented, including without limitation, oral presentations, visual/graphic depictions, documents and all attachments, constitutes proprietary and confidential information and each person shall use commercially reasonable efforts to keep the information confidential and prevent unauthorized disclosure. Each recipient of the confidential information may not print or copy any of the information without written consent from CoreLogic. The confidential information shall remain the exclusive property of CoreLogic and must be returned or destroyed at the request of CoreLogic.

Introduction

Welcome to the “Best Practices” guidelines. The purpose of this document is to simplify the methodologies used to value properties when using the Marshall & Swift Valuation Service manual, desktop Commercial Estimator 7 software, or the SwiftEstimator 7 Commercial website.

Examples are used to help identify characteristics that are consistent with how the structure is costed using these cost solutions. Having a thorough understanding of these guidelines will help obtain accurate and defendable construction costs found in the Marshall & Swift Valuation Service cost manual, Commercial Estimator 7 program, and the SwiftEstimator 7 Commercial website.

It should be noted that the Marshall & Swift Valuation Service is a flagship product, and as such drives the underlying data and methodologies of the electronic derivatives. This guideline will frequently refer to the Marshall & Swift Valuation Service manual, however, statement on methodology, use, and guiding principles will also apply to the electronic products. Explanations found in the print Manual will alternatively be found in the Help sections of the electronic products.

Table of Contents

CoreLogic®

What is the Marshall & Swift Valuation Service Cost Manual?

The Marshall & Swift Valuation Service is a complete, authoritative appraisal guide for developing replacement costs, depreciated values, and insurable values of buildings and other improvements. In addition, it contains indexes of building and equipment costs as well as a great deal of useful information for anyone interested in cost and value. It provides costs for a wide range of construction classes and types of occupancies, from warehouses to medical buildings. This service is an aid in determining values of nearly every kind of improved property where replacement or reproduction cost is desired.

The Data

The data gathered is delivered in various systematic formats. The costs for construction materials, labor, and other costs related to construction of a building or residence, are continually researched; and the Marshall & Swift products are updated monthly, quarterly or annually. Methods of data collection used include: current Marshall & Swift subscribers, phone surveys, field surveys, mail programs, building construction trade associations, numerous trade publications, government statistics and reports, contractors, architects, lending institutions, labor halls and materials suppliers

Qualities of Construction

Costs in the Calculator and Segregated Cost Sections are subdivided by quality for pricing purposes. It would be impossible, short of a detailed specification, such as how many nails, electrical outlets or 2" X 4" studs are used, etc., to describe exactly what is meant by each quality, so proper selection is dependent upon the experience and judgment of the user.

For the purpose of the Manual, the Average building is representative of the majority of buildings of its occupancy and the cost is the statistically averaged cost of all buildings of its class and occupancy nationally. The basic costs listed, are national averages and in the case of any particular locality, may not represent the local average quality.

The published base costs, represent completely finished buildings in the physical or hard construction sense, but not necessarily completely finished projects, which could include consideration for a variety of developmental and/or site improvement costs. Failure to recognize this distinction could result in a final value estimate that is incomplete, depending on the type of appraisal assignment. Listed under "What the Costs Do Not Contain" are several financial and operational soft cost factors that may require consideration.

What the Costs Contain

1. In the Calculator Section, the actual costs used are final costs to the owner and will include average architects' and engineers' fees. These, in turn, include plans, plan check and nominal building permits, and surveying to establish building lines and grades.
2. In the Segregated Cost and most Unit-in-Place Cost Sections, except as noted, the architects' fees are omitted. For these sections, a schedule of typical fees is printed in Section 99 of the Marshall & Swift Valuation Service. However, each listed item will have its pro rata share of the other miscellaneous costs included in the construction of the whole building or other improvement. *The Calculator Sections include architect's fees.
3. Normal interest on only the actual building funds during period of construction and processing fee or service charge is included. Typically, this will average half of the going rate over the time period plus the service fee.
4. All material and labor costs include all appropriate local, state and federal sales or GST taxes, etc.
5. Normal site preparation including finish, grading and excavation for foundation and backfill for the structure only.
6. Utilities from structure to lot line figured for typical setback except where noted in some Unit-in-Place Cost sections (e.g., manufactured or mobile homes).
7. Contractors' overhead and profit including job supervision, workmen's compensation, fire and liability insurance, unemployment insurance, equipment, temporary facilities, security, etc., are included.

What the Costs Do Not Contain

1. In the Calculator Section, the actual costs used are final costs to the owner and will include average architects' and engineers' fees. These, in turn, include plans, plan check and nominal building permits, and surveying to establish building lines and grades.
2. In the Segregated Cost and most Unit-in-Place Cost Sections, except as noted, the architects' fees are omitted. For these sections, a schedule of typical fees is printed in Section 99 of the Marshall & Swift Valuation Service. However, each listed item will have its pro rata share of the other miscellaneous costs included in the construction of the whole building or other improvement. *The Calculator Sections include architect's fees.
3. Normal interest on only the actual building funds during period of construction and processing fee or service charge is included. Typically, this will average half of the going rate over the time period plus the service fee.
4. All material and labor costs include all appropriate local, state and federal sales or GST taxes, etc.
5. Normal site preparation including finish, grading and excavation for foundation and backfill for the structure only.
6. Utilities from structure to lot line figured for typical setback except where noted in some Unit-in-Place Cost sections (e.g., manufactured or mobile homes).

7. Contractors' overhead and profit including job supervision, workmen's compensation, fire and liability insurance, unemployment insurance, equipment, temporary facilities, security, etc., are included.

Descriptive Aids

In the Marshall & Swift Valuation Service, you will find descriptions and pictures of buildings provided as a scale of comparison. You, as a user, must provide the discrimination necessary to fit these costs to the specific building which you are valuing. No book or service can be more than a guide to an appraiser. Each cost must be considered, in light of actual conditions encountered in a specific appraisal.

The Replacement Cost of a building is determined in this system by benchmarking – that is, comparing the building under appraisement with buildings whose costs are known. The Marshall & Swift Valuation Service provides an organized collection of these known costs, collated and averaged to make them most useful to you.

Since base costs are based on a certain size and shape relationship, story height, heating, and number of stories, adjustments and refinements must be made for the subject property. It is recommended that a standard procedure, as outlined by the standard forms, be followed to lessen any chance of error.

To understand the manual, Sections 1 and 3 should be read in detail. Section 10 with its examples of the Calculator Cost Method should be studied.

The Marshall & Swift Valuation Service, plus good judgment, will allow you to concentrate on the important cost items and to avoid unimportant detail. The costs contained in the manual have a high validity, but as with any collection of cost data, they are presented as a guide to cost analysis and cannot be used blindly.

Square Foot Method Introduction

The Calculator Method gives average square meter, square foot, and cubic foot costs for typical buildings. These costs are divided into eight sections within the Marshall & Swift Valuation Service (Sections 11 through 18), each dealing with a major occupancy group. Refinements are given on the last page or pages of each section, so that the base cost can be modified to fit buildings different from the standard descriptions. If further refinements are needed, the Segregated Cost Sections or Unit-in-Place Cost Sections may be used to adjust the cost factor.

Costs are classified by class and quality of construction. Buildings typical of a certain quality have many characteristics in common. For example, a Good Quality building will usually have good quality roofing so modifications for roof differences on a quality classified building are seldom necessary. The following

are the most important square meter, square foot and cubic foot cost modifications. Many other modifications are possible but since they are seldom cost-important, and usually require considerable additional time to count and measure, they have been omitted from the Calculator Method which is designed to be a fairly rapid cost system.

The costs in the Calculator Sections are averages of detailed estimates, actual cost breakdowns, and total end costs of many actual construction projects. These costs are assembled into groups by typical occupancy and general quality, and each is adjusted to fit the base description. All other construction components are considered as commensurate with the general quality of the building. A number of construction components affect the total cost of a building and taking them all into consideration would entail a complete, detailed estimate.

Major refinements such as Heating and Cooling, Elevators, Sprinklers, Multistory Buildings, Height, and Size and Shape are provided to show the most significant effect on the total cost of the building. They are all modifications that can be considered and computed readily, and this system provides an accurate estimate in a reasonably short time. For those who wish to give more detailed consideration to additional construction components, we suggest the use of the Segregated Cost Method, Sections 40 through 48 of the Manual, or further refinement of their approach by using various Unit-in-Place costs found in Sections 51 through 58 of the Manual.

Depreciation

The depreciation tables in the Manual were developed from actual case studies of sales and market value appraisals, and formed the basis of the extended life theory which encompasses a remaining life and effective age approach. The extended life concept starts with the hypothesis that buildings age in much the same manner as people and that the older they get, the greater is their total life expectancy.

This concept recognizes that a building is in the prime of life before mid-life and that the road is downhill after that, but that correction of deficiencies may lower the effective age and lengthen the remaining life. This recurring revitalization process periodically reverses a continuous progression down the effective age scale, reducing the indicated depreciation percentage as components are renewed throughout the life-span of the building.

This nonlinear approach accounts for a greater present value or slower depreciation rate in the early years as compared to the later years when diminishing serviceability and higher maintenance can accelerate depreciation.

Depreciation is an opinion of a structure’s loss in value in relation to its cost-new estimate. Considering all pertinent factors, one should be able to reliably estimate depreciation. The depreciation tables in the Marshall & Swift Valuation Service consider the progression of normal deterioration and obsolescence based on age and condition for the class and usage of the improvement. Any abnormal or excessive

functional and any or all external obsolescence are considered separately, and are not included directly in the tables.

Typical Building Lives

OCCUPANCY	CLASS	A	B	C	D	S
SECTIONS 14 & 44, GARAGES, INDUSTRIALS AND WAREHOUSES (Continued)						
Warehouses, distribution, good and excellent		55	55	50	45	45
average		50	50	45	40	40
low cost		-----	-----	40	35	35

EFFECTIVE AGE IN YEARS	TYPICAL LIFE EXPECTANCY IN YEARS									
	70	60	55	50	45	40	35	30	25	20
	DEPRECIATION – PERCENTAGE									
1	0	0	0	0	1	1	1	2	2	3
2	0	1	1	1	1	2	2	3	5	7
3	0	1	1	1	2	3	4	5	7	10
4	1	1	1	2	3	4	5	7	10	14
5	1	1	2	3	4	5	6	9	13	18
6	1	2	2	3	4	6	8	11	16	22
7	1	2	3	4	5	7	10	14	19	26
8	1	2	3	5	6	8	11	16	22	30
9	2	3	4	5	7	10	13	18	25	35
10	2	3	4	6	8	11	15	21	29	40
11	2	4	5	7	9	13	17	24	32	45
12	2	4	6	8	10	14	19	26	36	50
13	2	5	6	9	12	16	22	29	40	55
14	3	5	7	10	13	18	24	32	44	60
15	3	6	8	11	14	20	26	35	48	65
16	3	7	9	12	16	22	28	39	52	69
17	4	7	10	13	18	24	31	42	56	73
18	4	8	11	14	19	26	34	46	60	76
19	4	9	12	16	21	28	36	49	64	78
20	5	9	13	17	23	30	39	53	68	79

Workflow

1. Select the basic cost from the Calculator cost pages.
2. Make refinements to the basic cost from the last pages of each section.
3. Multiply the refined square foot cost by:
    - Current Cost Multiplier (99-3) and Local Multiplier (99-5 to -10).
    - Refined Cost X Current Cost Multiplier X Local Multiplier = Final Cost

- Depreciation is optional and can be applied after the structure has been costed new first.

Quick Tips

READ THE FIRST PAGE OF EACH SECTION TO GAIN GREATER INSIGHT INTO THE OCCUPANCIES LISTED. OCCUPANCY IS THE KEY DRIVER TO ESTABLISHING AN ACCURATE COST REPRESENTATION OF YOUR STRUCTURE. QUALITY SETS THE OVERALL DOLLAR AMOUNT NEEDED TO REPLACE THE STRUCTURE AS NEW TODAY. COST THE STRUCTURE BY ITS DESIGN AND CODE COMPLIANCE AND NOT THE BUSINESS AT HAND.

Example 1 – Distribution Warehouse

- 10,000 sq. ft. Distribution Warehouse in Newark, New Jersey
- Number of stories 1
- Perimeter of 400 Lf.
- Average Quality, Class C
- 14 Ft. Story Height
- Extreme Climate

Pages from Marshall & Swift Valuation Service:

1. Select cost from Section 14
2. Make refinements
3. Apply Current and Local Cost multipliers from Section 99.

CALCULATOR METHOD

SECTION 14 PAGE 23
February 2018

DISTRIBUTION WAREHOUSES (407)

CLASS	TYPE	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT	COST Sq. M.	COST Cu. Ft.	COST Sq. Ft.
A	Good	Ornamental concrete, brick, or metal/glass panels, office front	Plaster or drywall with partitions, distribution areas, fin. ceilings, vaults	*Good lighting, plumbing, restrooms for personnel	Hot water	1151.74	7.64	107.00
	Average	Brick on block or tile, concrete panels, good fenestration	Painted walls, offices, and distribution areas	*Reading-level lighting and adequate plumbing	Space heaters	871.88	5.78	81.00
B	Good	Ornamental concrete, brick, or metal/glass panels, office front	Plaster or drywall with partitions, distribution areas, fin. ceilings, vaults	*Good lighting, plumbing, adequate restrooms	Hot water	1097.92	7.28	102.00
	Average	Brick on block or tile, concrete panels, good fenestration	Painted walls, offices and distribution areas	*Reading-level lighting, adequate plumbing	Space heaters	828.82	5.50	77.00
C	Excellent	Brick, metal/glass, ornamental facades and fenestration	Completely finished, drugs, food, or bonded storage, large offices	High-level lighting and good plumbing	Package A.C.	1162.50	7.71	108.00
	Good	Steel frame, good brick, block, or tilt-up, tapered girders	Plaster or drywall, some masonry partitions, good offices	Reading-level lighting, adequate plumbing	Forced air	801.91	5.32	74.50
	Average	Steel or wood frame or bearing walls, brick, block, or tilt-up	Painted walls, finished offices and distribution areas, hardened slab	Good lighting, adequate plumbing	Space heaters	548.96	3.64	51.00

HEATING ONLY

TYPE	SQUARE METER COSTS			SQUARE FOOT COSTS		
	Mild Climate	Moderate Climate	Extreme Climate	Mild Climate	Moderate Climate	Extreme Climate
Electric, baseboard or cable	31.11	45.75	67.92	2.89	4.25	6.31
radiant panel	29.49	38.21	49.94	2.74	3.55	4.64
Electric wall heaters (incl FWA)	16.25	20.99	27.66	1.51	1.95	2.57
Forced-air furnace	35.52	52.20	76.64	3.30	4.85	7.12
Hot water, baseboard/convector	57.48	88.26	135.63	5.34	8.20	12.60
radiant floor or ceiling	55.65	89.88	145.31	5.17	8.35	13.50
Space heaters, with fan	14.32	23.68	38.64	1.33	2.20	3.59

CoreLogic®

GARAGES, INDUSTRIALS, LOFTS AN

FLOOR AREA – PERIMETER MUL

AVERAGE FLOOR AREA		M.	AVERAGE PERIMETER									
Sq.M.	Sq. Ft.	FT.	30	38	46	53	61	76	91	107	122	137
			100	125	150	175	200	250	300	350	400	450
93	1,000		1.252	1.360	1.468	1.576	-----	-----	-----	-----	-----	-----
139	1,500		1.112	1.182	1.252	1.323	1.395	-----	-----	-----	-----	-----
186	2,000		-----	1.095	1.147	1.199	1.252	1.360	-----	-----	-----	-----
232	2,500		-----	-----	1.083	1.125	1.168	1.252	1.340	1.430	-----	-----
279	3,000		-----	-----	-----	1.077	1.112	1.182	1.252	1.323	1.395	-----
372	4,000		-----	-----	-----	1.013	1.040	1.094	1.147	1.199	1.252	1.306
465	5,000		-----	-----	-----	-----	.996	1.040	1.083	1.125	1.168	1.210
557	6,000		-----	-----	-----	-----	-----	1.004	1.040	1.077	1.112	1.147
650	7,000		-----	-----	-----	-----	-----	-----	1.008	1.040	1.071	1.102
743	8,000		-----	-----	-----	-----	-----	-----	.984	1.013	1.040	1.068
929	10,000		-----	-----	-----	-----	-----	-----	-----	.972	.996	1.019
1,115	12,000		-----	-----	-----	-----	-----	-----	-----	-----	.965	.984

STORY HEIGHT MULTIPLIERS

Multiply the base cost by the following multipliers for any variation in average story height from the base of 14 feet (4.27 meters). For extremely high-pitched roofs (see Section 10), use the height of the eaves plus one-half the height from the eaves to the ridge as the effective height.

In some buildings it floor area to get an

AVERAGE WALL HEIGHT		SQUARE FOOT OR SQUARE METER MULTIPLIER	CUBIC FOOT MULT.	AVERAGE WALL HEIGHT		SQUARE FOOT OR SQUARE METER MULTIPLIER
(M.)	(FT.)			(M.)	(FT.)	
2.44	8	.885	1.567	7.31	24	1.231
3.05	10	.921	1.289	7.92	26	1.281
3.66	12	.960	1.120	8.53	28	1.331
4.27	14	1.000 (base)	1.000	9.14	30	1.382
4.88	16	1.041	.911	10.67	35	1.515

MONTHLY GREEN SUPPLEMENT

CURRENT COST MULTIPLIERS

SECTION 99 PAGE 3 April 2018

These multipliers bring costs from preceding pages up to date. Also apply Local Multipliers, Section 99, Pages 5 through 10.

CALCULATOR COST SECTIONS

(Effective Date of Cost Pages)		11 (11/16)	12 (8/16)	13 (5/16)	14 (2/18)	15 (11/17)	16 (8/17)	17 (5/17)	18 (2/17)
	A	1.07	1.06	1.06	1.01	1.03	1.04	1.06	1.08
	B	1.08	1.08	1.06	1.04	1.02	1.03	1.06	1.08
EASTERN	C	1.08	1.07	1.08	1.02	1.05	1.06	1.07	1.06
	D	1.07	1.07	1.07	1.01	1.03	1.05	1.05	1.06
	S	1.11	1.10	1.08	1.03	1.05	1.04	1.05	1.09

SEGREGATED COST SECTIONS

(Effective Date of Cost Pages)		41 (12/16)	42 (9/16)	43 (6/16)	44 (3/18)	45 (12/17)	46 (9/17)	47 (6/17)	48 (3/17)
	A	1.07	1.06	1.06	1.01	1.03	1.04	1.06	1.08
	B	1.08	1.08	1.06	1.04	1.02	1.03	1.06	1.08
EASTERN	C	1.08	1.07	1.08	1.02	1.05	1.06	1.07	1.06
	D	1.07	1.07	1.07	1.01	1.03	1.05	1.05	1.06
	S	1.11	1.10	1.08	1.03	1.05	1.04	1.05	1.09

CLASS	A	B	C	D	S
NEW JERSEY	1.28	1.27	1.26	1.26	1.27
Asbury Park	1.18	1.16	1.15	1.16	1.19
Atlantic City	1.32	1.31	1.32	1.34	1.33
Bayonne	1.33	1.31	1.29	1.30	1.30
Camden	1.23	1.21	1.19	1.19	1.20
Clifton	1.30	1.29	1.28	1.28	1.28
East Orange	1.31	1.29	1.28	1.29	1.29
Edison	1.31	1.29	1.28	1.28	1.28
Elizabeth	1.32	1.29	1.28	1.29	1.29
Fairlawn	1.31	1.30	1.28	1.29	1.29
Hackensack	1.31	1.31	1.29	1.28	1.30
Irvington	1.32	1.30	1.30	1.31	1.31
Jersey City	1.32	1.31	1.29	1.29	1.30
Lakewood	1.18	1.16	1.16	1.17	1.17
Morristown	1.32	1.30	1.30	1.30	1.31
New Brunswick	1.31	1.29	1.28	1.28	1.28
Newark	1.33	1.31	1.31	1.33	1.32
Passaic	1.30	1.29	1.28	1.28	1.28

Final Calculations	**Section I**
22. Refined Square Foot Cost (Line 17 x 21)	$52.18
23. Current Cost Multiplier (Section 99, Page 3)	1.02
24. Local multiplier (Section 99, Pages 5 through 10)	1.31
25. Final Square Foot Cost (Line 22 x Line 23 x Line 24)	$69.72
26. Area	10.000 sq ft
27. Line 25 x Line 26	$697.200
28. Lump Sums (Line 34)	
29. Replacement Cost (Line 27 + Line 28)	$697.200
30. Depreciation % (Section 97)	
31. Depreciation Amount (Line 29 x Line 30)	
32. Depreciated Cost (Line 29 – Line 31)	

Example 2 – Office Building

- 100,000 sq. ft. Office building in Newark, New Jersey
- Number of stories 10
- Perimeter of 400 Lf.
- Average Quality, Class A
- 12 Ft. Story Height
- Extreme Climate

Pages from Marshall & Swift Valuation Service:

1. Select cost from Section 15
2. Make refinements
3. Apply Current and Local Cost multipliers from Section 99

CALCULATOR METHOD

SECTION 15 PAGE 17
November 2017

OFFICE BUILDINGS (344)

CLASS	TYPE	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT	COST Sq. M.	COST Cu. Ft.	COST Sq. Ft.
A	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)	2906.25	22.49	270.00
	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)	2303.47	17.83	214.00
	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)	1732.99	13.41	161.00
	Low cost	Minimum-cost walls and fenestration, little trim	Drywall, acoustic ceilings, asphalt tile, few partitions	*Minimum office lighting and plumbing	Warm and cool air (zoned)	1388.54	10.75	129.00

HEATING AND COOLING – (Except General Hospitals)

TYPE	SQUARE METER COSTS			SQUARE FOOT COSTS		
	Mild Climate	Moderate Climate	Extreme Climate	Mild Climate	Moderate Climate	Extreme Climate
Package A.C. (short ductwork)	69.32	119.48	206.13	6.44	11.10	19.15
Warm and cool air (zoned).....	120.02	200.75	336.37	11.15	18.65	31.25
Hot and chilled water (zoned)	200.75	309.46	473.61	18.65	28.75	44.00

SECTION 15 PAGE 38
November 2017

CALCULATOR METHOD

OFFICES, MEDICAL AND PUBLIC BUILDINGS
FLOOR AREA – PERIMETER MULTIPLIERS

AVERAGE FLOOR AREA Sq. M.	Sq. Ft.	M. FT.	AVERAGE PERIMITER 38 125	46 150	53 175	61 200	76 250	91 300	122 400	152 500	183 600	213 700	244 800	305 1000	366 1200	4 14
93	1,000		1.168	1.235	1.299	1.364	1.494	1.624	1.884	-----	-----	-----	-----	-----	-----	--
139	1,500		1.061	1.105	1.146	1.191	1.277	1.364	1.537	-----	-----	-----	-----	-----	-----	--
186	2,000		1.007	1.040	1.072	1.105	1.168	1.235	1.364	-----	-----	-----	-----	-----	-----	--
232	2,500		-----	1.000	1.027	1.052	1.105	1.155	1.259	-----	-----	-----	-----	-----	-----	--
279	3,000		-----	.975	.997	1.018	1.061	1.105	1.191	-----	-----	-----	-----	-----	-----	--
372	4,000		-----	-----	.958	.975	1.007	1.040	1.105	1.168	-----	-----	-----	-----	-----	--
465	5,000		-----	-----	.936	.949	.975	1.000	1.052	1.105	1.155	-----	-----	-----	-----	--
557	6,000		-----	-----	-----	.932	.952	.975	1.018	1.061	1.105	1.146	-----	-----	-----	--
743	8,000		-----	-----	-----	-----	.926	.942	.975	1.007	1.040	1.072	1.105	-----	-----	--
929	10,000		-----	-----	-----	-----	.910	.923	.949	.975	1.000	1.027	1.052	1.105	1.155	--
1,115	12,000		-----	-----	-----	-----	-----	.910	.932	.952	.975	.997	1.018	1.061	1.105	1.1
1,301	14,000		-----	-----	-----	-----	-----	.900	.920	.938	.956	.975	.993	1.030	1.067	1.1

STORY HEIGHT MULTIPLIERS

Multiply base cost by following multipliers for any variation in average story height from the base of 12 feet (3.66 meters). For extremely high-pitched roofs (see Section 10), use the height of the eaves plus one-half the height from the eaves to the ridge as the effective height. In some buildings or for a complete fa the total square footage of flo

AVERAGE WALL HEIGHT (M.)	(FT.)	SQUARE FOOT OR SQUARE METER MULTIPLIER	CUBIC FOOT MULTIPLIER	AVERAGE WALL HEIGHT (M.)	(FT.)	SQUARE FOOT OR SQUARE METER MULTIPLIER	CUBIC FOOT MULTIPLIER
2.44	8	.900	1.350	3.96	13	1.023	.944
2.74	9	.928	1.237	4.27	14	1.046	.897
3.05	10	.953	1.144	4.57	15	1.069	.855
3.35	11	.977	1.066	4.88	16	1.092	.819
3.66	12	1.000 (base)	1.000	5.49	18	1.138	.758

CALCULATOR COST SECTIONS

(Effective Date of Cost Pages)		11 (11/16)	12 (8/16)	13 (5/16)	14 (2/18)	15 (11/17)	16 (8/17)	17 (5/17)	18 (2/17)
EASTERN	A	1.07	1.06	1.06	1.01	1.03	1.04	1.06	1.08
	B	1.08	1.08	1.06	1.04	1.02	1.03	1.06	1.08
	C	1.08	1.07	1.08	1.02	1.05	1.06	1.07	1.06
	D	1.07	1.07	1.07	1.01	1.03	1.05	1.05	1.06
	S	1.11	1.10	1.08	1.03	1.05	1.04	1.05	1.09

CoreLogic®

CLASS	A	B	C	D	S
NEW JERSEY	1.28	1.27	1.26	1.26	1.27
Asbury Park	1.18	1.16	1.15	1.16	1.19
Atlantic City	1.32	1.31	1.32	1.34	1.33
Bayonne	1.33	1.31	1.29	1.30	1.30
Camden	1.23	1.21	1.19	1.19	1.20
Clifton	1.30	1.29	1.28	1.28	1.28
East Orange	1.31	1.29	1.28	1.29	1.29
Edison	1.31	1.29	1.28	1.28	1.28
Elizabeth	1.32	1.29	1.28	1.29	1.29
Fairlawn	1.31	1.30	1.28	1.29	1.29
Hackensack	1.31	1.31	1.29	1.28	1.30
Irvington	1.32	1.30	1.30	1.31	1.31
Jersey City	1.32	1.31	1.29	1.29	1.30
Lakewood	1.18	1.16	1.16	1.17	1.17
Morristown	1.32	1.30	1.30	1.30	1.31
New Brunswick	1.31	1.29	1.28	1.28	1.28
Newark	1.33	1.31	1.31	1.33	1.32
Passaic	1.30	1.29	1.28	1.28	1.28

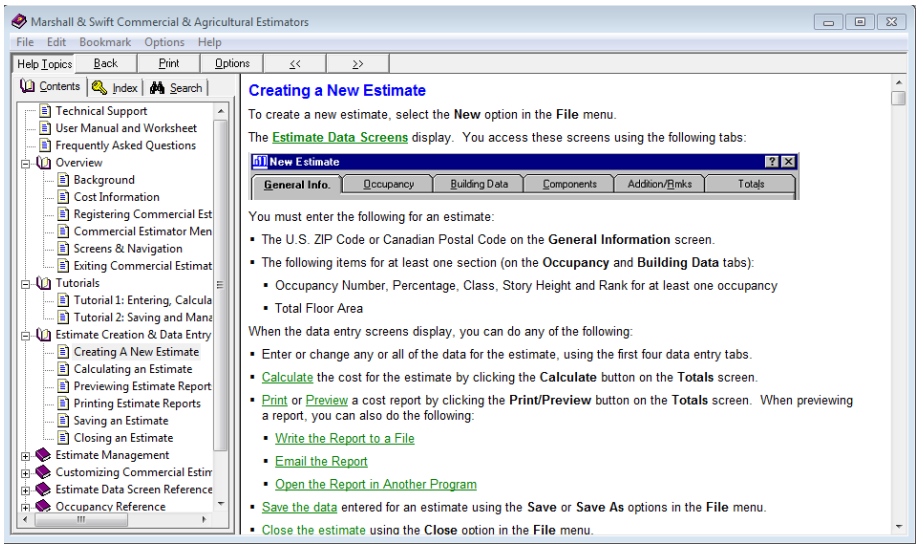
Final Calculations	Section I
22. Refined Square Foot Cost (Line 17 x 21)	$170.47
23. Current Cost Multiplier (Section 99, Page 3)	1.03
24. Local multiplier (Section 99, Pages 5 through 10)	1.33
25. Final Square Foot Cost (Line 22 x Line 23 x Line 24)	$233.52
26. Area	100.000 Sq
27. Line 25 x Line 26	$23.352.00
28. Lump Sums (Line 34)	
29. Replacement Cost (Line 27 + Line 28)	
30. Depreciation % (Section 97)	
31. Depreciation Amount (Line 29 x Line 30)	
32. Depreciated Cost (Line 29 – Line 31)	

Commercial Estimator & SwiftEstimator 7 Foreword

Both Commercial Estimator 7 and Swift Estimator 7 are based the Calculator method of the Marshall & Swift Valuation Service. There are serval nuances within the automated programs that differ from the methodology found in the Marshall and Swift Valuation Service.

The Commercial Estimator 7 installation disk contains program documentation along with worksheets on the disk itself.

Once you launch Commercial Estimator 7, help menus help you get started and guide you through each data entry screen.

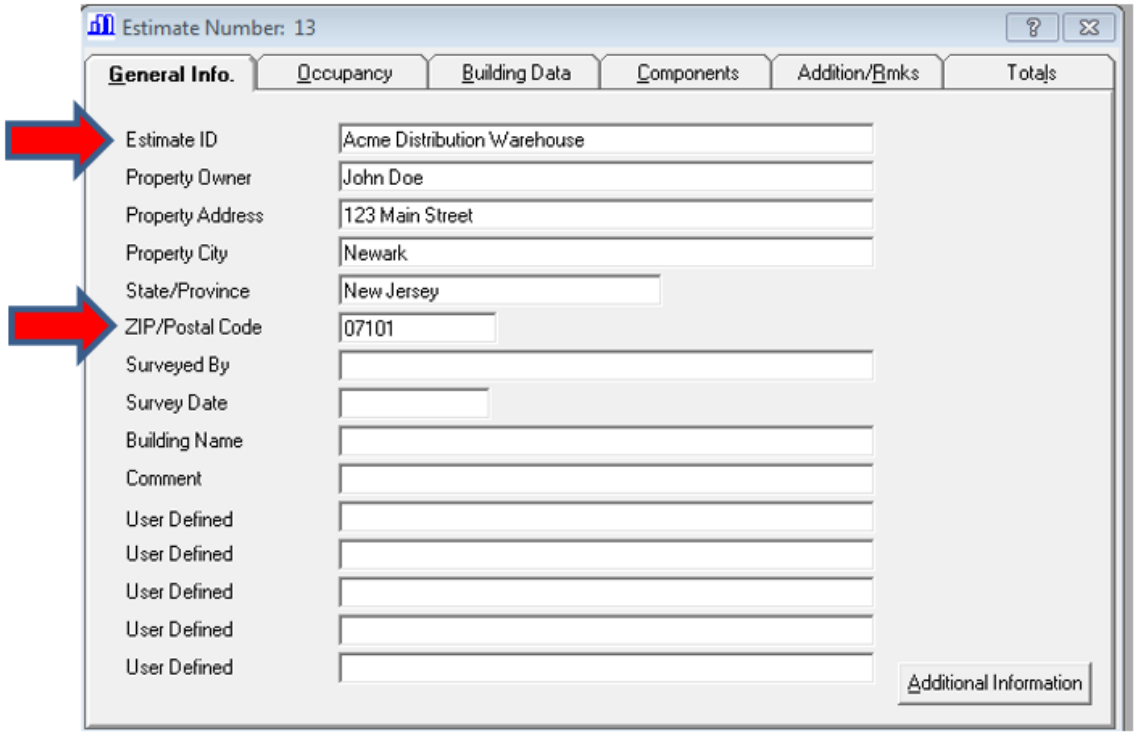


CoreLogic®

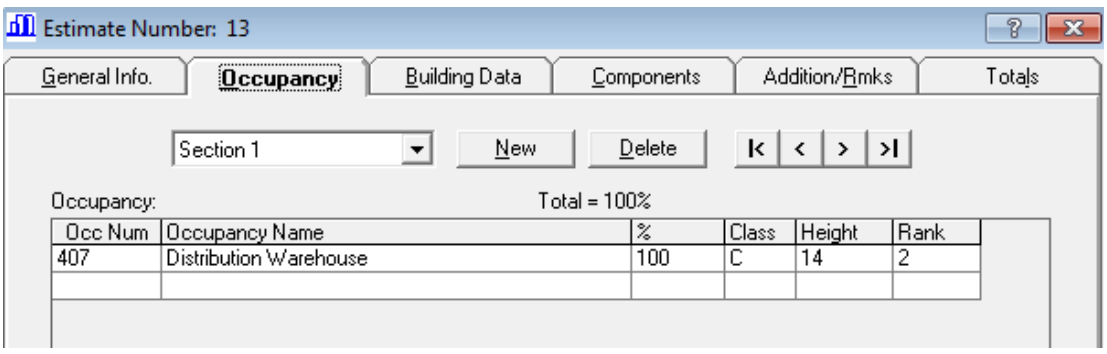
Commercial Estimator 7 and Swift Estimator 7 allowing reports to be generated using as little as five pieces of data.

The Estimate ID is a required field that identifies this report from others. It is like file "save as."

The ZIP/Postal Code is also a required field that is used to determine the default local multiplier, region and climate. *Changing ZIP Codes within the same county can result in a different local multiplier.

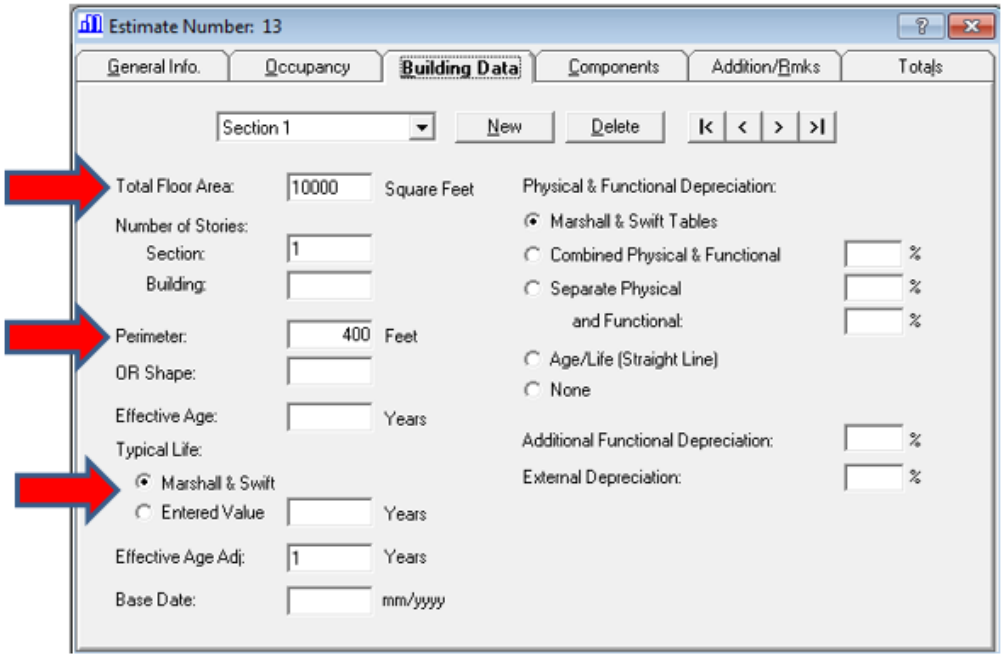


Occupancies are based on the similar criteria found in the Marshall & Swift Valuation Service. Users must pay close attention to default construction classes and story heights which may differ from those found in the Marshall & Swift Valuation Service.

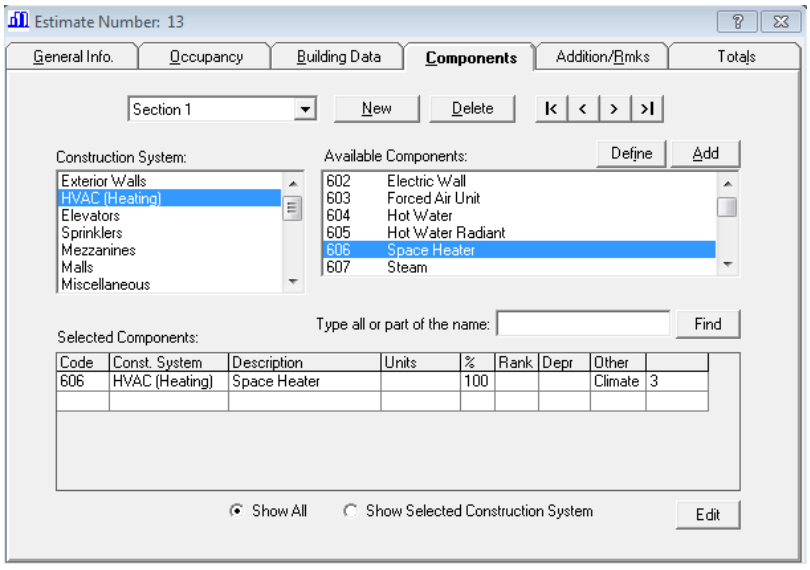


CoreLogic®

Building Data does require every field to be entered only the Total Floor Area. Users must enter the actual perimeter if they would like to stay consistent with the methodology found in the Marshall & Swift Valuation Service. Various depreciation methods can be entered here that differ from those found in the Marshall & Swift Valuation Service.



Components allow users to specify details of their structure to a greater degree. Users must also be aware that costs for elevators are NOT included unless added, this differs from costs tables found in the Marshall & Swift Valuation Service where certain occupancies and quality include the elevator cost.



CoreLogic®

Summary and Detailed Reports look similar until a separate section is created, allowing the Detailed report to show the cost of each section. Costs for Exterior Walls and Heating and Cooling are broken out on the cost reports in order to illustrate the cost difference from one Wall or HVAC type to another.

4/12/2018 **Summary Report** Page: 1

Estimate Number	:	13
Estimate ID	:	Acme Distribution Warehouse
Property Owner	:	John Doe
Property Address	:	123 Main Street
Property City	:	Newark
State/Province	:	New Jersey
ZIP/Postal Code	:	07101

Section 1

Occupancy	**Class**	**Height**	**Rank**
100% Distribution Warehouse	Masonry bearing walls	14.00	2.0
Total Area	: 10,000		
Number of Stories (Section)	: 1.00		
Perimeter	: 400		

Components	**Units/%**	**Other**
HVAC (Heating):		
Space Heater	100%	Climate : 3

Cost as of 04/2018

	Units/%	**Cost**	**Total**
Basic Structure			
Base Cost	10,000	48.09	480,900
Exterior Walls	10,000	17.00	170,000
Heating & Cooling	10,000	4.78	47,800
Basic Structure Cost	10,000	69.87	698,700

The **Input Data Listing** reveals all entries made to generate the cost report.

4/12/2018 **Input Data Listing** Page: 1

Estimate Number : 13

Estimate Number	: 13
Property Owner	: John Doe
Property Address	: 123 Main Street
Property City	: Newark
State/Province	: New Jersey
ZIP/Postal Code	: 07101
Estimate ID	: Acme Distribution Warehouse
Apply depreciation % to Replacement Cost New	: Yes

Section 1

Occupancy	%	Class	Height	Rank
407 Distribution Warehouse	100	C	14	2
Total Area	: 10000			
Number of Stories (Section)	: 1			
Perimeter	: 400			
Typical Life (years)	: Marshall & Swift Tables			
Adjustment	: 1			
Depreciation Type	: Marshall & Swift Tables			

Components	Units/%	Rank	Depr %	Other
HVAC (Heating):				
606 Space Heater	100			Climate : 3

About CoreLogic

CoreLogic (NYSE: CLGX) is a leading global property information, analytics and data-enabled services provider. The company's combined data from public, contributory and proprietary sources includes over 4.5 billion records spanning more than 50 years, providing detailed coverage of property, mortgages and other encumbrances, consumer credit, tenancy, location, hazard risk and related performance information. The markets CoreLogic serves include real estate and mortgage finance, insurance, capital markets, and the public sector. CoreLogic delivers value to clients through unique data, analytics, workflow technology, advisory and managed services. Clients rely on CoreLogic to help identify and manage growth opportunities, improve performance and mitigate risk. Headquartered in Irvine, Calif., CoreLogic operates in North America, Western Europe and Asia Pacific. For more information, please visit corelogic.com.

CoreLogic®