

Technical
Training
Series



Developing a Rough Order Of Magnitude

A **Rough Order of Magnitude (ROM) estimate** is an initial projection of cost based on preliminary observations, quantities and a reasonably foreseeable scope of work. By definition, Rough Order of Magnitude estimates are subject to change and should be refined as specific project requirements (scope) are established.

Purpose

ROM's as they pertain to property damage repairs may be used to identify exposure, to establish a reserve, and to measure the potential impact of business interruption.

Development

In the absence of plans, specifications or a known / agreed scope of work, basic information about the property should be obtained, such as overall size / dimensions, age, type of construction, type of finishes, and affected areas of the property / extent of damages. Scope can be generally extrapolated and quantities derived from an initial inspection and measurement of the property. Values should be assigned based on tasks as opposed to a single, square foot estimation. Developing task-specific estimates will provide a more accurate overall projection than budgeting based on an overall project square foot cost. Breaking down the tasks and refining the level of detail will increase the accuracy and reduce potential margins of error. ***The basis for developing an ROM, in any situation, should be a logical interpretation of data.***

Example

A fire occurred in an office building which consists of 3 stories, each being 5,000 sf. The roof is completely destroyed, the top floor is damaged by fire and the lower two floors by water. The top floor is a full gut, the 2nd floor is approximately 50% damaged and the first floor is 25% damaged. The following worksheet illustrates a method of estimating the Rough Order of Magnitude cost to repair.

Sample Rough Order of Magnitude					
Category	Qty	Unit	Unit Cost	Total	Notes
Temporary Repairs	5000	SF	\$ 5.00	\$ 25,000.00	Frame and dry-in temp. roof structure
Emergency Services / Demo	800	HR	\$ 37.50	\$ 30,000.00	Labor to clean, demo and remove debris
Dumpsters	40	EA	\$ 750.00	\$ 30,000.00	Hauling / Carting of Debris
Framing	5000	SF	\$ 20.00	\$ 100,000.00	Roof and Interior Partition Framing
Roofing	500	SQ	\$ 425.00	\$ 212,500.00	Replace Built-up Roof Surface
Exterior Surfaces	9000	SF	\$ 8.00	\$ 72,000.00	Siding, Windows and Doors
Mechanicals	8500	SF	\$ 25.00	\$ 212,500.00	Electrical, Plumbing and HVAC
Interior Finishes (Full Gut)	5000	SF	\$ 50.00	\$ 250,000.00	Top Floor - replace all finishes
Interior Finishes (Partial Gut)	3500	SF	\$ 35.00	\$ 122,500.00	Lower Floors - replace / repair / refinish
Specialty Trades	1	LS	\$ 45,000.00	\$ 45,000.00	Placeholder - Elevator Repairs
General Conditions - Allow 10%	1	LS	\$ 109,950.00	\$ 109,950.00	Contractor's supervision and gen. cond.
Subtotal				\$1,209,450.00	Subtotal of Construction Costs
Contractor's Overhead & Profit				\$ 163,275.75	5% & 8% Contractor's OH&P
Sales Tax - 7%				\$ 96,090.80	State / Local Sales Tax
Engineering / Permits - 4%				\$ 48,378.00	Allow 4% of construction subtotal
GRAND TOTAL				\$ 1,517,194.55	

Note: ROM's should include a brief description of the work, and a list of limitations, qualifications or exclusions.