

# [Percentage profit margins of a project construction essay](https://assignbuster.com/percentage-profit-margins-of-a-project-construction-essay/)

The net price of measured work is the final price taking into consideration all the elements. In other words the net price is the overall and final price, including labour, plant and materials without any profit or overhead allowances which are priced elsewhere in the preliminaries.

Overheads need to be taken into consideration when preparing estimates. Overheads are costs you control such as electricity or office rent, usually you will have to recover them because they include admin. Most medium sized construction organisations recover the cost of these each year spread over the turnover of the project, this can be assed as a percentage addition but may fluctuate according to you turnover. Risks are unforeseen set backs in the project, weather disasters are a great example of a risk that might have to be taken into consideration.

Preliminaries

The preliminary part of a project is the initial section giving a description of the project. Plant, vehicles and tools are all included in the preliminary costs. This includes the costs of buying or maintaining the machinery and tools and also the costs of erecting and maintaining scaffolding on a project. The cost for this is worked out using the surface area of the structure, what material is used in the structure and the length of time the scaffolding is up. Sometimes this can include costs of toilet installation, water and electricity and also the costs of managers, engineers and safety officers

## Profit

Profit is essentially how much money you make. There are different types of profit; net profit, gross profit and operating profit. Gross profit is usually found calculating all sales minus any cost relating to the sales, in other words how much money you make on the sales. Net profit is seen as gross profit minus all overheads and interest. And operating profit which is the profit for the business core business operations excluding profit made from investments and the effects of tax or interest.

## Estimating methods

Estimations are used all the time in everyday life; estimation can give you a rough idea or figure to a sum without finding an exact answer. They come in very handy in many aspects of day to day life without exception to the construction industry. Estimations can help you get a rough Idea of how much salary you have to pay out, how many bricks or how much concrete you want for a project and many other things.

There are different types of estimating methods that can be used to do different things. Cost estimation is used regularly to decipher the net costs of many materials you need on site. The estimator will need to estimate the amount of materials needed and the type of materials needed on the project. The two main benefits of cost estimation are firstly that changes can be made in early stages to reduce the overall effect this has on the project time schedule and cost and secondly the more cost information you gather the more you improve the quality of cost data The estimator will also have to include labour costs, so they have to estimate the different types of workers that will be needed to complete the project and also how many of these workers will be needed to ensure the project is completed on time. When calculating labour rates you have to take into consideration numerous different factors such as nation insurance, hourly rates, holiday and sick pay (if it is a lengthy project) and many more. A method for estimating labour costs that has been widely accepted is COEP, the code of estimating practise. As well as this an estimator will usually supply contingency sums. A contingency sum will usually be an amount of money to cover any unforeseen expenses that may arise in the duration of the project, in other words any overheads. Here is a table of the different estimating methods used in the 1930s compared to those used in the modern day.

Single rate estimation

This is commonly used by health and education services at the inception stage of a project. This is useful when a simple and quick cost range is needed in initial stages of a project. An example of this is knowing it will cost you £10, 000 to build a singular room in an hotel complex and you have a budget of £100, 000, you then have a rough estimate that you can build ten of these rooms. Depending on location and ground conditions it can be difficult to adjust certain project costs.

Building volume method

This is not widely used anymore but basically consist of working out the volume of the building and using it as a ‘ cost yardstick’ (quote taken form martin brooks estimating and tendering). However some countries are still familiar with building costs expressed as cubic meter prices.

Floor area method

This is a very popular method as it is quite simple. To create a floor area estimation you have to measure the building at each floor level, not making any deduction for internals, and then using previous construction costs and dividing them by the internal floor area to give you a cost per metre squared. When doing this it is obvious that some additional adjustments will have to be made and a separate assessment has to be carried out for external works.

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There are many things that can affect the percentage profit margins of a project. First of all overheads and unforeseen disasters can play a massive part in this as money spent on these comes straight out of profit. Although an estimator will usually put a certain amount of money to the side in case of this happening it may sometimes not be enough. Some companies compare aspect of their project with old similar projects to see if they can isolate unforeseens’ and abnormal costs, by doing this they hope to be able to isolate the problems and find an efficient way around it in an attempt to maximise profit margins. When a cost plan has been made it has to be translated into design criteria so that not only can the design team understand it but also so the client or manager can take charge and ensure that the project is within its cost restraints;. Some companies who pride themselves on being ‘ green’ can reduce their profit margins by following procedures to keep green, paying extra money for correct and efficient recycling and ensuring the materials they buy are sources locally and appropriate for recycle can boost material pricing quite considerably.

The output of labour can be affected by numerous different things, first and foremost is once again unforeseen issues. Sickness and injury can severely affect the output of labour as it ultimately leads to workers having time off. Not only this, it can also cost the company as they are still entitled to pay. I personally think the structure and organisation of a project can ultimately lead to the designated output you want from your labourers. For example you don’t want an excavator and its driver sat static for half a day because your organisation charts have not made the best use of it as this will technically be wasting money.

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On-costs are overheads, they are managed and include wages, electricity, gas or office rent, usually you will have to recover them because they include admin. Most medium sized construction organisations recover the cost of these each year spread over the turnover of the project, this can be assed as a percentage addition but may vary according to your turnover.

Overheads are costs that have to be met in order for the head office to run smoothly, company cars, insurance and departmental costs are all included in overhead costing. These costs need to be recovered; therefore a percentage is usually recovered from the additional costs added in the estimate. To get a figure for this percentage you must know the overall value of the company’s overheads per year, and also the company’s turnover. You divide the overhead costs by the company turnover and times the answer by a hundred to be left with the percentage. This percentage can then be used in future estimates.

You are also able to reconcile overheads by recovering them against tendered works. This can be done in a number of different ways. Firstly you can use an increased profit margin to cover the over head costs and not include them, you can also establish the overhead costs/total turnover and add the percentage to the tenders and lastly you can move the head office onto site and recover the costs through the preliminaries.

A company’s turnover will fluctuate year to year. There are many factors that can affect this, such as risks, work efficiency and contract pricing. Risks can occur all the time, sometimes you can loose money due to these risks and sometimes you can gain money, with risks also comes unforeseens, set backs that can loose you money. Being efficient with you work can save you money, if one year a company was extremely efficient they would make more money than if they were not efficient and wasteful. Lastly pricing can have an affect on turnover too, when it is very competitive times you may have to significantly lower your prices to sign as deal. When a companies turnover drops, they will loose not only profit but also money on the overheads as the turnover will drop in accordance with the percentage. In addition to this if a company turnover rises there will be more than enough money there to cover the overheads and therefore the profit will rise too.

In the preliminaries we get ‘ fixed’ and ‘ time-related’ charges we have to consider, the SMM7 guide tells us to identify them separately in the bills of quantities. A fixed charge is for the work of the cost of which is to be considered as independent on duration and a time-related charge is for work the cost of which is to be considered as dependent on duration. There are a number of different items that it is hard to designate to a certain charge, such as a crane on site for two weeks. Most plant charges get divided by the duration to produce monthly repayments.

For example; employer accommodation requirements.

SMM7 states that if an employer has to use onsite accommodation he must include heating, lighting and maintenance. Here are a few other requirements;

Accommodation

Dependant on specific requirements, offices, toilets, meeting rooms, laboratories and car parking may be needed.

Furniture

If none stated, client must be providing his own

Transport

Inspection of components, transport for staff or consultants plus fuel and maintenance

Example; management and staff

Choice of management varies, dependant on size, complexity and duration of project.

Site manager

Required on most sites, amount of staff depends on size and complexity.

General foreman

Co-ordination and management of labour, plant and labour-only subcontractors.

Engineer

Services engineer to co-ordinate specialist jobs, analyze methods, and quality control.