

# Quantities for two manholes construction essay



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Take off quantities for the two manholes shown and specified on the drawing. Notes Provide a taking-off list and attach a query sheet to the front of your measurements showing details of any assumptions you have made. You are not required to square the dimensions.

## **MANHOLES 1**

## **MANHOLE 2**

## **MANHOLE 3**

## **MANHOLE 4**

## **MANHOLE 5**

## **MANHOLE 6**

## **MANHOLE 7**

## **MANHOLE 8**

## **QUESTION 2**

Poor design and production information is often a cause of project failures in the construction industry. Identify causes of poor information and the effects that these may have during the pre- and post-tender stages of a project.

Identify methods that have been developed to overcome these problems.

The three dimensions of control that influence the specific project efficiency factor are TIME, COST and QUALITY. These are managed to the satisfaction of the client's requirement, but in themselves are secondary to the client's business needs. An example of programme control is that of finishing a commercial construction in time for the Christmas sales period. Success for a project is directly connected to productivity, reduction or successful management of conflict, greater efforts to be client focused reduced

defects/waste and strategic management to respond to external factors. It is thus clear that the brief and its interpretation, effective schedule and control, together with continued client involvement are at the highest levels for any project's success. It is also ideal to always plan a backup to the original plan – contingency planning. Contingency planning is a way of allowing for adverse changes and generally means making monetary allowance for items beyond control. Potential risks that a project might encounter during its course can be; client changes due to business predictions or user requirements, subcontractor default, technical failures, strikes or any other labour shortages, bad weather, tight deadlines, resource limitations, unfamiliar tasks. External political, economical, social and technological issues can also affect a current contract. It is important to assess the many risks that in the context of feasibility of a construction project. Many of the risks are not covered by insurance. Risks in construction projects may be classified in a number of ways. One form of classification is as explained hereunder. One of the factors could be ' Socioeconomic factors' such as Environmental protection, Public safety regulation, Economic instability and Exchange rate fluctuation. Another way could be through Organizational relationship, such as Contractual relation, Attitudes of participants and Communication. They could also be Technological problems, such as Design assumptions, Site conditions, Construction procedures and Construction occupational safety. Therefore one can conclude that the Factors for a Project's Success can be defined as Project Definition, Planning, Social Factors, Duration, Financing, Urgency, Legal Aspect, Human Factors and Contracting.

## **Estimate from sketch drawings**

Once the preliminary drawings have been prepared, he/she prepares a more detailed approximate estimate and this cost advice enables design decisions to be made with full knowledge of their financial implications to the client.

## **Estimate with accurate quantities for tendering**

Bills of Quantities are the translation of the designer's drawings and specification into describing the building works in terms of words and quantities. They allow each contractor tendering to estimate his price on exactly the same basis as his competitors. Bills are prepared in accordance with standard methods of measurement.

## **Estimate of ongoing works on site**

Under most forms of building contracts, contractors are paid at regular intervals (depending on the conditions of contract) for work done on site. The Quantity Surveyor got the duty to measure and value the work carried out during the period in question, together with the value of any variations which may have been authorised, and to submit to the Architect or Engineer a recommendation regarding a payment on account. If the Architect or Engineer is satisfied that the work involved has been carried out in accordance with the terms of the contract, he will certify the amount due to the contractor in accordance with the Quantity Surveyor's valuation. The traditional roles of the Quantity Surveyor end with the calculations of the final cost for the purpose of settlement with contractors and/or sub-contractors. This involve preparing a final account of the work in which the contract sum is adjusted in accordance with the terms of the contract to take account of any variations, of adjustments in the accounts of nominated sub-

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contractors and suppliers and of any other matters for which the contract allows. The final account is agreed with the contractor and provides a fair and equitable settlement in accordance with the contract conditions. The Quantity Surveyor will also prepare any analysis of the final account which the client may require. The pre-tender stage is everything that happens up to the point where the tender is issued to contractors for pricing. This begins with the client's first decision to consider constructing a building, through the various stages of the design development to the preparation of tender documents. The RIBA Outline Plan of Work divides the pre-tender works into seven stages from Appraisal to Tender Document. Except in very unusual circumstances, the contractor is not involved pre-tender. The impact of poor design and production information goes beyond the contractor and the tendering process. Whilst a client could seek to recover losses caused by information not known at the design stage, it would be unusual for him to try to do get this money back from the consultants, as it is the client who will be funding the cost of the investigations and deciding on how much he wants to spend on these. He has to evaluate the level of risk that he is exposed to by not knowing things like the ground conditions and how this can be dealt with (usually by making it the contractor's responsibility). If information was missing from the pre-tender documents, what effect would that have on the pre and post tender stages? Possible answers for Pre tender

Incorrectly priced bills of quantities  
Delays to tender period awaiting missing information  
Client contract sum available could be incorrect

Possible answers for Post tender

Could give rise to problems agreeing variations  
Possible problems settling final accounts  
Could give rise to contractual disputes

Typical causes of project failure occur when the following criteria for success are not met: on <https://assignbuster.com/quantities-for-two-manholes-construction-essay/>

time delivery, on or under budget, Acceptance by client based on stated scope of work. Only a few projects achieve all three criteria. Many more are delivered which fail on one or more of these criteria, and a substantial number fail badly enough that they are cancelled. You can take certain actions which will ensure your contracts do not fail. Projects often fail because of one or more of the following five reasons: Poor planning, Lack of leadership, Inadequate knowledge, People problems, Lifecycle problems.

Poor planning can include: Lack of communication. Not breaking down development into phases or steps. Not prioritizing operational activities, objectives. Not obtaining stakeholder approval. No business plan or inadequate business plan. Unrealistic expectations set, e. g., financial investment, time required, set-up costs. Inadequate funding/capital or poor use of funds/capital. Lack of time commitment. Unrealistic scheduling. Lack of leadership can include: Not defining ownership or the leadership structure or not identifying decision makers. Not making decisions timely or decisively. Lacking relevant business and management expertise in areas such as finance, purchasing, selling, production, and hiring and managing employees. Neglecting your leadership role. Not having a strategic vision. Holding unrealistic expectations of others. Inadequate knowledge can include: Lacking skills and a proven approach to project management. Failing to price your product or service correctly. Not addressing potential risks due to inexperience. Not estimating, monitoring, or controlling expenditures. Not putting a process in place for measuring and tracking results. Having an incomplete or vague project work plan. Using inadequate control systems.

People problems can include: Lacking contact with senior management. Lacking leadership. Lacking effective project team integration between

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clients, the supplier team, and the supply chain. Being unable to resolve conflicts. Not having adequate resources due to under/over estimation of work. Lifecycle problems can include: Failing to clearly and completely define the requirements, resulting in building the wrong features or gaps in the features needed. Using new or state of the art technology that cause unanticipated problems. Using a poor technical design that does not allow for modification or is not scalable. Changing requirements late in the project and continuing change requests which cause the project to drift. Using technology components that do not fit together as designed. Using poor initial testing techniques that cause repeated errors. Lack of clear links between the project and the organization's key strategic priorities, including agreed measures of success. Lack of clear senior management ownership and leadership. Lack of effective engagement with project stakeholders. Lack of skills and proven approach to project management and risk management. Too little attention to breaking developments and implementation into manageable steps. Evaluation of proposals driven by initial price rather than long-term value for money (especially securing delivery of business benefits). Lack of understanding of, and contact with the industry at senior levels in the organization. Lack of effective project team integration between clients, the supplier team and the supply/resource chain.

b. How to prevent project failure

Require weekly status reports that include: Project start and completion dates. Which milestones you've passed. Percentage of the project that is complete. Any accomplishments worth mentioning. Important meetings attended. Any threats or potential risks to the projected timeline. Description of any problems you've encountered and resolved. Personnel or equipment limitations. Budget status.

Build an effective team by considering:

Employee skill, experience, participation ability, the projects they are already working on, and morale. Pair newer resources with mentors. Set a realistic schedule and stick with it. Establish concrete, clear goal planning in project management. Ensure senior management ownership and leadership from the beginning. Require effective engagement with project stakeholders. Ensure adequate skills and proven approach to project management and risk management. Pay attention to breaking developments and implementation into manageable steps. Evaluate proposals based on long-term value rather than price to secure delivery of business benefits. Maintain connectivity with the industry at senior levels. Ensure effective project team integration between clients and the supply/resource chain