

M.S.E., BARIPADA-757107
DEPARTMENT OF CIVIL ENGINEERING

SEMESTER- 5TH
SUBJECT- ESTIMATION-II
CHAPTER- PWD ACCOUNTS WORKS

PRESENTATION ON “ ACCOUNTS OF WORKS “

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Classification of work:

Works are primarily divided into two classes— "Original works" and "Repairs or maintenance."

Original Work: Original works include all new constructions whether of entirely new works or of additions and alterations to existing works which increase the capital cost of a building or work. Repairs to newly purchased or previously abandoned buildings required to render them useable are also original works.

Repairs Work: Repairs or maintenance includes all operations required to maintain in proper condition buildings and works in ordinary use.

Petty Work, Minor Work and Major Work

- A petty work is one the cost of which does not exceed Rs. 20,000, a minor work is one the cost of which exceeds Rs. 20,000, but does not exceed Rs. 1,00,000 and a major works is one the cost of which exceeds Rs. 1,00,000
- Exception—When in any one estimate, the amount chargeable to "Original Works" is less than Rs. 2,000 the whole of the expenditure may be charged to repairs ; provided that if the work relates to a residential building the amount which is correctly chargeable to "Original Works" is added to capital value and taken into account in calculating the rent.



Repair work

The repair works are classified in under mentioned categories:

- Day to day repairs/service facilities
- Annual repairs



TYPES OF CONTRACTS

Item rate contract

It is also known as **Unit-price contract** or **Schedule contract**. For item rate contracts, contractors are required to quote rates for individual items of work on the basis of schedule of quantities furnished by the department. This schedule indicates full nomenclature of the item as per sanctioned estimate, estimated quantities and therein. While filling up the rates, the contractors are required to express the amount in figures and also to work out the cost against each item. The final total of the amount tendered for the work is also drawn up by them. This type of contract is followed by Railway Department.

TYPES OF CONTRACTS

Lump sum contract

As its name indicates, is used for work in which contractors are required to quote a lump-sum figure for completing the works in accordance with the given designs, drawings, specification and functional requirements as the case may be. Lump-sum tender can be either for only executing the work as per given design, drawing and specification or it may include element of doing design work and preparation of structural drawings as well which shall be in keeping with the given functional, structural and architectural parameters and subject to approval by the competent authority beforehand.

TYPES OF CONTRACTS

Labour contract

In Labour contract the contractor undertakes contract for the labour portion. All material for the construction are arranged and supplied at the site of work by the department or owner, the labour contract engages labour and gets the work done according to specifications. The contract is on item rate basis for labour portion only and contractor is paid for the quantities of work done on measurement of the different item of work at the stipulated rate in the contract agreement. Materials for scaffolding, centering and shuttering and other similar materials are supplied by the department or owner ; contractor may also use his own materials for scaffolding, centering and shuttering, etc. if provided in the agreement.

TYPES OF CONTRACTS

Scheduled contract or Item Rate contract:

In Schedule contract , the contractor undertakes the execution or construction of a work on the item rate basis. The amount the contractor is to receive depends upon the quantities of various items of work actually done. The contract agreement includes quantities, rates and amounts for various item of work and the total amount of contract (BOQ with rate ,

Accounts of works

Administrative approval

For any work or project required by a department , an approval or sanction of the competent authority of the department, w.r.t the cost and work is necessary at the first instance. The approval authorize the engineering department to take up the work . Administrative approval denotes the formal acceptance by the department concern of the proposal , and after the administrative is given the engineer department (P.W.D) take up the work and prepare detailed designs, plans and estimates and then executes the work. The engineering department prepares approximate estimate and preliminary plans and submits to the department concerned for administrative approval

Accounts of works

Technical sanction

After receipt of administrative approval and expenditure sanction, detailed estimates are required to be prepared for technical sanction. As its name indicates, it amounts to no more than a guarantee that the proposals are structurally sound and that the estimates are accurately calculated and based on adequate data.

- Before an estimate is technically sanctioned, the following shall be available.
- Detailed architectural drawings and specifications
- Structural drawings for foundations
- Structural drawings of superstructure at least upto slab at level 2
- Detailed drawings of internal and external services.



Accounts of works

Tender

To tender is to invite bids for a project or accept a formal offer such as a takeover bid. Tendering usually refers to the process whereby governments and financial institutions invite bids for large projects that must be submitted within a finite deadline.

Before tenders for a work are invited a detailed estimate showing the quantities, rates and amounts of the various items of work and also the specifications to be adopted should be prepared. Before sanctioning, the draft of the detailed estimate, for works having involvement of Architect, should be sent to the Senior Architect to examine it vis-a-vis the specifications of various items provided by him.

Accounts of works

Preparation of notice inviting tender

All notice calling for tenders should be in the standard form and be serially numbered, a proper register being maintained for the purpose. They should only be issued after the authority competent to accept the tender has approved the NIT papers. The notice inviting tenders should be carefully prepared, the use of symbols % and per thousand in the schedule of quantities accompanying the Notice Inviting Tenders is prohibited and the words hundred and thousand must be written e.g. "Per hundred sq. metre" must be written and not "% sq.metre". The units should thus be more specific.



Accounts of works

Earnest money

According to the practice in Central PWD, earnest money is paid by each tenderer to enable Government to ensure that a tenderer does not refuse to execute the work after it has been awarded to him. In case where a tenderer fails to commence the work awarded to him, the earnest money is absolutely forfeited to the President.

Accounts of works

Security deposit

The security deposit will be collected by deductions from the running bills of the contractors at the rate mentioned below and the earnest money, if deposited in cash at the time of tender, will be treated as part of security deposit. The security deposit will also be accepted in cash or in the form of Government Securities, Fixed Deposit Receipts. Performance security may be accepted as Bank Guarantee of Scheduled Banks and State Bank of India .



Accounts of works

Advance payment

This means payment made on a running account to a contractor for work done by him but not measured. Advance payment is not generally made to the contractor, but may be made under special case when the work is sufficiently progressed but measurement cannot be taken for certain valid reasons, on the certificates of Assistant Engineer in-charge of work that the value of work done is no case less than the advance payment made or proposed to be made and detailed measurement will be taken as soon as possible.



Accounts of works

On account payment

Means a payment made on a running account, to a contractor in respect of work done or supplied made by him and duly measured. Such a payment may or may not be for the full value of work or supplied; if it is subject to the final settlement of running account on the completion of the contract for the work or supplies.



Accounts of works

Intermediate payment

The term applied to a disbursement of any kind on a running account not being the final payment. It includes an “Advance payment”, a “Secured advance” and an “on account payment” (other than the final payment on a running account) or a combination of these



Accounts of works

Final payment/ Final Bill

This means payment made on running account , made to a contractor on the completion or determination of his contract and in full settlement of the account. The bill on which final payment is made is known as “**Final Bill**”

Running bill

Denotes the account with a contractor when payment for work or supplies is made to him at convenient intervals subject to final settlement of the accounts on the completion or determination of his contract.

Accounts of works

Debit and credit

Debit means expenditure and credit means receipts. When an amount is to be debited to a work means that the amount is to be shown as expenditure on the work. Similarly when an amount is to be credited to a work it means that the amount is to be shown as receipt under the work

Voucher and related accounts

A voucher is an accounting document representing an internal intent to make a payment to an external entity, such as a vendor or service provider. A voucher is produced usually after receiving a vendor invoice, after the invoice is successfully matched to a purchase order.

They are:

- Debit or Payment voucher.
- Credit or Receipt voucher.
- Non-cash or Transfer Voucher.
- Supporting Voucher.

Accounts of works

Measurement book use & maintenance, procedure of marking entries of measurement of work and supply of materials, labour employed, standard measurement books and common irregularity

The measurement book is the basis of all accounts of quantities whether of works done by Contractors or by Labourers employed departmentally or materials received. It should be so written that the transactions are readily traceable.

These books should be considered as very important accounts records and maintained very carefully and accurately as these may have to be produced as evidence in a court of law, if and when required.

Accounts of works

Muster roll : Its preparation & use for making payment of pay & wages

Muster Roll is used for keeping a complete record of attendance, payment made , un-paid wages and work done by daily labour engaged on the execution of works. It is the basic records of payment made to daily labour. After the payment is made ,the Muster Roll is kept as a Voucher.

Accounts of works

Acquittance Roll : Its preparation & use for making payment of pay & wages

Labour & labour report, method of labour payment, use of forms and necessity of submission

The payment of salary to persons of regular establishment working outstation is drawn on the regular pay-bill , but payment is made on a separate receipt form known as **Acquittance Roll** , after taking duly stamped signature of the person. The Acquittance Roll is a receipt in evidence of payment in a prescribed form having five columns as Item No. , Name , Designation, Net amount payable and Date signature. The Acquittance Roll is prepared for the total amount as per Establishment Bill are passed the Drawing Officer.

