

Tender:

Tender is an offer in writing to execute some specified work or to supply some specified articles at certain rates, within a fixed time under certain conditions of contract and agreement, between the contractor and the department or owner or party.

* Sealed tenders are invited and work is usually entrusted to lowest tender.

* While inviting tenders the bill of quantities, detailed specifications, conditions of contract and plans and drawings are supplied.

Tender form

Tender form is a printed standard form of contract giving standard conditions of contract, general rules and directions for guidance of contractors. There is also a memorandum for (i) General description of work, (ii) Estimated cost (iii) Earnest money, (iv) Security deposit (v) Time allowed for the work from date of written order to commence and (vi) columns for signature of contractor before submission of tender, signature of witness to contractor's signature and signature of officer by whom accepted.

This is a part of tender document. The price of the tender form is given on the form.

Tender document:

Various terms and conditions of contract which are to be formulated while inviting tender for civil Engineering works are:-

- i) Notice inviting tenders is a standard approved form of a department;
- ii) $\$$ Tender form with standard conditions of contract.
- iii) Schedule of quantities of works to be done and materials, tools and plants supplied by the department if any,
- iv) Special $\&$ terms and conditions
- v) complete specification of work to be executed.
- vi) Special specifications and additional condition of contract.
- vii) one set of approved drawings.

Tender notice:

* The notice inviting tender papers is a very important document on which tenders and subsequent agreement with the contractors are based.

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* Tender notice should stipulate reasonable time for completion of work;

* All tender notices should be in the standard form of the department.

* For wide publicity of major work the tender notice is required to be published in two daily local News papers.

* Tender notice should be given in tabular form which contains essential informations as below:

- i) Name of authority inviting tender
- ii) Particulars of contractors eligible to submit tenders
- iii) Name of work and its location
- iv) Estimated cost of work
- v) price of tender form and other tender documents
- vi) Earnest money to be deposited
- vii) Time of completion
- viii) Last date of sell of tender paper, last date of permission;
- ix) Last date, time limit and place of receipt of tender and also time of opening tender;
- x) Accepting authority

Work order:

In cases letter of acceptance is issued first to a contractor intimating that

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his rate has been accepted and to perform a formal agreement within a specified days.

After the formal agreement is performed for the contract a letter is issued to the contractor known as "work order" to take up the work and the date of completion is treated from the date of issue of this letter.

This is an order of commencement for a work and is issued to a contractor by the executive Engineer concerned.

Earnest Money Deposit:

While submitting a tender the contractor is to deposit a certain amount, about 2% of the estimated cost, with the department as Earnest money as guarantee of the tender.

This amount is also a check so that contractor may not refuse to accept the work or run away when his tender is accepted. In case the contractor refuses to take up the work his earnest money is forfeited. Earnest money of tenderer whose tender has not been accepted is refundable.

The amount of earnest money depends on the estimated cost of work and is as follows:

RS 50.00 for work up to RS 2000.00

RS 100.00 for work up to RS 2000.00 to RS 5000.00

RS 200.00 for works above RS 5000.00 to RS 10000.00

and RS.100.00 for every RS 5000.00 or part thereof above RS 10,000.00

Earnest money should be cash or encashable at any time.

Security Money deposit :

* on acceptance of the tender, the contractor has to deposit 10% of tendered amount as Security money with the department which is inclusive of earnest money.

* this amount is kept as check so that contractor fulfills all the terms and conditions and carries out the work satisfactorily.

* If the contractor fails to fulfill the terms of contract his whole or part of the security money is forfeited by department.

* The security money is refunded to contractor after satisfactory completion of work, usually after one rainy season or six months of completion of work.

* usually the earnest money is taken as part of the security money and the balance amount of the security money is collected by deduction from the running account bill of contractor.

Comparative statement of Tenders:-

* Comparative statements of percentage rates and lumpsum tenders are made out by the officer opening tender in form 13 of PWD.

* It contains information regarding the name of the contractor, date of receipt of tenders, amount for the tenders. The recommendation or orders regarding acceptance or rejection of tender is recorded on it.

* comparative statements of item rate tenders is more elaborated and drawn up by office in PWD form 14, under supervision of Divisional accountant

* on the basis of comparative statement the Divisional officer makes an intelligent scrutiny and decision.

* If the acceptable of particular tender does not

rest with Divisional officer, it is forwarded with recommendations to next higher authority for consideration in a sealed confidential cover.

Additional conditions mentioned by tender:-

Special terms and conditions mostly depend on the nature of work and are written by department. These are not included in general conditions of tender. The common special terms and conditions are as below.

1. Site order book: site order book shall contain triplicate pages and signed by Assistant Engineering in-charge. Directions or instructions from departmental officers will be entered in the site order book.
2. Work program: contractor shall have to submit within three days of work allotment, a program showing the methods of construction, plant and temporary works he proposes to employ for the construction. This work program has to be approved by Engineer in charge.
3. Precaution and cooperation with other contractors: All the precautions must be taken to prevent any injury or accident. The contractor must protect all utility services like water pipe line, electric

Or telephone cable lines, gas line etc., fouling within his work.

4. Idle labour: No claim for idle labour would be entertained under any circumstances.

5. Arrangement of land for storing or stacking of materials: The contractor should make his own arrangement for stocking and storing space within the project site for materials in connection with the work.

6. Tool and plant: The contractor is entirely responsible and liable to procure all machinery, tools and plants, their spare parts for execution of work. Delay in procurement of such items due to their non-availability will not be taken as reason for slow or non performance of work.

Measurement book (M.B.):

1. Measurement for all works done and supplies received are recorded in a special type of note book called "Measurement book."

2. It contains columns for particulars, details of actual measurements in terms of length, breadth, depth and contents of area.

3. Each book is provided with extra pages for index, for review by divisional accountant and Executive officers.

4. This book is the basis of all account of quantities of work done. Payment is made for this work to the contractor.

5. The entries in M.B. are made in continuous chain in chronological order; no blank page being left or torn out. At the end of each set of measurements, the officer recording them has to certify - "measured by me" and put his full signature with date.

6. Entries recorded by the sectional officer are always subject to test check by the sub-divisional officer.

7. After the detailed measurements, an abstract of quantities are drawn up in M.B.

8. On completion of the abstract, the M.B. is sent to the sub-divisional officer for entering the rates of items by Assistant Engineer.

9. The bill thereafter is typed out in the prescribed form and made ready for payment and submitted to Divisional office for further check and payment.

Standard Measurement books (S.M.B.):

A set of Measurement books

Containing detailed measurements and payment is maintained by each sub division to facilitate

framing of annual repairs and estimates. These

M.B.s are called ^{standard} measurement books. These

S.M.B saves time and labour of Departmental officers

from repeated work of taking detailed measurements.

Muster Roll:

A muster roll is essentially a labour attendance register, pertaining to a particular worksite and

a particular period. It is also used as a receipt,

to claim funds from the programme officer for the payment of wages. The work is executed under

direct supervision of sectional officer or any

higher officials depending upon importance of work.

The attendance of labourers employed

is recorded daily in Muster roll (M.R) Form-21

and quantity of works executed on (M.R) Form-21

Part-II

Muster Roll - Form-21- Part-I

category of labour	SI. No	Name & Address	Father's Name	Date							Rate	Amount	Payment Acknowledgement	Date & Initial of officer making payment	Remarks	
				1	2	3	4	5	6	7						TOTAL
			Daily total													
			Initial of officer marking Attendance													
			Remarks by inspecting officer													

Muster Roll - Form 21 - Part-II

Description of work done vide M.B. Page-	Total quantity measured	Deduct quantity done in previous M.R. if any	Balance	Rate of cost	Remarks

The daily attendance and absence of labourers are recorded by sectional officer or Sub-Divisional officer concerned in Part-I daily at site work. Erasing, overwriting, and interpolation are forbidden. Any correction necessary is to be

made neatly with dated initial of the officer making it.

The inspecting officers are at liberty to check the attendance of labour at any time and the works got done by them.

PPP Projects:

PPP: public-private partnership projects.

1. PPP is a funding model for public infrastructure projects like airports, powerplants or telecommunication systems etc.,

2. The public partner is generally the Government at local, state or National level.

3. The private partner can be a privately owned by a business corporation or company.

4. PPP arrangements are useful for large projects that require highly-skilled workers.

* 5. PPP involve cooperation between a Government agency and a private sector company that

finances, builds and operates projects.

6. PPP allow large-scale government projects such as roads, bridges or hospitals to be completed with private funding.

7. These partnerships work well when private sector technology and innovation combine with public sector incentives to complete work on time and within budget.

Different models of PPP include:

i) Design - Build (DB):

The private sector partner designs and builds the infrastructure to meet public sector specifications for a fixed price. The private sector partner assumes all risk.

ii) operation & Maintenance Contract (O&M):

The private-sector partner, under contract operates a publicly owned asset for a specific period of time. Public partner retains ownership of the assets.

iii) Design - Build - Finance - operate (DBFO):

The private-sector partner designs, finances and constructs a new infrastructure project and operates under long term lease.

iv) Build - own - operate (BOO):

The private-sector partner finances, builds, owns and operates the infrastructure component.

v) Build - own - operate - Transfer (BOOT):

This publicly owned asset is legally

transferred to a private sector partner after a designated period of time.

vi) Buy - Build - operate BBO:

Publicly owned asset is legally transferred to a private sector partner for a designated period of time.

vii) Build - lease - operate - transfer (BLOT):

Private - sector partner designs, finances and builds a facility on leased public land. The private - sector partner operates the facility for the duration of land lease and when lease expires, assets are transferred to public sector partner.

viii) operation license:

Private - sector partner is granted a license or other to operation a public service usually for a specified term.

ix) Finance only:

Private - sector partner, usually a financial services company, funds the infrastructure component and charges the public - sector interest for use of the funds.

Advantages of public-private partnership (PPP):

Public-private partnerships offer several benefits:

1. They provide better infrastructure solutions.
2. They result in faster project completion and reduced delays on infrastructure projects.
3. Innovative design and financing approaches become available when two entities work together.
4. Operational and project execution risks are transferred from Government to private participant.
5. By increasing the efficiency of the Government's investment, a PPP allows Government funds to be redirected to other important socioeconomic areas.
6. Public-private partnerships that reduce costs potentially can lead to lower taxes.

Disadvantages:

1. Every PPP involves risks for the private participant who reasonably expects to be compensated for accepting those risks. This can increase Government costs.
2. Profits of the projects can vary depending on the assumed risk, the level of competition, the complexity and scope of project.
3. If the expertise in the partnership lies heavily on

the private side, the Government is at an inherent disadvantage.

BOT Projects:-

BOT: Build operate transfer

→ It is a contract which is used to finance large projects such as infrastructure projects using public private partnerships.

→ under a build-operate-transfer (BOT) contract, a public entity, usually Government grants a concession to private company to finance, build and operate a project.

→ The company operates the project for a period time of 20-30 years with a goal of gaining back its investment and then transfers control of the project to Government.

BOOT Projects:-

BOOT: Build, own, operate, transfer

→ BOOT project is often seen as a way to develop a large public infrastructure project with private funding.

2. BOOT is a project model in which a private organization conducts a large development project under contract to a public sector partner.
3. The public sector partner may provide limited funding or some benefits (such as tax exemptions) while the public