

Procurement of Works and Case Study

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GFR Provisions regarding Works

GFR : Provisions regarding Fixing Agency (PMC) for the works

- When required
- PWO's
- PSU's

Manual of Procedure for Procurement of works



CPWD WORKS MANUAL 2019

CPWD WORKS MANUAL-2019

- Part I : General provisions common to both Construction and Maintenance works.
- Part II : Provision related to Construction works
- Part III : Provisions related to Maintenance works.
- Part IV : Provisions related to Green Buildings and Sustainability Measures

(Detailed SOP's for each of first 15 chapters and 63 annexures ,having 260 pages)

Preliminary Estimate:

- Estimate prepared for construction/repair/maintenance works based on plinth area cost basis with CPWD Plinth Area Rates (PAR) or any other method without detailed items of work for obtaining A/A & E/S.
- How to prepare?

Contingencies:

Provision made in the estimates for meeting out unforeseen incidental expenses of a miscellaneous character which cannot appropriately be classified under any distinct sub head or sub work, yet pertain to work as a whole and are contingent to the completion of the work.

Contingencies:

The contingencies can be utilized for construction of site office, engagement of watch & ward staff, job works like surveying, material testing, estimating, structural designing, architectural drawings, models, maintenance and hiring of inspection vehicle and any other field requirements directly related to work. Further guidelines on contingencies & its utilization

Cost Index:

An indicator of the average cost movement over time of a fixed basket of representative goods and services related to execution of works.

Departmental/Service Charges:

- Agency Charges levied by CPWD or any other PMC for execution of works.
- In CPWD No departmental charges are to be levied for Government Works. For the works of Private Organizations, Local bodies and PSUs, departmental charges are levied as per the prescribed rates.

Administrative Approval & Expenditure Sanction:

- Communication of formal acceptance of the proposals by the competent authority of the Administrative Ministry/ Department requisitioning the work.

Enabling Estimate

Estimate that is prepared for carrying out pre-construction activities of a work.

Rough Cost Estimates

- Estimate for a ready approximate cost of work which are prepared on the request of the client only to assess the cost of the project based on the input given by the client with or without any preliminary design/drawings.

Budgeted Works:

- The works that are undertaken under an outlay that provided wholly from the financial estimates and accounts of the Union of India those laid before and voted by both the Houses of Parliament.

Deposit Work:

The term 'Deposit Works' is applied to works of construction or repairs and maintenance, the cost of which is met out of Government grants to autonomous or semi-autonomous bodies or institutions through their Administrative Ministries, or is financed from non-Government sources wholly or partly from : (a) Funds of public nature, but not included in the financial estimates and accounts of the Union of India or (b) Contributions from the public.

Classification of works

- **Original Works:** Works involving all new constructions, site preparation, additions and alterations, special repairs to newly purchased or previously abandoned buildings or structures, including re-modelling or replacement.
- **Repairs and Maintenance works:** All works undertaken to maintain the assets in a proper service condition and for maintenance and operation of all services therein.
- **Comprehensive Maintenance works:** Combined Civil, Electrical and Horticulture maintenance works carried out under a single contract.

Classification of works

- **Minor Works:** Works which add capital value to existing assets but do not create new assets.
- **Additions/Alterations Works** : Works which are carried out in any existing structure as per laid down norms or as per requirements of the client department
- **Normal Works:** Works which are not any of the following : Works of Emergent and/or Urgent nature and/or Specialized Works.

Classification of works

- **Special Repair Works:** Major repairs or replacement or remodeling of a portion of an existing structure / installation or other works which needs replacement of the major component of structure/ installation due to major breakdowns, or its deterioration.
- **Specialized Works:** Specialized works /items/ jobs are those works that requires expertise/specialized skill and are executed after prequalification of agencies.

Classification of works

- **Upgradation Works:** Works carried out to an existing structure pursuant to revised norms/specifications as notified from time to time by the CPWD Directorate/ Client Department.
- **Urgent Works:** Urgent works are works which requires fast start/completion within compressed schedule and are to be taken up on top most priority at the instructions of competent authority or on specific request of the user department.
- **Emergent Works:** Works which arise all of sudden out of any Critical or Emergent situation of inescapable nature and which brooks no delay and are to be awarded expeditiously.

Stages of works

- **Pre-construction Stage:** Stage before acceptance of the tenders for the work.
- **Construction Stage:** Stage between acceptance of tender and completion of work
- **Post-construction Stage:** Stage after completion of the work.

Detailed Project Report (DPR):

- A detailed appraisal report of a project containing documents as described in the Works Manual

Detailed Estimate:

- Complete and comprehensive estimate of a work, based on the rates given in the SOR for those items covered by it and on market rates for the remaining items, supported by detailed drawings and specifications.
- How to prepare?

Technical Sanction

A certificate that the detailed estimate has been prepared and approved on the basis of a properly detailed design.

- **Technical Sanction Authority:** The authority who approves the detailed estimate and issues Certificate of Technical Sanction for the work.

Packages for accord of Technical Sanction

- ❖ Single package covering entire sanction.
- ❖ Multiple packages under single sanction.
- ❖ Single package covering multiple sanctions.

Publicity of Tenders in CPWD

- All tenders of any amount shall be invited through e-tendering system of department and at www.eprocure.gov.in
- In CPWD , as per CPWD Works Manual 2019 , in exceptional cases, if press publicity is required to be given apart from website publicity, written permission shall be obtained from next higher authority.

Time Limit for Publicity of Tender in CPWD

❖ Up to Rs 5 Cr : 7 days

❖ More than Rs 7 Cr : 14 Days

Validity Period of Tenders in CPWD

- If only financial bids are invited : 30 days from the last date of receipt of bids
- In all other cases : 75 days from the last day of receipt of technical bid.

Type of Tenders

- **Open Tenders:** Tendering process in which tenders are not invited on a restrictive call basis.
- **Restricted Tenders :** Tenders of Secret/Special nature requiring specialized equipment or maintenance of VIP residences/important buildings invited from limited prequalified contractors.

Standard Forms of Contract in CPWD

- ❖ Percentage Rate Tender (CPWD Form 7)
- ❖ Item Rate Tender (CPWD Form 8)
- ❖ Work Order (CPWD Form 11 / 11A)
- ❖ Lump Sum Contract (CPWD Form 12)

- **Item Rate Tender:** Tenders in which the contractors are required to quote rates for individual items of work as given in the schedule of quantities.
- **Percentage Rate Tender:** Tenders in which the contractors are required to quote rates on percentage basis i.e. above or below the estimated cost put to tender.

Bidding System

- ❖ Pre Qualification
- ❖ Post Qualification

Tender for Normal Works

- ❖ In CPWD tenders for works costing up to Rs 30 cr are generally invited only from the contractors registered with CPWD in appropriate class.

Tender for Normal Works costing more than 30 Cr

- ❖ Tenders for works costing above Rs 30 crore shall be invited under Two envelope system

Two Bid/Envelope System

Technical specifications are finalized and clearly defined in NIT.

- ❖ Bid/Envelope 1 – Documents related to eligibility criterion.
- ❖ Bid/Envelope 2 – Financial Bid.

FORM 'A'

FINANCIAL INFORMATION

1. Financial Analysis-Details to be furnished duly supported by figures in balance sheet / profit & loss account for the last five years duly certified and audited by the Chartered Accountants, as submitted by the applicant to the Income Tax Department (Copies to be attached).

Years

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(Average turnover in last 3 years should be equal or more than 50% of ECPT)

(Should not have incurred loss in more than 2 years in last 5 years)

FORM 'A'

FINANCIAL INFORMATION

Solvency Certificate from Bankers of bidder in the prescribed Form "B"

Solvency certificate for minimum 40% of ECPT required

FORM 'E'

PERFORMANCE REPORT OF WORKS REFERRED TO IN FORM "C"

1.	Name of work / Project & Location		
2.	Agreement No.		
3.	Estimated Cost		
4.	Tendered Cost		
5.	Date of Start		
6.	Date of completion		
	i)	Stipulated Date of Completion	
	ii)	Actual Date of Completion	
7.	Amount of compensation levied for delayed completion, if any		
8.	(a) Final Bill Amount (b) Amount of reduced rate items, if any.		
9.	Performance Report		
	1) Quality of Work		Very Good/Good/Fair/Poor
	2) Financial Soundness		Very Good/Good/Fair/Poor
	3) Technical Proficiency		Very Good/Good/Fair/Poor
	4) Resourcefulness		Very Good/Good/Fair/Poor
	5) General Behaviour		Very Good/Good/Fair/Poor
Dated:			Executive Engineer Or Equivalent

Financial Criteria for Eligibility

Bids for works with Estimated Cost more than Rs 20 cr.

One **similar** work of 80% of estimated cost put to tender.

OR

Two **similar** works each of 60% of ECPT

OR

Three **similar** works each of 40% of ECPT

Sample Evaluation of Eligibility Criteria

- ❖ Financial strength : Maximum 20 marks
 - Average Annual Turnover (16 marks)
 - Solvency Certificate (4 marks)

- ❖ Experience of similar work : Maximum 20 marks

- ❖ Performance on works (Time over run) : Maximum 20 marks

- ❖ Performance on works (Quality) : Maximum 40 marks

Tender for Specialised Works

- ❖ Tenders for specialised works are called from specialised agencies in 3 Bid system
- ❖ List of Specialised works is available in CPWD works manual
- ❖ ADG is competent authority to declare any work as specialised work.
- ❖ Such tenders are called after fixing proper Technical and Financial Eligibility Criteria

Three Bid/Envelope System

Technical specifications are to be finalized on receipt of details from the bidders.

- ❖ Bid/Envelope 1 – Documents related to eligibility criterion.
- ❖ Bid/Envelope 2 – Technical Bid.
- ❖ Bid/Envelope 3 – Financial Bid.

Specialized Work : Similar Work Criteria for Eligibility

- ❖ 80% of biggest capacity of Equipment

Pre-bid Clarifications

And

Modifications to Bidding Document

General Condition of Contract for CPWD

Works 2014

Clause	Description
1	Performance Gurantee
1A	Recovery of Security Deposite
2	Compensation for Delay
2A	Incentive for early completion
3	When Contract can be Determined
3A	When work not started
4	Contractor liable to pay Compensation even if action not taken under Clause 3
5	Time and Extension for Delay
6	Measurements of Work Done
6A	Computerized Measurement Book

7	Payment on Intermediate Certificate to be Regarded as Advances
	Payments in composite Contracts
8	Completion Certificate and Completion Plans
8A	Contractor to keep Site Clean
8B	Completion Plans to be Submitted by the Contractor
9	Payments of Final Bill
9A	Payment of Contractor's Bill to Bank
10	Materials supplied by Government
10A	Materials to be provided by the Contractor

10 B (i)	Secured Advance on Non-perishable Materials
10 B (ii)	Mobilisation Advance
10 B (iii)	Plant Machinery & Shuttering Material Advance
10 B (iv)	Interest & Recovery
10C	Payment on Account of increase in Prices/Wages due to Statutory Order(s)
10CA	Payment due to variation in prices of material after receipt of tender
10CC	Payment due to increase/decrease in Prices/Wages (excluding materials covered under clause 10 CA) after Receipt of Tender for Works
10D	Dismantled Material Govt. Property

11	Work to be Executed in Accordance with Specifications, Drawings, Orders etc.
12	Deviations/Variations Extent and Pricing
12 (12.2) (A)	Deviations, Extra Items and Pricing
	Deviation, Substituted Items, Pricing
	Deviation, Deviated Quantities Pricing
12	Foreclosure of contract due to Abandonment or Reduction in Scope of Work
14	Carrying out part work at risk & cost of Contractor

15	Suspension of Work
15A	Compensation in case of Delay of Supply of Material by Govt.
16	Action in case Work not done as per Specification
17	Contractor Liable for Damages, defacts during defact loability period
18	Contractor to Supply Tools & Plants etc.
18A	Recovery of Compensation paid to Workmen
18 B	Ensuring Payment and Amenities to Workers if Contractor fails
19	Labour Laws to be complied by the Contractor

19 A	No Labour below age of 14
19 B	Payment of Wages
19 C	Panelty for not following safety code
19 D	Labour repoert submission, panelty Rs. 200
19 E	Health and sanitary arrangements for workers
19 F	Leave and Pay during leave for workers
19 G	Breachfor contracter labour regulations
19 H	Labour Huts
19 I	Engineer can remove any person employed by contractor
19 J	Contractor responsibility that building not occupied unauthorisedly
19 K	Employment of skilled/semi skilled workers
19 L	Contribution of EPF and ESI

20	Minimum Wages Act to be Complied with
21	Work not to be sublet. Action in case of insolvency
22	All Compensations levied are reasonable
23	Changes in firm's Constitution to be intimated
24	Works to be executed under direction engineer-in-charge
25	Settlement of Disputes & Arbitration
26	Contractor to indemnify Govt. against Patent Right
27	Lumpsum Provisions in Tender

28	Action where no Specifications are specified
29	Withholding and lien in respect of sum due from contractor
29A	Lien in respect of claims in other Contractors
30	Employment of coal mining or controlled area laour not permissible
31	Unfiltered water supply
31A	Departmental water supply, if available
32	Alternate water arrangements
33	Return of Surplus materials
34	Hire of Plant & Machinery

35	Condition relating to use of asphaltic materials
36	Employment of Technical Staff and employees
37	Levy/Taxes payable by Contractor
38	Conditions for reimbursement of levy/taxes if levied after receipt of tender
39	Termination of Contract on death of Contractor
40	If relative working in CPWD then the contractor not allowed to tender
41	No Gazetted Engineer to work as Contractor within one year of retirement

42	Return material & recovery for excess material issued
43	Compensation during warlike situations
44	Apprentices Act provisions to be complied with
45	Release of Security deposit after labour clearance

Bidding/Tender Document

Structure of CPWD Tender Documents

- ❖ Notice Inviting tender in Form CPWD 6
 - Subject matter of procurement
 - Nature and location of works
 - Scope of Work
 - EMD Submission
 - Time for completion.
 - Eligibility /Limitation of participation of Bidders
 - Manner, date and time for presentation of Bids.

Structure of CPWD Tender Documents

- ❖ Information and Instructions for Bidders e-tendering including criteria for evaluation of Bid
- ❖ Schedule /Bill of quantities
- ❖ Set of drawings referred to in SOQ
- ❖ Specifications of the work
- ❖ General Conditions of Contract , correction slips and filled in Form F
- ❖ Additional /Special Conditions

Structure of CPWD Tender Documents

- ❖ Form for submission of Eligibility documents
 - Work Completion certificate,
 - Bank Solvency
 - Financial Turnover
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- ❖ Draft Bank Guarantee for submission of EMD
- ❖ Any other information which the procuring entity considers necessary for the bidders to understand/submit.

Securities in Tendering Process and Contracts

Securities in Tendering Process and Contracts

- ❖ **Earnest Money:** Amount paid by a bidder in required form as a security for not backing out from his/her tender before its acceptance or refusing to execute the work after it has been awarded to him/her.

(2% to 5% of ECPT as per GFR 2017)

Forfeiture of Earnest Money

- (1) The forfeiture of earnest money shall be done as per the General Conditions of Contract.
- (2) If contractor fails to furnish the prescribed performance guarantee within the prescribed period, the earnest money is absolutely forfeited to the President automatically without any notice.
- (3) In case of forfeiture of earnest money as prescribed in Para 1) and 2) above, the bidder shall not be allowed to participate in the re-tendering process of the work.

Performance Guarantee

- ❖ To ensure due performance of the contract, Performance Guarantee shall be obtained from the successful bidder.

(5% to 10% of awarded amount as per GFR 2017)

5% of the Accepted Value of work in CPWD.

Receipt, Opening and Acceptance of Bids

- ❖ Executive Engineer is the authorized officer for receipt and opening of bids.
- ❖ Bidders are encouraged for witnessing opening of bids in the office of Executive Engineer.

Parameters for Financial Evaluation of Bids

Estimated Cost of the Work

- ❖ Based on Technically Sanctioned estimate.
- ❖ Based on latest CPWD DSR and Market Rates for items not borne on DSR.

Justified Cost of the Work

- ❖ Based on prevailing market rates of basic items of materials and Minimum wages of labour as per Government notification.
- ❖ Any taxes , cess or levies applicable ,but not considered in estimated cost is added over the justified cost.
- ❖ Financial provision for any specific site conditions, Special T&P etc. is added as per requirements specific to the work.
- ❖ Items and Quantity of items remain same as considered in Estimated Cost put to Tender.
- ❖ Is a reflection of current market cost of the work.

Evaluation of Bid

- ❖ Conditional Bids are summarily rejected.
- ❖ Only lowest bid can be considered for award.
- ❖ Comparison of Tendered Cost with reference to Justified Cost.
- ❖ Deviation up to 5% over the Justified Cost is ignored.
- ❖ Deviation up to 10% over the Justified Cost could be accepted with recorded reasons.
- ❖ Negotiation allowed only in exceptional cases as per CVC guidelines.

Payment Terms

- Advance Payment for Mobilization (clause 10B (ii))
- Plant Machinery and Shuttering Material Advance (clause 10B (iii))
- Secured Advance (clause 10B (i))

Payment Terms

- Running Payment
- Final Bill
- Release of PG and Security Deposit

Price Adjustment

- Clause 10 C : Payment on Account of Increase/Decrease in Prices/Wages due to statutory orders.

Price Adjustment

- Clause 10 CC : Payment due to increase/decrease in Prices/Wages (Excluding material covered under Clause 10CA) after receipt of tender.

$$VM = W * (X/100) * ((Mi - Mio) / Mio)$$

$$VL = W * (Y/100) * ((Li - Lio) / Lio)$$

Price Adjustment

- Clause 10 CA : Payment due to variation in prices of specified material after receipt of tender.

$$V = P * Q * ((C_i - C_{i0}) / C_{i0})$$

Price Adjustment

- Applicability of Clause 10 C, 10 CA , 10 CC:
 - 10 CC is generally applicable in tenders with stipulated period of more than 12 months
 - If 10 CC is applicable , 10 C is not applicable but 10 CA is applicable
 - If 10 CC is NOT applicable , 10 C and 10 CA is applicable

E-Tendering

- ❖ All biddings in CPWD are through e-tendering only with effect from 1st July 2010.
- ❖ e-tendering platform is provided by M/s. ITI Ltd. as www.tenderwizard.com/cpwd.
- ❖ Digital signatures from certifying authorities like NIC, MTNL, e-Mudhra, TCS, GNFC, Safescrypt etc.
- ❖ Self learning module is also available on this web page.

Post Construction Stage

- ❖ Finalisation of Bills of contractor.
- ❖ Settlement of accounts
- ❖ Reply and settlement of Audit Paras
- ❖ Reply and settlement of CTE/QA paras
- ❖ Dispute Redressal
- ❖ Effective defence of Arbitration and Court cases, if any.

Delegation of Powers to CPWD Officers

S. No at table in manual	Nature of Power	Designation of officer	Extent of Power (in Rupees)	Remarks / Reference
1	To accord Administrative Approval and expenditure sanction to minor works (up gradation, aesthetic improvement repair and replacements, original works for residential and non-residential buildings, owned by MOUD, s.t. Availability of funds/grants under relevant Head of sanction	EE	30 Lac	
		SE	200 Lac	
		CE/CPM/PM	800 Lac	
		ADG	1200 Lac	
		Spl. DG	1500 Lac	
		DG	2000 Lac	
12	Grant of extension of time and rescheduling of mile stones . a) Without levy of compensation	AE/AEE/ADH/EE/DDH	Full Powers in respect of contracts amounting upto his power to accord TS	
		SE/DOH	Full Powers	
		b) Levy of compensation	SE/DOH	
14	To undertake deposit works for new clients a) At full rates of departmental charges or all Central Govt. works and works of autonomous bodies fully funded by the Central Govt. where no departmental charges are to be levied.	SE	4 Crore	
		CE	15 Crore	
		ADG	Full Powers	
		DG	Full Powers	
	b) At rates lower than full rates of departmental charges	CE	5 Crore	

S. No at table in manual	Nature of Power	Designation of officer	Extent of Power (in Rupees)	Remarks / Reference
15	Acceptance of lowest tender with or without negotiations including splitted up projects/works/sub head/packages.	AE/AEE/ADH	6 Lac	
		EE/DDH	100 Lac	
		SE/DOH	1000 Lac	
		CE/PM	3000 Lac	
		ADG/CPM	5000 Lac	
		Regional Works Board	20000 Lac	
		C. W. Board	Full Powers	

Note : * The ADG/Spl.DG/DG/Central Works Board shall issue approval for acceptance of tender by CE.

16	Acceptance of single bid/tender against open tender with or without negotiations including splitted up projects/ works/sub head/packages	AE/AEE/ADH	2 Lac	
		EE/DDH	25 Lac	
		SE/DOH	500 Lac	
		CE/PM	1500 Lac	
		ADG/CPM	2500 Lac	
		Regional Works Board	10000 Lac	
		C. W. Board	Full Powers	

Note : * The ADG/Spl. DG/DG/Central Works Board shall issue approval for acceptance of tender by CE. Full reasons should be recorded by the approving authority who should also guard against contractor holding out unjustifiably higher rates.

S. No at table in manual	Nature of Power	Extent of Power (in Rupees)			
		Designation of officer	Original work	Maintenance Works	VIP works
17	Award of work with call of quotations (a) Urgent works through open call of quotations	AE/AEE/ADH	75000	75000	-
		EE/DDH	5 Lac	5 Lac	7.5 Lac
		SE/DOH	15 Lac	15 Lac	22.5 Lac
		CE	35 Lac	35 Lac	50 Lac
		ADG	125 Lac	125 Lac	200 Lac
		Spl. DG/DG	225 Lac	225 Lac	275 Lac
		C. W. Board	Full power	Full power	
	(b) Emergent works through spot quotation**	EE/DDH	10 Lac	10 Lac	
		SE/DOH	30 Lac	30 Lac	
		CE	70 Lac	70 Lac	
		ADG	250 Lac	250 Lac	
		C. W. Board	Full power	Full power	

S. No at table in manual	Nature of Power	Designation of officer	Extent of Power (in Rupees)		
			Original work	Maintenance work	
19	Award of work by negotiations, ab-initio after in fructuous call of tender or with a firm which has not quoted for execution of the remaining work after rescission of the contract	AE/AEE/ADH	75000		
		EE/DDH	6 Lac		
		SE/DOH	15 Lac		
		CE	40 Lac		
		ADG	200 Lac		
		Spl. DG	400 Lac		
		C. W. Board	Full power		
20	Splitting up projects / works/ sub heads/packages (sanctioned cost of project/work/distinct sub head/package being criteria)	EE/DDH	60 Lac	30 Lac	
		SE/DOH	400 Lac	200 Lac	
		CE	1500 Lac	750 Lac	
		ADG/DG	Any amount	Any Amount	

22	Award of work order (Annual limit)	Designation of officer	Extent of Power (in Rupees)		
			Original work	Maintenance work	VIP Area
	(a) Normal works through publicity on net/notice board	AE/AEE/ ADH	7.5 Lac	9 Lac	15 Lac
	In addition to sub-division Powers	EE/DDH	50 Lac	60 Lac	100 Lac
	In addition to Sub-Division and Division Powers	SE/DOH	150 Lac Per Div.	180 Lac Per Div.	300 Lac Per Div.

25	Nature of Power	Designation of officer	Extent of Power (in Rupees)	
			Extent of Power	Remarks
25	Accord of technical sanction to detailed estimates and issue of NIT/Composite NIT	AE/AEE/ADH	6 Lac	
		EE/DDH	100 Lac	
		SE/DOH	1000 Lac	
		CE/CPM/PM	Full Power	
26	(a) Acceptance of arbitration award in consultation with Finance Officer of Zonal office.	CE	25 Lac	
		ADG	100 Lac	
		Spl DG	Full Power	
	(b) Challenge of arbitration award in consultation law ministry.	CE	25 Lac	
		ADG	100 Lac	
		Spl DG	Full Power	
29	Powers to modify contract conditions	ADG	*10%	
		Spl DG	*25%	
		CW Board	Full Power	
	* Where financial implication is up to percentage shown on the contract amount.			

S.NO	Nature of work	Designation of officer	Extent of Power (in Rupees)	
			When sanctioned cost of the work is within his power to accord TS	Other works
41	Contingencies and its utilization	EE	Full Powers to utilize available contingencies	5 Lac
		SE/ DOH	Full Powers to utilize available contingencies	15 Lac
		CE/PM(SE)	Full Powers to utilize available contingencies	Full Power

Thank You