

Himachal Pradesh
Public Works Department

No. PW/CTR/CPWD adoption/Gen.Inst./2022 19663-762
To

Dated :- 6/9/22

The Engineer-in- Chief (Project) HPPWD,
The Architect-in- Chief, HPPWD Mandi,
The Chief Architect HPPWD Shimla,
All the Chief Engineers in HPPWD,
All the Superintending Engineers in HPPWD,
All the Executive Engineers in HPPWD.

Subject: - Preparation of Preliminary Estimates (PEs) for arranging A/A &E/S of the Building works.

Keeping in view the adoption of CPWD work manuals, SOPs and the technological advancements made in various sectors of equipment development essentially needed to provide modern services in the building works and to meet out requirement of client department and for developing transparent mechanism for submission of Preliminary Estimates, proper procedure is required to be followed in respect of Civil, Electrical and Horticulture components of the works. On the basis of SOPs to CPWD works manual 2022, the general guidelines for preparation/submission of the Preliminary estimates are summarised as under:-

In case of all building works, the EE (Civil) after receiving the requisition of any work from the client department, will also convey such requisition to all concerned units like Architecture, Electrical and Horticulture as required for better coordination between them for the preparation of detailed architectural drawings, specifications including local body approvals, structural drawings and E&M services drawings for execution of project/work. The concerned Architectural wing in coordination with the various wings (civil/electrical/horticulture) of the department will interact with the Client department for obtaining their requirement w.r.t. work proposal and to detail out inputs for preparation of Architectural drawings.

The office of Architect-in-Chief/ Chief Architect while seeking the approval of the client department for the Architectural drawings will also inform the concerned EE(Electrical) and EE(Horticulture) of the department simultaneously. The office of the Architect will also seek the feedback on any changes, if required by the Client department on the preliminary architectural drawings and shall incorporate the same in the Architectural drawings for approval of the Client department. The Executive Engineer (Civil) while conveying the feasibility of the Architectural drawings at site, will also inform the concerned EE (Electrical) and EE (Horticulture) of the department. The T/S authority (who shall be adjudged in accordance with the SOP No. 3/1 to CPWD works Manual-2022) of the department will administer all such co-ordination amongst all concerned units of the department and client department. This will help in better co-ordination of the various wings of the department and the client department to finalize the specifications of the work(s). After approval of the architectural drawings of the building work(s) by the Client department, the preliminary estimates will be prepared on the basis of plinth area rates and will be submitted to the client department for obtaining the A/A & E/S of the works. For obtaining the A/A &E/S in a realistic

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manner, the concerned EE (Civil) and EE (Electrical) HPPWD will ensure that all the components of their respective field are finalized in consultation with the Client department and office of the Architect before processing of the PEs. Similarly, the EE (Horticulture) will also ensure that horticulture components, if any required in the work, are finalized before sending the PE to the EE Civil wing of the department. The EE (Civil) after receiving the PE from the Electrical wing and Horticulture wing of the department, will compile the PE covering all components (civil/elec./hort.) of the work and will submit the same to the concerned SE (Civil) for further processing of its approval of the competent authority/client department as the case may be.

While preparing the PEs, the EE (Civil) will ensure inclusion of all the components of the civil work as per requirement of the work and as per architectural drawings approved by the Client department in consultation with the Architectural cell. The provision of all components of the electrical installation, which includes internal, external and other specific electrical components are required to be made in the PEs for obtaining A/A & E/S of the works in practical manner. Therefore, it is desirable that all the components in respect of Civil, EI and Horticulture are taken in the PEs and detailed estimates in order to adopt transparent mechanism for budget projections and execution of works.

While forwarding the PE to the client department for accord of A/A & E/S, an indication shall be given in the history sheet that the cost and time of the project is liable to revision due to probable escalation in cost of construction apart from reasons such as change in scope, area, design and specifications etc., if so desired by the client at a later date. The PE submitted by HPPWD is valid up to one year from the date of submission of PE.

After receipt of A/A & E/S from the client department, the HPPWD will prepare and submit various detailed architectural drawings and service plans to Local Bodies (including Environmental clearance) whose approvals are required before taking up the construction work. These Local bodies are independent organizations and HPPWD has no control over them. Therefore, the time required to get such approvals will not be included in the time of construction indicated in the PE. Although HPPWD will make all efforts to get such approvals early, it may be necessary for the client department to pursue with Local Bodies for early approvals.

As per approval regarding adoption of CPWD Works manual by HPPWD conveyed vide GoHP letter No. PBW(B)A(3) 1/2020 dated 22.07.2020; any deposit work shall be undertaken to carry out as per conditions laid down in CPWD works manual Chapter 3.1.2. and at least 20% of estimated cost of work shall be required to be deposited before award of work out of which 10% shall be at the time of A/A & E/S. Also a memorandum of understanding (MoU) shall be drawn with the client department before taking up the deposit work as per Annexure -4 of SOP to CPWD Works manual. No departmental charges are to be levied for Government works, however for the works of private organizations, local bodies and PSUs, departmental charges @ 9% shall apply. Regarding escalation charges for preparation of the PEs, the existing provisions shall apply without any change.

Necessary revised estimate will be submitted when scope of work is increased/changed or there is deviation in quantities executed. If additional funds are required, the matter shall be taken up immediately with the client department through competent authority of the department. The additional funds shall be provided by the client department on the Revised Estimates submitted by HPPWD. In case the client department fails to provide funds as per requirements, it may be necessary for HPPWD to suspend /abandon the work. In such eventuality,

the client department shall be solely responsible for all the consequences arising out of such stoppage/ abandonment of work including claims of contractors for compensation/ damages.

After adoption of the CPWD works manual in the year 2020, the Plinth Area rates (PAR) as published by the CPWD applicable w.e.f. April, 2020 were circulated vide this office letter No. PW (B) Plinth Area /WS/2020-6220-6310 dated 01.12.2020 to be followed in HPPWD for processing the cases of the A/A & E/S. Further as per proviso contained in the above letter, the above plinth area rates shall be automatically treated as revised on any revision by the CPWD in future. Accordingly as on today, the revised Plinth area rates-2021 by CPWD as available on website cpwd.gov.in/Documents/cpwd_publication.aspx are applicable in HPPWD which contain the rates for various components of the Civil work, EI work and Horticulture work.

The Plinth Area Rates- 2021 provides rates/cost for EI components like Fire fighting system, Fire alarm system, Internal electrical installations, Services (electrical external service connections & internal electrical installations) and Lifts (passenger lifts , bed lifts , good lift etc.). The rates for specialized E&M services are also provided in the PAR-2021 vide Sr.No. 6.0 which may be taken in the PEs, as per requirement of the work(s) in consultation and finalization with the Architect office, Client department and Civil wing of the department. Any left out component of Civil/EI/Horticulture works, not covered under the provisions of the PAR-2021 may be taken in the PEs on likely actual cost basis duly supported with market rate analysis. Further, the rates in the PAR-2021 are inclusive of CP & OH, GST and labour welfare cess. However, viewing the increase in the GST notified by the GOI recently from 12% to 18%, the PEs and detailed estimates shall be submitted on the basis of increased rate of GST.

In this context, it is further submitted that Annexure-3 in reference to Para 3.1 of CPWD Works manual 2022 provides details of Pre-construction activities and Annexure-6 in reference to Para 3.1.3 (2) of CPWD Works manual 2022 provides the list of specialized items of civil works, electrical works and horticulture works which are enclosed for handiness.

Encl. As above

Engineer-in-Chief,
HPPWD Shimla-2

Copy to :-

- (i) The Principal Secretary (PW) to the Govt. of HP for information.
- (ii) The Executive Engineer (IT) in this office with the direction to upload the same on the departmental web site.

Engineer-in-Chief
HPPWD Shimla-2

ANNEXURE- 3**(Reference Para 3.1)****DETAILS OF PRE-CONSTRUCTION ACTIVITIES**

The following Activities are involved in Pre-construction stage:

(A) In case A/A & E/S based on Detailed Project Report (DPR) after approval of enabling estimate, then following pre construction activities shall be followed.

- (i) Requisition from the client.
- (ii) Preparation of enabling estimate for preparation and submission of detailed Project Report (DPR) to client for accord of A/A & E/S. The enabling estimate should be prepared after consultation with the client to assess and appreciate their requirements.
- (iii) The enabling estimate should give Rough Cost based on probable plinth areas requested by client and should incorporate estimated expenditure to be incurred on the following activities:-
 - (a) Site survey,
 - (b) Soil investigation
 - (c) Appointment of Architectural consultant, if required
 - (d) Appointment of Structural consultant, if required
 - (e) Appointment of E&M consultant, if required
 - (f) Other essential preliminary steps connected with preparation of detailed project reports.
 - (g) Model of the project, if required
 - (h) Assessment of services such as water supply, electricity, drainage and sewerage etc.
 - (i) Obtaining statutory approval from local bodies / local authorities
- (iv) Submission of enabling estimate to the client
- (v) Approval of enabling estimate by the client.
- (vi) Appointment of consultant for site survey, soil investigation, obtaining local body approvals, architectural, structural and E&M services, wherever required.
- (vii) Discussion with the client to assess and appreciate their requirements, incorporation of the same and preparation of the detailed architectural plans and specifications.
- (viii) Approval of the detail architectural plans by the client.
- (ix) Preparation of detailed working drawings including all architectural detailing.
- (x) Submission of the plans to the Local Bodies / ASI / Fire Department / Civil Aviation Authority / EIA Clearance from Environment and Forest Department for their approval, if required.
- (xi) Preparation of Structural drawings.
- (xii) Preparation of services drawings

- (xiii) Approval of plans by the Local Bodies
 - (xiv) Preparation of DPR including detailed cost estimate for buildings and all services (civil, electrical and mechanical)
 - (xv) Submission of DPR along with detailed cost estimate to client for accord of A/A & E/S
 - (xvi) Receipt of A/A & E/S from the client.
 - (xvii) Preparation of NIT and call of tenders.
 - (xviii) Selection of contractors from the pre-qualification applications wherever applicable.
 - (xix) Receipt / opening of tenders
 - (xx) Decision of tender and award of work.
- (B) In case of typed design construction and available approved architectural drawings, then following pre construction activities shall be followed:-
- (i) Preparations of detailed cost estimates for buildings and all services (civil, electrical and mechanical) based on available architectural drawings, soil data details, structural drawings, service drawings / details, etc.
 - (ii) Receipt of A/A & E/S from the client.
 - (iii) Submission of the plans to the Local Bodies / ASI / Fire Department / Civil Aviation Authority / EIA Clearance from Environment and Forest Department for their approval, if required.
 - (iv) Approval of plans by the Local Bodies, if required.
 - (v) Preparation of NIT and call of tenders.
 - (vi) Selection of contractors from the pre-qualification applications wherever applicable.
 - (vii) Receipt / opening of tenders
 - (viii) Decision of tender and award of work.
- (C) In case Administrative Ministry / Department is asking for Rough cost Estimate based on plinth area rates and preliminary plans for depositing money with CPWD or for any other reason, then following pre construction activities shall be followed:-
- (i) Requisition from the client.
 - (ii) Preparation of site /soil data and assessment of feasibility of services such as water supply, electricity, drainage and sewerage etc.
 - (iii) Discussions with the client to assess and appreciate their requirements, incorporation of the same and preparation of preliminary plans.
 - (iv) Approval of preliminary plans by the client.
 - (v) Preparation of Rough Cost estimate.
 - (vi) Deposition of fund with CPWD by the client.
 - (vii) Preparation of architectural drawings and review with client and modification of drawings, if required.
 - (viii) Preparation and submission of the plans to the Local Bodies for their approval.
 - (ix) Approval of plant by the Local Bodies.

- (x) Preparation of Structural drawings.
- (xi) Preparation of services drawings
- (xii) Preparation of detailed working drawings.
- (xiii) Preparation of DPR including detailed cost estimate for buildings and all services (civil, electrical and mechanical)
- (xiv) Submission of DPR along with detailed cost estimate to client for accord of A/A & E/S
- (xv) Receipt of A/A & E/S from the client.
- (xvi) Preparation of NIT and call of tenders.
- (xvii) Selection of contractors from the pre-qualification applications wherever applicable.
- (xviii) Receipt / opening of tenders
- (xix) Decision of tender and award of work.

ANNEXURE- 4

(Reference Para 3.1.1.1(2) & 3.1.2.1 (5))

MEMORANDUM OF UNDERSTANDING

This MOU made at on between the.....
 (herewith called the 'Client
 Department') and the terms 'CLIENT Department' shall mean and include its administrator, executors
 and assignee on ONE PART.

AND

CPWD through its EE /Project Manager having its office at OTHER PART.

WHEREAS, the client has agreed to entrust the work/ project relating to
(name of work) at
 hereinafter referred to as "Project" to CPWD on the terms and condition set forth hereinafter
 and where as CPWD through its Executive Engineer/Project Manager has agreed to undertake and
 complete the work/ project accordingly.

NOW, IT IS HEREBY AGREED BETWEEN THE PARTIES AS UNDER:

Responsibility of CPWD

- 1.1 The CPWD as an Executing Agency for the above / work project shall carry out the entire planning and construction of
 for the intended use of the client including its project management, supervision and related services.
- 1.2 After receipt of A/A & E/S from the client department, the CPWD will prepare and submit various detailed architectural drawings and service plans to Local Bodies whose approvals are required before taking up the construction work. These Local bodies are independent organizations and CPWD has not control over them. These Local Bodies take their own time for approving the Plans. The time required to get such approvals is not included in the time of construction indicated in the estimate. Although CPWD will make all efforts to get such approvals early, it may be necessary for the client department also to pursue with Local Bodies for early approval.
- 1.3 CPWD does not bind itself to complete the work within the estimated cost. Necessary revised estimate will be submitted as and when required.
- 1.4 Any dispute arising out of the operation of the contract(s) for the subject work will be subject to arbitration as provided for in the contract agreement. CPWD will defend the arbitration proceedings as best as it can and get the Arbitrator's award examined by the appropriate authority. The decision of the competent authority in CPWD to accept the award or to challenge the same in a Court of Law will be binding on the client department.
- 1.5 The CPWD has no funds of its own for investing in the work. The client department should, therefore, ensure that adequate funds are available with CPWD for executing the work. In case the client department fails to provide funds as per requirements, it may be necessary for CPWD to suspend/ abandon the work. In such eventuality, the client department shall be solely

responsible for all the consequences arising out of such stoppage/abandonment of work including claims of contractors for compensation/ damages.

Responsibility of the Client:

- 1.6 Assurance of funds for the full estimated cost of the work as worked out by CPWD including departmental charges shall be given by the client department while issuing the A/A & E/S of the work. If additional funds are required, the same will have to be provided by the client department on the Revised Estimates submitted by CPWD.
- 1.7 The client department should hand over vacant possession of land/site to CPWD for the project free of encumbrances or charges. CPWD may, if so required, take responsibility for demolition/ disposal of existing buildings/ structures.
- 1.8 Funds for making payment of all amounts which may be decreed by a Court of Law, Tribunal or by award of an Arbitrator in relation to the work will be made available by the client department promptly irrespective of it not being a party before the Court, Tribunal or Arbitrator. Such payments will be in addition to the payments made to the contractors for execution of work.
- 1.9 The client department will help CPWD in –
 - (a) Providing site for labour huts for the contractor's labour free of cost,
 - (b) Providing free access to contractor's materials and labour to the site of work,
 - (c) Providing electricity connection for execution of work on payment of usual charges, and
 - (d) Sanction and release of load from the concerned Electricity Board/Authority.

ANNEXURE- 6

(Reference Para 3.1.3 (2))

LIST OF SPECIALIZED ITEMS / JOBS**List I - Civil Works**

1. ** Water proofing treatment work.
2. Steel work in steel bridge work, space frames for long span structures, steel towers.
3. ** Special foundations including all types of piles.
4. RCC Overhead Tank with independent staging.
5. Structural Repair and Rehabilitation/ Retrofitting works.
6. Soil Investigation and Survey Work.
7. ** Facade cleaning system and façade cleaning.
8. Custom made wooden furniture (factory made).
9. Diaphragm walls.
10. Post construction Anti-termite chemical treatment.
11. Water Treatment Plants
12. Security to vacant bungalows/premises.
13. Tentage works.
14. Washing/dry cleaning works.
15. Synthetic play area surface for games.
16. Environment Impact Assessment Study and Environment Clearance.

Note:-

**For these works, Specialized Agencies shall have to be associated by the CPWD / Non CPWD Contractors in case the Contractor does not possess the requisite eligibility and experience as per the NIT conditions to carry out these works..

Electrical Works**LIST- II(A)****S. No. Supplying /fabrication, installation, testing and commissioning of the following-**

1. Kitchen equipment
2. Lifts, escalators and conveyors
3. Simultaneous interpretation systems
4. Gas plants.
5. Cold storage plant
6. Hot Water/Steam Boilers
7. Public address system; conferencing system, automatic vote recording system, recorders

8. Stage lighting
9. Projector and other special equipment for theatre
10. Repairs and calibration of various types of measuring instruments and relays etc.
11. Testing of transformer oil and dehydration and other type of high potential test.
12. Frequency Convertor
13. Temporary illumination, security lighting and wiring for power outlets for metal detectors in connection with Republic Day and Independence Day Celebrations.
14. EPBAX system (equipments).
15. EPBAX system (cabling and wiring).
16. Illumination of heritage caves and fiber optic lighting system
17. Security system and alarm
18. Building Automation System
19. Hydraulic platform /Lift
20. Incinerator
21. Laundry equipment
22. Centralized clock system.
23. Gas pipe line
24. Modular OT
25. Electrically Operated Gate
26. Fountain Work
27. Water supply motors and pumps of 100 hp or more
28. Mechanized Car Parking Systems
29. VRV/VRF Type Air-Conditioning Systems
30. Oxygen Generation Plant
31. CCTV and Allied Equipments
32. Access Control System
33. Hydro Pneumatic Pumps
34. Providing and fixing of Sensor operated Gates
35. Precision Air Conditioning System
36. LAN System
37. SITC of active power factor filter
38. SITC of Solar Photo Voltaic Power generation system
39. Electronic / Digital Signages
40. Gas based firefighting system, mist based firefighting system

41. Pneumatic Tube System
42. Nurse Call System
43. Design and Execution of Data Centre as per Tier -IV / Tier -III standards alongwith all associated E&M and Data Centre Services.

LIST-II (B)**S. No. Supplying /fabrication, installation, testing and commissioning of the following-**

1. Diesel Generating Set
2. Heating, Ventilation and Air-conditioning System
3. Sub-station equipment
4. Firefighting system (including wet riser and sprinkler system, portable fire extinguishers)
5. Fire detection and alarm system

List-II (C)

1. Façade Lighting Works (Interior/exterior flood lighting of heritage/Monumental buildings/structures involving Computer aided design and evolution of special mounting arrangements for luminaries).

List -III Horticulture Works

1. Construction of Vertical Green Wall.
2. Cut flower

LIST -IV Concurrent list of Specialized items/ jobs

1. Sewage Treatment Plant
2. AMC for Computer System and peripherals.
3. BIM services