



**भारत सरकार
GOVERNMENT OF INDIA**

**जल संसाधन नदी विकास और गंगा संरक्षण मंत्रालय
MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT
AND GANGA REJUVENATION**

**केन्द्रीय जल आयोग
CENTRAL WATER COMMISSION**

e-Tender Document

For

**"Strip and Reservoir Survey for Irrigation Schemes in
West Singhbhum and Simdega districts of Jharkhand "**

e-TENDER No.: 102/06/NIT/Strip Survey/2019/1065-69 Dated 25.04.2019

TCIL Tender Reference No.: CWC-2019-TN000170

LAST DATE OF SUBMISSION: 12.05.2019(Up to 17:00 hrs.)

BID OPENING DATE: 13.05.2019 (At 10:00 hrs.)

Certified that this tender document contains 60 nos pages including cover.

योजना एवम अन्वेषण मण्डल, फरीदाबाद

PLANNING & INVESTIGATION DIVISION, FARIDABAD

April, 2019

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**Government of India
Central Water Commission
Planning & Investigation Division, Faridabad**

Notice Inviting e-Tender

No.: 102/06/NIT/2018-19/1065-69

Date: 25.04.2019

The Executive Engineer, P&I Division, Central Water Commission, Faridabad invites online e-Tenders on behalf of President of India in two envelopes comprising of Technical (eligibility criteria) and financial bid on item rate basis from eligible contractors for the following work:

- | | | |
|--------------------------------|---|--|
| 1. Name of work | : | "Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand " |
| Estimated Cost | : | Rs. 39,75,125/- (Thirty-nine lakh seventy-five thousand one hundred twenty-five) only |
| Earnest Money | : | Rs. 79,500/- (Seventy-nine thousand five hundred) only |
| Performance Guarantee | : | 5% of tendered and accepted value of work |
| Completion Period | : | 120 Days |
| Cost of Tender Document | : | Rs. 500/- |

2. Eligibility criteria:

- I. Should be a Government Registered Firm / Agency having worked for railways, CPWD, MES, NHAI, SOI, PSU, reputed private companies or any other Govt. department for similar work.
- II. The firm should have been registered under company act and be in the business of Providing Aerial surveys, 3D Photogrammetry, digital mapping, 3D visualization and allied works in India for last 3 years or more from the date of opening of the tender.
- III. The Contractor must have valid PAN and GST registration at the time of submission of bid.
- IV. The Contractor must have executed works of similar nature in Central or State Government bodies/departments, Public Sector Undertakings, MES, Railways, reputed private sector companies in the last 7 years ending December, 2018, each of minimum value as detailed below:
 - a) Three similar completed works costing not less than the amount equal to 40% of the estimated cost.
 - or
 - b) Two similar completed works costing not less than the amount equal to 50% of the estimated cost.
 - or
 - c) One similar completed work costing not less than the amount equal to 80% of the estimated cost.

Similar works means works related to Topographical survey by Unmanned Aerial Vehicle (UAV) / Drone / Satellite imageries etc.

Completion certificates for the above should clearly indicate the scope and nature of work carried out and the value of various components of work as executed, in order to confirm conformity to defined similar works. The completion certificate should be signed by the issuing authority with stamp without which the works will not be considered.

- V. Average annual financial turnover of Rs 40.0 lakh in the previous 3 financial years ending 31 March 2018.
 - VI. Firm should have done similar projects with government/PSU/reputed private sector companies by Unmanned Aerial Vehicle (UAV) monitoring/survey.
 - VII. Should have sufficient experienced professionals, Engineers, Surveyors, GIS experts etc.
 - VIII. Firm should have stereo Photogrammetry workstation with professional Photogrammetry software and hardware such as 3D glasses, Stealth 3D glasses, Stealth 3D monitors for processing of the data and demonstration of final output to client.
 - IX. Joint venture or consortium is not allowed. Even outsourcing of any activity is not allowed due to the sensitivity of high-resolution data set.
 - X. Proof of having drone with specifications at least 2 drones and 2 PPK drones
 - XI. Details of Photogrammetry software's along with license details.
3. The tender forms and other details can be purchased from the O/o the Executive Engineer, P&I Division, Central Water Commission, Quarter No-1064, Type V,NH-IV, Faridabad-121001 **on payment of Rs. 500/- in cash or through A/C payee demand draft (Non-Refundable)** drawn on any schedule bank in favor of the Executive Engineer, P&I Division, CWC, Faridabad payable at Faridabad **from 26/04/2019 (10.00 hrs.) to 11.05.2019 (Up to 17.00 hrs.)**. The tender fee of Rs. 500/- can also be paid **through Bharat Kosh (NTRP)**. While using Bharat Kosh Ministry will be Water Resources, purpose will be Tender Document Cost, PAO Code 01872, DDO Code 101909. Payment can be made either using online banking or generating challan and depositing through any bank. Challan can be generated during the period of sale of tender i.e. from **26/04/2019 (10.00 hrs) to 11.05.2019 (Upto 17.00 hrs)**.
4. The tender forms complete in all respects **should be submitted online by 17.00 hrs. on 12/05/2019**. Last date & Time of receipt of queries pertaining to tender document is 05.05.2019 (up to 17:00 hrs.).
5. Tender can be freely downloaded from web sites www.cwc.nic.in and www.tcil-electronictender.com. But tender will be opened only after payment is made as per point (3) above as cost of tender.
6. The bids will be opened online on 13.05.2019 at 10:00 Hrs. in presence of the tenders who wish to see the online opening of tender or offline through their authorized representative who may choose to attend online opening in the office of EE,P&I Division, Central Water Commission, Quarter No-1064, Type V,NH-IV, Faridabad-**121001**.
7. The NIT and tender can be downloaded from TCIL's e-Tendering portal with URL <https://www.tcil-india-electronictender.com> or www.cwc.gov.in. However, in order to be able to participate in the tender it is mandatory to download official copy of tenders from <https://www.tcil-india-electronictender.com>.

8. Bids shall be accepted through e-procurement only at e-tendering portal of TCIL
<https://www.tcil-india-electronictender.com>

-sd-

Executive Engineer

Copy for information to:

1. Chief Engineer, YBO, CWC, New Delhi.
2. Superintending Engineer, Planning Circle, CWC, Faridabad.
3. A.A.O., P&I Division, CWC, Faridabad.
4. Sub Divisional Engineer, Planning & Investigation Sub Division, Jamshedpur.
5. CWC Web Portal and Notice Board, CWC, Faridabad

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the president of India for a sum of Rs.

.....
(Rupees.....
.....)

The letters to below shall form part of this contract Agreement:-

(a)

(b)

(c)

For & on behalf of the President of India

Signature.....

Designation

Dated

**GOVERNMENT OF INDIA
CENTRAL WATER COMMISSION**

STATE : Haryana
CIRCLE : Planning Circle
DIVISION : P&I Division
ORGANISATION : Yamuna Basin Organization

Item Rate Tender & Contract for Works

Tender for the work of "Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand"

(i) Sale of Tender from 26/04/2019(10.00 hrs) to 11.05.2019(Upto 17.00hrs).

(ii) To be submitted online by 17.00 hours on or before 12/05/2019.

(iii) To be opened online in presence of tenderer (s) who may be present at 10.00 hours on 13.05.2019 in the office of Executive Engineer, P&I Division, Central Water Commission, Quarter No-1064, Type V,NH-IV, Faridabad-121001.

Issued to: _____
(Contractor)

Signature of officer issuing the documents _____

Designation _____

Date of Issue _____

TENDER APPLICATION

I/We have read and examined the notice inviting tender, Schedule A, B, C, D, E, & F, Specifications applicable, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work and agree to abide by them.

I/We hereby tender for the execution of the work "Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand " for the period as specified in this tender from the date of start of the work specified for the President of India within the time specified in schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respects in accordance with, such conditions so far as applicable.

I/We agree to keep the tender open for Ninety (90) days from the due date of its opening and not to make any modifications in its terms and conditions.

A sum of Rs. 79,500/- (Rupees Seventy nine thousand five hundred only) is hereby submitted by way ofdated as Earnest Money Deposit (EMD). I further state that I shall deposit an amount equal to 5% of the tendered and accepted value of work (without limit) as Performance Guarantee in the prescribed form within 07 days of issue of the letter of acceptance. If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/we agree that the said President of India or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest Money absolutely.

Further, if I/we fail to commence the work as specified, I/we agree that President of India or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said Earnest Money absolutely and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit. I agree that the department shall deduct a sum @ 5% of the gross amount of the bill from each running bill, till the sum along with the sum already deposited as Earnest Money amounts to security deposit @ 5% of the tendered amount of the work.

Further, I/We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in CWC in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated.....

Signature of Contractor

Postal Address

Witness:

Address:

Occupation:

e-TENDER KEY EVENTS SHEET

1	Tender inviting authority Designation/Address	Executive Engineer, Planning & Investigation Division, CWC, Faridabad
2	Mode of submission of e-tender	TCIL Website https://www.tcil-india-electronictender.com
3	Addressee which EMD & documents to be submitted	Executive Engineer, Planning & Investigation Division, CWC, Qtr.No. 1064, NH-IV, NIT, Faridabad-121001 (Haryana)
4	Job requirement	As per tender documents
5	Language(s) in which items to be Printed	English
6	Validity of Tender	Ninety (90) days
7	Issuance of tender	25.04.2019
8	Cost of Tender	Rs. 500/-
9	Last date & Time for submission of tender	12.05.2019 upto 17:00 hrs.
10	EMD amount payable	Rs.79,500/- (Seventy-nine thousand five hundred) only
11	Date, time and place of private Online tender opening Event	O/O Executive Engineer, Planning & Investigation Division, CWC, Qtr.No. 1064, NH-IV, NIT, Faridabad-121001 (Haryana) On 13.05.2019 (10:00 hrs.)
12	Performance guarantee	5% of tender and excepted value of work
13	Performance Security	5% of the contract cost will be deducted from the bills.
14	TDS on income tax	2% shall be deducted from the bills
15	TDS on GST	1% Shall be deducted from bills
16	Contact No/ E-mail	Ph:01292412576, email: pi-cwc@nic.in

TENDER DETAILS & INSTRUCTIONS TO BIDDER(S)

A.1. General:

Before submitting the tender, the bidder must ensure that he/she has understood the exact requirement of the Purchaser. In case of any discrepancy or ambiguity felt by the bidder in the scope of work and the desired deliverable functionality from the work, it is mandatory to raise the clarification in writing or by email by the bidder and in turn get that clarified from the purchaser. Last Date for receipt of questions shall be three days before the close of sale of the tender documents. In case no such clarification required by the bidder, it will be considered that all the requirements of the purchaser are understood by the bidder and no communications will be entertained or done by the Purchaser at any stage of work after the opening of the Bid(s).

A.2. Tender Documents

The contents of the tender documents as listed below shall be read in conjunction with any addenda issued thereof. All the components of the Bid(s) shall be considered as a single tender document:

Tender Details and Instructions
General Conditions of Contract
Additional Conditions of contract
Special Conditions of Contract
Scope of Work & Schedule of work
Technical & Financial Bid

Earnest Money Deposit (EMD): The tenders shall be accompanied by Earnest Money Deposit (EMD) of Rs. 79,500/- (Seventy-nine thousand five hundred) only in form of Demand Draft drawn on a Scheduled Bank in **favour of Executive Engineer, P&I Division, CWC, Faridabad** or in any other forms as per CPWD works manual 2014 clause 19.4 (i) Cash up to 10,000 (ii) Treasury challan (iii) Deposit at call Receipt of a scheduled Bank guaranteed by the RBI (IV) Banker's cheque of a scheduled Bank (v) Fixed Deposit receipt (FDR) of a Scheduled Bank in favour of the Executive Engineer, P&I Division, CWC, Faridabad, (vi) Bank Guarantee from a scheduled bank as per given proforma. Unsuccessful tenderer's EMD shall be returned as per rule and successful tenderer's EMD shall become part of Security Deposit and shall be discharged as per rules. The EMD shall be forfeited in the circumstances as given below:

- a. If any tenderer withdraws his tender before the expiry of the validity period, or before the issue of letter of acceptance, whichever is earlier, or makes any modification in the terms and conditions of the tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the Earnest Money absolutely.
- b. If the tenderer/bidder, whose tender is accepted, fails to commence the work in the prescribed time or abandons the work before its completion, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit whole of the Earnest Money absolutely.

- c. If tenderer (successful tenderer) fails to furnish the Performance Guarantee for an amount equal to 5% of the tendered and accepted value of work (without limit) in the prescribed form valid up to 120 days beyond the date of expiry of the contract period, within 07 days of issue of the letter of acceptance, the Earnest Money will be absolutely forfeited without any notice.
- d. If the contractor fails to commence the work specified within 05 days of issuance of letter for commencement of work, the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit whole of the Earnest Money absolutely.
- e. In case of forfeiture of Earnest Money as prescribed above, the tenderer shall not be allowed to participate in the retendering process of the work.
- f. No interest shall be paid by the Department on the EMD to any bidder, whether successful or unsuccessful.

A contractor exempted from depositing earnest money in individual cases, shall attach with the tender an attested copy of the letter exempting him from depositing earnest money and shall produce the original when called upon to do so. The tender submitted without specified Earnest Money, shall be summarily rejected and the corresponding bid shall not be opened.

General:

- No tenderer shall be allowed to amend or withdraw any terms & conditions/parts or whole/quoted rates of its tender under any circumstances after the deadline for submission of the tender.
- The Department has the right to accept or reject any or all the tenders, or cancel the tendering process at any stage, either in part or full, without assigning any reason.
- Canvassing, soliciting, fraud practices, suppression of facts, stating wrong facts and fraudulent practice by the tenderer may lead to rejection of the tender at any stage of the work and may lead to blacklisting for all future CWC works.
- The tenderer are expected to understand the forms, terms and conditions and other details mentioned in the tender document.
- Rules/provisions of CPWD Works Manual 2014 and its subsequent amendments from time to time will be applicable/binding on all bidders and on successful bidder.
- In the event of the tender being submitted by a firm, it must be signed separately by each member thereof, or in the event of the absence of any partner it must be signed on his behalf by a person holding a power of attorney authorizing him to do so. Such power of attorney to be submitted with the tender and it must disclose that the firm is duly registered under the Indian Partnership Act.
- Each tenderer is entitled to submit only one set of tender. The same contractor submitting more than one set of tender shall be automatically disqualified. The contractor shall not assign or transfer any interest or responsibility in whole or any part in favour of any person and same is prohibited and is liable to result in termination of the contract.
- At any time prior to the deadline for submission of tenders, the department, for any reason, whether at its own initiative may modify any condition of the tender document by amendments and such modification will be binding on the bidders/tenderers.
- The valid means of communications for this tender shall be in writing/fax followed by confirmation in writing by post. The communication should clearly reach this office.

- It is suggested that the tenderer may acquaint themselves with the requirement of the work before submitting the tender. Tenderer are advised to inspect and examine the locations for topographical survey and satisfy himself with the site conditions, the means of access to the site, the accommodation they may require and in general obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. It is clarified that no charges shall be paid by department to bidders for making visit to these sites in order to acquaint themselves with the requirement of the work for submitting the tender.
- Submission of a tender by a tenderer/bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and other factors having a bearing on the execution of the work.
- Any permission from any authority for flying of Drone will be responsibility of the bidder. However, any letter from CWC for the purpose will be issued by this office.
- The contractor shall not in any capacity employ persons of bad character or any person whose antecedent are in doubt or who is on the police records as bad character. All aspects of verification (police verification, address verification, document verification etc.) of the persons to be employed shall be the sole responsibility of the contractor and no compensation shall be claimed for that.
- Agreement shall be signed with the successful tenderer/bidder on prescribed proforma given in this tender document at **page 49-50**. The tenderer shall quote his rates as per various terms and conditions of the said form which shall form part of the agreement.
- No Engineer of Gazetted rank or other Gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor before expiry of a period of two years after his retirement from Government service, or without due permission from the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.
- The Contractor shall not be permitted to tender for works in the office of the Executive Engineer, P&I Division, CWC, Faridabad (responsible for award and execution of this work) in which his near relative is posted as Divisional Accountant or as an officer in any capacity with relevance to the said work. He shall also intimate the names of person who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted officer in the Central Water Commission or in the Ministry of Water Resources. Any breach of this condition by the contractor would render his bid/Contract Agreement liable to be rejected.
- Bids shall be submitted online only at TCIL website URL **<https://www.tcil-india-electronictender.com>**. Tenderer/Contractors are advised to follow the instruction provided in the "Instruction to the contractor/Tenderer for the e-submission of the bids online through TCIL portal. The Tender notice is also available in **www.cwc.gov.in**
- Tender who has downloaded the tender from the TCIL website URL <https://www.tcil-india-electronictender.com>, and **www.cwc.gov.in** shall not temper/modify the tender form including downloaded price bid template in any manner in case if the same is found to be tempered/modified in any manner, tender will be completely rejected and EMD would be forfeited.

- Intending tenderers are advised to visit again TCIL website URL <https://www.tcil-india-electronictender.com>, and CWC website www.cwc.gov.in at least 1 day prior to closing date of submission of tender for any corrigendum / amendment.
- For the purpose of this tender the contract agreement with the successful tenderer shall comprise of:
 - a. The tender form and financial bid submitted by the tenderer online;
 - b. Tender document
 - c. Amendment to the tender document;
 - d. Post tender opening Correspondences both online and offline; and
 - e. Purchase's notification of award of the contract.

Submission of Tender Documents

- i. **Technical bid:** The following documents are to be **furnished online** in the **Technical bid part** (i.e. Eligibility criteria) by the Contractor along with bid as per the tender document:
 - a. Signed and scanned Technical Bid as per tender document.
 - b. Signed and scanned copy of registration certificate of firm.
 - c. Signed and scanned copy of PAN and GST Registration Certificate of the firm.
 - d. Signed and scanned copy of completion certificates of similar works executed in support of eligibility as per the tender notice.
 - e. Signed and Scanned copy of Balance Sheets for last three years i.e. 2015-16, 2016-17 and 2017-18.
 - f. Signed and Scanned copy of ITCC (copy of Income Tax Return filed for assessment year 2017-18).
 - g. Agency Profile
 - h. Any other document in support of the Bid.
- ii. **Financial bid:** The following documents are to be **furnished online** in the **Financial bid part** by the Contractor along with bid as per the tender document:
 - a. Signed and scanned price schedule as per tender document.
- iii. **Before tender opening date** bidders are required to furnish following at the office of Executive Engineer, P&I Division, Central Water Commission, Quarter No-1064, Type V,NH-IV, Faridabad-121001.
 - a. Cost of the tender.
 - b. Earnest Money Deposit (EMD).

- c. Signed Hard copies of documents in support of their bid.
- d. Pass-phrase for opening of technical and financial Bids: - Pass phrase shall be supplied in one big sealed envelope containing two small sealed envelopes having passphrase for the technical & financial bids. 1st small Envelope shall clearly marked "pass-phrase for Technical bid" and 2nd small Envelope shall clearly marked as "pass-phrase for Financial bid". Bigger envelope shall be marked as "pass –phrases for tender of "Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega districts of Jharkhand "

Schedule of Quantities, Rates and Amount:

The bidders must quote the rates keeping in mind all the terms and conditions mentioned in this tender document, Schedule of quantities and location of sites. The rates quoted by the tenderer shall take into account the cost of material, labour, tools, equipments, safety equipment, Transportation charges, Coolie charges and management necessary for execution of work.

- a. All rates shall be quoted in Indian Rupees only and for the location West Singhbhum and Simdega district of Jharkhand.
- b. Before quoting the rates, bidder are requested to read carefully all terms & conditions, specifications, BOQ etc., in case of any doubt, he must get it clarified from EE, P&I Division, CWC, Faridabad.
- c. In case of discrepancy between unit rate and total rate, the unit rate shall prevail. In case of discrepancy between sub totals and the total, the sub totals shall prevail.
- d. The amount should be written both in figures and in words. In case of discrepancy between figures and words, the amount mentioned in words shall prevail. In case of discrepancy in totaling of unit rates, the unit rates shall prevail.
- e. Rates for each item shall be furnished in the format as given in the Financial Bid /schedule of rates. Any correction, overwriting etc should be duly initialed.
- f. Tendered rates are inclusive of the taxes and Levis payable under the respective statutes. However pursuant to the constitution (46th Amendment) Act 1982, if any further tax of levy is imposed by the statue, after the date of receipt of tenders, and contractors shall be reimbursed the amount so paid, provided such payment, if any is not, in the opinion of Executive Engineer, PID, CWC (whose decision shall be final and binding) attributable to delay in the execution of work within the control of contractor.
- g. The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and allow inspection of the same by a duly authorized representative of Government.
- h. The contractor shall, within a period of 30 days of imposition of any further tax or levy pursuant to the constitution (46th Amendment) Act, 1982 give a written notice thereof to the Engineer- in – Charge that the same is given pursuant to this condition, together with all necessary information relating therein.

Contents of Tender Document:

The contents of the tendering documents as listed below shall be read in conjunction with any corrigendum /addenda, if issued. All the components of the tender shall be considered as a single tender document and include:

- i. Notice Inviting Tender (Press Notice)
- ii. Notice Inviting Tender (CPWD-6)

- iii. Item rate tender & Contract for Works (CPWD-8)
- iv. Format for Acceptance
- v. Schedules
- vi. Scope of Work
- vii. Information and Instructions to Tenderers/Bidders
- viii. Schedule of Quantities, Technical & Financial Bid Format.
- ix. Terms & conditions of Contract
- x. Other conditions
- xi. Contract/Agreement format
- xii. Standard Form/ Proforma

Tendering process

i. Marking and submission of tenders:

The tender shall be submitted online only.

Online Submission: The tenders should submit both “Technical bid duly signed & supporting document in respect of his eligibility for this tender” and “Financial Bid” online. The specifications should be same as given in this tender or higher. Tenders must be submitted by the bidder online not later than the time and date specified in the NIT.

Offline Submission:

- (a) The **Cost of Tender Document** should be submitted in a sealed envelope addressed to the Executive Engineer, P&I Division, Central Water Commission, Quarter No-1064, Type V, NH-IV, Faridabad-121001 and duly marked as “Cost of Tender Document” on Top and must reach office of Executive Engineer well before last date of sale of tender. However, Bidders who have downloaded tender document directly from TCIL web site will be free to deposit cost of Tenders at the time of offline submission before the last date of submission of bid.
- (b) The **EMD** should be submitted in a sealed envelope addressed to the Executive Engineer, P&I Division, Central Water Commission, Quarter No-1064, Type V, NH-IV, Faridabad-121001 and duly marked as “EMD” on Top and must reach office of Executive Engineer well before last date of submission of tender. Tenders of bidder whose EMD would not reach in time will not be opened online and will be archived.
- (c) **Signed Hard copies of documents** in support of their bid should be submitted in a sealed envelope addressed to the Executive Engineer, P&I Division, Central Water Commission, Quarter No-1064, Type V, NH-IV, Faridabad-121001 and duly marked as “Supporting Document” on Top and must reach office of Executive Engineer well before last date of submission of Tender.
- (d) **Pass-phrase for opening of technical and financial Bids:** - Pass phrase shall be supplied in one big sealed envelope containing two small sealed envelopes, 1st for pass-phrase for the technical bid & 2nd for pass-phrase for financial bids. Bigger

envelope shall be marked as "pass –phrases for tender of " Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand

1. 1st small Envelope shall clearly marked "pass-phrase for Technical bid" and;
2. 2nd small Envelope shall clearly marked as "pass-phrase for Financial bid".

All of above envelopes should be kept in a big size envelope. This big size envelope should be addressed to the Executive Engineer, P&I Division, Central Water Commission, Quarter No-1064, Type V, NH-IV, Faridabad-121001 and duly marked as "OFFLINE DOCUMENT FOR TENDER FOR "Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand " on Top and must reach office of Executive Engineer well before last date of submission of Tender.

The Purchaser may, at its discretion, extend this deadline for submission of tender by amending the tendering documents, in which case all rights and obligations of the Purchaser and tenders previously subjected to the deadline will thereafter be subjected to the deadline as extended.

No tender may be withdrawn in the interval between the deadline for submission of tender and the expirations of the period of tender validity specified by the tenderer on the Tender Form. Withdrawal of a tender during this interval may result in the tenderer's forfeiture of its tender security.

ii. Opening of Bids.

The bids shall be opened online on the date and time mentioned in the NIT. Tenders unaccompanied by the Tender Security (EMD) shall be archived and will not be opened.

Financial Bids of only those bidders who are found technically acceptable (meeting the eligibility criteria) would be considered in the presence of tenderers of their representatives, who choose to be present online or offline or both.

iii. Evaluation of tenders:-

The tenders will be evaluated on the basis of specification as given the tender document and unit rate of each item and total cost.

- a) The Technical Bids (eligibility criteria) will be evaluated based on the document submitted by the bidder on Registration of Firm, availability of valid PAN and GST registration, similar completed works, track record, Turn over and past experience of the firm in providing similar services to Government/Semi-Government Agencies.

b) The financial bids will be opened only of those bidders whose technical bids would be complete in all respects as per tender document. Financial bids will be evaluated based on total cost of the work quoted by the bidders.

iv. Award of work:

The successful bidder shall furnish, within 07 days of issue of the letter of acceptance of Tender, the Performance Guarantee for an amount equal to 5% of the tendered and accepted value of the work (without limit) in the prescribed form like Fixed Deposit Receipt (FDR) or Demand Draft of a Scheduled Bank/An irrevocable Bank Guarantee bond of any scheduled bank or the State Bank of India in the prescribed format (to be supplied to successful bidder later) pledged in favor of Executive Engineer, P&I Division, CWC, Faridabad valid up to 120 days beyond the date of expiry of the contract period. The contract period shall expire after 30 days from the date of issue of letter of acceptance. It may be noted that Contract/Agreement shall be signed with successful bidder only after submission of Performance Guarantee. No work should be started before signing of Contract/ Agreement. The period of 30 days shall be reckoned from the date of issue of letter of acceptance.

SPECIAL INSTRUCTIONS TO BIDDERS BY TCIL FOR E-TENDERING

The Special Instructions (for e-Tendering) supplement 'Instruction to Bidders', as given in these Tender Documents. Submission of Online Bids is mandatory for this Tender.

E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Now, the Government of India has made e-tendering mandatory. Suppliers/ Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, Central Water Commission has decided to use the portal <https://www.tcil-india-electronictender.com> through TCIL, a Government of India Undertaking. This portal is based on the world's most 'secure' and 'user friendly' software from Electronic Tender®. A portal built using Electronic Tender's Software is also referred to as Electronic Tender System® (ETS).

Benefits to tenderers are outlined on the Home-page of the portal.

Tender Bidding Methodology:

Single Stage Envelope

Broad Outline of Activities from Bidder's Perspective:

Procure a Digital Signing Certificate (DSC)
Register on Electronic Tendering System® (ETS)
Create Marketing Authorities (MAs), Users and assign roles on ETS
View Notice Inviting Tender (NIT) on ETS
For this tender -- Assign Tender Search Code (TSC) to a MA
Download Official Copy of Tender Documents from ETS
Clarification to Tender Documents on ETS
Query to Central Water Commission (Optional)
View response to queries posted by Central Water Commission
Bid-Submission on ETS
Attend Public Online Tender Opening Event (TOE) on ETS
– Opening of relevant Bid-Part
Post-TOE Clarification on ETS (Optional)
– Respond to Central Water Commission Post-TOE queries
Attend Public Online Tender Opening Event (TOE) on ETS
Opening of relevant part (i.e. Financial-Part)
(Only for Technical Responsive Bidders)
Participate in e-Reverse Auction on ETS
For participating in this tender online, the following instructions are to be read carefully.
These instructions are supplemented with more detailed guidelines on the relevant screens of the ETS.

Digital Certificates

For integrity of data and authenticity/non-repudiation of electronic records, and to be compliant with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC). Also referred to as Digital Signature Certificate (DSC), of Class 2 or above, issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].

Registration

To use the Electronic Tender® portal <https://www.tcil-india-electronictender.com>, vendors need to register on the portal. Registration of each organization is to be done by one of its senior persons who will be the main person coordinating for the e-tendering activities. In ETS terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/portal, and click on the 'Supplier Organization' link under 'Registration' (on the Home Page), and follow further instructions as given on the site. Pay Annual Registration Fee as applicable.

After successful submission of Registration details and Annual Registration Fee, please contact TCIL/ETS Helpdesk (as given below), to get your registration accepted/activated.

Important Note: To minimize teething problems during the use of ETS (including the Registration process), it is recommended that the user should peruse the instructions given under 'ETS User-Guidance Center' located on ETS Home Page, including instructions for timely registration on ETS. The instructions relating to 'Essential Computer Security Settings for Use of ETS' and 'Important Functionality Checks' should be especially taken into cognizance.

Please note that even after acceptance of your registration by the Service Provider, to respond to a tender you will also require time to complete activities related to your organization, such as creation of users, assigning roles to them, etc.

TCIL/ ETS Helpdesk
Telephone/ Mobile

Customer Support (0930 hrs to 1800 hrs,
Monday to Friday except on gazetted
holidays): +91-11-26202699 (Multiple lines)
Emergency Support Mobile Numbers:
+91-9868393775, 9868393717,
9868393792

E-mail ID

ets_support@tcil-india.com

Some Bidding related Information for this Tender (Sealed Bid)

The entire bid-submission would be online on ETS (unless specified for Offline Submissions).

Broad outline of submissions are as follows:

Submission of Bid-Parts/ Envelopes

Single-Part

Submission of information pertaining Bid Security/ Earnest Money Deposit (EMD)

Submission of digitally signed copy of Tender Documents/ Addendum

Submission of General Terms and Conditions (with/ without deviations)

Submission of Special Terms and Conditions (with/ without deviations).

Special Note on Security and Transparency of Bids

Security related functionality has been rigorously implemented in ETS in a multidimensional manner. Starting with 'Acceptance of Registration by the Service Provider', provision for security has been made at various stages in Electronic Tender's software. Specifically for Bid Submission, some security related aspects are outlined below:

As part of the Electronic Encrypter™ functionality, the contents of both the 'Electronic Forms' and the 'Main-Bid' are securely encrypted using a Pass-Phrase created by the Bidder himself. Unlike a 'password', a Pass-Phrase can be a multi-word sentence with spaces between words (e.g. I love this World). A Pass-Phrase is easier to remember, and more difficult to break. It is recommended that a separate Pass-Phrase be created for each Bid-Part. This method of bid-encryption does not have the security and data-integrity related vulnerabilities which are inherent in e-tendering systems which use Public-Key of the specified officer of a Buyer organization for bid-encryption. Bid-encryption in ETS is such that the Bids cannot be decrypted before the Public Online Tender Opening Event (TOE), even if there is connivance between the concerned tender-opening officers of the Buyer organization and the personnel of e-tendering service provider.

CAUTION:

All bidders must fill Electronic Forms™ for each bid-part sincerely and carefully, and avoid any discrepancy between information given in the Electronic Forms™ and the corresponding Main-Bid. For transparency, the information submitted by a bidder in the Electronic Forms™ is made available to other bidders during the Online Public TOE. If it is found during the Online Public TOE that a bidder has not filled in the complete information in the Electronic Forms™, the TOE officer may make available for downloading the corresponding Main-Bid of that bidder at the risk of the bidder. If variation is noted between the information contained in the Electronic Forms™ and the 'Main-Bid', the contents of the Electronic Forms™ shall prevail. Alternatively, the Buyer organization reserves the right to consider the higher of the two pieces of information (e.g. the higher price) for the purpose of short-listing, and the lower of the two pieces of information (e.g. the lower price) for the purpose of payment in case that bidder is an awardee in that tender.

Typically, 'Pass-Phrase' of the Bid-Part to be opened during a particular Public Online Tender Opening Event (TOE) is furnished online by each bidder during the TOE itself, when demanded by the concerned Tender Opening Officer.

(Optional Text in EBI, depending upon the decision of the Buyer organization):

Additionally, the bidder shall make sure that the Pass-Phrase to decrypt the relevant Bid-Part is submitted to Buyer Organization Name in a sealed envelope before the start date and time of the Tender Opening Event (TOE).

OR

Additionally, the bidder shall make sure that the Pass-Phrase to decrypt the relevant Bid-Part is submitted into the 'Time Locked Electronic Key Box (EKB)' after the corresponding deadline of Bid Submission, and before the commencement of the Online TOE. The process of submission of this Pass-Phrase in the 'Time Locked Electronic Key Box' is done in a secure manner by first encrypting this Pass-Phrase with the designated keys provided by the Buyer organization.

There is an additional protection with SSL Encryption during transit from the client-end computer of a Supplier organization to the e-tendering server/ portal.

Public Online Tender Opening Event (TOE)

ETS offers a unique facility for 'Public Online Tender Opening Event (TOE)'. Tender Opening Officers, as well as, authorized representatives of bidders can simultaneously attend the Public Online Tender Opening Event (TOE) from the comfort of their offices. Alternatively, one/ two duly authorized representative(s) of bidders (i.e. Supplier organization) are requested to carry a Laptop with Wireless Internet Connectivity, if they wish to come to Buyer Organization Name office for the Public Online TOE.

Every legal requirement for a transparent and secure 'Public Online Tender Opening Event (TOE)', including digital counter-signing of each opened bid by the authorized TOE Event (TOE)', including digital counter-signing of each opened bid by the authorized TOE officer(s) in the simultaneous online presence of the participating bidders' representatives, has been implemented on ETS.

As soon as a Bid is decrypted with the corresponding 'Pass-Phrase' as submitted on line by the bidder himself (during the TOE itself), salient points of the Bids (as identified by the Buyer organization) are simultaneously made available for downloading by all participating bidders. The tedium of taking notes during a manual 'Tender Opening Event' is therefore replaced with this superior and convenient form of 'Public Online Tender Opening Event (TOE)'.

ETS has a unique facility of 'Online Comparison Chart' which is dynamically updated as each online bid is opened. The format of the chart is based on inputs provided by the Buyer for each Bid-Part of a tender. The information in the Comparison Chart is based on the data submitted by the Bidders. A detailed Technical and/ or Financial Comparison Chart enhances Transparency. Detailed instructions are given on relevant screens.

ETS has a unique facility of a detailed report titled 'Minutes of Online Tender Opening Event (TOE)' covering all important activities of 'Online Tender Opening Event (TOE)'. This is available to all participating bidders for 'Viewing/ Downloading'.

There are many more facilities and features on ETS. For a particular tender, the screens viewed by a Supplier will depend upon the options selected by the concerned Buyer.

Other Instructions

For further instructions, the vendor should visit the home-page of the portal <https://www.tcil-india-electronictender.com>, and go to the User-Guidance Centre

The help information provided through 'ETS User-Guidance Centre' is available in three categories – Users intending to Register / First-Time Users, Logged-in users of Buyer organizations, and Logged-in users of Supplier organizations. Various links (including links for User Manuals) are provided under each of the three categories.

Important Note: It is strongly recommended that all authorized users of Supplier organizations should thoroughly peruse the information provided under the relevant links, and take appropriate action. This will prevent hiccups, and minimize teething problems during the use of ETS.

SIX CRITICAL DO'S AND DON'TS FOR BIDDERS

Specifically for Supplier organizations, the following 'SIX KEY INSTRUCTIONS for BIDDERS' must be assiduously adhered to:

1. Obtain individual Digital Signing Certificate (DSC or DC) well in advance of your first tender submission deadline on ETS
2. Register your organization on ETS well in advance of the important deadlines for your first tender on ETS viz 'Date and Time of Closure of Procurement of Tender Documents' and 'Last Date and Time of Receipt of Bids'. Please note that even after acceptance of your registration by the Service Provider, to respond to a tender you will also require time to complete activities related to your organization, such as creation of users, assigning roles to them, etc.
3. Get your organization's concerned executives trained on ETS well in advance of your first tender submission deadline on ETS
4. Submit your bids well in advance of tender submission deadline on ETS (There could be last minute problems due to internet timeout, breakdown, et al)
5. It is the responsibility of each bidder to remember and securely store the Pass Phrase for each Bid-Part submitted by that bidder. In the event of a bidder forgetting the Pass Phrase before the expiry of deadline for Bid-Submission, facility is provided to the bidder to 'Annul Previous Submission' from the Bid-Submission Overview page and start afresh with new Pass-Phrase(s)
6. ETS will make your bid available for opening during the Online Public Tender Opening Event (TOE) 'ONLY IF' your 'Status pertaining Overall Bid-Submission' is 'Complete'.

For your record, you can generate and save a copy of 'Final Submission Receipt'. This receipt can be generated from 'Bid-Submission Overview Page' only if the 'Status pertaining overall Bid-Submission' is 'Complete'.

NOTE :While the first three instructions mentioned above are especially relevant to first-time users of ETS, the fourth, fifth and sixth instructions are relevant at all times.

Minimum Requirements at Bidder's End

Computer System with good configuration (Min PIV, 1 GB RAM, Windows XP with Service Pack 3)

Broadband connectivity

Microsoft Internet Explorer 6.0 or above

Digital Certificate(s)

GENERAL CONDITIONS OF CONTRACT

General Conditions of Contract will be as published by CPWD updated till call of tender

CONDITIONS OF CONTRACT

Definitions:

1. The **Contract means** the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of the President of India and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.

2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:

(i) The expression **works or work** shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.

(ii) The **Site** shall mean the land/or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.

(iii) The **Contractor** shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.

(iv) The **President** means the President of India and his successors.

(v) The **Engineer-in-charge** means the Engineer Officer who shall supervise and be incharge of the work and who shall sign the contract on behalf of the President of India as mentioned in Schedule 'F' hereunder.

(vi) **Government or Government of India** shall mean the President of India.

(vii) The terms **Director General** includes Chief Engineer of the respective river basin of CWC.

(viii) **Accepting Authority** shall mean the authority mentioned in Schedule 'F'.

(ix) **Excepted Risk** are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, any acts of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Government's faulty design of works.

(x) **Market Rate** shall be the rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule 'F' to cover, all overheads and profits. (xi) Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Rates of the government mentioned in Schedule 'F' hereunder, with the amendments thereto issued upto the date of receipt of the tender.

(xi) **Schedule(s)** referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Rates of the government mentioned in Schedule 'F' hereunder, with the amendments thereto issued upto the date of receipt of the tender.

(xii) **Department** means Central Water Commission (CWC) invites tenders on behalf of President of India as specified in schedule 'F'. **Central Water Commission** "CWC" means the organization headed by Chairman with headquarters at New Delhi and offices all over India

(xiii) **District Specifications** means the specifications followed by the State Government in the area where the work is to be executed.

(xiv) **Tendered value** means the value of the entire work as stipulated in the letter of award.

(xv) **Date of commencement of work:** The date of commencement of work shall be the date of start as specified in schedule 'F' or the first date of handing over of the site; whichever is later, in accordance with the phasing if any, as indicated in the tender document.

Scope & Performance:

3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.

4. Headings and Marginal notes to these Additional Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.

5. The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, Schedule of Rates and such other printed and published documents, together with all drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

Works to be carried out:

6. The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities (Schedule- A) shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

Sufficiency of Tender:

7. The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

Discrepancies and Adjustment of Errors:

8. The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions

8.1 In the case of discrepancy between the schedules of Quantities, the Specifications and/ or the Drawings, the following order of preference shall be observed:

- (i) Description of Schedule of Quantities.
- (ii) Particular Specification and Special Condition, if any.
- (iii) Drawings.
- (iv) CPWD Specifications.
- (v) Indian Standard Specifications of B.I.S.

8.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.

8.3 Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

Signing of Contract:

9. The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:

- (i) Tender Document issued to the contractor and duly submitted by him duly signed;
- (ii) Amendments/Corrigendum to the tender document, if any;
- (iii) Letter of the contractor submitting the tender;
- (iv) Other letters of the contractor and the departmental officers that were exchanged before the tender is accepted;
- (v) Rate and Amount of tender/bid quoted by the contractor;
- (vi) General Conditions of Contract (GCC) published by CPWD with latest amendments/correction slips;
- (vii) Letter of the Executive Engineer communicating acceptance of the tender;
- (viii) Letter of the Executive Engineer regarding commencement of the work;
- (ix) Performance security;
- (x) Other letters of the contractor and the departmental officers that were exchanged after the tender is accepted till the time of signing of this Contract/Agreement;

No payment for the work done will be made unless contract is signed by the contractor.

Interpretations:

Language: Shall be English only for the purpose of the contract.

Context: The singular and plural shall be interchangeable as per the context of the contract.

Contractor's responsibilities and obligations:

- a. The work shall be carried out as per the direction & satisfaction of the Engineer-in-Charge. The contractor shall take direction/instruction from Engineer-in-Charge only in writing on any matter regarding carrying out the work. Any consequence arising out of action taken by contractor on any direction/instruction taken from anyone other than Engineer-in-Charge shall be borne by contractor only.

- b. The contractor shall be solely responsible for payment of levies and taxes due to the Government at the rates fixed by the Government.
- c. The contractor shall be solely responsible to follow all Rules & Regulations and Directions mentioned in General Conditions of Contract (latest) and Standard C.P.W.D. Form as mentioned in Schedule 'F' consisting of:
- (a) Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexure thereto.
 - (b) C.P.W.D. Safety Code.
 - (c) Model Rules for the protection of health, sanitary arrangements for workers employed by CPWD or its contractors.
 - (d) CPWD Contractor's Labour Regulations.
 - (e) List of Acts and omissions for which fines can be imposed.

Department's responsibilities and obligations:

- The CWC will make available all sites for work.
- Approve Work Programme / drawings / Designs submitted by the contractor.
- Make payment for the work executed under the provision of contract.

Taxes and Duties:

The TDS and GST shall be deducted at source as per the prevailing Government rules from time to time and the necessary certificate to that effect shall be issued on request.

Performance Guarantee/Security Deposit:

Performance Guarantee: Performance Guarantee for an amount equal to 5% of the tendered and accepted value of work (without limit) in the prescribed form valid up to 120 days beyond the date of expiry of the contract period should be submitted within 07 days of issue of the letter of acceptance.

Security Deposit: Earnest Money Deposit (EMD) of successful tenderer/bidder will form the part of Security Deposit. A sum @ 5% of the gross amount of the bill from each running bill will be deducted till the sum alongwith the sum already deposited as Earnest Money equals to security deposit @ 5% of the tendered amount of the work.

Advances: No advance payment will be made under this contract.

Observance of Law:

- a. The contract shall be construed and operated as an Indian contract and as per Indian law applicable from time to time.
- b. The parties to the contract shall protect and indemnify each other against all claims or liabilities arising from the action of violation of all such laws.
- c. The contractor shall observe all the labour and mercantile laws which may all not be mentioned below but are pertinent to this work.

Notices: Notwithstanding anything stated otherwise, all notices of this contract shall be in writing through registered post, speed post, personal or courier deliveries. The transmission by electronic data exchange (fax, email) shall be confirmed in writing. Any change in the address etc. shall be communicated within 10 days to the other party.

Disputes: The decision of the *Department* shall be final regarding the quality and progress of work, the other aspects arising out of the work shall only be referred as disputes. The contractor may address its intension with evidence for the settlement of dispute in writing to the *Department*. The work shall not stop, unless agreed mutually or ordered by the arbitrator(s).

Settlement of Disputes: The settlement of all the disputes of any kind arising out of the contract shall be first through a mediator and only after dissatisfaction with that, the (joint) Arbitrator(s) shall be appointed as per Arbitration & Conciliation Act 1996.

Terms of Payment

- a. No advance payment is payable in this tender.
- b. Payment to the Bidder will be made based on actual quantities of work completed at the approved rates.
- c. Payment shall be made after completion of work. However, running bill may be processed as per the requirement and further approval of Engineer-In Charge.
- d. Payment for the work executed shall be made to the contractor through Running Account Bills, for which contractor has to submit a separate bill in duplicate clearly mentioning the work executed and payment due.
- e. Contractor has to submit proof of GST paid by them.
- f. Payment to contractor will be made on the recommendation/acceptance by the Engineer-in-charge.
- g. The payment shall be made for the amount after deducting any taxes required to be deducted at source as applicable e.g. work contract tax, income tax except service tax. However, GST will be reimbursed extra at prevailing rate on quoted rate.
- h. All the interim payment certificates can be modified, or corrected by any subsequent interim or by the final certificate issued by the Engineer-in- charge.
- i. Any money recoverable from the Bidder shall be adjusted in the final bill.
- j. For quantities less than 1 sq.km, payment shall be made in Pro Rata basis.
- k. The Performance Guarantee amount will be released after satisfactory completion and acceptance of works by Competent Authority or after six months of completion of work whichever is later. No interest shall be payable by the employer for sum deposited as Performance Guarantee.
- l. Any tax as applicable shall be deducted at source from the bill.

SCHEDULES

SCHEDULE 'A'- Schedule of quantities (Enclosed at page 42-43 of this Tender Document)

SCHEDULE 'B'- Not applicable

SCHEDULE 'C'- Not applicable

SCHEDULE 'D'- Not applicable

SCHEDULE 'E'- Reference to General Conditions of Contract

Name of work: "Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand"

Estimated Cost: Rs. 39,75,125/- (Thirty-nine lakh seventy-five thousand one hundred twenty-five) only

Earnest Money Deposit: Rs. 79,500/- (Rupees Seventy nine thousand five hundred only)

Security Deposit: 5% of the tendered and accepted value of work

Performance guarantee: 5% of the tendered and accepted value of work

SCHEDULE 'F'

General Rules & Directions:

Officer inviting tender: Executive Engineer, P&I Division,
Central Water Commission, Quarter No-1064,
Type V, NH-IV, Faridabad-121001

Definitions:

2(v) Engineer- in Charge: Executive Engineer, P&I Division,
Central Water Commission, Quarter No-1064,
Type V, NH-IV, Faridabad-121001

2(viii) Accepting Authority: Executive Engineer, P&I Division,
Central Water Commission, Quarter No-1064,
Type V, NH-IV, Faridabad-121001

2(x) Percentage on cost of materials and Labour to cover all overheads and profits. 15%

2(xi) Standard schedule of rate CWC Schedule of Rates 2012.

2(xii) Department: Central Water Commission

9(ii) Standard CPWD contract Form GCC 2014,
CPWD Form 7/8 as modified & corrected upto: 31st December, 2018

Clause 1

(i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance 7 days

ii) Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee 5 days*
amount beyond the period provided *** (1 to 15 days to be filled by NIT approving authority in (i) above ***)

Clause 2

Authority for fixing Compensation
clause 2

Superintending Engineer, Planning Circle, under
CWC, Faridabad.

Clause 2A

Whether Clause 2A shall be applicable

No

Clause 5

Number of days from the date of issue of
letter of acceptance for reckoning date of start

Same Day

Mile Stone(s)

Not applicable

Time allowed for execution of work

30 days from the date of issue of Letter of
Acceptance.

Authority to give fair and reasonable
extension of time for completion of work

Executive Engineer, P&I Division,
Central Water Commission, Quarter No-
1064, Type V, NH-IV, Faridabad-121001

Clause 6, 6A

Clause applicable - (6 or 6A)

Clause 6

Clause 7

Gross work to be done together with net payment/adjustment of advances for material collected,
if any, since the last such payment for being eligible to interim payment **Rs. 1,00,000/-**

Clause 10A

Not applicable

List of testing equipment to be provided by the contractor at site lab.

1.

2.

3.

4.

5.

6.

Clause 10B(ii)

Whether Clause 10 B (ii) shall be applicable

Yes

Clause 10C

Component of labour expressed as percent of value of work = 30%

Clause 10CA

Not applicable

S. No.	Materials Covered under this clause:	Nearest Materials (other than cement*, reinforcement bars, the structural steel and POL) for which All India Wholesale Price Index to be followed:	Base Price and its of corresponding period of all the Materials covered under clause 10 CA**

*includes Cement component used in RMC brought at site from outside approved RMC plants, if
any.

**** Base price and its corresponding period of all the materials covered under clause 10 CA is to be mentioned at the time of approval of NIT. In case of recall of tenders, the base price may be modified by adopting latest base price and its corresponding period.**

Clause 10CC Not applicable
 Clause 10 CC to be applicable in contracts with stipulated period
 of completion exceeding the period shown in next column months

Schedule of component of other Materials, Labour etc. for price escalation.

Component of civil (except materials covered
 under clause 10CA) /Electrical construction Xm %
 value of work. -

Component of Labour -
 expressed as percent of total value of work. Y %

Note:Xm.....% should be equal to (100) - (materials covered under clause 10CA i.e. Cement, Steel, POL and other material specified in clause 10CA + Component of Labour

Clause 11
 Specifications to be followed for As mentioned under the scope of work.
 Execution of work.

Clause 12
 Type of work *** Strip Survey and Topographical survey in Irrigation
 schemes in Jharkhand

***To be filled by NIT approving authority either Project and original work or Maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration in buildings.

The items related to road work like upgradation/ improvement of footpath & central verge, improvement of carriage way by patch repair or annual/periodical repairs of road surface and A/R & M/O works pertaining to road shall be treated as maintenance work.

New road construction works and the strengthening of road surface shall be considered as original works.

12.2 & 12.3 Deviation Limit beyond which clauses
 12.2 & 12.3 shall apply for building work Beyond 50% of BOQ quantities

12.5 (i) Deviation Limit beyond which clauses
 12.2 & 12.3 shall apply for foundation
 work (except items mentioned in earth work
 subhead in DSR and related items) Not applicable

(ii) Deviation Limit for items mentioned in earth
 work subhead of DSR and related items Not applicable

Clause 16
 Competent authority for Deciding reduced rates. Not Applicable

Clause 18 Not applicable

Clause 25

Constitution of Dispute Redressal Committee (DRC)

Chairman – Chief Engineer, YBO, CWC, New Delhi

Member – Superintending Engineer (C), YBO, CWC, New Delhi
 Member - Superintending Engineer, Planning Circle, CWC, Faridabad

Clause 36

Sl No .	Minimum qualification of Technical Representative	Discipline	Designation (Principal Technical / Technical representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i)	
						Figure	words
1	B.Tech/ M.Tech or MSc.	Civil Engineer /Computer Science/ Remote Sensing etc.	Junior Engineer	3 years	1	Rs. 15000/- per month	Rupees Fifteen Thousand per month

Clause 42

Not applicable

SPECIAL CONDITIONS OF CONTRACT

In addition, to General Conditions of Contract, the following Special terms and conditions shall also be part of the tender documents/contract and will be binding on both the parties of the Contract, Wherever any clause of the Special terms & conditions is contradictory of the General conditions, clause of the Special terms & conditions shall be taken as have been issued in suppression of the General terms & conditions.

1. The contractor shall carry out all the work strictly in accordance with the drawings/ Instructions of the Employer from time to time.
2. The contractor must not assign the contract. He must not subject any portion of the contract except with the written consent of the Employer failing which the Employer may serve a notice in writing rescinding the contract whereupon the security deposit shall stand forfeited and at absolute disposal of the Employer.
3. The successful tenderer is bound to carry out any items of work necessary for the completion of job even though such items are not included in the quantities and rates. Schedule of instructions in respect of such additional items and the quantities, if needed, will be issued in writing by the Employer.
4. Item rates shall remain valid for variation up to 50% of the quantity given in the schedule of quantities.
5. The agency is advised to inspect the site before tendering
6. Within 15 days of award of work, the agency shall submit the method statement as how he proposes to execute the work with quality and specification, sequencing of Items etc. for approval of Engineer-in Charge.
7. The contractor, through his engineer, shall ensure quality work in a planned and time bound manner. Any sub-standard Material/Work beyond set out tolerance limits shall be summarily rejected by the Engineer-in-Charge.
8. The work shall be executed as per the programme approved by the Engineer –in- Charge. No claim for idle labour shall be entertained, nor, any claim on account of the delay in completion of the work shall be liable.
9. The contractor or his authorized representative should always be available at the site of work to take instructions from department officers, and ensure proper execution of work.
10. No payment will be made to the contractor for damage caused by rains, or other natural calamity during the execution of the works and no such claim on this account will be entertained.
11. The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants of adjacent properties and to the public in general and to prevent any damage to such properties.
12. Prior permission from the Forest/Gram sabha will be responsibility of the contractor.
13. Location maps of AOI are attached with the contract document showing tentative location of the project area. The Bidder has to submit to the purchaser the schedule of completion of the work with respect to the schedule of completion in the form of bar charts, tabular formats.

14. The schedules are to be reviewed fortnightly by Purchaser to ensure that the completion date will be met or to institute corrective steps (at no extra cost to the employer) to adhere to the completion dates.
15. The whole works must be proceeded with within such sections and at such times and in such order and manner as described in these specifications and as directed by the Engineer-in-Charge. No extra payment or relaxation in the rates will be permitted on account of this.
16. The Bidder will be required to attend regular meetings at their own cost with SE, PC CWC, Faridabad or Purchaser at Faridabad at a time interval to be agreed upon to discuss matters relevant to the project and to monitor progress.
17. A satisfactory completion or inspection certificate to conform to the Technical Specifications laid down in the Tender Document will be issued by the Competent Authority.
18. The Competent Authority will check any deliverable by the Bidder for accuracy, consistency and completeness before final Acceptance. Competent Authority's decision regarding the quality of work and its acceptability shall be final and binding on the Bidders.
19. All the survey work should be connected to GTS bench marks.
20. The quantities indicated under Schedule of Quantities are approximate only and are liable to change. If the quantities vary by more 50% then the rates will be finalised on the basis of actual analysis for respective item.
21. Any permission required from any authority for flying of drone will be responsibility of Bidder. However, CWC will write to these agencies for providing necessary support to the bidder.
22. Safety and security of the Drone, its accessories and manpower deployed will be responsibility of the bidder. However, CWC will write to local authorizes for providing necessary support to the bidder.
23. Representative for CWC side will be available at site during the survey.
24. Survey schedule must be fixed in consultation with Engineer-in-Charge.
25. Bidders are requested to visit all the sites obtain status of situation on law and order, safety, security, approach to the site, local authorities, accommodation & communication facilities etc. CWC will not be directly responsible for any inadvertent situation arises during the work. However, CWC will write to local authorizes for providing necessary support to the bidder.
26. For reservoir survey and Strip Survey area under the elevation of FRL+5m shall be surveyed.
27. For Strip Survey area under the elevation of FRL+5m shall be surveyed on both bank upto 500m Upstream and 500m Down Stream of Dam axis.
28. Tentative values of FRL are mentioned under the Schedule of Quantities, but these values will be fixed after the completion of work of GTS Connections to the respective project sites.
29. The survey areas marked in the Plate1, Plate2 are tentative. Once the value of FRL is fixed, then contractor has to work out AOI considering the FRL+5m contour.
30. FRL+5m contour for all sites must be closed till dam site and it should be extended upto 500m Down Stream of Dam sites.
31. The error in GTS Connection shall not be more than $\pm 5\text{cm}$.

- 32. The error in reservoir survey shall not be more than $\pm 10\text{cm}$.
- 33. The error in Strip Survey shall not be more than $\pm 10\text{cm}$

34. Work Programme:

The Bidder shall furnish within seven days of issue of Letter of Award (LOA) full particular of his programme of field/ home office activity proposed for execution of the contract. Programme should cover intermittent milestones and list of submittals corresponding to each milestone for approval.

35. Liquidated Damages for delay

- a. The time stipulated in the contract as per progress report shall be deemed to be the essence of the contract. In the event the Bidder fails to adhere to the time specified in the progress report of the 'Contract', or approved extended time then the Bidder shall pay to the Purchaser liquidated damages for such default and not as penalty as follows.
- b. In the event of any delay corresponding to each milestone as specified in tender at the rate of **1.0 %** of the remaining part of the contract value of the work **per week of delay or part** thereof shall be levied subject to a ceiling of **10% of the** total contract value of the work.
- c. The owner may without prejudice to any other method of recovery deduct the amount of liquidated damages from any money in his/their hands due or become due to the Bidder either under this or under any other contract.
- d. The payment or deduction of such liquidated damages shall not relieve the Bidder from his/their obligation to complete the works or from any other of his /their obligations and liabilities under the contract.
- e. If the decision regarding the reasons for delay is required to be analyzed and the same can only be determined after completion of the work or if the issue is likely to enter into dispute or requires in-depth study to fix the responsibility for the delay, then extension of time will be granted to the Bidder subject to levy of LD and the amount equivalent to the maximum levy of LD leviable shall be withheld from the running bills at the stage where the balance payment may not be able to cover the LD and other obligations as per the provisions of the Contract.

36. Safety Standard / First Aid Box

Notwithstanding the Bidder's obligation to comply with the requirement of the safety manual/ Norms applicable the Bidder's attention is particularly drawn on the following requirements specified;

- a) The Bidder shall be responsible for providing and maintaining a first aid station at the site at his/her own cost for emergency treatment of his employees
- b) Emergency treatment shall include carrying of emergency patient until

transfer to a permanent hospital or other place of treatment.

37. Statutory rules and regulation of India:

The Bidder should be well concerned with such statutory rules, regulations as may be prevalent in project territory and Bidder shall indemnify and keep the CWC free from and against such liability.

38. Observance of Employees State Insurance Act 1948 and PF act 1952.

The Bidder shall observe all the provisions of the Employees State Insurance Act, 1948 and the Employees Provident Fund Act, 1952 duly amended from time to time where ever applicable and shall pay the contribution/subscription in accordance with the said act in respect of the employees with the said company engaged by it for the survey work.

39. FORECLOSURE OF CONTRACT IN FULL OR IN PART DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK

1. If at any time after acceptance of the tender the Purchaser shall decide to abandon or reduce the scope of the work for any reason whatsoever and hence not require the whole or any part of the Works to be carried out, the Engineer-in-Charge shall give notice in writing to that effect to the Bidder and the Bidder shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of whole or part of the works.
2. The Bidder shall be paid at Contract rates full amount of work executed at site and any other amount as admissible under contract.

40. URGENT WORKS:

If any Urgent Work (in respect whereof the decision of the Competent Authority shall be final and binding) becomes necessary and the Bidder is unable or unwilling at once to carry it out, the Engineer-in-Charge may by his own or other work people carry it out as he may consider necessary. If the Urgent work shall be such as the Bidder is liable under the Contract to carry out at his expenses all expenses incurred on it by the Department shall be recoverable from the Bidder and be adjusted or set off against any sum payable to him.

SCOPE OF THE WORK

D.1 Scope

All the works shall be carried out in accordance with the detailed specification share in after described. In case, the specifications of any work are not given herein, the work shall be carried out in all respects in accordance with I.S. specifications, Guidelines issued by CWC regarding for preparation of DPR of Irrigation & Multipurpose Projects and the instructions of the Engineer-in-Charge given from time to time. These specifications shall be read and construed along with the conditions of the contract. The envisaged quantum of work at each project site can be increased or decreased as and when the work proceeds.

D.2 TECHNICAL SPECIFICATIONS

1. GENERAL

- a. The scope of the bid is as mentioned in SCOPE OF WORK.
- b. These services would cover, in general, grid survey, strip survey, transfer of Bench Mark etc. as indicated in this document and as directed by EIC and within the stipulated time period.
- c. Surveys shall be based on and/or referred to a basic grid of datum points, triangulation points and benchmarks adjacent to the nearest available location in the project area. This grid shall be the sole basis of reference for all survey work and measurement.
- d. All surveys and drawing work shall conform to the standard practices and as per BIS and Survey of India Specification.
- e. All survey work is to be done using Drone Aerial surveys, 3D Photogrammetry, digital mapping, 3D visualization and allied works.
- f. All relevant geomorphic, geographical and manmade elements including various permanent features in the near vicinity shall be marked giving standard legend.
- g. The specifications for the contour lines shall be generated in colour and every fifth contour line shall be an index contour and shall be distinguished using a heavier line style for easy identification. Symbol Library of SOI may be referred for their depiction. Digital contour lines passing over building, trees and other artificial structures above ground shall not be broken. Contours shall be edited for proper registration with streams, after the streams have been captured.
- h. Drawings of Tentative Area of Interest are enclosed at Plate-1, 2 & 3 in this document, further Google earth files of the same are available in this office, interested bidders can take it from this office on any working day from 0930 Hrs. to 1700 Hrs.

2. MATERIAL AND INSTRUMENTS

- a. The Bidder shall provide, maintain and operate suitable and appropriate equipment, instruments materials and auxiliary equipment commensurate with the various tasks and precision requirements of the survey works both topographical and hydrographical.

- b. Type and accuracy of the survey equipments to be used by the Bidder shall correspond to the nature of surveys in conformity with standards practices.
- c. All equipment, instruments, materials and auxiliary equipment shall be in perfect operational condition. Prior to the start of survey activities, equipment, instruments etc. shall be checked as to their proper functioning and accuracy.
- d. The number of sets of instruments shall be sufficient to meet the requirements of the time schedule. Delay of start of surveys caused by insufficient quantity and quality of survey equipment including provision of professional staff shall be the Bidder's responsibility.

3. EXECUTION

a. General

- i) For the execution of the survey work the Bidder shall employ and provide experienced professionals and auxiliary staff for surveying using Drone and DGPS. All survey and measurement work shall be recorded properly.
- ii) The Bidder shall provide, maintain, adjust when necessary and operate the required equipment for Drone survey and auxiliary equipments for the performance of the works.
- iii) All survey data /measurement shall be recorded and handed over to the Engineer-in-charge or his representative after completion of work. The production of drawings and maps on Auto Cad/Arc GIS shall be deemed to be part of the works.
- iv) The Purchaser shall have the right to check work performance, accuracy, all survey results, measurements and calculations to see that they conform to the client's requirements.
- v) The Bidder shall keep & maintain records of all field surveys and measurements, the related computations and calculations, manuscripts, plans, drawings and maps in a professional and approved manner and shall make them available to the client whenever desired.
- vi) If, in the opinion of the Purchaser, deficiencies and/ or inaccuracies in field and office work have been found, such work shall be repeated and make good to the satisfaction of the client at the Bidder's expense.
- vii) The Bidder shall be solely responsible for accuracy of survey maps and drawings.
- viii) The Bidder will strictly comply with all the provisions of the Forest Conservation Act 1980. Under no circumstances any tree should be cut or destroyed in the vicinity of the project area. Adequate fuel should be supplied to the labourers so as to prevent them for damaging the forest. Necessary approval from the concerned department (if required) for carrying out survey work may be taken by the Bidder and Employer shall assist in getting such approval.
- ix) The Bidder shall be responsible to take all precautions to ensure safety of the public and his own personnel. Further, Bidder will also be required to take following insurances at his your own cost.
 - Third party liability insurance.
 - Worker's compensation insurance in respect of Bidder's personnel.
 - Any other insurance for public & Bidder's personnel in accordance with the relevant provisions of the applicable land.

- x) The agency shall comply with the provisions of the following acts:
- Contract labour (Regulation & Abolition) Act 1970
 - Employees Provident Fund Act, 1952
 - Minimum Wages Act, 1948 (Amended)
 - Employer's Liability Act, 1938 (Amended)
 - Industrial Employment Act, 1946 (Amended)
 - Personnel Injuries (Compensation Insurance) Act, 1963 (Amended)
- xi) The Bidder shall not employ any labour below 18 years.
- xii) In case, the rate of the progress of the work is not commensurate with the rate of progress for completing the work within the stipulated time frame, then balance quantum of work which cannot be completed can be withdrawn from the concerned agency and can be awarded to other agency whom purchaser considers fit to carry out the work.
- xiii) If there is any dispute the same will be amicably settled by the Executive Engineer in consultation with Superintending Engineer, Planning Circle, Central Water Commission, Faridabad failing which it will be referred to Chief Engineer for his arbitration. The decision of Chief Engineer, Yamuna Basin Organization, Central Water Commission, New Delhi will be final and binding on both the parties. However, in case of any court case after resorting to all other avenues, the jurisdiction of court case will be that of New Delhi.

b. Reference Marks and Bench Marks

- i. Level from GTS Bench marks to Bench Marks established at site shall be transferred by DGPS method. Bench mark leveling shall be carried out with great accuracy and care within permissible limits. If the error is greater than permissible i.e $\pm 5\text{cm}$, re-Leveling shall be carried out.
- ii. In addition to the permanent bench marks available at site, the Bidder shall establish at his own cost, at suitable points, reference lines and temporary bench marks as may be necessary. The Bidder shall remain responsible for the sufficiency and accuracy of all his bench marks and reference lines. He shall take precautions to see that the lines, point and bench marks fixed by and other government agencies are not disturbed by his work and shall make good for any such damage.
- iii. Four to five pillars along the dam axis will be constructed by CWC. During the survey these pillars as well as Bench marks pillars available at site should be properly photographed and marked on the topographical maps.

4. Verification of Survey Grid

The basic survey grid shall be verified by the Bidder and all coordinates and elevations as shown on the survey maps shall be based on the basic survey grid.

The Bidder shall record all calculations, control surveys, setting out and check surveying in a suitable permanent form for verification, which shall be available to the employer on request at all times.

5. DIGITISATION OF MAPS

The contour plan of AOI shall be on scale as directed and at required contour interval as directed. Also refer scope of work.

The data base is to be prepared with the use of either suitable software compatible with CAD software and ARC GIS.

All the drawings shall be submitted in A0/A1 size subject to changes as per design office requirements.

6. MEASUREMENTS AND PAYMENTS

- a. The Bidder shall submit to the Purchaser at the end of each month, a written statement of interim account showing the cumulative sum to which he considers himself eligible for payment along with all the relevant documents.
It will be the Bidder's responsibility to get the work done by them verified by purchaser.
- b. On receipt of the Bidder's statement referred to as above, Purchaser or his authorized representative shall verify the payment due to the Bidder to the extent considered justified after taking into cognizance:
- c. The estimated value of the survey works executed and checked by the Purchaser's representative up to the end of each month.
- d. The total amount certified on previous interim payment certificate.
- e. Deductions, if any.
- f. In the event of stoppage of work due to unavoidable reasons on part of the employer, the payment will be made for the quantity of work completed up to that date only.
- g. In case the Purchaser withdraws apart of the work, then the same will stand withdrawn from the item of works of the concerned surveying agencies.
- h. All the payment due to a survey agency will be on the basis of actual work done and the unit rate. No extra payment will be made on any account.

7. PREPARATION OF DRAWINGS

All the drawings shall be submitted in A0/A1 size subject to changes as per design office requirements. The scales of the map shall be as mentioned in the deliverables in scope of work.

8. SUBMISSIONS

All survey data and corresponding topographical maps as and when completed in respect of any item of work shall be submitted in 5 copies to the Purchaser for reference and use. All the drawings/ maps shall be AUTOCAD/Arc GIS compatible.

9. The Bidder shall submit:

- a. Detailed work programme & plan for carrying out the survey before commencement of work.
- b. All field survey data related to contour Leveling for verification
- c. Five sets of Contour maps (hard & soft copy) on 0.5m interval with 10m grid compatible with arc GIS/AutoCAD/DWG format.
- d. Soft copies of DEM and DTM having all layers on 0.5m interval with 10m grid compatible with arc GIS.
- e. Original survey field book(s) and Survey output.
- f. All drawings shall be in A1/A0 size
- g. A brief report giving scope, methodology, instruments used, Bench-marks, control points connected for survey work.

10. Confidentiality

- a. The Bidder shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification or information furnished by or on behalf of the Purchaser in connection herewith, to any person other than a person employed by the Bidder in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.
- b. Any document, other than the Contract itself, shall remain the property of the Purchaser.
- c. The Bidder shall not, without the Purchaser's prior written consent, make use of any document or information enumerated in this document except for purpose of performing the Contract.

3D/2D TOPOGRAPHIC SURVEY SPECIFICATIONS

The scope of work constitutes completion of all the works and services for strip survey and reservoir survey for Three Irrigation Schemes in Jharkhand (namely; Jagannathpur, Pahantoli and Palemura and preparation of maps as required. The ancillary requirements required for the fulfillment of the work shall be supplied by the Bidder free of cost within the scope of the work.

The Topographical Survey will required to be carried out USING Drone for Jagannathpur, Pahantoli and Palemura Reservoir/Irrigation Schemes consisting of:

- (1) GTS Bench Mark connection using DGPS or better available technology from nearest available GTS Benchmark to Musto type Bench marks constructed at respective of sites,
- (2) Strip survey of Dam Site Area using 10m x 10m Grid and covering elevation FRL+5m on both sides. Survey will cover area about 500m upstream of Dam axis and 500m Down Stream of Dam Axis. Contour interval shall be 0.5m.
- (3) Reservoir area survey using 10m x 10m Grid and covering elevation FRL+5m on both sides. Survey will cover area from 500m upstream of Dam axis to FRL+5m on upstream portion along the river stretch. Contour interval shall be 0.5m.

Deliverable:

- (1) Five sets of Contour maps (hard & soft copy) on 0.5m interval with 10m grid compatible with arcGIS/AutoCAD/DWG format.
- (2) Soft copies of DEM and DTM having all layers on 0.5m interval with 10m grid compatible with arc GIS.
- (3) All field observed data/field book etc.

Specifications**Preparation of Topographic Plan**

This activity will include 3D/2D digitization of all the features (natural and manmade) e.g. existing roads, extension of settlements, change in land use pattern, change in water bodies, etc., and capturing new features e.g. new roads / railways, net settlements etc., The scale of topographic map will be standard.

The topographic map consisting of all the features shall be prepared in AutoCAD environment as one drawing and in blocks of suitable length along the alignment as may be decided during the execution of work. There will be separate layer for each feature. While drawing features, the precautions mentioned below needs to be adopted.

- a. There should not be topographical errors.
- b. Consistency should be maintained for symbology and attributes of features.
- c. Consistency should be maintained for File naming conventions.
- d. There should not be any missing feature.
- e. The entire data should have the required positional accuracy

- f. All the linear features need to be captured at the center of the perceived casing.
- g. All Point features should be captures as point feature at the centroid of the backdrop polygon.
- h. Contours (smooth) generated shall be overlaid as a separate layer.

SCHEDULE OF QUANTITIES

Name of Work:"Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand"

S. No.	Particulars	Approximate Quantities
01	Topographical Survey for following Irrigation Schemes in West Singhbhum and Simdega District of Jharkhand using Drone Aerial surveys, 3D Photogrammetry, digital mapping, 3D visualization and allied works.	
(a)	Strip survey using 10m x 10m Grid and covering elevation FRL+5m on both sides. Survey will cover area about 500m upstream of Dam axis and 500m Down Stream of Dam Axis. Contour interval shall be 0.5m.	
	Jagannathpur Reservoir/Irrigation Scheme Lat - 22° 14' 44.7"N Long - 85° 39' 17"E FRL - 397 m River Bed Level - 386 m	1.49 sq.km
	Palemura Reservoir / Irrigation Scheme Lat - 22° 24' 14.58"N Long - 84° 19' 10.26" E FRL - 275.5 m River Bed Level - 263 m	1.92 sq.km
	Pahantoli Reservoir/Irrigation Scheme Lat - 22° 42.97'N Long - 84° 42.02'E FRL - 566 m River Bed Level - 556 m	0.95 sq.km
	Total (a)	4.36 sq.km
(b)	Reservoir area survey using 10m x 10m Grid and covering elevation FRL+5m on both sides. Survey will cover area from 500m upstream of Dam axis to FRL+5m on upstream portion along the river stretch. Contour interval shall be 0.5m.	
	Jagannathpur Reservoir/Irrigation Scheme FRL 397 m River Bed Level 386 m	7.69 sq.km
	Palemura Reservoir / Irrigation Scheme FRL - 275.5 m River Bed Level - 263 m	15.3 sq.km
	Pahantoli Reservoir/Irrigation Scheme FRL - 566 m River Bed Level - 556 m	16.5 sq.km
	Total (b)	39.49 sq.km

02	GTS Bench Mark connection using DGPS or better available technology from nearest available GTS Benchmark to Musto type Bench marks constructed at respective of sites as detailed below :- (a) Jagannathpur (b) Palemura (c) Pahantoli	Within 50 km Within 100 km Within 50 km
	<u>Deliverable:</u> (1) Five sets of Contour maps (hard & soft copy) on 0.5m interval with 10m grid compatible with arcGIS/AutoCAD/DWG format. (2) Soft copies of DEM and DTM having all layers on 0.5m interval with 10m grid compatible with arc GIS. (3) All field observed data/field book etc.	

Note:

1. The quantities mentioned against each item are tentative and may vary significantly. The Purchaser is at liberty to change the quantities during the course of actual survey. Only actual quantities of work done will form basis of the payments to be made.
2. The quoted price shall be written both in figures and words and should be inclusive of all services and taxes except GST which shall be reimbursed on production of GST paid receipts.

Signature of Bidder

Name and Stamp

TECHNICAL BID

(To be furnished online only. Offline bids are not acceptable under this contract)

To,

The Executive Engineer,
P&I Division, Central Water Commission,
Quarter No-1064, Type V,
NH-IV, Faridabad-121001

Subject:- Bid for "Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand."

Reference: TENDER NO: NIT No. 102/06/2018-19/1065-69 Dated 25/04/2019

TCIL Tender Reference No.: CWC-2019-TN000170

Sir,

With reference to your tender published on TCIL website dated on 25 April, 2019 (TCIL Reference No. CWC-2019-TN000170) on the subject mentioned above, I/We submit the Technical Bid as under:

Technical Bid

(To be furnished online only. Offline bids are not acceptable under this contract)

Sl. No.	Particulars	To be filled by the tenderer
1.	Name of the bidder	
2.	Postal Address of the Bidder	
	Phone:	
	Mobile:	
	Fax:	
	Email:	
3.	Is your firm registered (Attach Photocopy as a proof)	Yes ☐ No ☐
Tick as applicable Registered with CPWD, MES, Railways or other Govt. of India organizations Registered with PWD, or other State Govt. organizations Registered as firm Proprietorship/Any other category(please specify) Sister concern of.....(please specify name)		

4.	Date of establishment of the agency	
5.	Income Tax Permanent Account Number (PAN) (Attach proof)	
6.	Income Tax return filed (Attach proof)	
7.	GST Registration number (Attach proof)	
8.	Whether similar work as mentioned in the eligibility criteria were executed by the firm? (attach completion certificates)	
9.	Whether the firm is blacklisted by any Government Department or any criminal case is registered against the firm or its owner/partners anywhere in India. (If no, a certificate is to be attached in this regard)	
10.	Length of experience in the field	
9.	Experience in dealing with Govt. Departments (indicate the names of the Departments and attach copies of award of works/completion certificates)	
10.	Whether agency profile is attached?	
11.	List of present clients	
12.	Financial turnover of the tendering company/firm/agency for the last 3 financial year with supported documents (copy of balance sheet, duly certified by Auditors/CAs to be attached)	

FINANCIAL BID

(To be furnished online only. Offline bids are not acceptable under this contract)

To,

The Executive Engineer,
P&I Division, Central Water Commission,
Quarter No-1064, Type V,
NH-IV, Faridabad-121001

Subject:- Bid for "Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand."

Reference: TENDER NO: NIT No. 102/06/2018-19/1065-69 Dated 25/04/2019

TCIL Tender Reference No.: CWC-2019-TN000170

Sir,

With reference to your tender published on TCIL website dated on 25 April, 2019 (TCIL Reference No. CWC-2019-TN000170) on the subject mentioned above, I/We quote the rate for above mentioned work as under:

Name of Work: "Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand."

S. No.	Particulars	Approximate Quantities	Rate in Rs.	Amount in Rs.
01	Topographical Survey for following Irrigation Schemes in West Singhbhum and Simdega District of Jharkhand using Drone Aerial surveys, 3D Photogrammetry, digital mapping, 3D visualization and allied works.			
(a)	Strip survey using 10m x 10m Grid and covering elevation FRL+5m on both sides. Survey will cover area about 500m upstream of Dam axis and 500m Down Stream of Dam Axis. Contour interval shall be 0.5m.			
	Jagannathpur Reservoir/Irrigation Scheme Lat - 22° 14' 44.7"N Long - 85° 39' 17"E FRL - 397 m River Bed Level - 386 m	1.49 sq.km		
	Palemura Reservoir / Irrigation Scheme Lat - 22° 24' 14.58"N Long - 84° 19' 10.26" E FRL - 275.5 m River Bed Level - 263 m	1.92 sq.km		
	Pahantoli Reservoir/Irrigation Scheme Lat - 22° 42.97'N Long - 84° 42.02'E FRL - 566 m River Bed Level - 556 m	0.95 sq.km		
	Total (a)	4.36 sq.km		

(b)	Reservoir area survey using 10m x 10m Grid and covering elevation FRL+5m on both sides. Survey will cover area from 500m upstream of Dam axis to FRL+5m on upstream portion along the river stretch. Contour interval shall be 0.5m.			
	Jagannathpur Reservoir/Irrigation Scheme FRL 397 m River Bed Level 386 m	7.69 sq.km		
	Palemura Reservoir / Irrigation Scheme FRL - 275.5 m	15.3 sq.km		
	Pahantoli Reservoir/Irrigation Scheme FRL - 566 m River Bed Level - 556 m	16.5 sq.km		
	Total (b)	39.49 sq.km		
02	GTS Bench Mark connection using DGPS or better available technology from nearest available GTS Benchmark to Musto type Bench marks constructed at respective of sites as detailed below :- (d) Jagannathpur (e) Palemura (f) Pahantoli	Within 50 km Within 100 km Within 50 km		
	<u>Deliverable:</u> (4) Five sets of Contour maps (hard & soft copy) on 0.5m interval with 10m grid compatible with arcGIS/AutoCAD/DWG format. (5) Soft copies of DEM and DTM having all layers on 0.5m interval with 10m grid compatible with arc GIS. (6) All field observed data/field book etc.			
	<u>Total (1+2)</u>			
	<u>GST@ %</u>			
	<u>Grand Total</u>			

Any other points to be mentioned:

I/We accept all the terms and conditions of your Tender Notice referred to above. The above rate is inclusive of all Taxes payable to the Government except GST, which have been shown separately.

Yours faithfully,

(Authorized Signatory)
(with name/designation, contact No.& seal)

DECLARATION BY THE BIDDER

1. I/we confirm that the general specifications and special conditions appended in the tender documents have been fully examined and full cognizance taken thereof in arriving at the total amount and tendered sums contained therein.
2. I hereby accept all the terms and conditions of the tender.
3. It is certified that we have not been black listed by any of the departments registration of which is valid for this work.
4. I/we warrant that the output supplied by us shall be in full conformity of the specification/output required by this tender. This warranty shall remain enforced / valid during inspection/acceptance of the output and shall expire six months after the final acceptance of the output by Purchaser.
5. I/we also warrant that I/we shall handover all the data/records and shall maintain total confidentiality of this work.

SIGNATURE OF BIDDER

(Office Seal)

1. Authorized Signatory
2. Name of the Bidder
3. Address
3. Phone No.
4. Fax No.
5. E-mail Address
6. Web site address if any

CONTRACT/AGREEMENT FORM

This Contract/Agreement (**Agreement no. No.**) made on the ____ day of _____ 2019 between the Executive Engineer (for and on behalf of the President of India), Central Water Commission, Planning and Investigation Division, Quarter No. 1061-64, Type V, NH-IV, Faridabad, Haryana -121001. (name or address of the Department) (hereinafter called “the First Party”) and _____

_____ (name and address of the contractor) (hereinafter called “the Second Party”). WHEREAS the First Party is desirous that the Contractor executes the work" **"Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand"**)(hereinafter called “ the works”) and the First Party has accepted the Bid by the Second Party for a contract price of Rs._____
(Rs._____
_____)only.

Now, THEREFORE, IT IS HEREBY AGREED BETWEEN THE PARTIES AS FOLLOWS:

1. In consideration of the payments to be made by the First Party to the Second Party is hereinafter mentioned, the Second party hereby covenants with the First Party for executing work of **"Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand"** in conformity in all aspect with the provisions of the contract.
2. The First Party hereby covenants to pay the Second Party in consideration for executing work of **"Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand"** the contract rate or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the Contract.
3. The following documents shall be deemed to form and be read and construed as part of this contract, viz.:
 - a) Tender Document issued to the contractor and duly submitted by him duly signed;
 - b) Amendments/Corrigendum to the tender document, if any;
 - c) Letter of the contractor submitting the tender;
 - d) Other letters of the contractor and the departmental officers that were exchanged before the tender is accepted;
 - e) Rate and Amount of tender/bid quoted by the contractor;
 - f) General Conditions of Contract (GCC) published by CPWD with latest amendments/correction slips;
 - g) Letter of the Executive Engineer communicating acceptance of the tender;
 - h) Letter of the Executive Engineer regarding commencement of the work;
 - i) Performance security;
 - j) Other letters of the contractor and the departmental officers that were exchanged after the tender is accepted till the time of signing of this Contract/Agreement;

IN WITNESS WHEREOF the parties have caused this Contract to be executed the day and year first before written. Binding signature of First Party Signed by _____

(for and on behalf of the President of India)

Binding signature of Second Party signed by _____

(for and on behalf of the _____ duly authorized vide
resolution No _____ dated _____ of the Board of Director of

In the presence of
(Witnesses)

(1)

(2)

OTHER STANDARD FORMS

Form 1 MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

Whereas

(hereinafter called the "tenderer")

has submitted their offer dated..... for
executing the work of ""Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and
Simdega district of Jharkhand" of

.....

(hereinafter called the "tender")

against the purchaser's tender enquiry No. **102/06/2018-19/1065-69 dated 25/04/2019**, KNOW ALL
MEN by these presents that WE of

..... having our registered office at

.....

are bound unto

(hereinafter called the "Purchaser")

in the sum of..... for
which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and
assigns by these presents. Sealed with the Common Seal of the said Bank this..... day of
.....20.....

THE CONDITIONS OF THIS OBLIGATION ARE:

(1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the
period of validity of this tender.

(2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period
of its validity:-

a) If the tenderer fails to furnish the Performance Security for the due performance of the contract.

b) Fails or refuses to accept/execute the contract.

WE undertake to pay the Purchaser up to the above amount upon receipt of its first written demand,
without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will
note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions,
specifying the occurred condition or conditions.

This guarantee will remain in force upto and including 90 days after the period of tender validity and any
demand in respect thereof should reach the Bank not later than the above date.

.....

(Signature of the authorized officer of the Bank)

.....

.....

Name and designation of the officer

.....

Seal, name & address of the Bank and address of the Branch

Form 2. MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

To,

The President of India

WHEREAS (name and address of the supplier) (Hereinafter called "the contractor") has undertaken, in pursuance of contract no..... dated to execute the work of **""Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand"**

AND WHEREAS it has been stipulated by you in the said contract that the contractor shall furnish you with a bank guarantee by a scheduled commercial recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the contractor such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the contractor, up to a total of (amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the day of, 20.....

.....
(Signature of the authorized officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name & address of the Bank and address of the Branch

Form 3: TENDER ACCEPTANCE LETTER
(To be given on Company Letter Head)

Date:

To,

The
Executive Engineer
Planning & Investigation Division,
Central Water Commission
Faridabad.

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: NIT No. 102/06/2018-19/1065-69 dated 25/04/2019

Name of Tender / Work: - "Strip and Reservoir Survey for Irrigation Schemes in West Singhbhum and Simdega district of Jharkhand"

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely: _____ as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the tender document of above mentioned work (including all documents like annexure(s), schedule(s), etc.), which form part of the contract agreement and I / we shall abide hereby the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your Division/ organization, if any, too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirely.

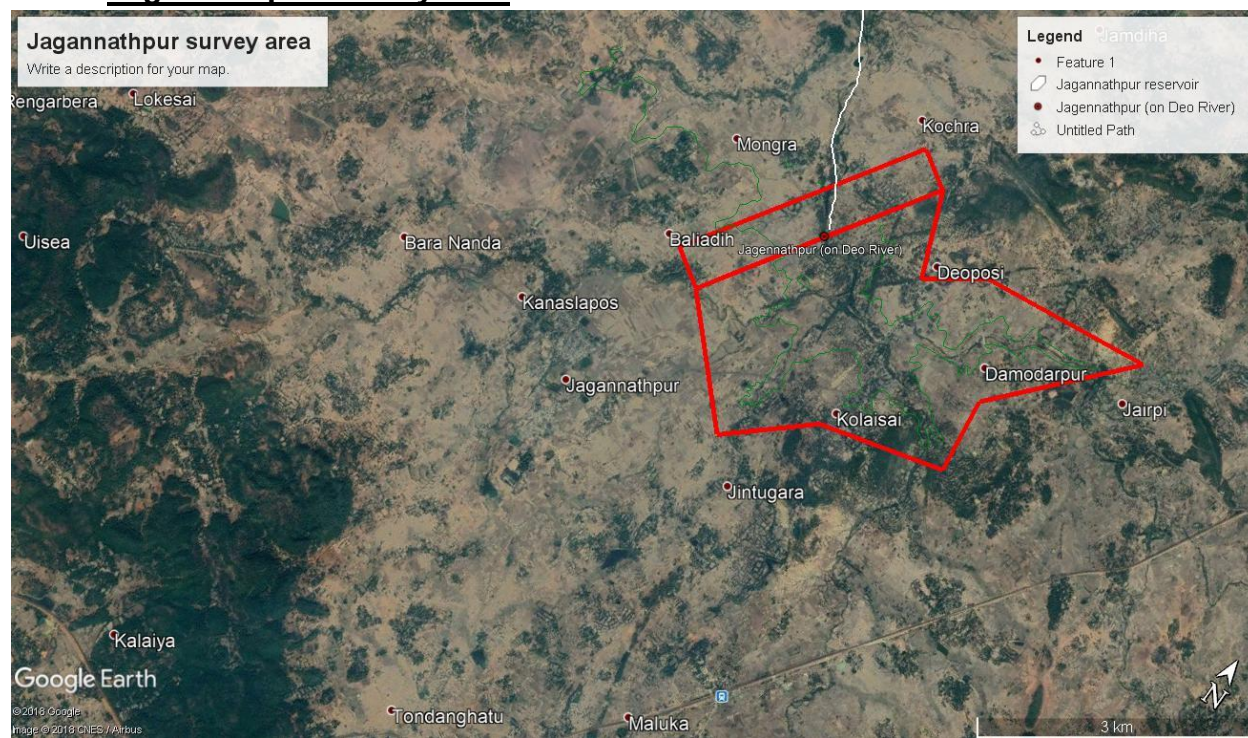
5. In case any provisions of this tender are found violated, your Division/ organization shall be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely and we shall not have any claim/right against Division in satisfaction of this condition.

Yours Faithfully,

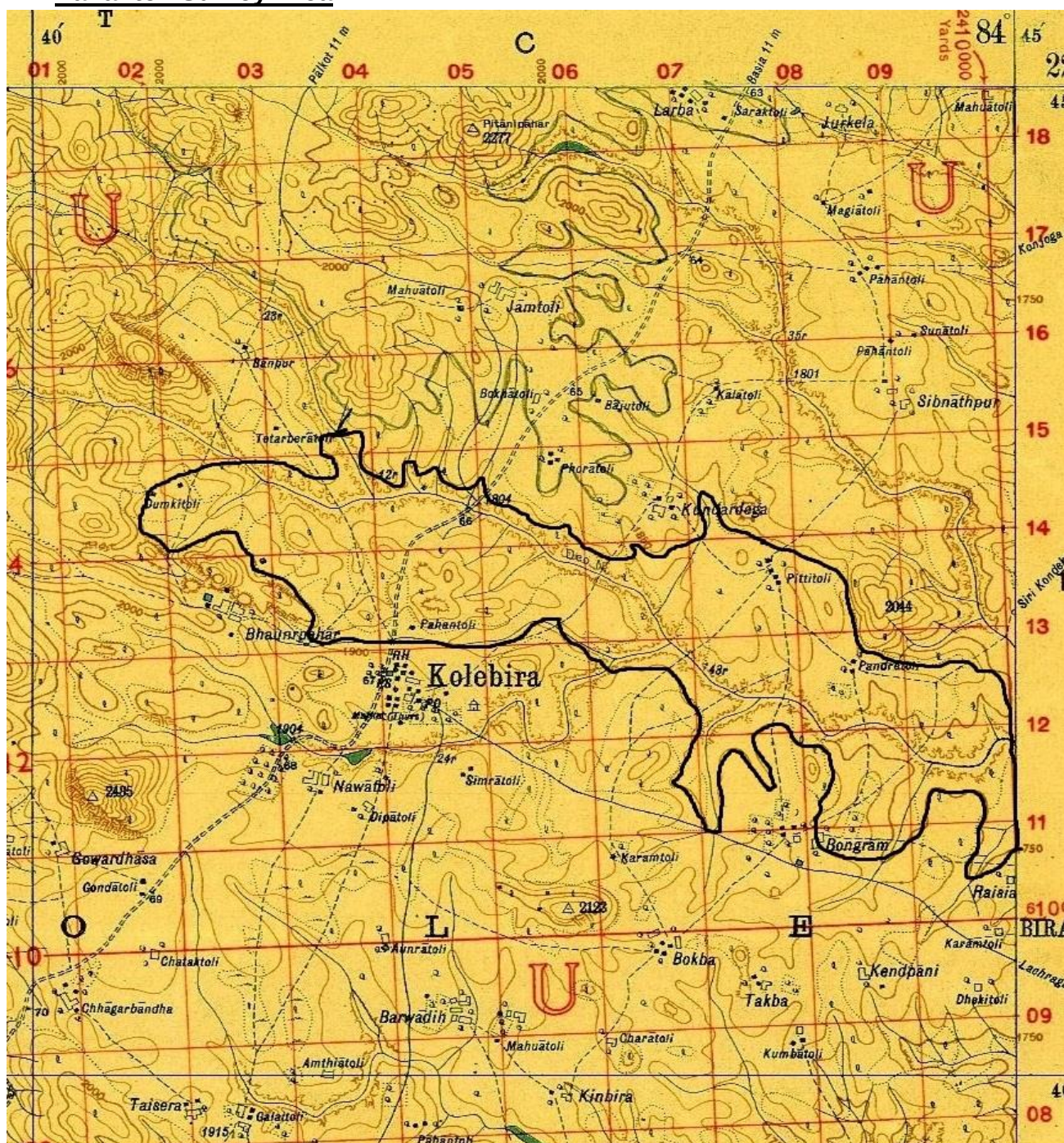
(Signature of the Bidder, with Official Seal)

Drawings/Area of Interest

1. Jagannathpur Survey area



2. Pahantoli Survey Area



Pahantoli Reservoir Irrigation Scheme

3. Palemura Survey Area

