

Government of Jammu & Kashmir
OFFICE OF THE EXECUTIVE ENGINEER DEPTT. OF FLORICULTURE
BAGH-E-BAHU, JAMMU.
E-mail Id:- xenflorijammu33@gmail.com

FRESH NOTICE INVITING TENDERS (Call 2nd)

E-NIT No. 45 of 2019-20 Dated: - 05-10-2019

For and on behalf of the Governor, J&K State e-tenders are invited on % rate method basis from approved and eligible Contractors/Company/firms registered with J&K State Govt. CPWD, Railways and other State/Central Governments for each of the following works :-

S. No	Name of Work	Est. Cost (Rs. In Lacs)	Cost of Tender /Document. (Rs. In Lacs)	Earnest Money/ Bid Security (Rs. In Lacs)	Time of completion	Time & Date of Opening of tender (Technical Bid)	Class of Contractor
1	2	3	4	5	6	7	8
A)	Development of Bhour Garden Jammu (Phase-I) by way of:-						
	1) Construction of snacks/coffee bar.						
	2) Providing and fixing of Mosaic tiles for up-gradation of existing water body.						
	3) Construction of parking place by way of providing/Laying of interlocking tile flooring, const. Of cement concrete deep drain and providing and fixing of chain link fencing.						
	4) Construction of 02 nos. shelter sheds / view points and Mali cum chowkidar hut with store/ kitchen.						
	5) Construction of Gate for Parking Place.						
	6) Providing and Fixing of Water Cooler including Construction of Pre-fabricated Compartment for Water Cooler (02 Nos.)	594.76	5000/- (Non-refundable)	2% of the advertised cost	06 months	29-10-2019 02.00 P.M	"A" Class Contractor Or Register firm/ Company
	7) Providing and fixing Dustbins duly painted with word writing (USE ME). The quality/specification shall have to be approved by the engineer-in-charge work.						
	8) Development of Garden by way of laying of Turfing.						
	9) Providing and Installation of Children Corner with approved standards of design, using Linear Low Density Polyethylene.						
	10) Providing and fitting of high mast lights and Installation and Commissioning of Generator 15 KVA as per required specifications.						
	11) Providing and fitting of Irrigation/ Hydrant/ Sprinkler system.(As per requirement at site)						
	12) Design, supply, erection, testing and commissioning of 12 kWp Hybrid Grid Connected Solar PV Plant.						
	13) Supplying, Installation, Testing and Commissioning of 250 KVA Electric Sub-Station along with the L.T line.						
	14) Design, Supply, fitting, installation and commissioning of ultra fast action musical fountain with water effect comprising of automated synchronised dancing water formations frame, water effect, grouting stands, specialized water effects nozzles, manifolds, delivery and distribution pipe work, valves, mounting stands with accessories. (Complete Job)						
	15) Supply, Plantation and Maintenance of Shrubs, Ornamental plants, seasonal seedlings, Tools and equipments, Farm Yard Manure, Fertilizers, Insecticides/ Pesticides, etc.						

Major Head of Account = UNDER LANGUISHING PROGRAMME
Position of AAA = ACCORDED
Position of funds = ASSURED

1. The Bidding documents Consisting of qualifying information, eligibility criteria, specifications, Drawings, bill of quantities (B.O.Q), Set of terms and conditions of contract and other details can be seen/downloaded from the departmental website <http://jktenders.gov.in> as per below schedule:-

1	Date of Issue of Tender Notice	05-10-2019
2	Date, Time and place of Pre-bid meeting.	11-10-2019 at 12.00 P.M in the Office of the Directorate of Floriculture, Jammu.
3	On line Bid submission Start Date	07-10-2019 up to 10.00 A.M
4	On- line Bid Submission End Date	28-10-2019 up to 4.00 P.M
5	Date & time of opening of Technical Bids (Online)	29-10-2019 at 02.00 P.M in the Office of the Directorate of Floriculture, Jammu.
6	Date & time of opening of Financial Bids (Online)	To be notified after technical bid evaluation is completed

- Bids must be uploaded alongwith **Scanned copy of cost of Tender Document in shape of e-challan / copy of receipt from treasury indicating name of work favoring Accounts Officer, Directorate of Floriculture, Jammu by crediting the requisite charges to the MH- 0406 (Revenue). Scanned copy of the earnest money / bid security in shape of CDR / FDR pledged to Accounts Officer, Directorate of Floriculture, Jammu will also be required to be uploaded alongwith.** The original instruments in respect of cost of documents, EMD and relevant documents of **L1 bidder will be required to be submitted to the Directorate of Floriculture, Jammu** within **four days** of opening of financial bids on-line. No separate intimation about opening of financial bids will be sent by this office / by the tender opening authority. In case the original documents are not submitted by the L-1 bidder within four days after opening of financial bid, the tender will be cancelled **and the bidder will not be allowed to participate in any further / future tendering process in the Department for a period of One year.**

2. Bidders can resubmit/withdraw the bids as specified.

- The date and time of opening of Financial-Bids will be notified on Web Site www.jktenders.gov.in and conveyed to the bidders automatically through an e-mail message on their e-mail address / SMS on their registered mobile number. The **Financial-bids of Responsive bidders** shall be opened online in the **Office of Directorate of Floriculture, Jammu.**

The original documents, when submitted by L-1 for the cost of tender document, EMD specified in the tender document should be same as uploaded on-line (scanned copies) other-wise the allotment will not be issued, the tenders will be cancelled and the bidder will not be allowed to participate in any further / future tendering process in this Department for a period of One year.

4. The bids for the work shall remain valid for a period of 120 days from the date of opening of Technical bids.

5. The earnest money shall be forfeited, If:-

- Any bidder/ tenderer withdraws his bid/ tender during the period of bid validity or makes any modifications in the terms and conditions of the bid.
- Failure of Successful bidder to furnish the required performance security within specified time period issue of letter on intent.
- In case contractor fails to execute the agreement within 15 days after fixation of contract.

6. Instruction to bidders regarding e-tendering process.

- Bidders are advised to download bid submission manual from the “Downloads” option as well as from “Bidders Manual Kit” on website www.jktenders.gov.in to acquaint bid submission process.
- To participate in bidding process, bidders have to get ‘Digital Signature Certificate (DSC)’ as per Information Technology Act-2000. Bidders can get digital certificate from any approved vendors.
- The bidders have to submit their bids online in electronic format with digital Signature. No financial bid will be accepted in physical form.
- Bids will be opened online as per time schedule mentioned in the e-NIT.
- Bidders must ensure to upload scanned copy of all necessary documents mentioned in NIT and SBD with technical bid. Besides, documents related to Technical bid before date of opening of technical bid separately sealed and marked.

Note: - Scan all the documents on 100 dpi with black and white option.

7. **The department will not be responsible for delay in online submission due to any reasons.**
8. Bids must be uploaded alongwith **Scanned copy of cost of Tender Document in shape of e-challan / copy of receipt from treasury indicating name of work favoring Accounts Officer, Directorate of Floriculture, Jammu by crediting the requisite charges to the MH- 0406 (Revenue). Scanned copy of the earnest money / bid security in shape of CDR / FDR pledged to Accounts Officer, Directorate of Floriculture, Jammu will also be required to be uploaded alongwith.**
9. Bidders may contact office of the **Directorate of Floriculture, Jammu** or Executive Engineer Deptt. Of Floriculture, Jammu for any guidance for getting DSC or any other relevant details in respect of e-tendering process.
10. Bidders are advised not to make any change in BOQ (Bill of Quantities) contents. In no case they should attempt to create similar BOQ manually. The BOQ downloaded should be used for filling the item rate inclusive of all taxes and it should be saved with the same name as it contains.
11. **For quoting of rates, Percentage rate (above or below) method** shall be adopted by the bidders and the rate percentage quoted shall be deemed to include **price escalation and all taxes** up to completion of the work unless otherwise, specified.
- 11 (a). The cost of work as advertised has been worked out on at 25% above on SSR of 2012 and as per the lowest market rates (LMR) for some of the items of work.
12. **Bidders are advised to use "My Documents" area in their user on Floriculture Department e-Tendering portal to store such documents as are required.**
13. **Defect Liability Period: 02 Year after date of successful completion of all works.**
14. All key construction material (i.e, cement, steel, bitumen, pipes etc) shall have to be arranged by the contractor strictly as per specifications with the approval of Engineer-in-charge.

The key construction materials like Cement, Tar Steel, etc. shall be arranged/purchased by the Contractor/Firm on his own for the above said work and the quality of these materials arranged/purchased by the Contractor/Firm shall have to be verified/passed by the concerned Asstt. Executive Engineer before start of the work and during the currency of the work. The approved brands of Cement/Tar Steel are as under :-

i/ **Cement of Ambuja, ACC, Birla Plus, JP Buland, Bangur or Ultratech** as approved by the concerned Asstt. Executive Engineer.

ii/ **Tor steel of SAIL, TATA TISCON or Rashtriya Ispat** as approved by the concerned Asstt. Executive Engineer.

15. Qualification criteria for the work and other terms and conditions are contained in the bidding document available on website.

17. **Unbalanced Bid:** In reference to the order of the Chief Engineer PW (R&B) Department, Jammu's vide Circular No. CEJ/T/1474-75 dated 04-05-2019 the successful bidder shall have to deposit **additional performance security in the shape of CDR / FDR/BG(Bank guaranty)** only before award of contract in case the bid of the successful bidder is found to be unbalanced, and same shall be released after successful completion of work and the following scale shall apply thereto:-

S. No.	Percentage of unbalance bid viz advertised cost on account of low rates:-	Additional performance security
1	Upto and including 15% below the advertised amount	Nil
2	Beyond 15% below the advertised amount	5% of the advertised amount

Performance Security

Within 15 (fifteen) days after the date of receipt of the Letter of Acceptance, the successful bidder shall deliver to the Employer/concerned authority, a Performance Security in shape of FDR/CDR, pledged to Accounts Officer, Directorate of Floriculture, Jammu for an amount equivalent to 5% (five percent) of the contract price plus additional security for unbalanced bid if any and in case the same is not given by the tenderer within stipulated time, the work will be put to fresh tenders and the defaulter Contractor / firm will be debarred from putting any further tenders in this office for one year and concerned bank will be written for forfeiture of CDR / FDR of 2% uploaded by the contractor while tendering for the work. The performance security and additional security if any shall be released after successful completion of work.

Special Conditions as per Finance Department Order No. OM No. A/24(2017)-651 dt. 07-06-2018.

- i/- Furnishing of hard copies of bids immediately after submission of e-tenders is dispensed with. The same should be obtained only from the bidder who is declared as L-1 after opening of financial bids.
- ii/- The cost of tenders should be collected by introducing e-challan or simply uploading a copy of necessary treasury challan / receipt.
- iii/- Similarly, instead of insisting on actual call deposit receipt, a copy of same duly pledged to the concerned Department should be uploaded by the tenderers. However, before allotting the work or issuing the supply order, the original CDR should be obtained and kept on record.

Note:- All the Specifications, Quantities, Rates and Terms/ Conditions Shall remain same as per this office E-NIT No:-25 of 2019-20 Dated:- 09-09-2019.

No: -EE/FDJ/1612-19

Dated:-05-10-2019

Sd/-

**Executive Engineer
Deptt. Of Floriculture
Jammu.**

Copy to the: -

1. Commissioner Secretary to Govt. PW (R&B), Department J&K Civil Secretariat- Jammu/Srinagar.
2. Director, Deptt. Of Floriculture, Jammu for kind information. This is in compliance to yours office letter No:- DFJ/P&S/2192 Dated:- 03-09-2019.
3. Chief Engineer PW (R&B) Department, Jammu.
4. District Development Commissioner, Jammu.
5. Superintending Engineer PW (R&B) Circle, Jammu / Udhampur / Rajoura / Doda information and necessary action.
6. Joint Director Information department for publication of tender notice in two leading Daily Newspaper
7. Nodal officer (works) Department of Floriculture Jammu for uploading in the departmental website for wide publicity please.
8. President, Contractor Association, Lok Nirman Bhawan, Jammu.
9. Asstt. Account Officer/ Head Draftsman/Camp Clerk/Notice Board.

Government of Jammu And Kashmir



Department Of Floriculture

BIDDING DOCUMENT

Name of Scheme: Development of Bhour Garden Jammu (Phase-I)

ESTIMATED COST: - 594.76 Lacs

BIDDING DOCUMENT

Tender Notice No. : Fresh E-NIT No. 45 of 2019-2020 Dated:- 05-10-2019 vide endorsement No:- EE/FDJ/1612-19 Dated: - 05-10-2019.

Name of Work : Development of Bhour Garden Jammu (Phase-I)

Time for completion : 06 Months

Cost of tender document : Rs. 5000/-

Position of funds : Assured

Sd/-
Executive Engineer
Deptt. Of Floriculture
Jammu.

STANDARD BIDDING DOCUMENT

SECTION	-1	INSTRUCTIONS TO BIDDERS
SECTION	-2	QUALIFICATION INFORMATION
SECTION	- 3	GENERAL CONDITIONS OF CONTRACT
SECTION	-4	SPECIAL CONDITIONS OF CONTRACT
<i>SECTION</i>	- 5	CONTRACT DATA
SECTION	-6	TECHINCAL SPECIFICATION
SECTION	-7	BILL OF QUANTITY BOQ (enclosed)
SECTION	- 8	SECURITIES AND OTHER FORMS
SECTION	- 9	DRAWINGS

INSTRUCTIONS TO BIDDERS (ITB)

SECTION 1: INSTRUCTIONS TO BIDDERS (ITB)

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SECTION-1

INSTRUCTION TO BIDDERS

A. GENERAL

1. Scope of Bid

- 1.1 The Employer (named in Appendix to ITB) invites bids for the construction of works (as defined in these documents and referred to as "the works") detailed in the table given in the ITB. The bidders may submit bids for any or all of the works detailed in the table given in the ITB.
- 1.2 The successful bidder will be expected to complete the Works by intended completion date specified in the Contract data. If he fails to complete the work within the specified time of completion, strong judicial action in addition to penalty under rule shall be imposed upon him.
- 1.3 Throughout these bidding documents, the terms "bid" and "tender" and their derivatives (bidder/tender, bid/tender, bidding/tendering etc.) are synonymous.

2. Source of Funds

- 2.1 The expenditure on the budget will be met from the budget of **Govt. of J&K.**

3. Eligible Bidders

- 3.1 *This Invitation for Bids is open to all Bidders (Individual/Joint Venture). **Joint venture bidding is allowed for the works costing Rs.15.00 Crores and above in J&K State. (to be read with clause 2.11 of section 2–qualification information.)***
- 3.2 All Bidders shall provide in Section-2, Forms of Bid and Qualification Information, a statement that the Bidder is neither associated nor has been associated directly or indirectly, with the consultant or any other entity that has prepared the design, specifications and other documents for the project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Employer to provide consulting services for the preparation or supervision of the work, and any of its affiliates shall not be eligible to bid.
- 3.3 Bidders from Joint Venture are allowed as per 3.1 **and as per clause 2.11 of Section- 2 (qualification Information).**

4. Qualification of the Bidder (Technical Bid Qualification)

- 4.1 All Bidders shall provide in Section-2, Forms of Bid and Qualification Information, preliminary description of the proposed work method and schedule, including drawings and charts, as necessary. The proposed methodology should include programme of construction backed with equipment planning and deployment duly supported with broad calculation and quality assurance procedures along with Quality Assurance Plan(QAP), proposed to be adopted justifying their capability of execution and completion of work as per technical specifications, within stipulated period of completion.
- 4.2 **in the event that** prequalification of quotation bidders has been under taken, only bids for prequalified bidders will be considered for award of contract,. The qualification bidders should submit with their bids any information updating their original prequalification application's application or alternatively confirm in their bids that the originally submitted prequalification remains essentially correct as of date of bid submission. The update of confirmation should be provided in section 2 a copy of the original prequalification application and letter of prequalification should also be furnished. With the updated information, the bidder must continue to be qualified in accordance with the criteria laid down in the prequalification document. All bidders shall also furnish the following the information in Section2.

- 4.3 All the bidders shall include the following information and documents with their bids in Section -3 Qualification Information unless otherwise stated in Appendix to ITB.
- a) Copies of original documents defining the constitution or legal status. Place of registration, and principal place of business.
 - b) Financial turn over, year-wise ,achieved on execution of Civil/Mechanical Engineering works for the last five years i ,e 2014-15 to 2018-19 duly certified by the Chartered Accountant
 - c) Completion Certificate of having executed and completed or substantially completed successfully single wok of similar nature as defined under clause 4.6 (A-ii)of qualification criteria in any Govt. or Semi- Govt Department during the last five years duly issued by an officer not below the rank of Executive Engineer or equivalent.
 - (d) The bidder shall also furnish details of other civil/Mechanical works of similar nature executed and completed in any Govt. or Semi Govt. department during the last 5 years .and details of works underway or contractually committed; and clients who may be contacted for further information on those contracts;
 - (e) Copy of PAN card issued by the Income TAX Authority.
 - f) Reports on financial standing of the bidder such as profit and loss statement, balance sheet and auditors report for the last five years and supported with ITR and TDS for the last five years.
 - (g) Major items of construction equipment proposed to carry out the Contract;
 - (h) Qualifications and experience of key site management and technical personnel proposed for contract;
 - (i) Evidence of access to line(S) of credit and availability of other financial resources facilities (10% of contract value), certified by the Bankers (Not more than 3 months old).
 - (j) Undertaking that the bidder will be able to invest a minimum cash up to 25% of contract value of work, during implementation of work..
 - (k) Authority to seek references from the Bidder's bankers;
 - (l) Information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned, and disputed amount.
 - m) Affidavit on Correctness of information submitted with the Bid.
 - n) Power of attorney. **(Not applicable)**
 - o) Bidder shall furnish proof of latest returns in GST-3/GSTR-3B.
 - p) The proposed methodology and programme of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones. The bidder shall prepare the QAP (Quality Assurance Plan) as per the manual /guidelines available on the departmental website.(refer Clause 4.1 &4.2 of ITB)

4.4 Bids for joint venture are accepted for the works valuing Rs.15.00 Crore and above. (to be read with clause 2.11& 2.12 of section-2 –Qualification Information.)

4.5 Base year and Enhancement factors :-

The base year shall be taken as (particular year to be mentioned)

Following enhancement factors will be used only for determination of available bid capacity for the cost of works executed and the financial figures arrived thereof to a common base value for works completed in India. No escalation factor is allowed for similar nature of work.

<u>Year before</u>	<u>Multiplying factor</u>
one	1.08
two	1.17
three	1.26
four	1.36
five	1.47

Applicant should indicate actual figures of costs and amount for the works executed by them without accounting for the above mentioned factors.

In case the financial figures and value of completed works are in foreign currency, the above enhanced multiplying factors will not be applied. Instead, current market exchange rate (State Bank of India BC selling rate as on the last date of submission of the bid) will be applied for the purpose of conservation of amount in foreign currency into Indian rupees.

(4.6)A: To qualify for the award of contract, each bidder should have in the last five years:

(i) Achieved a minimum average financial turnover on execution of Civil/Mechanical Engineering works (defined as billing for works in progress or completed in all classes of Civil/Mechanical Engineering construction works only) during any one year out of the last five financial years (2014-15 to 2018-19) not less than 33% of the proposed contract /contracts applied. The information supplied in this connection should be duly certified by a Chartered Accountant and be duly supported by TDS and Income Tax Returns for the last five years.

(ii) Having satisfactorily completed or substantially completed at least one contract of similar nature of work of any Govt./Semi Govt. department during any one year of the last five years (Civil/Mechanical works) of at least 33% of the value of proposed contract. (Certificate to this effect to be issued by an officer not below the rank of Executive Engineer or equivalent.). No escalation factor is allowed for similar nature of work.

The work may have been executed by the Applicant as prime contractor or as a member of joint venture. In case a project has been executed by a joint venture, weightage towards experience of the project would be given to each joint venture partner in proportion to their participation in the joint venture.

Substantially completed works means those works which are at least 90% completed as on the date of submission of bid (i.e. gross value of work done up to the last date of submission is 90% or more of the original contract price) and continuing satisfactorily.

For this a certificate from employer shall be submitted along with the application incorporating clearly the name of the work, contract value, billing amount, date of commencement of works, actual date of completion of work, satisfactory performance of the contractor and any other relevant information.

The certificate should be furnished as per format shown in qualification information section-2 clause no:-1.3.1 supported with allotment which shall also be uploaded.

NOTE: The requirement in respect of clause 4.6A (i) (Financial Turn over) shall be 33% of advertised cost of the work for all such works with estimated value less than 40.00 crores, while in case of works valuing 40.00 crores and above the requirement shall be 40% of advertised cost of the particular work. Similarly the requirement in respect of clause 4.6 -A-ii(similar nature of work)it shall be 33% of advertised cost of work for all such works valuing less than 40.00 crores and for the works with estimated value of Rs.40.00 crores and above it shall be 40% of the advertised cost of the particular work

4.6 (B) Each bidder should further demonstrate:

- (a) Availability (either owned or leased or by procurement) of the for key and critical equipment for this work as per Annexure -I below.

(To be included for bids valued over Rs.5.00 Cr).

Based on the studies, carried out by the Engineer, the minimum suggested major equipment to attain the completion of works in accordance with the prescribed construction schedule are shown in the Annexure-I below:-

LIST OF KEY PLANT & EQUIPMENT TO BE DEPLOYED ON CONTRACT WORK

S.no	Type of Equipment	Maximum Age As on 01-10-2017	Work valuing up to 15 Crores	Above 15.00 Crores Upto Rs.30.00 Crore.
1	Tipper Trucks	5-7	3	5
2	Motor Grader	5	1	1
3	Dozer	5	1	1
4	Front end Loader	5	1	1
5	Smooth Wheeled Roller	5	1	2
6	Vibratory Roller	5	1	1
7	Hot Mix Plant with Electronic Controls (Minimum 40- 60 TPH Capacity)	5	1	1
8	Paver Finisher with Electronic Sensor	5	1	1
9	Water Tanker	5	1	1
10	Bitumen Sprayer	5-7	1	1
11	Cold Milling Machine	5	1	1
12	Tandem Roller	5	1	1

The Bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with layout and necessary drawings and calculations (detailed) as stated in clause 12 of ITB to allow the employer to review their proposal. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

(b) Availability for this work of personnel with adequate experience as required as per Annexure-II.

LIST OF KEY PERSONNEL TO BE DEPLOYED ON CONTRACT WORK

S.NO	PERSONAL	QUALIFICATION	Up to 15.00 Crores	15.00 Crores above Up to Rs. 30.00 Crore.
1	Project Manager	B.E Civil +10Years Exp Or Diploma in Civil with 15 years experience	1	1 No
2	Site Engineer	B.E Civil +3Years Exp Or Diploma with 7 years experience	1	2 No
3	Plant Engineer	B.E Mech. + 3 Years Exp. Or Dip. Mech.+ 7 Years Exp.	1	1 No
4	Quantity Surveyor	B.E Civil. + 7 Years Exp. Or Dip. Civil.+ 10Years Exp.	1	1 No
5	Soil & Material Engineer	B.E Civil. + 7 Years Exp. Or Dip. Civil.+ 10Years Exp.	1	1 No
6	Survey Engineer	B.E Civil+5 years Exp. Or Dip. Civil + 8 years Exp.	1	1 No
7	Electrical Engineer	B.E Civil+5 years Exp. Or Dip. Civil + 8 years Exp.	1	1 No

(c) Liquid assets and/ or availability of credit facilities of no less than amount indicated in Appendix to ITB (credit lines / letter of credit certificates from banks for meeting the funds requirement etc. usually the equivalent of the estimated cash flow for three months in peak construction period)

4.6 (C) To qualify for a package of contracts made up of this and other contracts for which bids are invited in the ITB, the bidders must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.

4.7 Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total estimated cost of the works. The available bid capacity will be calculated as under: Assessed

Available Bid capacity = (A x N x M - B)

A = Maximum value of civil engineering works executed in any one year during the last five years (updated to the current price level @8 percent a year) taking into account the completed as well as works in the progress

N = *Number of years prescribed for completion of the works for which bids are invited (period up to 6 months to be taken as half-year and multiple factor is 0.5 and more than 6 months upto 12 months multiple factor is 1, more than 12 months to 18 months multiple factor is 1.5 and so on & so forth).*

M = **M factor shall have a value of 2.5**

B = Value (updated to the current price level of the year indicated in appendix) of existing commencements and ongoing works to be completed during the next 13 Months (period of completion of the works for which bids are invited)

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent. The certificate should be furnished as per format shown in qualification information (Section-2).

4.8 Even though the Applicants meet the above qualifying criteria, they are subject to be disqualified if they have:

- i. Made misleading or false representations in the forms, statements and attachments submitted; and / or
- ii. Record of poor performance such as abandoning the works not properly completed the contract inordinate delays in completion, litigation history or financial failure etc and /or
- iii. Participated in the previously bidding for the same works and had quoted unreasonably high bid prices and could not furnish rational justification to employer

5. One Bid per Bidder

5.1 **Each Bidder shall submit only one bid for one work. A Bidder who submits more than one bid for one work will cause the proposals with the Bidder's participation to be disqualified.**

6. Cost of Bidding Document

6.1 The Bidder shall bear all costs associated with the preparation and submission of his bid and the Employer will in no case be responsible or liable for those costs.

7. Site Visit

7.1 The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

B. BIDDING DOCUMENTS

8. Content of Bidding Documents

8.1 The set of bidding documents comprises the documents listed below and Addenda issued in accordance with **Clause 10 of ITB.**

1. Notice Inviting Tender
2. Instructions to Bidders
3. Qualification Information
4. Conditions of Contract (Part-I General Conditions of Contract, and Contract data; part II Special Conditions of Contract).
5. Specifications
6. Drawings

7. Bill of Quantities

8. Form of Bid

9. Form of Acceptance, Form of Agreement, Issue of Notice to Proceed with the work

10. Forms of Securities and Form of Unconditional Bank Guarantee.

8.2 The bid document is available online on the website <http://www.jktenders.gov.in>.

The bid document can be downloaded free of cost, however, the bidder is required to submit Treasury challan towards cost of bid document in favour of the name given in the Bid Data Sheet.

8.3 The bidder is expected to examine carefully all Instruction, Conditions of Contract, Contract Data, Forms, Terms, Technical Specifications, Bill of Quantities, Annexes and Drawings in the Bid Document. Failure to comply with the requirements of bid submission will be at the bidder's own risk. Pursuant to clause 26 hereof bids which are not substantially responsive to the requirements of the bidding documents shall be rejected.

9. Clarification of Bidding Documents

9.1 The electronic bidding system provides for online clarification. A prospective bidder requiring any clarification of the bidding document may notify online the authority inviting the bid. The authority inviting the bid will respond to any request(s) for clarification received earlier than 10 days prior to the dead line for submission of bids. Description of clarification sought and the response of the authority inviting the bid will be uploaded for information of the public or other bidders without identifying the source of request for clarification.

9.2 Pre-bid Meeting

9.2.1 The bidder or his official representative is invited to attend a pre-bid meeting, which will take place at the address, venue, time and date as indicated in NIT.

9.2.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

9.2.3 The bidder is requested to submit any questions in writing or by cable to reach the well before the pre-bid meeting.

9.2.4 Minutes of the meeting, including the text of the questions raised (without Identifying the source of enquiry) and the responses given will be transmitted without delay to all bidders. Any modification of the bidding documents listed in Sub-Clause 8.1 which may become necessary as a result of the pre-bid meeting shall be uploaded and bidder shall be automatically informed through messaging/mail through jktenders.gov.in.

9.2.5 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

10.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing online corrigendum. The corrigendum will appear on the web page of the website www.jktenders.gov.in under the "Latest Corrigendum" and e-mail notification is also automatically sent to those bidders who have moved this tender to their "My tenders" area.

10.2 Any addendum thus issued shall be part of the bidding documents and shall be deemed to have been communicated to all the bidders who have moved this tender to their "My Tenders" area. In case any addendum/ Corrigendum, the system will automatically send e-mail to all bidders who have downloaded the bidding document.

10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend, as necessary, the deadline for submission of bids, in accordance with **Clause 20.2 of ITB**.

C. PREPARATION OF BIDS

11. Language of the Bid

11.1 All documents relating to the bid shall be in English language.

12. Document Comprising the Bid

12.1 The bid to be **uploaded** by the bidder as Volume V of Bid document (**Refer Clause 8.1**) shall be in **two separate parts**.

Part I shall be named "**Technical Bid**" and shall comprise.

- i) Bid Security and Bid document fee in the form as specified in Section 8
- ii) Qualification Information and supporting documents as specified in Section 2.
- iii) Certificates, undertaking, affidavits in section 2.
- iv) Any other information pursuant to **clause 4.0** of these instructions.
- v) Undertaking that, the bid shall remain valid for the period of 120 days after the deadline of date of opening of technical bids mentioned in the NIT.
- vi) **Acceptance/non- acceptance of dispute review expert**

Part-II of the bid shall be named as " Financial Bid" and shall comprise

- (i) Form of Bid as specified in Section 6.
- (ii) Priced Bill of Quantities for items specified in Section 7.

12.2(a) The documents and details mentioned in clause 12.1 Part I, financial Turnover for the last five financial years supported with all other documents as required as per NIT and SBD must be uploaded by the bidder with his technical bid online on website www.jktenders.gov.in.

Bidders must ensure to upload scanned copy of all necessary documents mentioned in NIT and SBD with technical bid.

(b). The original instruments in respect of cost of documents, EMD and relevant documents of L1 bidder will require to be submitted to the tender opening authority within four days of opening of financial bids on-line. No separate intimation about opening of financial bids will be sent by this office / by the tender opening authority.

12.3 Following documents, which are not submitted with the Bid, will be deemed to be part of the Bid separately sealed and marked

Section	Particulars
1	Notice Inviting Tender
2	Instruction to Bidders(ITB)
3-4	Conditions of Contract
5	Contract Data
6	Specifications
9	Drawings

13. Bid Prices:

13.1 The Contract shall be for the whole Works, as described in **Clause 1.1 of ITB**, based on the priced Bill of Quantities submitted by the Bidder online.

13.2 The Bidder shall make online entries to fill the Item Rates in Bill of Quantities. **Item Rate Method requires the bidder to quote rates and prices for all items of the Works described in the Bill of Quantities. The items for which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.** Upon numerical entry, the amount in words would automatically appear and upon entry of rates in items of work, total bid price would automatically be calculated by the system and would be displayed. **(Not Applicable)**

Percentage Rate method requires the bidder to quote a percentage above/below /at par of the schedule of rates applicable/as mentioned in the advertised BOQ.

13.3 All duties, taxes and other levies payable by the Contractor under the contractor, or for any other cause including GST, shall be included in the rates, price and the total bid price submitted by the Bidder.

13.4 The rates & prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment or any account.

14. Currencies of Bid and Payment

14.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

15. Bid Validity

15.1 Bids shall remain valid for a period not less than **120 days (One hundred twenty days)** after the deadline date for opening of Technical bids as specified in NIT. A bid valid for a shorter period shall be rejected by the Employer as non-responsive. In case of discrepancy in bid validity period between that given in the undertaking pursuant to **Clause 12.1 (v)** and the Form of Bid submitted by the Bidder, the latter shall be deemed to stand corrected in accordance with the former and the Bidder has to provide for any additional security that is required.

- 15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his Bid security. A bidder agreeing to the request will not be required or permitted to modify his bid except as provided in 15.3 hereinafter, but will be required to extend the validity of his Bid security for a period of the extension, and in compliance with Clause 16 in all respects.
- 15.3 Bid evaluation will be based on the bid prices without taking into consideration the above correction.

16. Bid Security

- 16.1 The bidder shall furnish as part of his Bid, a Bid Security in the amount as shown in Column 5 of the table of (NIT) for this particular work. This bid security shall be in favour of employer as named in Appendix and may be in one of the following forms:
- a. Deposit-at-call Receipt from any scheduled Indian Bank.
 - b. Fixed Deposit Receipt, issued by any Scheduled Indian Bank.
- 16.2 Bank Guarantee (and other instruments having fixed validity) issued, as surety for the bid shall be valid for 45 days beyond the validity of the bid.
- 16.3 Any bid not accompanied by an acceptable Bid Security and not secured as indicated in **Sub-Clauses 16.1 and 16.2** above shall be rejected by the Employer as non-responsive.
- 16.4 The Bid Security of the unsuccessful bidder will be returned within 28 days of the end of the bid validity period specified in **sub-clause 15.1**.
- 16.5 The Bid Security (**@ 2%**) of the Successful bidder will be discharged when the bidder has signed the Agreement and furnished the required Performance Security.
- 16.6 The Bid Security may be forfeited.
- a) If the Bidder withdraws the bid after bid opening during the period of bid validity;
 - b) In the case of a successful Bidder, if the Bidder fails within the specified time limit to
 - i) Sign the Agreement and/or
 - ii) Furnish the required Performance Security

17. Alternative Proposal by Bidders

- 17.1 Bidders shall submit offers that fully comply with the requirements of the bidding documents, including the condition of contract (including mobilization advance or time for completion), basic technical design as indicated in the Drawings and Specifications. Conditional offer or alternative offers will not be considered further in the process of tender evaluation.

Online Submission of Bids

18. Bidding through E-Tendering System:

18.1 The bidding under this contract is electronic bid submission through website www.jktenders.gov.in. Detailed guidelines for viewing bids and submission of online bids are given on the website. The Invitation for Bids under **Directorate of Floriculture, Jammu** is published on this website. Any citizen or prospective bidder can log on to this website and view the Invitation for Bids and can view the details of works for which bids are invited. The prospective bidder can submit bids on line; however, the bidder is required to have enrolment/registration in the website and should have valid Digital Signature Certificate (DSC) in the form of smart card/e- token. The DSC can be obtained from any authorised certifying agencies. The bidder should register in the web site www.jktenders.gov.in using the relevant option available.

Then the Digital Signature registration has to be done with the e-token, after logging into the site. After this, the bidder can login the site through the secured log in by entering the password of the e-token and the user id/ password chosen during registration. After getting the bid schedules, the Bidder should go through them carefully and then submit the documents as asked, otherwise, the bid will be rejected.

18.2 The completed bid comprising of documents indicated in **ITB clause 12**, should be Uploaded on the website given above through e-tendering along with scanned copies of requisite certificates as are mentioned in different sections in the bidding document and scanned copies of the Bid Document, Demand Draft and Bid Security in approved form.

18.3 The bidder shall furnish information as described in the Form of Bid on Commissions or gratuities, if any, paid or to be paid to agents relating to the Bid, and to contract execution if the bidder is awarded the contract.

19. Electronic Submission of Bids:

19.1 The bidder shall submit online two separate files. Part I, marked as Part I: **Technical Qualification Part** and **Part II; marked as Part II: Technical- Financial Part**. The above files will have markings as given in the Bid Data Sheet. The contents of the Technical Qualification and Technical Financial bid shall be as specified in **clause 12 of the ITB**. All the documents are required to be signed digitally by the bidder. After electronic on line bid submission, the system generates a unique bid identification number which is time stamped. This shall be treated as acknowledgement of bid submission.

20. Deadline for Submission of Bids

20.1 Complete Bids in two parts as per **clause 19** above must be submitted by the Bidder online not later than the date and time indicated in the Appendix to ITB.

20.2 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with **Clause 10.3 of ITB**. In such case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21. Modification/Withdrawal/Late Bids

- 21.1 The electronic bidding system would not allow any late submission of bids after due date and time as per server time.
- 21.2 Bidders may modify their bids by uploading their request for modification before the deadline for submission of bids. For this, the bidder need not make any additional payment towards the cost of tender document. For bid modification and consequential re-submission, the bidder is not required to withdraw his bid submitted earlier. The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose, modification/withdrawal by other means will not be accepted. In online system of bid submission, the modification and consequential-submission of bids is allowed any number of times. The bidders may withdraw his bid by uploading their request before the deadline for submission of bids; however, if the bid is withdrawn, the re-submission of the bid is not allowed.
- 21.3 No bid shall be modified or withdrawn after the deadline of submission of bids.
- 21.4 Withdrawal or modification of a bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in clause 15.1 above or as extended pursuant to **Clause 15.2** may result in the forfeiture of the Bid Security pursuant to Clause 16.

22. Bid Opening and Evaluation

- 22.1 The Employer inviting the bids or its authorised representative will open the bids online and this could be viewed by the bidders also online. In the event of the specified date for the Opening of bids being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day.
- 22.2 The file containing the Part-I of the bid will be opened first.
- 22.3 In all cases, the amount of Bid Security, cost of bid documents, and the validity of the bid shall be scrutinized. Thereafter, the bidders' names and such other details as the Employer may consider appropriate, will be notified as Part-I bid opening summary by the Authority inviting bids at the online opening. A separate electronic summary of the opening is generated and kept on-line.
- 22.4 The Employer will also prepare minutes of the Bid opening, including the information disclosed in accordance with **Clause 22.3 of ITB** and upload the same for viewing online.
- 22.5 Evaluation of Part-I of bids with respect to Bid Security, qualification information and other information furnished in Part I of the bid in pursuant to **Clause 12.1** of ITB, shall be taken up and completed within five working days of the date of bid opening, and a list will be drawn up of the qualified bidders whose Part- II of bids are eligible for opening.
- 22.6 The result of Technical evaluation shall be made public on jktenders.gov.in site following which there will be a period of two working days during which any bidder may submit objections if any in writing to the tender receiving authority which shall be considered for resolution before financial bid opening.

22.7 The Employer shall inform the bidders, who have qualified technical evaluation, of the date, time of online opening of financial bids. If the specified date of opening of financial bid is changed, in the event of the specified date being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

22.8 Financial bids of only those bidders will be opened online, who have qualified in Technical Evaluation. The bidders' names, the Bid prices, the total amount of each bid, and such other details as the Employer may consider appropriate will be notified online by the Employer at the time of bid opening.

22.9 The Employer shall prepare the minutes of the online opening of Financial Bids and upload the same for viewing online.

23. Process to be confidential

23.1 Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a bidder to influence the Employer's processing of bids or award decision may result in the rejection of his bid.

24. Clarification of Bids and contacting the Employer:-

No Bidder shall contact the Employer on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.

24.1 Any attempt by the bidder to influence the Employer's bid evaluation, bid Comparison or contract award decision may result in the rejection of his bid.

25 Examination of Bids and Determination of Responsiveness

25.1 During the detailed evaluation of "Technical Bids" the Employer will determine whether each Bid (a) meets the **eligibility criteria** defined in **Clause 3 and 4**, (b) has been properly signed; (c) is accompanied by the required securities and; (d) is substantially responsive to the requirements of the Bidding documents. During the detailed evaluation of the 'Financial Bid' the responsiveness of the Bids will be further determined with respect to the remaining bid conditions i.e. priced Bill of Quantities, technical specifications and drawings.

25.2 A substantially responsive "Financial Bid" is one, which conforms to all the terms, conditions and specifications of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one (i) which affects in any substantial way the scope, quality or performance of the works; (ii) which limits in any substantial way inconsistent with the bidding documents the Employer's rights or the bidders obligations under the contract, or (iii) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

- 25.3 If a "Financial Bid" is not substantially responsive it will be rejected by the Employer and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

26 Evaluation and Comparison of Financial Bids

- 26.1 The Employer will evaluate and compare only the bids determined to be substantially responsive in accordance with **Sub-Clause 25.2**.
- 26.2 In evaluating the bids, the Employer will determine for each bid the Evaluated Bid price adjusting the Bid price through making an appropriate adjustment for any other acceptable variation, deviations, and price modifications offered in accordance with **sub-clause 21 of ITB**.
- 26.3 The Employer reserves the right to accept or reject any variation or deviation. Variations and deviations, and other factors which are in excess of the requirements of the bidding documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in Bid evaluation.
- 26.4 A Bid which contains several items in the Bill of Quantities which are unrealistically priced low and which cannot be substantiated satisfactorily by the bidder may be rejected as non-responsive.

F. AWARD OF CONTRACT

27 Award Criteria

- 27.1 Subject to **Clause 28**, the Employer will award the Contract to the Bidder whose Bid has been determined.
- (i) To be substantially responsive to the Bidding documents and who has offered the lowest Evaluated Bid Price, provided that such bidder has been determined to be (a) eligible in Accordance with the provisions of clause 3 of ITB and (b) qualified in accordance with the Provisions of clause 4 of ITB; and
 - (ii) To be within the available Bid Capacity adjusted to account for his bid price which is evaluated the lowest in any of the packages opened earlier than the one under consideration.

28 Employer's right to accept any Bid and Reject any or all Bids

- 28.1 **Notwithstanding Clause 27 the Employer reserves the right to accept or reject any bid and to cancel the bidding process and reject all bids, at any time prior to award of Contract, without thereby incurring any liability to the affected bidder or bidders or any obligations to inform the affected bidder or bidders of the grounds for the Employer's action.**

29 Notification of Award and signing of Agreement

- 29.1 The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the *Conditions of Contract* called "the Letter of Acceptance") will state the sum that the Employer will pay the contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract. (herein after and in the Contract called "the Contract Price").
- 29.2 The notification of award will constitute the formation of the Contract subject only to the furnishing of a performance security in accordance with provision of **clause 30 of ITB**.
- 29.3 **The Agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and the successful Bidder after the Performance Security is furnished.**
- 29.4 Upon the furnishing by the successful bidder the performance security, the Employer will promptly notify the other bidders that their bids have been unsuccessful.

30 Performance Security

- 30.1 Within 15 (fifteen) days after the date of receipt of the Letter of Acceptance, the successful bidder/contractor shall deliver to the Employer/concerned authority, a Performance Security in any of the required forms for an amount equivalent to 5% of the contract price plus additional security for unbalanced bid, if any.
- 30.3 Failure of the successful bidder to comply with the requirements of **Sub-Clause 30.1 of ITB** shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.
- 31 **No Advance Payment whatsoever shall be made by the department to the Contractor.**

32 Dispute Review Expert:

The Employer proposes that (Name of the proposed Dispute Review Expert as indicated in the Appendix to ITB) to be appointed as Dispute Review Expert under the contract at a daily fee as indicated in Appendix plus reimbursable expenses. If the bidder disagrees with this proposal, the bidder should so state in the bid. If, in the letter of Acceptance, the Employer has not agreed on the appointment of the Dispute Review Expert, the Dispute Review Expert shall be appointed by the **Director, Department of Floriculture, Jammu** at the request of either party.

33 Corrupt or Fraudulent Practices

- 33.1 The Employer will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract with National Highways Authority of India / State PWD and any other agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contractor, or in execution.
- 33.2 Further more, Bidders shall be aware of the provisions stated in **Clause 53.2** of the **Conditions of Contract**.

APPENDIX TO ITB

Clause Reference With respect to Section -I.

1. Name of Employer: **Director, Department of Floriculture, Jammu**
2. The last five years [C1.4.6]
3. The average annual financial turn of any three years out of last five years is **33%** of Adv. Cost **supported with TDS & Income Tax Return** [C1 4.6A(i)]
4. Value of work is **Rs. 594.76 lacs** [C1 .4.6A(ii)of ITB]
5. Liquid assets and/or availability of credit facilities is 10% of Adv. Cost [C1.4.3(i) of ITB]
6. Price level of the financial year [C1.4.6 &4.8]
7. The pre-bid meeting will take place at office of Jammu [C1.9.2.1]
8. The technical bid will be opened in the office of 29-10-2019
9. Address of the Employer: 24-C/C, Gandhi Nagar, Jammu
10. Identification of Scheme:

Bid for: **As per above mention e-NIT**

Bid reference No: -Fresh E-NIT No.45 of 2019-20 Dated: -05-10-2019

Do not open before

11. The bid should be submitted online (as per e-Bidding) [C1.20.1]
 12. The bid will be opened online [C1.22]
 13. The tender document cost in favour of Accounts Officer, Directorate of Floriculture Payable at **Jammu** [C1.30 OF ITB]
 14. Dispute Review Expert; **Director, Department of Floriculture, Jammu** Clause 32 OF ITB.
- 15(a): **Performance Security shall be valid until a date 28 days after the expiry of Defect Liability Period.**

15. Base year : (2014-15)
No escalation factor is allowed for similar nature of work.

S.No	Year before	Multiplying factor
1	One	1.08
2	Two	1.17
3	three	1.26
4	four	1.36
5	Five	1.47

Escalation factors are for working out available bid capacity only (for the cost of works executed and financial figures arrived thereof to a common base value for works completed in India).

SECTION -2

QUALIFICATION INFORMATION

Section-2

QUALIFICATION INFORMATION

Notes on Form of Qualification Information

The information to be filled in by the bidders in the following pages will be used to purposes of post- qualification as provided for in **clause 4** of the instructions to Bidders. This information will not be incorporated in the contract. Attach additional pages as necessary.

1. For Individual Bidders

1.1	constitution or legal status of Bidder Place of registration Principal place of business Power of attorney of signatory of Bid	(attach copy) <hr/> <hr/> <hr/>
1.2	Financial Turn over achieved on execution of civil works for the last five years duly certified by Chartered Accountant and supported with TDS, ITR, Profit and Loss statement and Balance sheet.**	(Rs. _____ in lakhs) Year 2014-2015 Year 2015-2016 Year 2016-2017 Year 2017-2018 Year 2018-2019

1.3. Work performed as prime contractor (in the same name & style) on construction works of similar nature over the last five years. Attach certificate issued by an officer not below the rank of Executive Engineer or equivalent.

Project Name	Name of the employer *	Description of work	Contract No	Value of contract (Rs in crore)	Date of issue of work Order	Stipulated Period of completion	Actual date of completion *	Remarks explaining reasons for delay & work completed

1.4	Work performed as sub-contractor (in the same name & style duly supported with an authority letter regarding approval of sub-contract by the competent authority) on construction works of similar nature over the last five years. Attach certificate issued by an officer not below the rank of Executive Engineer or equivalent (Not applicable)
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Project Name	Name of the employer *	Description of work	Contract No	Value of contract (Rs in crore)	Date of issue of work Order	Stipulated Period of completion	Actual date of completion *	Remarks explaining reasons for delay & work completed

**** A certificate of performance evaluation of all such works/commitments in hand on the part of the bidder issued by the concerned Chief Engineer/Superintending Engineer/Executive Engineer to the affirmation that the contractual obligations are being performed satisfactorily without compromise on quality parameters and time lines.

1.5

- (a) Achieved a minimum average financial turnover on execution of Civil/Mechanical Engineering works (defined as billing for works in progress or completed in all classes of Civil/Mechanical Engineering construction works only) during any one year out of the last five financial years (2014-15 to 2018-19) not less than 33% of the proposed contract /contracts applied. The information supplied in this connection should be duly certified by a Chartered Accountant and be duly supported by TDS and Income Tax Returns for the last five years.
- (b) Having satisfactorily completed or substantially completed at least one contract of similar nature of work of any Govt./Semi Govt. department during any one year of the last five years (Civil/Mechanical works) of at least 33% of the value of proposed contract. (Certificate to this effect to be issued by an officer not below the rank of Executive Engineer or equivalent.). No escalation factor is allowed for similar nature of work.

The work may have been executed by the Applicant as prime contractor or as a member of joint venture In case a project has been executed by a joint venture, weightage towards experience of the project would be given to each joint venture in proportion to their participation in the joint venture. (Joint venture applicable for works costing over Rs. 15.00 crores.

Substantially completed works means those works which are at least 90% completed as on the date of submission (i.e. gross value of work done up to the last date of submission is 90% or more of the original contract price) and continuing satisfactorily.

For these a certificate from employer shall be submitted along with the application incorporating clearly the name of the work, contract value, billing amount, date of commencement of works, satisfactory performance of the contractor and any other relevant information.

- 1.6 Information on Bid capacity (works for which bids have been submitted and Works which are yet to be completed) as on the date of this bid.

Existing commitments and ongoing construction works:-

Description of work	Place & State	Contract No. & date	Name & address of Employer	Value of contract (Rs in lakhs)	Stipulated Period of completion	Value of works remaining to be completed (Rs. in lakhs)	Anticipated date of completion
1	2	3	4	5	6	7	8

- 1.7 Enclose certificate(s) issued by an officer not below the rank of Executive Engineer or equivalent Availability of Major items of Contractor's equipment proposed for carrying out the Works. List all information requested below. Refer also to Clause 4.3(f) and 4.6(B) a of the Instructions to Bidders.

Item of Equipment	Description, make, and age (years), and capacity	Condition (new, good, poor) and number available	Owned, leased (from whom?) or to be purchased.

- 1.8 Financial reports for the last five years: balance sheets, profit and loss statements, auditors reports, etc. List below and attach copies.

- 1.9 Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Employer.

- 1.10 Information on current litigation in which the Bidder is involved.

Name of other party(s)	Cause of dispute	Litigation where (Court/arbitration)	Amount involved (Rs. In lakh)

- 1.11 Proposed work method and schedule. The Bidder should attach descriptions, Drawings and charts as necessary to comply with the requirements of the Bidding documents.
[Refer ITB Clause 12]

- 1.12 Applicants who meet the minimum qualification criteria will be qualified only if there available bid capacity at the expected time of bidding is more than the total estimate cost of the works. The available bid capacity will be calculated as under:-

Available Bid capacity = (AxNxM-B)

A = Maximum value of civil engineering works executed in any one year during the last five years (updated to the current price level of the year indicated in appendix) taking into account the completed into as well as works in the progress;

N = Number of years prescribed for completion of the works for which bids are invited (period up to 6 months to be taken as half-year and multiple factor is 0.5 and more than 6 months upto 12 months multiple factor is 1, more than 12 months to 18 months multiple factor is 1.5 and so on & so forth).

B = Value (updated to the current price level of the year indicated in appendix) of existing commencements and ongoing works to be completed during the next 13 Months (period of completion of the works for which bids are invited)

M = This factor shall have a value of **2.5**

Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

The item of work for which data is requested should tally with that specified in **ITB clause 4.6**

- 1.13 Qualification and experience of technical/key personnel required for administration and execution of the **Contract [Ref. Clause 4.6 (B) (b)]**. Attach biographical data. Refer also to **sub Clause 4.3 (h)** of instructions to Bidders and **Sub Clause 8.1** of the Conditions of Contract.

Position	Name	Qualification	Year of Experience (General)	Years of experience in similar nature of work

Attach copies of certificates on possession of valid license for executing water supply/ sanitary work/ building electrification works [Reference Clause 4.3]

- 1.14 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List them below and attach copies of supports documents.
- 1.15 Quality Assurance Programme.(to be framed in accordance with the requirements /guide lines/manual uploaded on departmental website.

2. Additional Requirements

- 2.1 Bidders should provide any additional information required to fulfil the requirements of **Clause 4 of the Instructions to the Bidders, if applicable.**
- (i) Affidavit on correctness of information.
 - (ii) Undertakings

2.2. Qualification Criteria:-

2.2. Qualification will be based on applicants meeting all the following minimum pass/fail criteria regarding the applicants' general and particular experience, personal and equipment capabilities, and financial position, as demonstrated by the applicants responses in the forms attached to the letter of applications (specified requirements for joint ventures are given below). Subcontractors experience and resources shall not be taken into account in determining the applicant's compliance with the qualifying criteria.

To qualify for more than one contract, the applicant must demonstrate having experience and resources sufficient to meet the aggregate of the qualification criteria for each contract given in paragraphs 2.5, 2.6, 2.7 & 2.8 below.

2.3. Base year and escalation = (2014-15)

Following escalation factors will be used for working out the available bid capacity only for the cost of works executed and financial figures arrived thereof to a common base value for works completed in India.

No escalation factor is allowed for similar nature of work.

<u>Year before</u>	<u>Multiply factor</u>
One	1.08
Two	1.17
Three	1.26
Four	1.36
Five	1.47

Applicant should indicate actual figures of costs and amount for the works executed by them without accounting for the above mentioned factors.

In case the financial figures and value of completed works are in foreign currency, the above enhanced multiplying factors will not be applied,. Instead, current market exchange rate (State Bank of India BC selling rate as on the last date of submission of the bid) will be applied for the purpose of conservation of amount in foreign currency into Indian rupees.

2.4 The applicant should have:-

- (a) Achieved a minimum average financial turnover on execution of Civil/Mechanical Engineering works (defined as billing for works in progress or completed in all classes of Civil/Mechanical Engineering construction works only) during any one year out of the last five financial years (2014-15 to 2018-19) not less than 33% of the proposed contract /contracts applied. The information supplied in this connection should be duly certified by a Chartered Accountant and be duly supported by TDS and Income Tax Returns for the last five years.
- (b) Having satisfactorily completed or substantially completed at least one contract of similar nature of work of any Govt./Semi Govt. department during any one year of the last five years (Civil/Mechanical works) of at least 33% of the value of proposed contract. (Certificate to this effect to be issued by an officer not below the rank of Executive Engineer or equivalent.). No escalation factor is allowed for similar nature of work.

The work may have been executed by the Applicant as prime contractor or as a member of joint venture or subcontractor. As a subcontractor, he should have acquired the experience of execution of all major items of works under the proposed contract In case a project has been executed by a joint venture, weightage towards experience of the project would be given to each joint venture in proportion to their participation in the joint venture.

Substantially completed works means those works which are at least 90% completed as on the date of submission (i.e. gross value of work done up to the last date of submission is 90% or more of the original contract price) and continuing satisfactorily.

For these a certificate from employer shall be submitted along with the application incorporating clearly the name of the work, contract value, billing amount, date of commencement of works, satisfactory performance of the contractor and any other relevant information.

2.5. LIST OF KEY PERSONNEL TO BE DEPLOYED ON CONTRACT WORK

The applicant must have suitably qualified personnel to fill the following positions. The applicant will supply information on a prime candidate and an alternate for each position, both of whom should meet the experience requirements specified below:

S.NO	PERSONAL	QUALIFICATION	Up to 15.00 Crores	15.00 Crores above Up to Rs.30.00 Crore.
1	Project Manager	B.E Civil +10Years Exp Or Diploma in Civil with 15 years experience	1	1 No
2	Site Engineer	B.E Civil +3Years Exp Or Diploma with 7 years experience	1	2 No
3	Plant Engineer	B.E Mech. + 3 Years Exp. Or Dip. Mech.+ 7 Years Exp.	1	1 No

4	Quantity Surveyor	B.E Civil. + 7 Years Exp. Or Dip. Civil.+ 10Years Exp.	1	1 No
5	Soil & Material Engineer	B.E Civil. + 7 Years Exp. Or Dip. Civil.+ 10Years Exp.	1	1 No
6	Survey Engineer	B.E Civil+5 years Exp. Or Dip. Civil + 8 years Exp.	1	1 No

The applicant should own or should have assured ownership to the following key items of equipment, in full working order, and must demonstrate that, based on known commitments; they will be available for use in the proposed contract.

LIST OF KEY PLANT & EQUIPMENT TO BE DEPLOYED ON CONTRACTWORK

S.no	Type of Equipment	Maximum Age As on 01-10- 2017	Work valuing up to 15 crores	Above 15 crores Upto Rs.30.00 Crore.
1	Tipper Trucks	5-7	3	5
2	Motor Grader	5	1	1
3	Dozer	5	1	1
4	Front end Loader	5	1	1
5	Smooth Wheeled Roller	5	1	2
6	Vibratory Roller	5	1	1
7	Hot Mix Plant with Electronic Controls (Minimum 40- 60 TPH Capacity)	5		1
8	Paver Finisher with Electronic Sensor	5	1	1
9	Water Tanker	5	1	1
10	Bitumen Sprayer	5-7	1	1
11	Cold Milling Machine	5	1	1
12	Tandem Roller	5	1	1

Note: The tender inviting authority if necessary, shall make additions/alterations in respect of Machinery/ Equipments and technical personnel depending upon the magnitude and nature of work.

2.7. Financial Position:-

The applicant should demonstrate that he has excess to, or has available, liquid assets (aggregate Of working capital, cash in hand and uncommitted Bank Guarantee's) and / or credit facilities of not less than 10% of the value of the contract/ contracts applied for (construction cash-flow may be taken as 10% of the estimated value of contract / contracts).

2.8. The audited balance sheets for the last five years should be submitted, which must demonstrate the soundness of the applicant's financial position, showing long term profitability including and estimated financial projection for the next two years. If necessary, the employer will make inquiries with the applicant's bankers.

2.9. Litigation History:-

The Applicant should provide accurate information on any litigation or arbitration resulting from contracts completed or under execution by him over the last five years. A consistent of awards against the applicant or any partner of a joint venture may result in failure of the applicant.

2.10. Bid Capacity:- Applicants who meet the minimum qualification criteria will be qualified only if there available bid capacity at the expected time of bidding is more than the total estimate cost of the works. The available bid capacity will be calculated as under:-

Available Bid capacity = (A×N×M-B)

A = Maximum value of civil engineering works executed in any one year during the last five years (updated to the current price level of the year indicated in appendix) taking into account the completed into as well as works in the progress;

N = *Number of years prescribed for completion of the works for which bids are invited (period up to 6 months to be taken as half-year and multiple factor is 0.5 and more than 6 months upto 12 months multiple factor is 1, more than 12 months to 18 months multiple factor is 1.5 and so on & so forth).*

B = Value (updated to the current price level of the year indicated in appendix) of existing commencements and on-going works to be completed during the next 13 Months (period of completion of the works for which bids are invited)

M= 2.5

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.

2.11. Joint Venture:- (Applicable for the works costing Rs.15.00 Crores and above in J&K State).If the bidder is a Joint Venture ,the partners would be limited to three (including lead partner).Joint Venture firm shall be jointly and severally responsible for completion of the project.

2.12 Joint Venture must fulfil the following minimum qualification requirement:-

- i)The lead partner shall meet not less than 50% of qualification criteria given in sub-clause 4.6(A-i)and 4.6(A-ii)of ITB of this bidding document.
- ii) Each of the remaining partners shall meet not less than 25% of all the qualification criteria given in sub-clause 4.6(A-i)and 4.6A(ii) of I.T.B of this bidding document.
- iii) The Joint Venture must also collectively satisfy the subject of the Criteria of clause 4.6(A-i)and 4.6(A-ii)of ITB for this purpose the relevant figures for each of the partners shall be added together to arrive at the Joint Venture total capacity which shall be 100% or more.

- iv) In the event that the Employer has caused to disqualify under clause 4.7 of ITB all of the Joint Venture partners will be disqualified.
- v) Joint Venture applicants shall provide a certified copy of the Joint Venture agreement in demonstration of the partners undertaking joint and several liabilities for the performance of any contract entered into before award of work.
- vi) The available bid capacity of the J.V as required under clause 4.6 of ITB will be applied for the each partner to the extent of his proposed participation in the execution of the work .The total Bid Capacity available shall be more than estimated contract value.

Provisions Required to be Included in the Joint Venture Agreement

If the application is made by a Joint Venture of two or more firms ,the evidence of clear mandate (i ,e in the form of respective Board Resolution duly authenticated by competent authority)by such two or more firms willing to form Joint Venture among themselves for the specified projects should accompany duly recognising their respective authorised signatories signing for and on behalf of respective firms for the purpose of forming the Joint Venture .A certified copy of the power of attorney to the authorised representatives, signed by legally authorised signatories of all the firms of the Joint Venture shall accompany the application. The JV Agreement shall need to be submitted consisting but not limited to the following provisions.

- a) Name, Style and Project(s) specified JV with Head Office address
- b) Extent (or Equity) for participation of each party in the JV
- c) Commitment of each party to furnish the Bond money (i, e Bid security, performance security) to the extent of his participation in the JV.
- d) Responsibility of each Partner of JV (in terms of Physical and Financial involvement)
- e) Working Capital arrangement.
- f) Operation of separate Bank Account in the name of JV to be operated by both the partners.
- g) Provision for cure in case non-performance of responsibility by any party of the J.V
- h) Provision that NEITHER party of the JV shall be allowed to sign, pledge ,sell or otherwise dispose of all or part of its respective interests in JV to any party including existing partner(s) of the JV .The Employer derives right for any consequent action (including blacklisting)against any or all JV partners in case of any breach in this regard
- i) Management Structure of JV with details.
- j) Lead Partner to be identified who shall be empowered by the JV to incur liabilities on behalf of JV.
- k) Parties/firms committing themselves to the Employer for jointly and severally responsible for the intended works.
- l) The Power Of Attorney shall be duly notarized.
- m) Any other relevant details.

SECTION - 3

GENERAL CONDITIONS OF CONTRACT

Section-3

GENERAL CONDITIONS OF CONTRACT

A. GENERAL

1. Definitions

1.1 Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms. The **Adjudicator** (synonymous with Dispute Review Expert) is the person appointed jointly by the employer and the Contractor to resolve disputes in the first instance, as provided for in Clauses 24 and 25. The name of the adjudicator is defined in the contract Data.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.

The **Completion Date** is the date of completion of the Works as Certified by the Engineer in accordance with the clause 49.

The **Contract** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.

The **Contract Data** defines the documents and other information which comprise the Contract.

The **Contractor** is a person or corporation body whose Bid to carry out the works has been accepted by the Employer.

The **Contractor's Bid** is the completed Bidding document submitted by the contractor to the Employer and includes Technical & Financial -Bids.

The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provision of the Contract.

Days are calendar days; **months** are calendar months. A **Defect** is any part of the works not completed in accordance with the Contract.

The **Defects Liability Period** is the period named in the Contract Data and calculated from the Completion Date.

The **Employer** is the party who will employ the Contractor to carry out the Works.

The **Engineer** is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Engineer) who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, awarding extension of time, and valuing the Compensation events.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construction the works.

The **Initial Contract Price** is the Contract Price Listed in the Employer's Letter of Acceptance.

The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the engineer by issuing an extension of time.

Materials are all supplies, including consumables, used by the contractor for incorporation in the Works.

Plant is any integral part of the Works, which is to have a mechanical, electrical, electronic, or chemical or biological function.

The **Site** is the area defined as such in the contract Data.

Site Investigation Reports are those which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.

Specification means the Specification of the works included in the contract and any modification or addition made or approved by the Engineer.

The **Start Date** is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site possession dates.

A **Subcontractor** is a person or corporate body who has a contract with the contractor to carry out a part of the work in the contract, which includes works on the Site.

Temporary Works are works designed, constructed, installed, and removed by the Contractor which are needed for construction or installation of the works.

The **Works** are what the Contract requires the contractor to construct, install, and turnover to the Employer, as defined in the contract Data.

2. Interpretation

2.1. In interpreting these conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about the Conditions of contract.

2.2. If sectional completion is specified in the contract Data, references in the conditions of contract to the works, the completion Date, and the Intended Completion Date apply to any Section of the works (other than references to the completion date and Intended Completion date for the whole of the works).

2.3. The documents forming the Contract shall be interpreted in the following order of priority:

- (a) Agreement
- (b) Letter of Acceptance, notice to proceed with the works
- (c) Contractor's Bid
- (d) Contract Data
- (e) Conditions of Contract including Special Conditions of Contract
- (f) Specifications
- (g) Drawings
- (h) Bill of quantities and
- (i) Any other document listed in the Contract Data as forming part of the Contract.

3. Language and Law

3.1 The language of the Contract and the law governing the Contract are stated in the contract Data.

4. Engineer's Decisions

4.1 Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5. Delegation

5.1 The engineer may delegate any of his duties and responsibilities to other people except to the Dispute Review Expert after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6. **Communications**

- 6.1 Communications between parties, which are referred to in the conditions, are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act

7. **Other Contractors**

The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of other Contractors. The Contractor shall as referred to in the Contract Date, also provide facilities, and services for them as described in the Schedule. The employer may modify the schedule of other contractors and shall notify the contractor of any such modification.

8 **Personnel**

- 8.1 The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the function stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experiences are substantially equal to or better than those of the personnel listed in the Schedule.
- 8.2 If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons the contractor shall ensure that the person leaves the Site within seven days and has no further connection with the working the Contract.

9. **Employer's and Contractor's Risks**

- 9.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this contract states are Contractor's risks.

10. **Employer's Risks**

- 10.1 The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the works in the Employer's country, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employee's), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the works, other than the Contractor's design.

11. **Contractor's Risks**

- 11.1 All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the contract other than the excepted risks are the responsibility of the Contractor.

12. Insurance

- 12.1. The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the start date to the end of the Defects Liability Period, in the amounts and deductibles stated in the contract Data for the following events which are due to the Contractor's risks:
- a) loss of or damage to the works, Plant and Materials;
 - b) loss of or damage to Equipment;
 - c) loss of or damage of property (except the works, Plant, Materials and Equipment) in connection with the Contract; and
 - d) Personal injury or death.
- 12.2 Policy and certificates for insurance shall be delivered by the Contractor to the engineer for the Engineer's approval before the Start Date. All such insurance shall provided for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 12.3. If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
- 12.4. Alterations to the terms of insurance shall not be made without the approval of the Engineer.
- 12.5. Both parties shall comply with any conditions of the insurance policies.

13. Site Investigation Reports

- 13.1 The Contractor, in preparing the Bid, shall rely on any site Investigation Reports referred to in the Contract Data, supplemented by any information available to the Bidder.

14. Queries about the Contract Data

- 14.1 The Engineer will clarify queries on the Contract Data.

15. Contractor to Construct the Works

- 15.1 The Contractor shall construct and install the works in accordance with the Specifications and Drawings.

16. The Works to be completed by the Intended Completion Date

- 16.1 The Contractor may commence execution of the Works on the Start Date and shall carryout the Works in accordance with the programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

17. Approval by the Engineer

- 17.1 The Contractor shall submit specifications and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with the Specifications and Drawings.
- 17.2 The Contractor shall be responsible for design of Temporary Works.
- 17.3 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

- 17.4 The contractor shall obtain approval of third parties to the design of the Temporary Works Where required.
- 17.5 All Drawings prepared by the Contractor for the execution of the temporary works, are subject to prior approval by the Engineer before their use.

18. Safety

- 18.1 The Contractor shall be responsible for the safety of all activities on the Site.

19. Discoveries

- 19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The contractor is to notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

20. Possession of the Site

- 20.1 The Employer shall provide adequate Site to the Contractor to start and carry out his construction activity.

21. Access to the Site

- 21.1 The Contractor shall allow the Engineer and any person authorized by the Engineer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.

22. Instructions

- 22.1 The Contractor shall carry out all instructions of the Engineer, which comply with the applicable where the site is located.
- 22.2 The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer, if so required by the Employer.

23. DISPUTE S:

- 23.1:** If the contractor believes that the decision taken by the Engineer was either outside the authority give to the Engineer by the contract or that the decision was wrongly taken, the decision shall be referred to the Dispute Review Expert within 14 days of the notification of Engineer's decision.

24. Arbitration:

- 24.1: The Arbitration shall be conducted in accordance with the Arbitration procedure stated in the

Special Conditions of the Contract.

25. Replacement of Dispute Review Expert:

25.1: Should the Dispute Review Expert resign or die, or should the Employer and the Contractor agree that the Dispute Review Expert is not fulfilling his functions in accordance with the provisions of the contract; a new Dispute Review Expert will be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Dispute Review Expert shall be designated by the appointing authority designated in the Contract Data at the request of either party, within 14 days of receipt of such request.

B- TIME CONTROL

26. Programme

26.1 Within the time stated in the Contract Data the Contractor shall submit to the Engineer for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the works along with monthly cash flow forecast.

26.2 An update of the Programme shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.

26.3 The Contractor shall submit to the Engineer, for approval, an updated Program at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

26.4 The Engineer's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Engineer again at anytime. A revised Programme is to show the effect of Variations and Compensation Events.

27. Extension of the Intended Completion Date

27.1 The Engineer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.

27.2 The Engineer shall decide whether and by how much to extend the Intended Completion Date within 35 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

27.3 The Engineer shall within 14 days of receiving full justification from the contractor for extension of Intended completion date refer to the employer his decision. The employer shall in not more than 21 days communicate to the Engineer the acceptance or otherwise of the engineer's decision.

28. Delays Ordered by the Engineer

28.1 The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works.

29 Management Meetings

29.1 Either the Engineer or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

29.2 The Engineer shall record the business of management meetings and is to provide copies of this record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

30. Early Warning

30.1 The Contractor is to warn the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increases the Contract Price or delay the execution of works. The Engineer may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate is to be Provide by the Contractor as soon as reasonably possible.

30.2 The Contractor shall cooperate with the Engineer in making and considering proposal for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer.

A. QUALITY CONTROL

31. Quality Assurance Programme (For Works Valuing Rs.10.00 crores and Above)

The Contractor shall prepare and submit a quality control plan/mechanism (**Quality Assurance Plan**” or **“QAP”**) and make all necessary arrangements to ensure its compliance. Having regard to the requirement of the project, Quality assurance plan shall be devised by taking into consideration the quality assurance manual/guide which is available on the web site of PW(R&B) Department of Chief Engineer(s) Jammu/ Kashmir; this manual or guide can also be availed from the office of Chief Engineer Jammu/ Kashmir; District Superintending Engineers and Executive Engineers.

While submitting the bid, the bidder along with other documents shall submit Quality Assurance Plan (QAP) as per the clause 4.1 and 4.3(p) of ITB. However a final QAP shall be framed by the successful bidder after the allotment of work. The Engineer –in charge shall convey its comments to the contractor within a period of 21 days of receipt of the QAP after the allotment of work, stating the modifications, and the contractor shall incorporate those in the QAP to the extent required for conforming with the provisions of Quality Assurance manual/guide, which shall be approved by the competent authority and treated as inseparable part of agreement to be signed between the contractor and the department.

32. Tests

- 32.1 If the Engineer-in-Charge instructs the contractor to carry out a test not specified in the specification to check whether any work has a defect and the test Confirms the defect, then the contractor shall have to pay for the tests and the defective work shall have to be dismantled and reconstructed in accordance to the IRC/MOST/BIS/CPWD/NBO Specifications as applicable.

The Engineer in-charge of site shall ensure / will certify that the lab has been established & tests performed. The contractor will furnish documentary proof of procurement of materials like cement, steel and other equipments and goods to the engineer in-charge. This will include original vouchers for all quantities in lieu of purchase of materials/ equipments etc from the original manufacturer or authorized dealer/distributor to the satisfaction of engineer in-charge for ascertaining genuineness of materials. Attested copy of such material shall be submitted along with the bills.

No extra payment on account of quality control measures shall be paid to the contractor

33. Identifying Defects

- 33.1 The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work at site.

34. Correction of Defects

- 34.1 The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 34.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

35. Uncorrected Defects

- 35.1 If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

D. COST CONTROL

36. Bill of Quantities

- 36.1 The Bill of Quantities shall contain items for the Construction, Installation, testing, and commissioning work to be done by the Contractor.
- 36.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.
- 36.3. Cash Flow forecasts**
- 36.4 When the Programme is updated, the contractor is to provide the Engineer with an updated cash flow forecast.

37. Payment Certificate

- 37.1 The Contractor shall submit to the Engineer monthly statements of the estimated value of the work completed less the cumulative amount certified previously.
- 37.2 The Engineer shall check the Contractor's monthly statement within 14 days and certify the amount to be paid to the Contractor after taking into account any credit or debit the month in question in respect of materials for the works in the relevant amounts.
- 37.3 The value of work executed shall be determined by the Engineer.
- 37.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of quantities completed.
- 37.5 The value of work executed shall include the valuation of variations and Compensation Events.

37.6 The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

38. Payments

38.1 Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of the contract and taxes, at source, as applicable under the law.

38.2 Items of the works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

39. Tax

39.1 The rates quoted by the Contractor shall be deemed to be inclusive of all taxes including GST (SGST AND CGST) that the Contractor will have to pay for the performance of this Contract up to the completion. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law from time to time.

40. Currencies

40.1 All Payments shall be made in Indian Rupees.

41. Price Adjustment

41.1 The rates quoted by the contract shall be deemed to include price escalation upto completion of project.

42. Retention

42.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the Works.

42.2 On Completion of the whole of the Works half the total amount retained is repaid to the Contractor and half when the Defects Liability Period has passed and the Engineer has certified that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.

43.3 On completion of the whole works the contractor may substitute retention money with an "on demand" Bank guarantee.

44. Liquidated Damages:

44.1: In the event of failure on part of the Contractor to achieve timely completion of the project including any extension of time granted under clause 27, he shall, without prejudice to any other right or remedy available under the law to the Employer on account of such breach, pay as agreed Liquidated Damages to the Employer and not by way of penalty in a sum calculated at the rate per week or part thereof as stated in the Contract Data. For the period that the completion date is later than the intended completion date, Liquidated

Damages at the same rate shall be withheld if the Contractor fails to achieve the Mile Stones prescribed in the Contract Data .However, in case the Contractor achieves the next mile stone, the amount of the Liquidated Damages already withheld shall be restored to the Contractor by adjustment in the payment certificate. Both the parties expressly agree that the total amount of Liquidated Damages shall not exceed 10% of initial contract price and that the Liquidated Damages payable by the Contractor are mutually agreed genuine pre-estimated loss and without any proof of actual damage likely to be suffered and incurred by the Employer, and the Employer is entitled to receive the same and are not by way of penalty .

The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any sum due, or to become due to the Contractor or from performance security or any other dues from Government or Semi-Government body within the State.

The payment or deduction of such damages shall not relieve the Contractor from his obligations to complete the works, or from any other of his duties, obligations or responsibilities under the contract.

The Contractor shall use and continue to use his best endeavours to avoid or reduce further delay to the works, or any other relevant stages.

44.2. If the intended completion date is extended after Liquidated Damages have been paid, the Engineer shall correct any such payment of Liquidated Damages by the Contractor by adjusting the next payment certificate.

44.3: It is agreed by the contractor that the decision of the Employer as to the Liquidated Damages payable by the Contractor under this clause shall be final and binding,

45. BONUS – The bidder who has successfully completed three CRF works within the Prescribed time over the last five years shall be rewarded with the multiplying factor of 2.75 instead of 2.5 for ascertaining the available bid capacity of the bidder during the technical evaluation of his bid. The bidder to this effect shall furnish the completion certificates of works issued by an officer not below the rank of Executive Engineer or equivalent. (Not applicable)

46. Secured Advance
No secured advance shall be payable to the contractor.

47. Securities

47.1 The Performance Security (including additional security for unbalanced bids) shall be provide to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in Indian Rupees. The performance Security shall be valid until a date 28 days from the date of expiry of Defects Liability Period and the additional security for unbalanced bids shall be valid until a date 28 days from the date of issue of the certificate of completion.

48. Cost of Repairs

- 48.1 Loss or damage to the Works or Materials to be incorporated in the works between the start date and the end of the Defects Correction period shall be remedied by the contractor at the contractor's cost, if the loss or damage arises from the contractor's acts or omissions.

E. FINISHING THE CONTRACT

49 Completion

- 49.1 The Contractor shall request the Engineer to issue a **CERTIFICATE OF COMPLETION** of the works and the Engineer will do so upon deciding that the Work is completed.

50. Taking Over

- 50.1 The Employer shall take over the Site and the works within seven days of the Engineer issuing a certificate of Completion.

51. Final Account

- 51.1 The Contractor shall supply to the Engineer a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Engineer shall issue a **Defect Liability Certificate** and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's accounts if it is correct and complete. If it is not, the Engineer shall issue within 56 a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate, within 56 days of receiving the Contractor's revised account.

52. Operating and Maintenance Manuals

- 52.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.
- 52.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payment due to the Contractor.

53. Termination

- 53.1 The Employer may terminate the contract if the contractor causes a fundamental breach of the Contract.
- 53.2 Fundamental breaches of Contract include, but shall not be limited to the following:
- (a) The Contractor stops work for 28 days when no stoppage of work is shown on the current programme and the stoppage has not been authorized by the Engineer;

- (b) The contractor is declared bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
- (c) If the contractor fails to deploy machinery and equipment or personnel as specified in the Contract Data or Appendix to ITB at the appropriate time.
- (d) The Engineer gives Notice that failure to correct a particular Defect is fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- (e) The Contractor does not maintain a security, which is required;
- (f) The Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages becomes payable as defined in the Contract data; and
- (g) If the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in the executing the Contract.

For the purpose of this paragraph: "**corrupt practice**" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice amount Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition".

53.3 When the Employer gives notice of a breach of contract to the contractor for a cause other than those listed under Sub Clause 53 above, the Engineer shall decide whether the breach is fundamental or not.

53.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

53.5 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the site without shifting any equipment as soon as reasonably possible.

54. Payment upon Termination

54.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less Liquidated damages, advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. . If the amount due to the Employer exceeds any payment due to the Contractor the difference shall be a debt payable to the Employer.

54.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works less other recoveries due in terms of the contract and less taxes due to be deducted at sources as per applicable law.

55. Property

55.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor's defaulted.

56. Release from Performance

56.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

56.2 Death or permanent invalidity of the contractor: the contractor shall indicate nominee for the contract at the time of signing of the agreement. If the contractor dies during currency of the contract or becomes permanently incapacitated, and his/her nominee are not willing to complete the contract, the contract shall be closed without levying any damages/compensation.

However, if the nominee expresses his/her intention to complete, the balance work and the competent authority is satisfied about the competence of nominee, then the competent authority shall enter into a fresh agreement for the remaining work strictly on the same terms & conditions under which the contract was initially awarded.

SECTION-4

SPECIAL CONDITIONS OF CONTRACT

SECTION-4

4. SPECIAL CONDITIONS OF CONTRACT

1. LABOUR

The contractor shall, unless otherwise provided in the contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the site and such there information as the Engineer may require.

2. COMPLIANCE WITH LABOUR REGULATIONS

During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulation, notifications and bye laws of the State or Central Government of local authority and any other labour law(including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/byelaws/Acts/Rules/regulations including amendments, if any, on the part of the contractor, the engineer/employer shall have the right to deduct any money due to the contractor including his amount of performance security. The employer/engineer shall also have right to recover from the contractor any sum required or estimated to be required for making good the loss or damage suffered by the employer. The employer of the contractor and the Sub-Contractor in no case shall be treated as the employees of the employer at any point of time.

SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.

- a) **Workmen Compensation Act 1923:** The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) **Payment of Gratuity Act 1972:** Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.
- c) **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are: (i) Pension or family pension on retirement or death, as the case may be.(ii) Deposit linked insurance on the death in harness of the worker. (iii) Payment of P.F. accumulation on retirement/death etc.

- d) **Maternity Benefit Act 1951:** The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) **Contract Labour (Regulation & Abolition) Act 1970:** The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the contractor fails to provide, the same are required to be provided, by the principal employer by law. The principal employer is required to take certificate of registration and the contractor is required to take license from the designated officer. The Act is applicable to the establishments or contractor of principal employer if they employ 20 or more contract labour.
- f) **Minimum Wages Act 1948:** The employer is supposed to pay not less than the minimum wages fixed by appropriate government as per provisions of the Act if the employment is a scheduled employment. Construction of buildings, roads, and runways are scheduled employments.
- g) **Payment of Wages Act 1936:** It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) **Equal Remuneration Act 1979:** The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- i) **Payment of Bonus Act 1965:** The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs. 2500/- per month or above upto 3500/- per month shall be worked out by taking wages as Rs.2500/- per month only. The Act does not apply to certain establishments. The newly setup establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.
- j) **Industrial Disputes Act 1947:** The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out become illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) **Industrial Employment (Standing Orders) Act 1946:** It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the State and Central Government to 50). The Act provides for laying down rules governing conditions of employment by the employer on matters provided in the Act and get the same certified by the designated Authority.
- l) **Trade Unions Act 1926:** The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) **Child Labour (Prohibition & Regulation) Act 1986:** The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.
- n) **Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979:** The Act is applicable to an establishment, which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home upto the establishment and back, etc.

- o) **The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996:** All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodation for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) **Factories Act 1948:** The Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

ARBITRATION (GCC CLAUSE 24 and 25)

The procedure for Arbitration will be as follows:

Any Dispute or difference arising between the department and contractor shall be dealt in accordance with J&K Arbitration Act in vogue.

- (a) In case of Dispute or difference arising between the Employer and a domestic contractor relating to any matter arising out of or connected with the agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act 1996. The parties shall make efforts to agree on a sole Arbitrator and only if such an attempt does not succeed then the Arbitral Tribunal consisting of 3 Arbitrators one each to be appointed by the Employer and the contractor and the third Arbitrator to be chosen by the two Arbitrators so appointed by the parties to act as presiding Arbitrator, shall be considered. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Council, Indian Road Congress.
- b) The Arbitral Tribunal shall consist of three Arbitrators one each to be appointed by the Employer and the Contractor. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties, and shall act as Presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Council, Indian Road Congress.
- c) If one of the parties fails to appoint the Arbitrator in pursuance of sub-clause (a) and (b) above within 30 days after receipt of notice of appointment of its Arbitrator by the other party, then the Council of Indian Road Congress shall appoint the Arbitrator. A certified copy of the order of the Council of Indian Road Congress making such appointment shall be furnished to each of the parties.
- d) Arbitration proceedings shall be held at Srinagar/Jammu, India and the language of the arbitration proceeding and that of all documents and communications between the parties shall be English.
- e) The decision of the majority of Arbitrators shall be final and binding upon both the parties. The cost and expenses of Arbitration proceedings will be paid as determined by the Arbitral Tribunal.

However, the expenses incurred by each party in connection with preparation, presentation etc. of its proceedings as also the fee and expenses paid to the Arbitrator appointed by such party or on its behalf shall be borne by each party itself.

- f) Performance under the contract shall continue during the arbitration proceedings and payments due to the contractor by the owners shall not be withheld, unless they are the subject matter of the arbitration proceedings.

OTHER SPECIAL CONDITIONS

- a) The Bidder shall have to get the electrical works executed through well experienced/Job knowing skilled electricians.**
- b) The Bidder has to Design, Supply and Install the ultra fast action musical fountain strictly as per the specification laid down on the BOQ and has to run and maintain the fountain for a period of Two years for which no extra charges shall be paid to the contractor by this department. So, the rate to be quoted by the bidder shall include capital cost, freight, carriage, insurance, loading / unloading, GST, maintenance / running charges (for Two years) and all other charges.**
- c) The bidder shall be an authorized dealer from reputed manufacturer dealing with "Design, Supply, fitting, installation and commissioning of ultra fast action musical fountain with water effect comprising of automated synchronised dancing water formations frame, water effect.**
- d) The bidder shall have successfully executed/completed at least one number Of similar nature of fountains (as advertised) for an amount more than Rs. 80.00 lacs.**
- e) The successful bidder shall have its own quality control lab and services centre at Jammu for conducting of testing procedures and day to day maintenance for up keeping of fountain system.**
- f) For Design, supply, erection, testing and commissioning of 12 kWp Hybrid Grid Connected Solar PV Plant with Lithium-ion based battery back-up, there shall have warranty, comprehensive operation & maintenance for 02 years for which no extra charges shall be made to the contractor/firm.**
- g) For Providing and Installation of Children Corner with approved standards of design, using Linear Low Density Polyethylene, contractor shall have to provide maintenance of the equipments for 02 Years for which no extra charges shall be made to the contractor/firm.**

SECTION - 5

CONTRACT DATA

SECTION - 5

CONTRACT DATA

Items marked "N/A" do not apply in this contract.

1. The Employer is [Cl.1.1]
 Name: MRS. BABILA RAKWAL (KAS)
 Address: 24-C/C, Gandhi Nagar, Jammu
 Name of authorized representative **Executive Engineer, Floriculture Department Bagh-E-Bahu Jammu**
2. The Engineer is **Executive Engineer, Floriculture Department Bagh-E-Bahu Jammu**
 Name of authorized Representative:
3. The Dispute Review as per Arbitration (GCC) Clause 25.
4. The defects liability period is **02 Years for all Work** the actual date of completion [Cl.1.1 & 35]
5. The start date shall be **seven days from the** date of issue of the notice to proceed [Cl.1.1] with the work.
6. The intended completion date for the whole of the works is **As per NIT** after [Cl.1.1,16 &27 of G.C.C] start of work with the following milestones.
Milestone dates : [Cl.2.2 & 49.1]
 - A. Milestone to be achieved during the contract period.
 - i. 1/8th of the value of entire contract upto 1/4th of the period allowed for completion of construction.
 - ii. 3/8th of the value of entire contract upto 1/2 of the period allowed for completion of construction.
 - iii. 3/4th of the value of entire contract upto 3/4th of the period allowed for completion of contraction.
 - iv. Rest of the work within the remaining time period.
 - B. Amount of liquidated damages for delay in completion of work----- For whole of work 1% of the initial contract price, rounded off to the nearest thousand, per week.
 - C. Maximum limit of liquidated damages for delay in completion of work - 10% of the initial contract price rounded off to the nearest thousand
7. The site is located in **District Jammu** [Cl.1.1]
8. The name and identification number of the contract is:
[Cl.1.1]
9. The works consist of, The work shall, inter-alia, include the following as specified or as directed.
[Cl.1.1]

(A) Road works

Site clearance; setting out and layout; widening of existing carriageway and strengthening including camber correction; construction of new road/ parallel service road ; bituminous pavement remodelling/construction of junctions, intersections, bus bays, lay byes; supplying and placing of drainage channels, flumes, guards post and guard other related items; construction/ extension of cross drainage works bridges, approaches and other related stones; road markings, road signs and kilometre/hector meter stones; protective works for roads/ bridges; all aspects of quality assurance of various components of the works; rectification of the defects in the completed works during the Defects liability period; submission of "As built" drawings and any other related documents; and other item of work as may be required to be carriage out for completing the works in accordance with the drawings and provisions of the ensure safety.

(B) Bridge works

Site clearance; setting out, provision of foundations, piers, abutments and bearings; pre-stressed /reinforced cement concrete superstructure; wearing coat, hand railings expansion joints approach slabs, drainage spouts/ down take pipes arrangements for fixing light posts, water mains, utilities etc; provision of suitably designed protective works; providing wing/ return walls; provision of road markings, road signs etc; all aspects of quality assurance; clearing the site and handing over the works on completion; rectification of the defects during the Defects Liability Period and submission of "As- built" drawings and other related documents; and other items of work as may be required to be carried out for completing the works in accordance with the drawings and the provisions of the contract and to Insure safety.

(C) Other Items

Any other items as required fulfilling all contractual obligations as per the [Cl.1.1] of ITB Bid documents.

The following documents also from part of the contract: [Cl.2.3(i) of GCC]
Specification of Roads and Bridges (4th edition)

1. The law which applies to the contract is law of Union of India [Cl.3.1 of GCC]
2. The language of the contract documents is English. [Cl.3.1 of GCC]
3. The Schedule of other contractors [Cl 7 of GCC]
4. The schedule of key personnel [Cl.4.6(B) of Section-I]
5. The minimum insurance cover for physical property, injury and death is Rs. 5 lakhs per occurrence with the number of occurrences limited to four. After each occurrence, contractor will pay additional premium necessary to make insurance valid for four Occurrences always.[Cl..12 of GCC]
6. Site investigation report [Cl..13 of GCC]
7. The Site Possession Dates shall be **same as date of letter to proceed With the work** [Cl.19 of GCC]
8. Fees and types of reimbursable expenses to be paid to the Dispute Review Expert (As per clause 23 of GCC)
9. Appointing Authority for the Dispute Review Expert - To be nominated in the Bidding document) (As per clause 23 of GCC)
10. The period for submission of the programme for approval of Engineer shall be [Cl.26 of GCC] 21 days from the issue of Letter of Acceptance.
11. The period between Programme updates shall be 30 days. [Cl.26 of GCC]

12. The amount to be withheld for late submission of an updated programme shall be **(As decided by the employer)**. [Cl.26 of GCC]
13. The currency of the contract is Indian Rupees. [Cl.40 of GCC]
14. The formula (e) for adjustment of price are : **(Not Applicable)**
15. The proportion of payments retained (retention money) shall be 6% from each bill subject to a maximum of 5% of final contract price.

16

Bonus for early completion of whole of the works	Shall be As per clause 45 OF GCC
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17. The Securities shall be for the following minimum amounts equivalent as a percentage of the Contract Price: **Performance** Security for 5 percent of contract price plus **___%(As decided after evaluation of the bid)** as additional security on account of un-balanced bid in terms of ITB Clause 26.4
18. The standard form of Performance Security acceptable to the Employer shall be CDR/FDR or an unconditional Bank Guarantee of the type as presented in Section 8 of the Bidding Documents.
19. The Schedule of Operating and Maintenance Manuals _____ Not Applicable .
20. The date by which "as-built" drawings (in scale as directed) in 2 sets are required is Within 28 days of issue of certificate of completion of whole or section of the work, as the case may be.
21. The amount to be withheld for failing to supply "as built" drawings by the data required Rs.2% of contract value.
22. The following event shall constitute fundamental breach of contract. "The Contractor has Contravened Clause 9 of GCC." [Cl.53 of GCC]
24. The percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the Works shall be **20 percent** [Cl.54 of GCC]

SECTION 6

TECHINCAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS (A. S.No.9)

A (S.No.09) Providing and Installation of Children Corner with approved standards of design, using Linear Low Density Polyethylene.

1. Providing Fixing and Installation of Children Multisystem Playing Equipment of following description:

- Age Group: 03-12 yrs
- Area: 35 feet(L)X 18 feet(W)X12 feet(H)
- Main Frame: Main Structure is made of 60 MM ,90MM,42MM,34MM,27MM, OD MS Pipe,40X40X5 Angle, FRP Chequered Sheet.
- Capacity: 15-20 Children.
- The Multisystem Playing Equipment should consist of three platform with canopy, One FRP Spiral slide, One FRP curve slide, One FRP double slide, Two FRP steps ladder, Two FRP Bridge with FRP Railing, One tic tac. One Army Ladder, One single sea saw, One single swing.

2. Providing Fixing and Installation of Children Multisystem Playing Equipment of following description:

- Age Group: 03-10 yrs
- Area: 32 feet(L)X 16 feet(W)X12 feet(H)
- Main Frame: Main Structure is made of 60 MM ,90MM,34MM,27MM, OD MS Pipe,40X40X5 Angle, FRP Chequered Sheet.
- **Capacity: 25-30 Children.**
- The Multisystem Playing Equipment should consist of three platform with FRP canopy, One FRP Spiral slide, One FRP wave slide, One FRP curve slide, one entry ladder, One arch Bridge, One cargo net, One double swing, one FRP Tunnel, one rainbow climber.

TECHNICAL SPECIFICATIONS (A. S.No.12)

A (S.No.12) Design, supply, erection, testing and commissioning of 12 kWp Hybrid Grid Connected Solar PV Plant with Lithium-ion based battery back-up including warranty, comprehensive operation & maintenance for 02 years.

S No.	Item	Quantity
1	Solar Photovoltaic Modules	12000 W
2	DC Combiner Box	1 Set
3	Grid-Tied Hybrid Power Conditioning Unit	10000 W
4	Lithium ion based Battery Bank with BMS	12000VAH
5	AC Distribution Box	1 Set
6	Module Mounting Structure (MMS)	1 Set
7	AC & DC Cables with conduits and other associated accessories	As per design
8	GSM Based Remote Monitoring System	1 Set
9	Lightening Arrestor	1 unit
10	Maintenance Free Chemical Earthing & associated accessories	3 Set
11	Bi-directional Energy Meter as per JKSERC norms	1 unit
12	Fire Extinguisher	1 unit

- A Hybrid Grid Tied Solar Rooftop Photovoltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Grid interactive Power Conditioning Unit, Lithium-ion based Batteries and Controls & Protections, interconnect cables, Junction boxes, Distribution boxes and switches. PV Array is mounted on a suitable structure. Grid tied SPV system should be designed with necessary features to supplement the grid power during day time. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications, wherever such specifications are available and applicable.

Solar PV system shall consist of following equipment/components:

- i. Solar PV array consisting of required number of Crystalline PV modules.
- ii. Grid interactive Power Conditioning Unit with Remote Monitoring System
- iii. Mounting structures
- iv. Batteries
- v. Junction Boxes
- vi. Earthing and lightning protections
- vii. IR/UV protected PVC/XLPE armoured/unarmoured Cables, pipes and accessories
- viii. Fire Protection Devices

I. Solar Photovoltaic Modules

Detail Specification	Acceptable Norms
PV module types.	Mono crystalline / Poly crystalline
IEC 61215/ IS 14286	Design Qualification and Type Approval for Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
IEC 61730-1,2	Photovoltaic (PV) Module Safety Qualification – Part 1: Requirements for Construction, Part 2: Requirements for Testing
IEC 61853- Part 1/ IS 16170 : Part 1	Photovoltaic (PV) module performance testing and energy rating –: Irradiance and temperature performance measurements, and power rating
Minimum wattage of individual Solar PV module	300Wp crystalline
The rated output variation of individual module from average modules in single Unit.	+/-3% in single plant so as to reduce mismatch losses Each module shall display rating and power curve shall be available for inspection.
Power output rating	To be given for standard test conditions (STC). I-V curve of the sample module shall be submitted.
Salt Mist Corrosion Testing	As per IEC 61701 (applicable for projects installed in highly corrosive environments)
Module Frame	Aluminum anodized corrosion resistant material. Shall be electrolytically compatible with mounting material.
Module cover surface	<ul style="list-style-type: none"> • Toughened high transmissive glass at front. • Multi-layered polymer sheet/glass cover at back • Suitable encapsulation and sealants to protect module from environmental effect such as moisture and dust.

Details Specifications	Acceptable Norms
Photo electrical conversion Efficiency of SPV module	>16% for crystalline type
Fill factor	>= 75%
Origin	Manufactured in India
Range of Temperature and Humidity for Satisfactory performance	Relative humidity up to 85% Temperature between -10 degree to +85 degree
Degradation warranty of Module	Crystalline silicon type modules shall carry warranty of minimum 25 years. Panel output (Wp) capacity to be >=90% of design nominal power for 10 years and >=80% of design nominal power for next 15 years.
Termination box	Thermo-plastic, IP 65, UV resistant
RF Identification tag for each solar module	Shall be provided inside the module and must be able to withstand environmental conditions and last the lifetime of the solar module.
RF Identification tag data	<ul style="list-style-type: none"> a) Name of the manufacturer of PV Module Name and Monogram or symbol of the Manufacturer of Solar cells. b) Month, year and Place of manufacture (separately for solar cells and module). c) Country of origin (separately for solar cells and module). d) I-V curve for the module. e) Wm, Im, Vm and FF for the module. f) Unique Serial No and Model No of the module, Date and year of obtaining IEC PV module qualification certificate. g) Name of the test lab issuing IEC certificate. h) Other relevant information on traceability of solar cells and module as per ISO 9000 standard. i) Type or model number; j) Unique serial number k) Maximum suitable system voltage for the module

- A)** Adequate protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.
- B)** PV modules must be tested and approved by one of the IEC/NABL authorized test centres.
- C)** The peak-power point voltage and the peak-power point current of any supplied module and/or any module string (series connected modules) shall not vary by more than 2 (two) per cent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.
- D)** The orientation & tilt of the solar module array should be such that the plant's generation should be at its maximum possible in the location.

II. Module Mounting Structure

Detailed specifications	Acceptable Norms
Wind velocity withstanding capacity	As per wind speed at the project site. (Minimum 150 km/hr)
Structure material	The array structure shall be made of hot dipped galvanized MS angles of suitable size subject to withstand the wind load (with minimum 80 micron thickness of galvanization)
Material for the structure mounting	IS 2062 - standards for Hot Rolled Medium and High Tensile Structural Steel (or) IS 4759; 2006 - Hot-dip Zinc Coatings on Structural Steel and Other Allied Products
Bolts, nuts, fasteners, panel mounting clamps	Stainless steel SS 304
Minimum distance between terrace and MMS at any point	Min. 300 mm – for flat roof/ground mounted installations Min 50 mm – for shed type roof installations
Mounting arrangement for metal sheet roofs	Mounting directly on the sheet metal, ensuring stability and wind withstanding capacity, or penetrating the sheet metal and fixing to the substructure, ensuring that the roof remains water proof and ensuring stability and wind withstanding capacity

Detailed specifications	Acceptable Norms
Mounting arrangement for elevated structures	<p>The elevated structure has to be securely anchored to the supporting surface. Concrete foundations of appropriate weight and depth for elevated structures mounted directly on the ground; bolted with anchor bolts of appropriate strength for elevated structures mounted on RCC surfaces.</p> <p>The array structure shall be grounded properly using maintenance free earthing kit suitable for mounting over building terrace.</p>
Installation	<p>The structures shall be designed for simple mechanical on-site installation. There shall be no requirement of welding or complex machinery at the installation site.</p> <p>The mounting of solar modules shall be done in such a way that there is no possibility of short circuit due to water logging. In addition, the structure of the Unit or the module should be mounted in such a way so as to cause no puncturing or any other damage to the roof.</p>
Access for panel cleaning and maintenance	All solar panels must be accessible from the top for cleaning and from the bottom for access to the module junction box.
Panel tilt angle	<p>Each structure should have angle of inclination as per the site conditions to take maximum insolation. However to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.</p> <p>The Structure shall be fixed type and may be provided with option of periodic change in the tilt angle</p>
Module weight and Structure Strength	The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m ² . It is clarified that the bidder shall be responsible for verification of the roof's structural strength for installation of the Unit. Factor of safety for designing shall be considered Min. 1.5. The bidder must furnish test certificates/STAAD report along with detailed GA drawing of the structure for its validity.

III. JUNCTION BOXES (JBs) :-

- A) Specifications for junction boxes to be used in proposed roof top SPV power packs on roofs.
- B) IEC 60529: Junction boxes and solar panel terminal boxes shall be of the thermo plastic type with IP 65 protection for outdoor use, and IP 21 protection for indoor use
- C) The array junction box will also have suitable surge protection.
- D) The junction boxes should be able to combine groups of modules into independent charging sub-arrays.
- E) The junction boxes should provide arrangement for disconnection for each of the groups
- F) It should provide a test point for each sub- group for quick fault location to provide group array isolation.
- G) The current carrying rating of the junction box shall be suitable with adequate safety factor to inter connect the Solar PV array.
- H) The junction boxes shall have suitable cable entry points fitted with cable glands of appropriate size for both incoming & outgoing cables.
- I) Suitable markings shall be provided on the bus bar for easy identification & cable ferrules shall be fitted at the cable termination points for identification.
- J) Junction boxes and solar panel terminal boxes shall be of the thermo plastic type with IP 65 protection for outdoor use and IP 54 protection for indoor use.
- K) Cable terminations shall be taken through thermo-plastic cable glands. Cable ferrules shall be fitted at the cable termination points for identification.

IV. DC Combiner Box

- **A DC Combiner Box shall be used to combine the DC cables of the solar module arrays with DC fuse/ MCB protection for the outgoing DC cable(s) to the DC Distribution Box.**

- A) A DC distribution box shall be mounted close to the solar grid inverter. The DC distribution box shall be of the thermo-plastic IP65 DIN-rail mounting type and shall comprise the following components and cable terminations:
 - B) Incoming positive and negative DC cables from the DC Combiner Box;
 - C) DC circuit breaker, 2 pole (the cables from the DC Combiner Box will be connected to this circuit breaker on the incoming side);

- D) DC surge protection device (SPD), class 2 as per IEC 61643-11:2011 / IS 15086-5 (SPD)
- E) Outgoing positive and negative DC cables to the solar grid inverter.

V. **AC DISTRIBUTION PANEL BOARD:-**

- A) AC Distribution Box
- B) An AC distribution box shall be mounted close to the solar grid inverter. The AC distribution box shall be of the thermoplastic IP65 (Outdoor) & IP21 (Indoor) DIN rail mounting type and shall comprise the following components and cable terminations:
 - C) Incoming 3-core / 5-core (single-phase/three-phase) cable from the solar grid inverter
 - D) AC circuit breaker, 2-pole / 4-pole
 - E) AC surge protection device (SPD), class 2 as per IEC 61643-11:2011 / IS 15086-5 (SPD)
 - F) Outgoing cable to the building electrical distribution board.

VI. **PCU/ARRAY SIZE RATIO**

- Maximum power point tracker shall be integrated in the PCU/inverter to maximize energy drawn from the array.

VII. **PCU / INVERTER**

- **Hybrid Power Condition Unit (PCU)/Inverter**

- A) PCU shall include a facility to convert the DC energy produced by solar array to AC voltage, through DC bus, using its MPPT (Maximum Power Point Tracking) Control to extract maximum energy from array and produce AC power matching the building's grid voltage levels.
- B) The PCU should be compatible with Lithium ion based battery banks.
- C) Each individual inverter will have all necessary protections against disturbances in frequency, voltage and current of the grid due to internal or external faults, abnormal temperatures and islanding. Its prime function will be to protect itself and solar array from any factors as well as avoid unintentional islanding.
- D) Once the PCU has been isolated from grid as a protective measure it must automatically reconnect once the normal conditions are restored for minimum of 2 (two) minutes.
- E) There will be three modes of functioning viz. Sleep, stand- by and operational mode. It shall have optimum efficiencies for each mode as given in the specification sheets hereunder.
- F) It must have modes to prioritize between solar, grid and battery.

Technical Specification	Acceptable Norms
Total output power (AC)	10000 W
Input DC voltage range	As required for the solar grid inverter DC input.
Nominal AC output voltage	415V, 3 Phase, 50 Hz (230 V in case of single phase inverters), suitable arrangement for balancing the phases must be made.
Operation AC voltage tolerance	+/- 15%
Operating Frequency range	47.5 – 51.5 Hz
Nominal frequency	50 Hz
Waveform	Pure Sine Wave
Harmonics	AC side total harmonic current distortion <3% AC side single frequency current distortion <3%
Ripple	DC Voltage ripple content shall be not more than 3 %
DC Content	Less than 0.5 %
Power factor of the inverter	> 0.9
Surge Rating	Up to 150% of the continuous rating for a minimum of 30 seconds.

Technical Specification	Acceptable Norms
Built-in Protection	AC high / low voltage; AC high /low frequency
Operating ambient temperature range	-10 deg C to +60 degC Shall conform to local temperature conditions of the site.
Humidity	0 – 95% Rh
Inverter efficiency (Hybrid)	>=92%
Protection degree	Minimum IP 20 for indoor mounting
Communication interface	RS 485 / RS 232 / RJ45 / USB Port
Environmental Testing	IEC 60068-2 (1,2,14,30)
Photovoltaic Systems – Power conditioners: Procedure for Measuring Efficiency (10%, 25%, 50%, 75% & 90-100% Loading Conditions)	IS/IEC 61683
Cooling	Convection
Internal Wiring	Copper wires shall be insulated with flame resistant material
Operation	Completely automatic including wake up , synchronization (phase- locking) and shut down

Display type	LCD for data display. LCD / LED for status display
Indication through LED/LCD display	Inverter ON
	Grid ON
	Inverter Under/Overvoltage
	Inverter Overload
	Inverter Over Temperature
Display on Front Panel	Instantaneous & cumulative array power (W), Instantaneous & cumulative output power (W) Cumulative energy (Wh), DC voltage (V), DC current (A), AC voltage (V) (all three phases) AC frequency (Hz), AC current (A), Battery Bank Voltage Battery Bank Current Load Cumulative hours of operation (h), Daily energy produced Power factor, Ambient temperature, Data logging facility

- A)** The output of power factor of PCU inverter is suitable for all voltage ranges or sink of reactive power, inverter should have internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder.
- B)** The PCU/ inverter generated harmonics, flicker, DC injection limits, Voltage Range, Frequency Range and Anti-Islanding measures at the point of connection to the utility services should follow the latest J&KSERC (Technical Standards for Connectivity Distribution Generation Resources) Guidelines.
- C)** The PCU/ inverters should be tested from the MNRE approved test centres/ NABL/ BIS/ IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

VIII. BATTERIES

Chemistry: Lithium-ion/Lithium Ferro Phosphate/ other Lithium –ion based configurations

Capacity: 12000 VAH

Battery Bank Voltage: As per design

Cycles: 4000 cycles

The battery shall be of Lithium-ion based chemistry coupled with Battery Management System as per industry standards. The depth of discharge should be considered as 80%. It must be rugged for transportation & durable for harsh environment. The battery must also offer high charge and discharge efficiency and low self-discharge.

BATTERY RACK

Battery rack shall be provided. Placing of battery should be such that maintenance of the battery may be carried out easily. The non-reactive acid proof mats shall be provided to cover the entire floor space of the battery room and is to be arranged along with supply of battery bank. Supplier will take full responsibility of any damage of the floor due to leakage.

IX. TOOLS KIT:-

Necessary tool kit is to be provided along with each battery bank for any immediate maintenance. Adequate firefighting equipment such as portable fire extinguishers be incorporated for fire protection of control room including adequate sand buckets. The firefighting equipment should conform to BIS standards.

X. INTEGRATION OF PV POWER WITH GRID:-

- The output power from SPV would be fed to the inverters which converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shall get disconnected from the grid. In addition a 2/4 pole isolation of inverter output with respect to the grid power connection need to be provided for all the systems.

XI. DATA ACQUISITION SYSTEM / PLANT MONITORING :-

- Data Acquisition System i.e. Web based shall be provided for each of the solar PV plant.

XII. POWER CONSUMPTION

- Regarding the generated power consumption, priority needs to be given for internal consumption first and thereafter any excess power could be exported to grid, which shall be accounted as per JKSERC regulations.

XIII. PROTECTIONS

- The system should be provided with all necessary protections like earthing, Lightning arrestors, and grid anti-islanding as follows:

A) LIGHTNING PROTECTION:-

- The SPV power plants shall be provided with lightning & overvoltage protection. Bidder shall provide conventional Franklin Rod type Lightning Arrestor. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc. The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per IEC

62305 standard. The protection against induced high-voltages shall be provided by the use of metal oxide varistors (MOVs) and suitable earthing such that induced transients find an alternate route to earth.

Lightning/ Earthing	
IEC 62561 Series(Part 1 & 2) (Chemical earthing)	IEC 62561-1 Lightning protection system components (LPSC) - Part 1: Requirements for connection components IEC 62561-2 Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes IEC 62561-7 Lightning protection system components (LPSC) - Part 7: Requirements for earthing enhancing compounds

B) SURGE PROTECTION:-

- Internal surge protection shall consist of three MOV type surge-arrestors connected from +ve and –ve terminals to earth.

IEC 60364-5-53/ IS 15086-5 (SPD)	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low voltage power systems - Requirements and test methods
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C) EARTHING PROTECTION:-

- The system shall have separate earthing for DC Side, AC Side & Lightning Arrestor.
- The PV module structure components shall be electrically interconnected and shall be grounded.
- Earthing shall be done as per RE Norms, provided that earthing conductors shall have a minimum size of 6.0mm² copper, 10 mm² aluminium or 25X3 hot dip galvanized steel strip. Unprotected aluminium or copper-clad aluminium conductors shall not be used for final underground connections to earth electrodes.
- A minimum of two separate dedicated and interconnected earth electrodes must be used for the earthing of the solar PV system support structure with a total earth resistance not exceeding 1 Ohm.
- Earth-pit shall be maintenance free chemical earth-pit with chemical compound and 3 meter copper electrode. The earth electrodes shall have a precast concrete enclosure with a removable lid for inspection and maintenance. The entire earthing system shall comprise non-corrosive components.

XIV. CABLES :-

- **Cables of appropriate size to be used in the system shall have the following characteristics:**
 - A)** All cables shall be supplied conforming to any of the these standards IEC 60227/ IS 694/ IEC 60502/ IS 1554 considering the voltage rating: 1100V for AC and 1,500V for DC
 - B)** For the DC cabling, XLPE or XLPO insulated and sheathed, UV stabilized single core flexible tinned copper cables shall be used. Multi-core cables shall not be used.
 - C)** For the AC cabling, PVC or XLPE insulated and PVC sheathed single or multi-core flexible copper cables shall be used. Outdoor AC cables shall have a UV-stabilized outer sheath.
 - D)** The total voltage drop on the cable segments from the solar PV modules to the solar grid inverter shall not exceed 2.0%.
 - E)** The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%
 - F)** The DC cables from the SPV module array shall run through a UV-stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.
 - G)** Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers.
 - H)** All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 50 cm. The minimum DC cable size shall be 4.0 mm² copper. The minimum AC cable size shall be 4.0 mm² copper. In three phase systems, the size of the neutral wire size shall be equal to the size of the phase wires. The following color coding shall be used for cable wires:
 - DC positive: red (the outer PVC sheath can be black with a red line marking)
 - DC negative: black
 - AC single phase: Phase: red; neutral: black
 - AC three phase: Phases: red, yellow, blue; neutral: black
 - Earth wires: green
 - Cables and conduits that have to pass through walls or ceilings shall be taken through a PVC pipe sleeve.
 - I)** Cable conductors shall be terminated with tinned copper end-ferrules to prevent fraying and breaking of individual wire strands. The termination of the DC and AC cables at the Solar Grid Inverter shall be done as per instructions of the manufacturer, which in most cases will include the use of special connectors.

DC Cables in plants

- A)** BS EN 50618: Electric cables for photovoltaic systems (BT(DE/NOT)258), mainly for DC cables
- B)** All module interconnecting cables and those between solar module and array junction boxes shall be of flexible type. UV protected cables these shall be laid along the module mounting structures.

- C) Size of interconnection for modules and from modules to inverter shall be so selected that loss would not be more than 3%.
- D) The expected life of cables shall be not less than 30(thirty) years
- E) The cables shall have suitable insulation and outer sheath:
- F) No fire propagation/flame retardant
- G) Low smoke emission in case of fire
- H) Halogen-free
- I) High ambient temperature range -40 deg. C and +90 deg. C
- J) Withstand conductor temperature of 120 C
- K) It shall have high resistance to UV, water, vapor, chemical, corrosion

XV. CONNECTIVITY :-

- The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the Distribution Code/Supply Code of the State and amended from time to time. Following criteria have been suggested for selection of voltage level in the distribution system for ready reference of the solar suppliers.

Plant Capacity	Connecting voltage
10 kW	230V-single phase or 415V-three phase at the option of the consumer

XVI. DANGER BOARDS AND SIGNAGES

- Danger boards should be provided as and where necessary as per IE Act. /IE rules as amended up to date. Three signage shall be provided one each at battery/control room, solar array area and main entry from administrative block. Text of the signage may be finalized in consultation with competent authority.

XVII. Energy Meter

- Each solar system shall be provided with an bidirectional energy meter for accurate periodical readings of AC energy generated and fed to the grid .This shall be inspected, tested at the time of installation and also during operation lifetime of facility. The meter shall comply with latest JKSERC/JKPDD guidelines.

XVIII. Fire Extinguishers

- The firefighting system for the proposed power plant for fire protection shall be consisting of portable fire extinguishers in the control room for fire caused by electrical short circuits. (Minimum 3 Kg)

NOTE:- Operation/Maintenance and Warranty: The Contractor/Firm has to operate and maintain the power plant for a period of 5 years and no extra shall be paid on account of maintenance and operation charges. Also, the material supplied shall have warranty of 5 years.

TECHNICAL SPECIFICATIONS WITH ITEMS WISE QUANTITIES REQUIRED (A. S.No.14)

A (S.No.14). Design, supply of Ultra Fast action Musical fountain with Water effects comprising of: Automated synchronised dancing water formations frame, water effects, grouting stands, specialized water effects, nozzles, manifolds, delivery and distribution pipe work, valves, mounting stands, accessories.

- ULTRA FAST ACTION JETS, having 12.7mm dia brass, chrome plated nozzles, each provided with flow strengtheners & ball joint to enable fine tuning.
- MIST COLUMN EFFECT JETS, having 1/8" Brass, chrome plated mist nozzles mounted on bronze header, each consisting of 51 nozzles.
- FILGIGREE EFFECT JETS, having 6.4mm Brass, chromeplated nozzles mounted on aluminium header, each consisting of 8 nozzles.
- ROTARY WHEEL SHAPE JETS, its rotating Wheel made of aluminium epoxy coated pipe, each having 26 nos 4.8 mm ball joint nozzle made of brass, chrome plated. Rotation device-bronze bearing.
- CENTRE JET ,it should be 25mm thick high & stable jet made of brass.
- MIST LINE EFFECT JETS ,should be Consists of 1/8"(inlet) brass chrome plated nozzles.
- PEA COCK TAIL EFFECT JETS, Each set of Peacock Tail consisting of 11nos 6.4mm dia brass chrome plated nozzles giving water jets of varying heights creating the formation of 'Peacock Tail'.
- ORGAN PIPE EFFECTS JETS, Each set of Organ consisting of 11nos of 6.4mm dia brass chrome plated nozzles giving water jets of varying heights creating the formation of 'Organ Pipe'.
- MESH RING EFFECT JETS, Each Mesh Ring, with 600mm dia, consists of 16nos 3mm ball joint brass, chrome plated nozzles which can be fine tuned to give the formation of 'Mesh Ring'.
- DOUBLE COLOUM EFFECT JETS, Double height effect for this 'Double Column Box' with the help of precision machined brass ball joint nozzles (4.8 mm dia).
- CROSS WING EFFECT JETS, Array of brass ball joint nozzles (4.8mmdia) along the viewing line.To & Fro movement on either side with the help of electro-mechanical actuator.
- SWING LINE EFFECT, Array of brass chrome plated ball joint nozzles (4.8mm) across the viewing line. To & fro swaying movement with the help of electromechanical actuator.
- REVERSE SWING LINE EFFECT, Array of brass chromep lated ball joint nozzles (4.8mm) across the viewing line. To & fro swaying movement with the help of electromechanical actuator.
- SUNBURST EFFECT JETS, 15 nos 6.4 mm dia brass, chrome plated nozzles mounted on a bronze header.
- DANCING FOUNTAIN EFFECT JETS, Each set consists of 4.8mm brass-chrome plated nozzlesach with the help of bronze bearing powered by hydraulic pressure.
- MINI SUNBURST EFFECT JETS, 11nos 6.4mm dia brass, chrome plated nozzle smounted on a aluminium header.
- CORNER EFFECT JETS, having 12.7mm dia brass, chrome plated nozzles, each provided with ball joint to enable fine tuning.
- INSIDE DROP EFFECT JETS, Each consisting of 4.8mm brass chrome plated ball joint nozzles which can be adjusted up to 5 degree to give the shape.
- OUTSIDE DROP EFFECT JETS, Each consisting of 4.8mm brass chrome plated ball joint nozzles which can be adjusted up to 5 degree to give the shape.

- Pressure Manifold: Made of galvanized steel pipe, Class B.
 - Nozzles: Construction – Brass, Bronze, aluminium alloy – Epoxy Coated.
 - Grid Pipes: Made of extruded aluminium pipes, minimum 3 mm thick.
 - Frame: Aluminium Extruded Channel.
 - Feeder Pipes: Galvanised steel pipe, class B.
 - Supporting stands: Made of galvanized steel.
 - Hydraulic Hoses: Braided hydraulic hose of minimum 10kg/sq.cm rating.
 - Make of water features: Aquatique/Waterworks/Wet Design/PEM Fountain/Waltzing waters/premierworld.
2. Design, supply of Water coloum shape architectural fountain for the day time ,Each fountain consists of 36no brass-chrome plated nozzle on aluminium header ,with pipe network, Manifold ,valves ,cables, pump , control panel & accessories, (Day time effect).
 3. Design, supply of Aerating calyx shape architectural fountain for the day effect ,each fountain consists of nozzles made from aluminium having inlet 50mm, with pipe work, fittings, manifold, valves, cable, pump, control panel & accessories.(Day Time effect).
 4. Design supply of high and heavy cascade, with a central jet and six large aerated jets radiating out of the base-avery visible, dramatic and exciting, peripeharal nozzles fitted on adjustable flanges and control valves for directional adjustment and to control jets ,Height of water effects -15 metre,make of nozzles :OASE/Premiwerworld/BNA only, the inlet should be 32 mm ,orifice -40 mm ,central nozzle inlet -3/4"BSP,The central nozzle should be of brass and peripeharal -alluminum alloy-Epoxy coated ,The manifold should galvanised steel and size should be 15" dia & 6 " inlet, control valve should be of gunmetal (1-1/4")and NRV should be of cast iron,-2-1/2", The control panel should have main incoming CFS unit ,Motor Contactors ,motor overload,HRC fuse base & carrier with HRC fuse link, indicating lamps, sequencer ,terminals &SPMCB, The stainer should be of stainless steel and size 2-1/2 " , The cable should be 3-core armoured copper cable -2.5 mm square.
 5. Design supply of cascade, seven jets radiating out of the base - jets are heavy, visible ,with large volume of water, nozzles fitted on adjustable flanges and control valves for directional adjustment and to control jets ,make of nozzles :OASE/Premiwerworld/BNA only ,the inlet should be 32 mm ,orifice -40 mm, The central nozzle and peripeharal -alluminum alloy -Epoxy coated ,The manifold should galvanised steel , control valve should be of gunmetal (1-1/4"), The control panel should have main incoming CFS unit ,Motor Contactors ,motor overload, HRC fuse base & carrier with HRC fuse link, indicating lamps, sequencer ,terminals &SPMCB, The stainer should be of stainless steel and size 2-1/2 " , The cable should be 3-core armoured copper cable -2.5 mm square.
 6. **LED LIGHTS** : - Total 266nos with12v LED(67no White+199no RGB) light instain less steel housing, stainless steel coverring, high quality gasket to seal the lamp, polymide cable gland, SS adjustable mounting bracket, stainless steel fasteners –Premier world/OASE/PEM.
 7. Solenoid Valves: The electrically operated solenoid valve should be designed for extremely fast operation and minimum obstruction for a high flow rate. These valves are best suited for adaptability and variability for fast movement in fast beat songs. Material of construction: Brass/Bronze/Stainless steel.,make: Aquatique/ Water works/ Wet Design/ PEM Fountain/Waltzing waters/premierworld.
 8. SUBMERSIBLE PUMP : 2x10hp + 4x2hp +2 x10 HP +4 x10 HP mono submersible Pumpset (Totalling 88 hp) with mesh cover ,frame & fixing arrangements for the waterfeatures for the day time effects..KSB/Kirloskar/Texmo/Equal.
 9. SUBMERSIBLE PUMPS: 4x20hp Submersible monosubmersible Pumpset (Totalling 80p) with mesh cover, frame & fixing arrangements for musical founatin.KSB/Kirloskar/Texmo/Equal.
 10. **Sound System:-**
 - Amplifiers: 4nos. Of 1000WRM Samplifiers with circuit breaker protection from over load and short circuit. Make: CROWN/QSC/Ahuja.
 - Speakers: 8 nos. of 300W RMS input power, Make: Custom built enclosure with P Audio drivers.

- Sub-woofers: 4nos. Of 600WRMS input power, with 1x18” driver. Make: Custom enclosure with P Audio drivers.
- Electronic Crossover: 1 no. 3 way mono, 24dB filters. Make: PEAVEY, dbx, DOD, BEHRINGER or equivalent.
- Mixer: 01 no. 06 channels with phantom power supply. Make: YAMAHA, PEAVEY or equivalent.
- Low loss copper cabling, connecting cables and connectors. Equipment rack.

11. LED Light Panel:-

- Panel made of 2mm thick sheet steel enclosure, foot mounted type, epoxy powder coated (Siemen’s grey). Front doors are hingeable & lockable with the body.
- Degree of protection – IP 54.
- All cable entry from bottom.
- All doors and gland plates have spongy rubber gasket.
- Panel should have the rated main incoming TPN MCB (Make- MDS/ Siemens, L&T, Schneider), rated aluminium bus bar, digital/analogue ammeter and voltmeter with selector switch and every LED light channel protected by SP MCB (Make- MDS/ Siemens, L&T, Schneider) and operate through mini contactor (Make: Moeller / Schneider / GE) or PLA relay, 2 CO / 3 CO. Terminals (Elmex) and necessary rated SP MCB, make MDS/ GE/ Schneider for control circuit.
- Transformer Chamber – It consists of step down rated KVA air cooled transformer (Make – Reputed) suitable for LED light.

12. Solenoid Valve Panels:-

- Panel made of 2mm thick sheet steel enclosure, foot mounted type, epoxy powder coated (Siemen’s grey). Front doors are hingeable & lockable with the body.
- Degree of protection – IP 54.
- All cable entry from bottom.
- All doors and gland plates have spongy rubber gasket.
- Panel should have the rated main incoming TPN MCB (Make- MDS/ Siemens, L&T, Schneider), rated aluminium bus bar, digital/analogue ammeter and voltmeter with selector switch and every LED light channel protected by SP MCB (Make- MDS/ Siemens, L&T, Schneider) and operate through mini contactor (Make: Moeller / Schneider / GE) or PLA relay, 2 CO / 3 CO. Terminals (Elmex) and necessary rated SP MCB, make MDS/ GE/ Schneider for control circuit.

13. PMCC Panels: (Power & motor control Centre):-

- Made of 2 mm thick sheet steel enclosure, foot mounted cubicle type, epoxy powder coated (Siemens grey). Front doors are hingeable & lockable with the body.
- Degree of protection – IP 54.
- All cable entry from bottom.
- All doors and gland plates have spongy rubber gasket.
- Panels should have the main incoming feeder, bus bar chamber, instrument chamber, pump feeder chamber and cable ally chamber. a) Main incoming chamber consist of one number rated TP MCCB, make Schneider/ L&T / Siemens / GE / Equivalent. b) Bus bar Chamber consisting of rated current. 415 V 50 Hz, with heat sink and rated CT, Make Kappa / AEE / Equivalent. c) Instrument Chamber consisting of digital / analogue Ammeter & Voltmeter with selector switches and phase indication lamp and necessary

- rated SP MCB, make MDS/ GE/ Schneider for control circuit. d) Every pump feeder consisting of short circuit protection through HRC TPN Main Switch (GE/ L&T/ Siemens/ Schneider) , overload protected through thermal overload relay (GE/ Schneider/ L&T/ Siemens), Single Phasing protected by single phase preventor (Make: Minilec), rated star & delta contactors and star delta timer (GE/L&T/ Schneider / Siemens), ammeter, voltmeter, selector switches, rated CT, overload indication & pump OFF-ON push button, VFD,s and necessary rated SP MCB, make MDS/ GE/ Schneider for control circuit.
- Cable ally consisting of rated terminals (Elmex / Phonix).

14. Power DB Circuit: -

- Made of 2 mm thick sheet steel enclosure, foot mounted cubicle type, epoxy powder coated (Siemens grey). Front doors are hingeable & lockable with the body.
 - Degree of protection – IP 54.
 - All cable entry from bottom.
 - All doors and gland plates have spongy rubber gasket.
 - Panels should have the main incoming feeder, bus bar chamber, instrument chamber, incoming cable termination chamber and out outgoing cable termination chamber. a) Main incoming feeder consisting of rated capacity TPN HRC fuse switch combination, make: Schneider/ L&T / Siemens / GE / Equivalent. b) Bus bar chamber consisting of rated capacity aluminium bus bar with heat sink, rated capacity CT, make AEE / Kappa. c) Instrument Chamber consisting of digital / analogue ammeter and voltmeter with selector switch, phase indicating lamp and required rated SP MCB, make Schneider/ L&T / Siemens / GE / MDS for control circuit.
- 15.** Software, control system with computer: Sunlite Suite 2 software with computer system and consoles , UPS for computer(licensed software for lifetime validity to run the complete show).
- 16.** Cable network consisting of Copper conductor flexible cable of different sizes, from fountain to water effects, pumps, fountains, solenoid valves, Conduits and fittings Cable of different sizes(Approx. length-12500m).
- 17.** PVC conduit network consisting of different sizes, PVC pipes, for Conduits and fittings Cable of different sizes (Approx. length-12500m).
- 18.** EMA control system :Mounted on the Paint finish steel frame and through linkages controls aquatic formations so that they sway or twist. EMA consist of TEFC motor coupled with a reduction gearbox.
- 19.** Controller : Consisting of rack with electronic control card interfacing with computer and our above panels converting digital input to analogue output with necessary electrical / electronic safety protection item and necessary rated SP MCB, make MDS/ GE/ Schneider for control circuit.
- 20.** INSTALLATION, FIXING, COMMISSIONING, TESTING, SERVICE, Charges.
- 21.** FRIEGHT, CARRIAGE, INSURANCE, LOADING UNLOADING, other Charges.

SECTION-7

BILL OF QUANTITIES (BOQ)

Uploaded on website www.jktenders.gov.in

SECTION -8

SECURITIES AND OTHER FORMS

SECTION -8

SECURITIES AND OTHER FORMS

Original

BID SECURITY(BANK GUARNTEE)

WHEREAS _____[Name of Bidder] (hereinafter called "the Bidder") has submitted his bid dated _____[Date] for the Construction of _____ (Name of Contract hereinafter called "the Bid").KNOW ALL PEOPLE by these presents that We _____[Name of Bank] of _____[Name of Country]having our registered office at _____(hereinafter called "the Bank")are bound unto the _____Name of Employer](hereinafter called "the Employer")in the sum of _____* for which payment well and truly to be made to the said Employer the Bank binds himself, his 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 after Bid opening the bidder withdraws his Bid during the period of bid validity specified in the Form of Bid.
- OR
- 2) If the Bidder having been notified of the acceptance of his Bid by the Employer during the period of Bid validity:
 - a) Fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required ;

or

 - b) Fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders,

or

 - c) Does not accept the correction of the Bid price pursuant to Clause 27.We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date** days after the end of the validity period of the bid stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE _____ SIGNATURE _____

WITNESS _____ SEAL _____

[Signature, Name, and Address]

- * The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 16.1 of the Instructions to Bidders.
- * 45 days after the end of the validity period of the Bid. Date should be inserted by the Employer before the bidding documents are issued.

Annexure-II

(BID Validity)

UNDERTAKING

Name of work :

1. The undersigned do hereby undertake that our firm M/s _____
_____ agree to abide by this bid
for a period _____ days for the date fixed for receiving the
same and it shall be binding on us and may be accepted at any time before the expiration of
that period.

(Signed by an Authorized Officer of the Firm)

Title of Officer

Time of firm

Date

(Credit facility)

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR
AVAILABILITY OF CREDIT FACILITIES**

(CLAUSE 4.2 (I) OF ITB)

BANK CERTIFICATE

This is to certify that M/s. _____ is a
reputed company with a good financial standing.

If the contract for the work, namely _____ is
awarded to the above firm, we shall be able to provide overdraft/ credit facilities to the extent of Rs.
_____ to meet their working capital requirements for executing the above contract
during the contract period.

(Signature)

Name of Bank

Address of the Bank

Annexure-IV**AFFIDAVIT on correctness of Information furnished with the Bid.**

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s _____ have abandoned any work on National Highways in India /any other work of state Government or central Govt. nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
- 1 That our firm has not been black listed or debarred in any state or central Govt. department .Neither our firm has any history of litigations.
- 2 In case the contract for the work is awarded in our favour we shall invest a minimum cash up to 25% of value of the contract during the implementation of work.
- 3 We authorize the department to seek references from our bankers
Name of bank is _____ Branch _____ Account No. _____
3. The undersigned hereby authorize (s) and request (s) any bank, person, firm or Corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
4. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department/Project implementing agency.

WE solemnly affirm that the information give in the bid is correct to the best of my knowledge and belief and nothing of any sort has been concealed.

Note: Affidavit to be notarized.

(Signed by an Authorized Officer of the Firm)

Title of Officer

Name of Firm

DATE

Annexure-V

PERFORMANCE BANK GUARANTEE

To,
 [Name of Employer]
 [address of Employer]

WHEREAS _____ [name and address of Contractor] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ [name of Contract and brief description of Works] (hereinafter called "the Contract"); AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a Nationalized/Scheduled bank of India for the sum specified therein as security for compliance with his 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 the guarantor and responsible to you on behalf of the Contractor, up to a total of Rs. _____ [amount of guarantee] (Rupees * _____), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand 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 for the sum specified therein. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor 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 28 days from the date of expiry of the Defects Liability Period.

Signature and seal of the guarantor _____

Name and Designation _____

Name of the Bank _____

Address _____

Date _____

* An amount shall be inserted by the Guarantor, representing the percentage the contract price specified in the contract including additional security for unbalanced Bids. If any and denominated in Indian Rupees.

UNDERTAKING

The undersigned to hereby undertake that our firm M/s _____ would invest minimum cash up to 25% of the value of the work during implementation of the Contract.

(Signed by an Authorized Officer of the Firm)

Title of Officer

Name of Firm

DATE

Annexure-VII

Letter of Acceptance
(Letterhead paper of the Employer)

..... (Date)

To:

_____ (Name and address of the contractor)

Dear Sirs,

This is to notify that your Bid dated _____ for execution: completion and maintenance of the _____ (name of the contract and identification number, as given in the Instruction to Bidders) for the Contract Price of Rs. _____ (Rupees _____ (_____)) (amount is words and figures as corrected and modified in accordance with the Instruction to Bidders¹ is her by accepted by our agency

We accept/do not accept that _____ be appointed as the Adjudicator². You are hereby requested to furnish Performance Security, in the form detailed in Para 34.1 of ITB for an amount for an amount equivalent to Rs. _____ within 21 days of the receipt of this letter of acceptance valid up to 28 days from date of expiry of the Defects Liability Period i.e up to _____ and sign the contract failing which action as stated in clause 34.3 of "Instructions to Bidders" will be taken.

Yours faithfully

Authorized signatory
 (Name & title of signatory
 (Name of Agency)

1. Delete "corrected and" or "and modified" if only one of these actions, Delete as corrected and modified in accordance with the Instructions to Bidders, if corrections or modifications have not been affected.
2. To be used only if the contractor disagrees in his Bid with the Adjudicator proposed by the Employer in the "Instructions to Bidders".

Annexure-VIII

Issue of Notice to proceed with the work
(Letterhead of the Employer)
(Date)_____

To,

_____ (Name and address of the Contractor)

Dear Sirs,
Pursuant to your furnishing the requisite performance security as stipulated in ITB clause 34.1 and signing of the contract for the construction of _____ at a Bid Price of Rs. _____

You are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of signatory authorized to sign on behalf of Employer)

Annexure-IX**Agreement Form****Agreement**

This agreement made the _____ day of _____ between

 _____ (name and address of Employer) (hereinafter called "the Employer)" and _____

 _____ (name and address of Contractor) (hereinafter called "the Contractor" of the other part).

Whereas the Employer is desirous that the Contractor execute _____

 _____ (name and identification number of Contract) (hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a contract price of Rs. _____

NOW THIS AGREEMENT WITNESSETH as follows:-

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and constructed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the works and remedy any defects therein conformity in all aspects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein the Contract price 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.
4. The following documents shall be deemed to form and be read and constructed as part of this Agreement viz:
 - i) Letter of Acceptance
 - ii) Notice to proceed with the works:
 - iii) Contractor's Bid;
 - iv) Contract Data:
 - v) Conditions of Contract : Special Conditions of Contract;
 - vi) Additional condition:
 - vii) Drawings:
 - viii) Bill of quantities and
 - ix) Any other document listed in the Contract Data as forming part of the contract.

In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of
was hereunto affixed in the presence of:

Signed, Sealed and Delivered by the said

.....
.....

in the presence of:

Binding Signature of Employer.....
Binding Signature of Contractor.....

SECTION 9

Drawings