TENDER DOCUMENTS

Construction of Super ECBC Building for TSECL at Power House Complex ,Banamalipur, Agartala, West Tripura

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

INDEX

Name of Work: Construction of Super ECBC Building for TSECL at Power House Complex ,Banamalipur, Agartala, West Tripura

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

GENERAL GUIDELINES

1. This book of **"Standard Bid Document for TSECL"** is applicable to tenders i.e." Percentage rate tenders" similar to **(Tripura PWD Form-7)**
2. **NIT, Special Instruction to Bidder (SITB), Forms of Qualification, Special Conditions/Specifications and Drawings and General Conditions of Contract-Standard Form PWD- 7** will be uploaded in the e-procurement portal **(i.e. https://tripuratenders.gov.in)** for viewing & downloading by the intending bidders. All the documents shall form a part of the agreement to be drawn and signed by both parties after acceptance of tender.
3. **All blanks** are confined to **Notice Inviting Tender (NIT)**.
4. **Tender Inviting Authority (TIA)** shall fill up all the blanks in **Form -6** and uploading of Tender documents. TIA/Dy. General Manager,CCD,79Tilla, TSCELs shall take **special care** form before it is ready for agreement.
5. The intending bidders shall write their name and quote their percentage (in figures only) in BOQ Sheet (in Macro Enabled Excel format) in e-procurement portal.

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

SECTION-I:

NOTICE INVITING TENDER
&
INSTRUCTIONS TO BIDDERS

TECHNICAL BID

Name of Work: -Construction of Super ECBC Building for TSECL at Power House Complex, Banamalipur, Agartala, West Tripura

.D.N.I.eT.No.- DGM/CCD/Agt./DNIT/DGM/CCD/Agt/2025-26/06 .Dt. 06-06-25
.2.Completion period for the work: -……...

3. Date of issue of Notice Inviting Tender: - Date 27Month 06 Year 2025

4. Period and Place of sale of tendering Document **: -** To be uploaded as per PNIT.

5. Deadline for receiving tender **: -** Date 28 Month 07 Year…2025 , Time…15:00…Hours

6. Place for dropping **: -**As per PNIT

7. Time and Date of opening tender / tenders:- Date 29Month 07 Year 2025
Time…12-00…Hours for Tech. bid (if possible)

8. Place of opening tender **: -** Office of the Deputy General Manager,
Central Civil Division, 79-Tilla, Agartala.

9. Officer inviting tenders: - Deputy General Manager,

10. Date of Pre-bid conference: - On dated 05- 07-2025 at 12-00 Hours.

11. Earnest Money : Rs. 23,55,102.00.(Rupees Twenty Three Lakh Fifty Five Thousand One Hundred Two) only
(From any Nationalized Bank stationed at Agartala guaranteed by R.B.I. through Bankers Cheque / Demand Draft in favour of Deputy General Manager, Central Civil Division, 79-Tilla, Agartala, valid for 3 (three) months or more (Interest free).

12. Cost of bid document **: - ₹ 5900(Rupees Five Thousand Nine Hundred) only**, to be furnished through Demand Draft / Bankers Cheque from any nationalized Bank stationed at Agartala. (Non refundable).

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

(For publication in the Local Newspapers and Websites)
TRIPURA STATE ELECTRICITY CORPORATION LIMITED

PRESS NOTICE INVITING eTENDER (PNIeT)

The Deputy General Manager,CCD,79 Tilla, Agartala invites the tender on behalf of TSECL from the resourceful experienced Contractor through **electronic tendering (e-tendering)** for percentage rate (Form-7) tender(s) from eligible Contractors of appropriate class registered in TSECL / PWD / TTAADC / CPWD etc. Up to 5.00 P.M. on 28/07/ 2025 for the following work.

Sl. No.	Name of the work	Estimated cost	Earnest money	Cost of tender documents	Time for completion	Last date and time for submission of tender	Place of receiving bid	Time and date of opening of tender
1	Construction of Super ECBC Building for TSECL at Power House Complex ,Banamalipur, Agartala, West Tripura **D.N.I.eT.No.-DGM/CCD/Agt./DNIT/…….**	**Rs11,77,55,093.00**	**Rs. 23,55,102.00**	**₹ 5900.00**	**18 (Eighteen) Months**	**Up to 5.00 pm on 28/06/25**	**Online**	**At 12-00 Hrs. On 29 /07/2025 For Tech. Bid(if possible)**

Bids shall be rejected if the offer is submitted without Earnest Money or with inadequate Earnest money i.e. less than the prescribed fee mentioned in the NIT.

Tender form can be obtained from web site tripuratenders.gov.in,A sum of Rs.118.00 (for estimated cost up to Rs.1.00 lakh), Rs.236.00 (for estimated cost over 1.00 lakh and up to 5.00 lakh), Rs.590.00 (for estimated cost over 5.00 lakh and up to Rs.15.00 lakh), Rs.1180.00 (for estimated cost over Rs.15.00 lakh up to Rs.50.00 lakh),Rs.2360.00 (for estimated cost over Rs.50.00 lakh up to Rs.1 crore), Rs.4720.00 (for estimated cost over 1 crore up to 5 crore), Rs.5900.00 (for estimated cost over 5 crore) including 18.00% GST being the cost of bid document .The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of submission of tender is extended, the enlistment of contractor should be valid on the original date of submission of bids.

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The bid forms and other details including **online activities should be done** in the e-procurement portal **https://tripuratenders.gov.in**

Memo No.: - F.4 (1)/DGM/CCD/2025-26/ Dated, Agartala, …./…/2025

Copy to: -

1) The P.A. to Managing Director, Tripura State Electricity Corporation Limited, Corporate Office, Banamalipur, Agartala for favour of his kind information please.
2) The Director (Technical), TSECL, Agartala for favour of his kind information please.
3) The Director (Finance), TSECL, Agartala for favour of his kind information please.
4) The G.M. (Finance) TSECL Agartala for favour of his kind information please.

The Additional General Manager, 5)Central Civil Circle, 79-tilla, Agartala, 6) Distribution Planning & Co-ordination, Corporate office, Agartala, 7) Electrical Circle No.I, Agartala, 8) Electrical Circle No.II, Agartala, 9) Electrical Circle-Gomati, Udaipur, 10)Electrical Circle- Dharmanagar 11) Electrical Circle-Belonia 12) Electrical Circle-Unakoti, Kumarghat, 13) Electrical Circle-Khowai, Khowai, 14) Electrical Circle-Dhalai, Ambassa, 15) Electrical Circle-Sepahijala, Bishramganj for favour of his kind information please.

The Deputy General Manager 16) Electrical Division No.I, Agartala 17) Electrical Division No.II, Agartala, 18) Electrical Division-Dharmanagar, 19) Electrical Division-Udaipur, 20) Electrical Division-Kumarghat, 21) Electrical Division-Shantirbazar (Bagafa), 22) Electrical Division-Ambassa, 23) Electrical Division-Bishalgarh, (Gakulnagar) 24) Electrical Division-Khowai, 25) Electrical Division-Sonamura, (Rabindranagar) 26) Electrical Store Division, A. D. Nagar, Agartala, 27) Tariff & Commercial Division, Agartala, 28) The D.G.M. (Commercial & System Operation) Agartala, 29) Transmission Division, 79-Tilla, Agartala, 30) Gomati Electrical Division, Jatanbari, 31) Gas Thermal Electrical Division, Baramura, 32) Gas Thermal Electrical Division, Rokhia, 33) Electrical Division, Belonia, 34) Electrical Division, Sabroom, 35) Electrical Division, Amarpur, 36) Electrical Division, Capital Complex, Agartala, 37) Electrical Division, Kanchanpur, 38) Electrical Division, Mohanpur, 39) Electrical Division, Jirania, 40) Electrical Division, Kamalpur, 41) Electrical Division, Manu, 42) Electrical Transmission Division, Udaipur, 43) Electrical Transmission Division, Kumarghat, 44) Electrical Testing & Communication Division, Agartala for information please.

The Senior Manager (Civil), 45) Gas Thermal Civil Sub-Division, Rokhia, 46) Gas Thermal Civil Sub-Division, Baramura, 47) Civil Cell No.I, 79-Tilla, Agartala, 48) Civil Cell No.II, 79-Tilla, Agartala for information.

49) The All Tripura Contractor's Association, 3rd floor of Orient Book Society, Akhaura Road, Agartala.
50) The Deputy General Manager (C & T), Corporate Office, Bidyut Bhawan, TSECL for information and request for hoisting the tender in the web site of TSECL www.tsecl.in (Enclo: - Soft Copy)(Kind attn.-Sri Priyatam Saha, Manager,IT).51) The Assistant Manager (Finance), Central Civil Division, 79-Tilla, Agartala for information.
52) Notice board, 53) Guard file, 54) Technical Section.

Dy. General Manager,
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LIST OF IMPORTANT DATES IN CONNECTION WITH THE TENDER FOR THE WORK,

(FORMING PART OF NIT AND TO BE POSTED IN e-PROCUREMENT PORTAL)

Name of Work: Construction of Super ECBC Building for TSECL at Power House Complex ,Banamalipur, Agartala, West Tripura.

Critical Dates:-

1.	Completion period of construction:	18.(Eighteen) Months
2.	Date of floating of tender :	28 / 06/25
3.	Period of downloading of Bidding Documents from tripuratenders.gov.in:	From : 28/ 06/2025
		To : 28 /07/2025 upto 4.30 pm
4.	Period of Seeking clarifications :	From : 28 / 06/2025
		To :04 / 07/2025
5	Time and date of Pre-Bid Meeting:	On, 05 / 07/2025 At 11-00 a.m.
6.	Place of Pre-Bid Meeting:	O/o the Deputy General Manager, Central Civil Division, TSECL, 79 Tilla , Agartala, West Tripura, Pin: 799006. Ph : 0381 23 57273, E-mail : ccdtsecl79tila@gmail.com
7.	Start date of bid submission	07 /07/2025
8.	**Deadline for online Bidding:**	28/07/2025 **Up to 5.00 p.m.**
9.	Time and Date of Opening Technical Bid/Bids:	**29 /07 /2025 at 12.00 hrs. if possible**
10.	Time and Date of Opening Price / Financial Bid:	To be notified after Technical Evaluation
11.	Place of Opening Bids:	O/o the Deputy General Manager, Central Civil Division, TSECL, 79 Tilla , Agartala, West Tripura, Pin: 799006. Ph : 0381 23 57273,E-mail : ccdtsecl79tila@gmail.com
12.	Officer inviting Bids (TSECL):	O/o the Deputy General Manager, Central Civil Division, TSECL, 79 Tilla , Agartala, West Tripura, Pin: 799006. Ph : 0381 23 57273, E-mail : ccdtsecl79tila@gmail.com

Notes:-

1. All the above-mentioned **online activities should be done in the e-procurement portal https://tripuratenders.gov.in**
2. All the above-mentioned **date & time are as per server clock date & time of e-procurement portal https://tripuratenders.gov.in**
3. **Strike out which is not required.**

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INSTRUCTIONS TO BIDDERS (ITB)

(FORMING PART OF NIT AND TO BE POSTED IN e-PROCUREMENT PORTAL)

1. The intending bidder must **carefully read and accept** the terms and conditions carefully. Bidder should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and Instructions to bidders for e-tendering forming part of bid document and to be posted on e-procurement portal.
3. Eligible bidders shall participate in online bidding only through **e-procurement portal https://tripuratenders.gov.in. Bidders are allowed to bid 24x7 until the time of Bid closing**, with option for Re-Submission & withdrawal, wherein only their latest submitted Bid would be considered for evaluation. The e-procurement portal will not allow any Bidder to attempt bidding, after the scheduled date and time. **Submission of hardcopy of bid document physically, is not permitted. If any hardcopy of bid document submitted physically by the bidder then these documents will not be considered & will not be processed for evaluation.**
4. Bid shall be uploaded in **Single/2(two) bid system,** with all other required details by the **Tender Inviting Authority (TIA).**
5. The **bid document** consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and General Conditions of Contract to be complied with and other necessary documents can be **seen and downloaded from e-procurement portal** https://tripuratenders.gov.in at **free of cost.**
6. **The amount of Bid Fee** is equal to **(based on estimated cost put to tender)**

   A sum of Rs.118.00 (for estimated cost up to Rs.1.00 lakh), Rs.236.00 (for estimated cost over 1.00 lakh and up to 5.00 lakh), Rs.590.00 (for estimated cost over 5.00 lakh and up to Rs.15.00 lakh), Rs.1180.00 (for estimated cost over Rs.15.00 lakh up to Rs.50.00 lakh),Rs.2360.00 (for estimated cost over Rs.50.00 lakh up to Rs.1 crore), Rs.4720.00 (for estimated cost over 1 crore up to 5 crore), Rs.5900.00 (for estimated cost over 5 crore) including 18.00% GST being the cost of bid document .The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of submission of tender is extended, the enlistment of contractor should be valid on the original date of submission of bids.

7. The **Bid Fee** to be **paid electronically over the online payment facility** provided in the e-procurement portal **any time after start date of bid submission and before bid submission end date** using Net Banking facility by the bidders, is **Non-Refundable (*except in case of cancellation of tender before opening of technical bid, Bid Fee is Refundable*)** and **to be deposited to the TSECL account automatically as revenue**.
8. **The amount of Earnest Money (EM)** is equivalent to **@2% (two percent)** of the **estimated cost put to tender.**
9. **Earnest Money** for an amount **upto Rs. 25.00 lakh,** is to be **paid electronically over the online payment facility** provided in the e-procurement portal **any time after start date of bid submission and before bid submission end date** using **Net Banking** facility by the bidders.
10. **Earnest Money** for an amount **more than Rs.25.00 lakh,** is to be **paid through offline mode** using any of the **offline payment instrument** like "**, Demand Draft**" drawn **in favour of the Tender Inviting Authority (TIA)** from a well-recognized

scheduled/commercial Bank guaranteed by the Reserve Bank of India having **branch at Agartala, Tripura**.

The Bidders will have to upload the **scan copy** of the drawn **offline payment instrument** (as a single PDF file of 75-100 dpi resolution), against the related Earnest Money, along with the bid/technical bid documents **in the time of real time bidding**.

The **Bidders** will also have to **submit** *(to be delivered in person or by post)* **the original copy *(physical form)* of the offline payment instrument related to the Earnest Money** as stated above**, in a Sealed Envelope super-scribing the DNIT No., & Tender ID,** at the office of the **Tender Inviting Authority (TIA) , positively before the Technical Bid opening time & date** as mentioned in the **NIT.**

Offline payment instrument of earnest money as submitted by the bidder, shall be **valid for a period of 45 (forty-five) days beyond the bid validity period.**

While submitting the bid online *(for **earnest money** amount **more than Rs.25.00 lakh**)*, **the bidder will find that the "EMD Amount" is showing as "0" (zero) in the payment window** of e-procurement portal. The **bidder shall ignore this "0" (zero) EMD Amount** in the e-procurement portal & **pay the full amount of earnest money** *(using any of the **offline payment instrument** as permitted)* **amount as indicated in Form-6**.

11. **The full amount of the Earnest Money** of **all bidders (technically responsive & non-responsive) including L1 (lowest rate quoting bidder) will automatically be returned back to their respective bank account (*in case of online payment mode*) or, will be released individually by the Tender Inviting Authority (TIA) (*in case of offline payment mode*), once online process of "Award of Contract" (AOC)** has been **completed** or **tender process has been cancelled** in e-procurement portal.
12. Detailed information regarding **Earnest Money is given in Para No. 14 of "Special Instructions to Bidders (SITB)".**
13. Detailed information regarding **payment** of **Bid Fee (online mode only) & Earnest Money (online or offline mode)** has been summarized in **Para No. 16.9.2 of "Special Instructions to Bidders (SITB)".**
14. **Pre-Bid Conference/ Meeting** will be held for clarification of any doubts of the prospective Bidders on any condition of the contract, specification etc.
15. **Bids/ Technical bids (for 2 bid system)** shall be opened through online by the respective **Bid openers [minimum 2(two) in numbers out of 4(four) bid opener (as assigned at time of online tender creation)].** If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time and venue.
16. **For 2 bid system, technical bids shall be opened first** and after completion of technical evaluation, financial bids in respect of technically acceptable offers only shall be opened.
17. To participate in bid, the bidder shall have a valid **Class 3 Digital Signature Certificate (DSC)**, obtained from the available vendor as certified by the certifying authorities enlisted by Controller of Certifying Authorities (CCA) at http://cca.gov.in.
18. Then the bidder has to register (**registration is free of cost**) himself in the e-procurement portal mentioned above.
19. After registration, bidder can **participate any active tender available in the portal** by submitting all required document as mentioned in the tender document.

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20. The bidder can **quote his bid offer** in the following process:

(i) For **Percentage Rate tender (Tripura PWD Form-7)**, Bidder shall **write his name** and **quote rate in percentage excess(+) / less(-) in figures only** in the **Bill of Quantity (BOQ)** [downloaded from the e-procurement application https://tripuratenders.gov.in] which is in **MS-Excel (macro enabled)** format and the same saved BOQ should be uploaded to the portal as a part of bid with digital signing.

21. On opening date, after logging in the portal, the **participating bidder can view the bid opening process LIVE online in the portal**. After final opening of bids (financial bid in case of two bid tender), bidder can view the **'BOQ Comparative Chart'** generated online & displayed by the system through the e-procurement portal. However, participating bidders and other Bidders may be present physically at the bid opening place at the date & time online Bid opening.

22. Bidder can view & download the softcopy of **"Letter of commencement of work"** after Tender Inviting Authority (TIA) completed **"Award of Contract" (AOC)** process through online in e-procurement portal.

23. For **any enquiry related to e-tender**, bidder can seek "**Clarification" online** through e-procurement portal.

24. Bidder can **upload documents** [as mentioned in the "**Special Instruction to Bidder (SITB)"**] in various **standard format (jpg/pdf/xls etc.)** as desired by the **Tender Inviting Authority (TIA)** in the portal.

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Central Civil Division
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TRIPURA STATE ELECTRICITY CORPORATION LIMITED

PRESS NOTICE INVITING TENDER (PNIT)

Form - 6

The Deputy General Manager,CCD,79 Tilla, Agartala invites the tender on behalf of TSECL through **electronic tendering (e-tendering)** for percentage rate (similar to TPWD Form-7) tender(s) from eligible Contractors of appropriate class registered in TSECL / PWD / TTAADC / CPWD etc. Up to 4-30 P.M. on / / 2025 for the following work. Details can be seen in the office of the undersigned & Web site tripuratenders.gov.in.

Sl.NO.	Name of the Work	Estimated cost (Rs)	Earnest money (Rs)	Tender document cost	Time for completion	Last date and time of dropping	Place of receiving bid	Time and date of opening tender
1	**Construction of Super ECBC Building for TSECL at Power House Complex,TSECL, Banamalipur, Agartala-799001, Tripura** D.N.I.T NO. DGM/CCD/Agt/2025-26/**.....** dated,.....-.....-25)	**.....00 in/c GST**	**.....00**	**Rs. 00**	**..... days**	**upto 4.30 pm on .....-.....-25**	**O/O DGM/CCD, 79 Tilla, Agartala**	**At 17 00 Hrs. On .....-.....-25 For Tech. Bid(if possible)**

1. The **enlistment of the contractors should be valid on the last date of submission of bids**. In case the last date of **submission of tender is extended**, the **enlistment** of contractor should be **valid on the original date of submission of bids.**

1.1 This estimate, however, has been prepared by this TSECL Office based on the tentative quantity and scheduled rate set by the PWD of Tripura and DSR & NSR. The quantity may vary based on the requirement during actual execution but the scheduled rates which are the firm base rates of this tender document, based on which the tenderer shall calculate his own rate so as to complete the work and quote in the BID document.

2. Agreement shall be drawn with the successful bidder on prescribed similar to **Tripura PWD Form 7** (or other Standard Form to be mentioned) with up to date amendments, which is available as a Govt. of Tripura Publication and also available on website **www.pwd.tripura.gov.in**. Tenderer shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.

3. The **time allowed** for carrying out the work will be **.....*** **Days** from the date of start or from the first date of handing over of the site,

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whichever is later, in accordance with the phasing, if any, indicated in the tender documents.

Note: **The site for the work shall be made ready before issuing of work order. The handing over of site to the contractor shall be recorded in the site order book with date.**

4. **Bid documents** consisting of plans, specifications, the schedule of quantities of the various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form that **can be seen and downloaded** from e-procurement portal **https://tripuratenders.gov.in free of cost**.

5. The required documents as specified in the bid document shall be scanned and uploaded to the e-procurement portal within the period of bid submission. Online bid documents submitted by intending bidders shall be processed only of those bidders, **who has successfully submitted Bid Fee (online payment mode only) & Earnest Money (online or offline payment mode) in e-procurement portal** and other documents scanned and uploaded are found in order.

   Physical submission *(except in case of offline payment mode, the original copy of earnest money for offline payment instrument)* of any document will not be considered & shall not be processed for bid evaluation.

6. **After successful bid submission**, the **bidder** can **re-submit the revised bid any number of times or withdraw the bid** before last time and date of submission of bid as per bid document.

7. The **bid(s)** submitted shall be **opened** through online in e-procurement portal.

8. **The bid submitted shall become invalid if:**

   8.1 The bidder is found **Ineligible** as per **'Special Instructions to Bidders' (SITB) Para No. 1.2.**

   8.2 The bidder does not upload all the documents as stipulated in the bid documents**.**

   8.3 If any **discrepancy** has been **noticed** between the **documents as uploaded** at the time of **online** submission of bid and **original copies** *[if asked to submit by Tender Inviting Authority (TIA) for document verification purpose]* as submitted by the bidder.

   8.4 If a **Bidder quotes nil rates or does not quote rate against each item or any item *in item rate tender*** or **does not quote any percentage above/ below /at par on the total amount** of the tender or any section/ sub head ***in percentage rate tender***, the **tender shall be treated as invalid.**

9. The **bidder, whose bid has been accepted,** shall be required to **submit the following documents** within the **time period specified** in **'Schedule-F':**

   9.1. **Performance Guarantee of 10% (Ten percent) of the tendered amount**. This guarantee shall be in the form of **" Demand Draft"** drawn in favour of the Tender Inviting Authority (TIA) from a well-recognized **scheduled/commercial Bank** guaranteed by the Reserve Bank of India having **branch at Agartala, Tripura**.

   In case the **bidder fails to deposit the said performance guarantee** within the period as indicated in **Schedule-F**, including the extended period if any, the **Earnest Money deposited by the bidder shall be forfeited automatically**

without any notice to the bidder. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee.

9.2. **Proposed methodology and program of construction**, supported with equipment planning and deployment, duly supported with broad calculations, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones.

9.3. **Copy of valid Labour License or, proof of applying for obtaining Labour License** regarding engagement of workers in the contract works from Labour Department, TSECL of Tripura.

9.4. Copy of certificate regarding **registration of employee/workers with EPFO** (Employees' Provident Fund Organisation) including **Provident Fund Code No**. (***applicable for Class-I Contractor***).

9.5. Copy of certificate regarding **registration of employee/workers with ESIC** (Employees' State Insurance Corporation) (***applicable for Class-I Contractor***).

9.6. Copy of certificate regarding **registration of employee/workers with BOCW** (Building and Other Construction Workers) **Welfare Board** (***applicable for Class-I Contractor*****).**

10. Intending bidders are advised to **inspect** and **examine** the **site** and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub- soil, the form and nature of the site, access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstance which may influence or effect their tender.

    A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The **costs of visiting the site** shall be at the **Bidder's own expense** and the bidder shall submit the Bid on being satisfied by his inspection of the existing site condition including **facilities/ hurdles**.

11. The bidder shall be responsible for **arranging and maintaining** at his **own cost** all **materials, tools and plants, water, electricity access, facilities for workers and all other services** required for executing the work unless otherwise specifically provided for in the contract documents. Submission of bid by a bidder implies that he has read all contract documents and made himself aware of the scope and specifications of the work to be done and or conditions and rates at which stores, tools and plants etc., will be issued to him by the TSECL and local conditions and other factors having a bearing on the execution of the work.

12. The competent authority on behalf of the 'TSECL' does not bind himself to accept the lowest or any other tender. The authority reserves the right to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.

13. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the bidders who resort to canvassing will be liable for rejection.

14. The competent authority on behalf of TSECL reserves the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.

15. Bidder shall not be eligible to bid for works in the Division / Circle where any of his **'near relatives'** are employed in the rank of Senior Manager and above on the Engineering side and Divisional Accounts Officer and above on the Administrative side. He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazette officer in the TSECL. Any breach of this condition by the bidder would render him liable to be removed from the approved list of contractors of this Department.

16. No Engineer of Gazette rank or other Gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the TSECL of Tripura is allowed to work as a contractor for a period of **2(two) year** after his retirement from TSECL service, without the previous permission of the TSECL of Tripura in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the TSECL of Tripura as aforesaid before submission of the tender or engagement in the contractor's service.

17. **The bid for the works shall remain open for acceptance for a period of one hundred and eighty (180) days from the date of opening of bids**. **If any bidders withdraws his bid before** the said period or issue of letter of acceptance, **whichever is earlier**, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the TSECL shall, without prejudice to any other right or remedy, be at liberty to **forfeit 50% of the said earnest money** as aforesaid. **Further the bidders shall not be allowed to participate in the rebidding process of the work**.

18. This Notice Inviting Tender shall form a part of the contract document. The successful **Bidder/Tenderer/contractor**, on acceptance of his tender/bid by the **Tender Accepting Authority**, shall **start of the work & sign the agreement** (**within the time period** as mentioned in **Schedule-F**) consisting of:-

    18.1 The Notice Inviting Tender, all the bid documents including additional conditions, specifications and drawings, if any, forming part of the tender as uploaded at the time of invitation of tender and hardcopy of MS Excel BOQ sheet in which rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence/tender corrigendum leading thereto including Pre-Bid Conference record note (if any).

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

GLOSSARY

In this document, unless the context otherwise requires:

1. **"Bid"** (including the term 'tender', 'offer', 'quotation' or 'proposal' in certain contexts) means an offer to supply goods, services or execution of works made in accordance with the terms and conditions set out in a document inviting such offers;
2. **"Bidder"** (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any eligible person or firm or company, including a consortium (that is an association of several persons, or firms or companies), participating in a procurement process with a procuring entity;
3. **"Bid Opener(s)"** means Engineering officers or Divisional Accounts Officers or any officials who are nominated/selected by the TIA at the time of tender creation for opening/decryption of technical & financial bid in e-procurement portal.
4. **"e-Procurement"** means the use of information and communication technology (specially the internet) by the procuring entity in conducting its procurement processes with bidders for the acquisition of goods (supplies), works and services with the aim of open, non-discriminatory and efficient procurement through transparent procedures;
5. **"Notice Inviting Tenders (NIT)"** (including the term 'Invitation to bid' or 'request for proposals' in certain contexts) means a document and any amendment thereto published or notified by the procuring entity, which informs the potential bidders that it intends to procure goods, services and/ or works.;
6. **"NIT Approving Authority"** means Engineering Officer who approves the **NIT** as per **latest Delegation of Financial Power Rules, Tripura (DFPRT)** and general guidelines of the department in force.
7. **"Procurement Process"** means the process of procurement extending from the assessment of need; issue of invitation to pre-qualify or to enlist or to bid, as the case may be; the award of the procurement contract; execution of contract till closure of the contract;
8. **"Procuring Entity"** (including Procuring Authority or Employer) means any Department of the State TSECL or a unit thereof or its attached or subordinate office to which powers of procurement have been delegated;
9. **"Standard Bid Document (SBD)"** (including the term 'tender (enquiry) documents' in certain contexts) means a document issued by the procuring entity, including any amendment thereto, that sets out the terms and conditions of the given procurement and includes the invitation to bid. A Standard (Model) Bidding Document is the standardised template to be used for preparing Bidding Documents after making suitable changes for specific procurement;
10. **"Tender Accepting Authority (TAA)"** means Engineering Officer or Administrative Department, who accept the Tender as per **latest Delegation of Financial Power Rules, Tripura (DFPRT)** in force.
11. **"Tender Evaluation Committee (TEC)"** means a committee constituted by the department for evaluating technical & financial bid; shall decide the responsiveness of bidder (in case of technical bid); and shall decide the reasonableness of quoted rate & recommend the bid rank (in case of financial bid) to **TAA**.
12. **"Tender Inviting Authority (TIA)"** means Engineering officer who shall invites NIT, create & publish bid, upload document related to pre-bid conference/meeting & bidder's clarification, open & prepare comparative statement of technical & financial bid and upload documents related to technical/financial bid evaluation & Award of Contract in e-procurement portal with the help of Bid Openers. TIA shall also write & send official letter to bidder for submission of shortfall document and other documents as required as per tender/bid document.

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SPECIAL INSTRUCTIONS TO BIDDERS (S I T B)

A. GENERAL

1. **Eligibility Criteria of Bidders to Bid:**

1.1 **Bidders Eligible to bid:**

i) Who possess the valid registration in the class and category mentioned in the NIT and satisfy all the conditions therein.

ii) Who are not blacklisted or debarred or suspended or disqualified by the TSECL for whatever the reason, prohibiting them not to continue in the contracting business.

iii) Have complied with the eligibility criteria specified in the NIT, are the eligible bidders.

1.2 **Bidders Ineligible to bid:**

i) A retired officer of the **Govt. of Tripura or Govt. of India and it's Undertaking,** executing works, is disqualified from bidding for a period of 2(two) years from the date of retirement without the prior permission of the TSECL.

ii) The Bidder who has employed any retired officer as mentioned above shall be considered as an ineligible bidder.

iii) The Bidder himself or any of his employees is found to be Gazetted Officer who retired from TSECL Service and had not obtained permission from the TSECL for accepting the Bidder's employment within a period of **2(two) years** from the date of his retirement.

iv) The Bidder or any of his employees is found at any time after award of contract, to be such a person who had not obtained the permission of the TSECL as aforesaid before submission of the bid or engagement in the Bidder's service.

v) **Bidder shall not be eligible** to bid for works in the Division / Circle where any of his '**near relatives'** are employed in the rank of **Senior Manager and above** on the **Engineering side** and **Divisional Accounts Officer and above** on the **Administrative side**. The Bidder shall intimate the names of persons who are working with him in any capacity or are subsequently employed. He shall also furnish a list of Gazetted /Non-Gazetted, State TSECL Employees related to him. Failure to furnish such information bidder is liable to be removed from the list of approved Bidders and his contract is liable for cancellation.

Note: Near relatives include

a) Sons, step sons, daughters, and step daughters.
b) Son-in-law, and daughter-in-law.
c) Brother-in-law, and sister-in-law.
d) Brothers and sisters.
e) Father and mother.
f) Wife and Husband.
g) Father-in-law and Mother- in- law.
h) Nephews, nieces, uncle and aunties.
i) Cousins and
j) Any person residing with or dependent on the Bidder.

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2. **Qualification data of the Bidders:**

2.1 **The bidder should satisfy the qualification criteria as fixed here under. However, in case of any 'discrepancy' and 'minor infirmity/ irregularity / non-conformity' as laid down in Para. No. 29 & 30 of 'Special Instructions to Bidders' (SITB), the bidder shall be allowed to rectify** the irregularity/ discrepancy etc. and **submit the required valid shortfall document (as per Para. No. 31 of SITB)** to satisfy his/her qualification criteria **within 10(ten) days' time from the date of issue of letter from the Tender Inviting Authority (TIA).** The Bidder shall submit/upload the following particulars/documents as a proof of qualification criteria.

i) Documents relating to the **(i) Registration of the firm/Registration as Civil Contractor/Partnership deed/Articles of Association, (ii) GST registration certificate,(iii)Pan Card (iv) Labour licence**

Note: *The Partnership firms, which are registered as Contractors shall intimate the change in partnership deed, if any, within 30(thirty) days of such change. Failure to notify the change to the registration authority in time will entail the firms to forfeit their registration and their bid will be rejected. The intimation of change of partners if any and the acceptance by the Registration authority may be enclosed.*

ii) **Details of value of Civil Engineering works executed** in each year during the last five financial years by the bidder duly supported with work done certificates **(Statement-I)**.

iii) **Details of the existing commitments** i.e., work on hand and, yet to be completed as on the date of submission of the bid (duly supported with balance work to be done certificates) and works for which bids are submitted **(Statement No-II).**

iv) **Availability of Key Technical Personnel** for administration / site management and execution viz., technical personnel required for the work **(Statement-III)**.

v) Availability of working capital for the work in the form of **Bank Solvency (Annexure –IV).**

Note: *The **bidder, whose bid has been accepted,** shall be required to submit documents related to (i) **Programme Chart** (Time and progress), (ii) **Valid Labour License or, proof of applying for obtaining Labour License**, (iii) **Registration of employee/workers with EPFO** (Employees' Provident Fund Organisation) including **Provident Fund Code No.** (**applicable for Class-I Contractor**), (iv) **Registration of employee/workers with ESIC** (Employees' State Insurance Corporation) (**applicable for Class-I Contractor**) and (v) **Registration of employee/workers with BOCW** (Building and Other Construction Workers) **Welfare Board** (**applicable for Class-I Contractor**) **within the time period** specified in **'Schedule-F'.***

2.2 **Bids** from **Joint Ventures** are not acceptable unless specifically stated otherwise.

2.3 **QUALIFICATION CRITERIA FOR OPENING OF THE FINANCIAL BID**.

A) To qualify for opening the Financial Bid each firm/contractor in its name, should have, during the last 5 (five) financial years (financial years are those immediately preceding the financial year in which the bids are invited) --

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(i) Satisfactorily completed as a **Prime Contractor**, civil engineering works of value not less than **60% of the amount put to Bid** [at current price level] at least in any one year.

Note: -The cost of completed works of previous years shall be given **weightage of 6.50% per year** to bring them to **current price level**, (**the financial year in which bids are invited**).

B) Each bidder should further **ensure** --

(i) **Availability of the Key Technical Personnel:**

SL. No.	Agreement Amount	Minimum Number, Qualification & minimum Experience of Key Technical Personnel required to be Employed by the contractor as a full-time site engineer for the worksite	Recovery rate in case non–Employment of Key Technical Personnel
1.	**Above Rs. 100.00 lakh to Rs.150.00 lakh**	**1(one)** No. of **Engineer on specific field related to the work** [diploma or degree]	**Rs. 10,000/- per month per person**
2.	**Above Rs. 150.00 lakh to Rs.600.00 lakh**	**1(one)** No. of **Engineer on specific field related to the work** [**Diploma** having **2(two) years'** experience or **Degree** having **1(one) years'** experience]	**Rs. 15,000/- per month per person**
3.	**Above Rs. 600.00 lakh**	**2(two)** No. of **Engineer on specific field related to the work** [**Diploma** having **4(four) years'** experience or **Degree** having **2(two) years'** experience]	**Rs. 20,000/- per month per person**

Note:

(i) ***Site Engineer*** *shall give an undertaking below his Self-Attested degree/diploma certificate clearly mentioning that he/she is not employed with in any other contractor/agency/firm other than this particular bidder for the work site only* ***(Mandatory requirement).***

(ii) ***Presence of Full-time Site Engineer during execution of work is mandatory****.*

(iii) Assistant Engineers retired from TSECL services that are holding Diploma will be treated at par with Graduate Engineers.

(iv) Diploma holder with minimum 10(ten) year relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

(ii) **Solvency certificate:**

Solvency certificate to be produced by the Bidder / Agency for an **amount equal to @ 25% of the estimated cost put to tender.**

This solvency certificate **should not be older than 180 (one hundred and eighty) days (i.e. Validity of Bank Solvency) ending on the start date for download of tender documents. The Solvency Certificate should be verified by the concerned General Manager (Technical), TSCEL with Banker before acceptance of the tender or, forwarding the tender to the TAA. Solvency certificate of enlistment class upto Class IV B does not required.**

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C) Bid capacity.

The Bidder who meets the above qualification criteria and whose available bid capacity is more than the estimated contract value will be qualified for opening of **Financial** bid. The available bid capacity will be calculated as under:

Available Bid Capacity = 3AN - B.

Where,

A = **Maximum value of civil engineering works executed** in Bidder's name in any 1(one) financial year during the last 5(five) financial years (updated to current Price level) taking into account the **works completed as well as works in progress**.

N = **Number of years** prescribed for completion of the work for which Bids are invited [**months / 12**].

B = **Updated value** (at current Price level), of **all existing Commitments** i.e., ongoing works, works likely to be awarded to be executed during the Period of completion of the work for which Bids are invited.

Annual turnover cost of completed works and balance works on hand etc., shall be updated by giving **weightage** of **6.50% per year** to bring them to current price level.

***No relaxation* will be given to any of the qualification criteria.**

2.4 The Bidder is liable to be **disqualified for 1(one) year** if he/she has;

2.4.1 Furnished false / fake / fabricated particulars in the forms, statements and / annexures submitted in proof of the qualification requirements and/or

2.4.2 Not turned up for entering into agreement, when called upon.

2.4.3 Even while execution of the work, if found that the work was awarded to the Contractor based on false / fake / fabricated certificates of experience, **action will be taken as per latest TSECL Enlistment Rule in force**.

2.4.4 The **Bidder is liable** to be **Blacklisted** if he/she **repeats** the process of submitting/ furnishing false/ fake/fabricated documents.

3. **Number of Bid per Bidder:**

3.1 **Each Bidder** shall submit only **one Bid** for the work. A Bidder who submits more than one Bid will cause disqualification of all the Bids submitted by the Bidder.

4. **Cost of Biding:**

4.1 The Bidder shall bear all costs associated with the preparation and submission of his Bid and the tender inviting authority will in no case be responsible and liable for those costs.

5. **Site Visit:**

5.1 The Bidder, at the Bidder's own responsibility and risk is advised to visit and examine the Site of Work and its surroundings and obtain all information that may be necessary for preparing the Bid for entering into a contract, for construction of the work. The costs of visiting the site shall be at the Bidder's own expense and the bidder shall submit the Bid on being satisfied by his inspection of the existing site condition including **facilities/ hurdles**.

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B. BID DOCUMENT

6. **Contents of Bid document:**

6.1 One set of Bid document, comprises of the following:

Technical bid

(i) Notice Inviting Tender (NIT)
(ii) Instruction to Bidders (ITB)
(iii) Tripura PWD Form-6
(iv) Special Instruction to Bidders (SITB)
(v) Form of Qualification
(vi) General Conditions of Contract
(vii) Specifications
(viii) Drawings
(ix) Forms of Securities
(x) Integrity Pact & Integrity Agreement
(xi) Schedule – B to F
(xii) Any addendum/amendment/corrigendum issued by the Tender Inviting Authority

Financial bid

(i) Bill of Quantities (BOQ) – Schedule-A.
(ii) Tender Form: Tripura PWD Form-7/ Form-8.

7. **Clarification on Bid Documents:**

7.1 A prospective Bidder requiring any clarification on Bid documents may seek clarification through online in the e-procurement portal. The **Tender Inviting Authority (TIA)** shall respond to such clarification through online in the portal. The **process of seeking clarification through online** is given below:

7.1.1 All tenders available on the e-procurement portal can be searched by using the **"Search Active Tenders"** menu under **"Bid Management"** in Bidder's profile. Use any of the searching criteria to search your tender. For a refined search, enter e-Tender ID under **"Tender ID"** or enter Work Title under **"Work/Item Title"** and **click Submit**. The **intended tender(s)** should be selected by clicking on the check box & then **"Set Open Tender as Favorite"** to set tender as Favorite.

7.1.2 The seek clarification process will start by clicking the **"Clarification"** menu. To submit clarification, bidder has to click **"Click here to Post Clarification"** and then fill the necessary field & attach required document. Now bidder has to click **"Proceed"** & again click **"Send for Clarification"** to post the clarification.

7.1.3 Generally, a **time period** of **7(seven) days** for seeking clarification may be given **from the date of publication bid** in the portal.

7.2 However, Bidder may contact the Tender Inviting Authority physically at the address indicated in the NIT, for clarification on the bid document.

8. **Pre-bid Conference:**

8.1 Generally in case of tenders wherever felt necessary, a suitable provision may be kept for inviting the bidders or their official representatives to attend **pre-bid conference/meeting** at a specified place and time (as mentioned in NIT), for clarifying issues and clearing doubts, if any, about the specifications/ Terms of Reference and other allied technical/ commercial details of the work, services, plant, equipment and machinery etc.

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8.2 **Bidders are requested to submit written queries in advance** of the scheduled conference. After the conference, **Minutes of the pre-bid meeting** (including all questions & answers, and needed amendments in the sequence of clauses in the bidding document in a consolidated form) **shall be prepared and approved by the "NIT Approving Authority"**. The **approved 'minutes of meeting'**, **shall be uploaded** in the **e-procurement portal** (**by TIA)** under **"Pre-bid Meeting"** menu.

8.3 If **no/nil queries received** with or without the presence of bidders in pre-bid meeting, then **minutes of meeting stating 'NIL Queries'**, **shall be uploaded** in the **e-procurement portal** (**by TIA)** under **"Pre-bid Meeting"** menu.

8.4 The approved '**minutes of meeting'** of the pre-bid conference/meeting **shall form part of tender document**.

8.5 Date of pre-bid conference/meeting should be **at least 10(ten) days before the last date of online submission of bids**.

9. **Amendment to Bid Documents:**

9.1 At any time before the last date & time for submission of Bids, the **Tender Inviting Authority (TIA)** may, whether at his own initiative or in response to a clarification sought by a prospective bidder, modify any of the contents of the Tender Notice & bid documents by issuing amendment/addendum/ corrigendum.

9.2 Any addendum/amendment/corrigendum issued by the Tender Inviting Authority shall be part of the bid document and it shall be published in the e-procurement portal at https://tripuratenders.gov.in. Registered Bidders shall be notified of the related Corrigendum(s) by automated e-mail/SMS by the portal.

9.3 **Bidders** to note that who have downloaded the tender documents from the e-procurement portal at https://tripuratenders.gov.in, **shall** have to **download** all such **amendment/addendum/ corrigendum/clarification** which may be issued prior to the last date & time for online Bidding of the tender to clarify issues arising out of various queries/ clarifications relevant to the tender documents from bidders or to reflect modification in the design or tender terms and conditions, which **shall form part of tender document**. **Before uploading the final bid offer**, **all such amendment/addendum/corrigendum/clarification must be considered** by the bidder. **TIA shall not be held responsible** on this account of **non-viewing or non-consideration** of amendment/addendum/ corrigendum/clarification **by the bidder.**

9.4 **To give prospective Bidders reasonable time** to take an addendum/ amendment /corrigendum into account in preparing their bids, **the Tender Inviting Authority may extend if necessary, the last date for submission & opening of bids.**

9.5 However, **Tender Inviting Authority shall bear no responsibility or liability arising out of non-receipt of the same in time or otherwise**. **Bidders are requested to visit the e-procurement portal frequently** to check whether there is any related addendum/amendment/corrigendum or not.

9.6 If a bidder does not view / fails to view the amendment/addendum/ corrigendum/clarification hosted on the e-procurement portal at https://tripuratenders.gov.in on any accounts whatsoever and their offer is without considering the amendment/addendum/ corrigendum/clarification, then **Tender Accepting Authority (TAA) may reject the offer**.

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C. PREPARATION OF BIDS

10. **Language of the Bid:**

10.1 All documents relating to the bid shall be in the **English Language only**. Any document submitted in any **other languages is not permitted** and shall not be considered for bidder qualification and tender evaluation purpose.

11. **Documents comprising of the Bid:**

11.1 The bid comprises the following documents:

a) Technical Bid, Drawings, General Conditions of Contract & Specifications etc.

b) Qualification information and supporting documents of the bidder.

c) Financial Bid containing Bill of Quantities (BOQ) and Bid Offer.

12. **Bid Offer:**

12.1 **Bill of Quantities (BOQ)** for bid offer accompanies in the bid document in **Schedule- A**. It shall be explicitly understood that the Tender Inviting Authority (TIA) does not accept any responsibility for the correctness or completeness of this Form-7 similar to Tripura PWD and this form is liable for alterations by omissions, deductions or additions at the discretion of the DNIT approving authority or as set forth in the conditions of the contract.

12.1.1 **For percentage rate tender**, the Bill of Quantities (BOQ) contains the quantities & rates worked out by the Department and the amount for each item and total value of the estimated contract. The bidder should workout his own rates keeping in view the work, site conditions including facilities/hurdles and **quote his overall bid percentage (in figures only) in Macro enabled MS Excel BOQ sheet** with which he intends to execute the work. Thus, the total amount (for overall quoted bid percentage) as computed through Macro Enabled MS Excel BOQ Sheet would be the quoted offered amount for the work, which will be shown in figures & words automatically.

12.1.2 **For item rate tender**, the Bill of Quantities (BOQ) contains only the quantities & units of each items worked out by the Department and total value of the estimated cost. The bidder should workout his own rates carefully keeping in view the work, site conditions including facilities/hurdles and **quote his rate for each item (in figures only) in Macro enabled MS Excel BOQ sheet**, which he intends to execute the work. BOQ (in MS-Excel format) sheet shall be open with Macro Enabled for automatic conversion from figures to words. Thus, the total amount (for all the quoted items) as computed through MS-Excel Sheet would be the quoted offered amount for the work, which will be shown in figures & words automatically.

12.2 The bid offer shall be for the whole work and not for individual items / part of the work.

12.3 **All duties, taxes, and other levies payable by the Bidder as per State / Central TSECL rules/ GST, shall be included in the bid percentage / item rate quoted by the bidder.**

12.4 The bided contract amount as computed based on quoted rate for each item, is subject to variation during the performance of the Contract in accordance with variation in quantities etc.

13. **Validity of bids:**

13.1 The **bid for the works shall remain open for acceptance** for a period of **one hundred and eighty (180) days from the date of opening of bids**.

13.2 During the above mentioned period no plea by the Bidder for any sort of modification of the bid based upon or arising out of any alleged misunderstanding of misconceptions or mistake or for any reason will be entertained.

13.3 In exceptional circumstances, prior to expiry of the original time limit, the Tender Inviting Authority may request the bidders to extend the period of validity for a specified additional period. Such request to the Bidders shall be made in writing. A Bidder may refuse the request without forfeiting his Earnest Money. A Bidder agreeing to the request will not be permitted to modify his bid but will be required to extend the validity of his Earnest Money for a period of the extension.

14. **Earnest Money:**

14.1 **Earnest Money will not be a part of Security Deposit.**

14.2 The bidders shall pay the amount of **Earnest Money equivalent to 2% (two percent) of estimated cost put to tender** as specified in the NIT.

14.3 **Earnest Money** for an amount **upto Rs.25.00 lakh,** is to be **paid electronically over the online payment facility** provided in the e-procurement portal **any time after start date of bid submission and before bid submission end date** using **Net Banking** facility by the bidders.

14.4 (i) **Earnest Money** for an amount **more than Rs.25.00 lakh,** is to be **paid through offline mode** using any of the **offline payment instrument** like "**Demand Draft**" drawn **in favour of the Tender Inviting Authority (TIA)** from a well-recognized **scheduled/commercial Bank** guaranteed by the Reserve Bank of India having **branch at Agartala, Tripura**.

(ii) The Bidders will have to upload the **scan copy** of the drawn **offline payment instrument** (as a single PDF file of 75-100 dpi resolution), against the related Earnest Money, along with the bid/technical bid documents **in the time of real time bidding**.

The **Bidders** will also have to **submit** *(to be delivered in person or by post)* **the original copy** ***(physical form)*** **of the offline payment instrument related to the Earnest Money** as stated above**, in a Sealed Envelope super-scribing the DNIT No., & Tender ID,** at the office of the **Tender Inviting Authority (TIA) , before the date of technical bid evaluation,** failing which, the bid will not be considered for evaluation**.**

On receipt the **original copy** ***(physical form)*** of the **offline payment instrument related to the Earnest Money** from all participating Bidders**,** the concerned **TIA/ General Manager (Technical), TSCEL** shall **verify these document's authenticity, validity period and amount** from the **issuing bank immediately** before acceptance**.**

(iii) **Offline payment instrument of earnest money** as submitted by the bidder shall be **valid for a period of 45 (forty-five) days beyond the bid validity period.**

(iv) While creating tender for **offline payment method for earnest money**, the "**Fee Payment Mode**" shall be selected as "**online**". The "**EMD Amount**" (i.e. earnest money) shall be selected as "**0" (zero)** in the tendering template.

So, **while submitting the bid online** *(for **earnest money** amount **more than Rs.25.00 lakh**)*, **the bidder will find that the "EMD Amount" is showing as "0" (zero) in the payment window** of e-procurement portal. The **bidder shall ignore this "0" (zero) EMD Amount** in the e-procurement portal & **pay the full amount**

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of earnest money *(using any of the **offline payment instrument** as permitted)* **amount as indicated in Tripura PWD Form-6**.

14.5 In case of **lowest rate quoting bidder (i.e. L1 bidder)**, the **bidder has to submit** a **"Performance Guarantee" equivalent amount @ 10% (five percent) of the Tendered/Bid Amount** in the form of **"Demand Draft"** drawn in favour of the Tender Inviting Authority (TIA) from a well-recognized **scheduled/commercial Bank** guaranteed by the Reserve Bank of India having **branch at Agartala, Tripura** and to be **deposited within time period** as specified in **Schedule - F from the date of issue of "Letter of Acceptance (LOA)" to** the bidder.

14.6 **On receipt of "Performance Guarantee"** from the **L1 Bidder**, the concerned **TIA**/ Dy. **General Manager ,TSCEL** shall **verify these document's authenticity, validity period and amount from the issuing bank immediately** before acceptance.

14.7 The **full amount** of the **Earnest Money** of **all bidders (technically responsive & non-responsive) including L1** (lowest rate quoting bidder) will **automatically be returned back to their respective bank account** ***(in case of online payment mode)*** or, **will be released individually by the Tender Inviting Authority (TIA)** ***(in case of offline payment mode)***, once the **online process of "Award of Contract" (AOC) has been completed or tender process has been cancelled** in e-procurement portal.

14.8 **In case of <u>failure to submit</u> the "Performance Guarantee" by the L1 within the prescribed time** (*as mentioned in **Schedule-F***), including the extended period if any, the **<u>full amount</u>** of **<u>earnest money</u>** **so deposited online** during the bid submission, **will be <u>forfeited</u>** to the TSECL account **without any notice to the bidder**.

14.9 **Earnest Money so deposited by the bidders will not carry any interest** and it will be dealt with as provided in the condition stipulated in the bid.

14.10 The **Earnest Money shall also be forfeited as follows:**

14.10.1 If the **Bidder withdraws the Bid during the validity period of Bid**, **50% of the earnest money** will be **forfeited**. In such case, the bidder is to deposit an amount of 50% of the Earnest Money separately either in the form of **Demand Draft** to the TSECL to facilitate the Tender Inviting Authority (TIA) to release the entire amount of Earnest Money **through online in case the earnest money paid through online mode**. **Failure to deposit the said 50% of the Earnest Money within prescribed time as per letter of TIA, will attract forfeiture of entire (100%) Earnest Money.**

In case of **offline payment mode** *(for **earnest money** amount **more than ` 25.00 lakh**)*, **50% of the earnest money** will be **forfeited** from the **offline payment instrument** already submitted by the **bidder** and the **balanced amount** will be **released.**

14.10.2 In case the **Bidder fails to start/commence the work within the time period** as mentioned in **Schedule- F** or **"Letter of Commencement of Work",** from the date on which the Engineer-in-Charge issues written orders to commence the work or from the date of handing over the site, **whichever is later**, **equivalent (100%) amount of earnest money** will be **forfeited from the Performance Guarantee** already submitted by the bidder in the form of **offline payment instrument** and the **balanced amount** will be **released**.

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14.11 A **Bid** could be **Rejected at any Stage** (i.e. "**Bid Opening**", "**Technical Evaluation**", "**Financial Opening**", "**Financial Evaluation**" & "**AOC**"), **with or without invoking the Forfeiture Option** in case of online payment mode of earnest money.

If **Tender Inviting Authority (TIA) decided to forfeit Earnest Money** of any bidder through online in e-procurement portal, it is required to **invoke the Forfeiture Option** for that bidder **on the same day** *[i.e. within the* ***banking hour (on bank working day)*** *of same day in which rejection/cancellation of tender has been completed]* **of rejection only**. If this **procedure of forfeiture has not been done in same day** within banking hour, the **forfeiture** of earnest money **cannot be completed** & **earnest money** will **automatically** be **refunded** by the e-procurement portal to the **Bidder's Account**.

15. **Alteration:**

15.1 No alteration which is made by the Bidder in the contract form, the conditions of the contract, the drawings, specifications or statements / formats or quantities accompanying the same will be recognized; and, if **any such alterations are made, the bid will be void**.

D. SUBMISSION OF BIDS

16. **Submission of Bids:**

16.1 **Registration of Bidders on eProcurement Portal:**

All the bidders intending to participate in the tenders processed online are required to get registered (which is **free of cost**) on the centralized e-procurement portal **https://tripuratenders.gov.in**. For online enrolment for eProcurement as a bidder, the bidder has to go to tender home page, click on "**Online Bidder Enrollment"** link and just fill up the registration form online. On successful submission, the registered login ID can be used to login. Then login again and map the Digital Signature Certificate (DSC) with bidder's account, which complete the online enrolment process. Please visit the portal for more details.

16.2 **Obtaining a Digital Signature Certificate (DSC):**

16.2.1 The Bids submitted online should be encrypted and signed electronically with a DSC to establish the identity of the bidder bidding online. These DSC are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, TSECL of India.

16.2.2 The bidders may obtain **Class 3 DSC** from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities (CCA).

16.2.3 Bid for a particular tender must be submitted online using the DSC (Signing & Encryption). In case, during the process of a particular tender, if the **user loses his DSC** (*due to virus attack, hardware problem, operating system or any other problem*), he/she **will not be able to submit the bid online**. Hence, the users are advised to **keep a backup of the certificate** and also keep the **copies at safe place under proper security** (for its use in case of emergencies).

16.2.4 In case of online tendering, if the DSC, issued to the authorized user of a **firm**, is used for signing and submitting a bid, it will be considered equivalent to a no objection certificate/power of attorney /lawful authorization to that User. The **firm has to authorize a specific individual** through an **authorization certificate signed by all partners** to use the DSC as per **Indian Information Technology Act, 2000**. Unless the certificates are revoked, it will be assumed

to represent adequate authority of the user to bid on behalf of the firm in the department tenders as per Information Technology Act, 2000. The DSC of this authorized user will be binding on the firm.

16.2.5 **In case of any change in the authorization**, it shall be the responsibility of management / partners of the firm to inform the certifying authority about the change and to obtain the digital signatures of the new person / user on behalf of the firm / company. The procedure for application of a digital certificate however will remain the same for the new user.

16.2.6 The same procedure holds true for the authorized users in a **private/Public limited company**. In this case, the authorization certificate will have to be signed by the directors of the company.

16.2.7 In case of a **Consortium or Joint Venture (JV)**, if a company has authorized an individual as one of their DSC holders to submit bid on their behalf, the same is allowed. However, the bidder should **submit an authorization, signed by both parties as part of the bid document indicating the permission to participate in the Consortium or Joint Venture tender as a participant**.

16.2.8 **DSC of one company or agency cannot be used for uploading of bid documents by another company or agency**. **If it is used**, the same is **illegal** under Indian Information Technology Act, 2000 (**IT ACT**) and will **attract offenses** as per the provisions of the IT ACT & **rejection of bid/tender**.

16.2.9 **Bidders** participating in online tenders shall **check the validity of his/her DSC before participating in the online Tenders** at the e-procurement portal https://tripuratenders.gov.in.

16.3 The Bidders, who are desirous of participating, shall submit their Technical bids, Financial bids etc., in the Standard formats prescribed in the bid documents through the e-procurement portal https://tripuratenders.gov.in.

16.4 The Technical as well as Financial Bid, with all necessary softcopies of certificates, documents, BOQ are to be submitted by the bidder through e-procurement portal https://tripuratenders.gov.in. before the last date and time of bidding.

If any of the certificates, documents, etc., submitted by the Bidder is found to be false / fabricated / bogus, the bidder will be **disqualified for 1(one) year** and the Earnest Money will be forfeited. The **Bidder is liable** to be **Blacklisted** if **he/she repeats** the process of submitting/ furnishing false/ fake/fabricated documents.

16.5 **List of documents to be scanned and uploaded:**

16.5.1 **Documents to be kept in "My Document" folder of Bidder:** The following documents, as per standard format detailed in bid document, or as per standard dictated by Regulatory/ Statutory bodies, shall be scanned and uploaded along with the bid document as per requirements.

For ease of biding, **the bidders shall scan the following documents at 75-100 dpi resolution and upload them as per the folder structure provided** in his/her **"My Document"**, which is provided free of cost to all bidders, post his/her registration in the e-procurement portal https://tripuratenders.gov.in. This operation is expected to be completed, before commencement of actual biding by the bidder.

Provision of "My Documents" is available to bidders for uploading frequently required documents in advance. **However, uploading of any document in "My**

Documents" does not imply that the same is submitted along with any tender.

An indicative organization of **'My Document'** folder and the related documents is indicated here under.

Sl. No	Folder Name	Documents to be uploaded
1.	**BIS/Mfg. lic/ Dealership**	I. **Registration of the firm**/Registration as Civil Bidder/Partnership deed/ Articles of Association,
2.	**DNIT Documents**	II. **Downloaded DNIT** as a proof of acceptance of all term's conditions in the DNIT.
3.	**Experience /mfg. capacity**	III. **Details of value of Civil Engineering works executed** in each year during the last five financial years by the bidder duly supported with work done certificates **(Statement-I)**. IV. **Details of the existing commitments** i.e., work on hand and, yet to be completed as on the date of submission of the bid (duly supported with balance work to be done certificates) and works for which bids are submitted **(Statement No-II).**
4.	**Misc. document**	V. **Power of attorney/Authorization**, if applicable.
5.	**Financial details**	VI. **Bank Solvency Certificate** from a scheduled bank as per **Annexure-IV**
6.	**Tax related document**	VII. **GST registration certificate,PAN Card, Lavour license**
7.	**Technical details**	VIII. **Availability of Key Technical Personnel (Statement-III).**

Note:

*The **bidder, whose bid has been accepted,** shall be required to submit documents related to (i) **Programme Chart** (Time and progress), (ii) **Valid Labour License or, proof of applying for obtaining Labour License**, (iii) **Registration of employee/workers with EPFO** (Employees' Provident Fund Organisation) including **Provident Fund Code No.** (**applicable for Class-I Contractor**), (iv) **Registration of employee/workers with ESIC** (Employees' State Insurance Corporation) (**applicable for Class-I Contractor**) and (v) **Registration of employee/workers with BOCW** (Building and Other Construction Workers) **Welfare Board** (**applicable for Class-I Contractor**) **within the time period** specified in **'Schedule-F'.***

During actual bidding, the bidder shall select/ check these documents from his/ her "My Document", which will ensure completion of biding within the same session, even if the bidder is connecting to the e-procurement portal over a slow speed network.

16.5.2 **Documents required during actual Bidding:** In addition to the documents kept in "My Document" folder, the following documents are also to be uploaded to the e-Procurement portal during actual biding.

Technical Bid

I. **Checklist** as per **Annexure-I**.
II. **Tenderer's / Contractor's Certificate** as per **Annexure-II**.
III. **Bidder's Declaration** as per **Annexure-III**.

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IV. **Integrity Pact** as per **Annexure-V**

V. **Integrity Agreement** as per **Annexure-VI**

VI. **Scan copy** of the drawn **offline bank payment instrument** (as a single PDF file of 75-100 dpi resolution), against the related **Earnest Money** ***(for earnest money amount more than Rs.25.00 lakh)***

Financial Bid

I. Bill of Quantity (BOQ) - Schedule-A.

II. Tender Form: Tripura PWD Form-7

Note: **Bidder shall take separate printout** of the formats of Checklist (**Annexure-I**), Tenderer's / Contractor's Certificate (**Annexure-II**), Bidder's Declaration (**Annexure-III),** Bank Solvency (**Annexure-IV**), Integrity Pact (**Annexure-V**), Integrity Agreement (**Annexure-VI**) and **Statement- I to IV** (as mentioned above). He / She shall **fill the necessary information & put his/her physical signature with stamp/seal (mandatory), and then scan them into PDF (in 75-100 dpi resolution).** Finally, **those documents** should be **uploaded (with digital signing using DSC)** either in Bidder's "My Document" or actual bidding, as the case may be.

16.6 **If any of the certificates/documents submitted by the Bidder, found to be false / fabricated / bogus, the bidder will be disqualified for 1(one) year and their Earnest Money will be forfeited.** The **Bidder is liable** to be **Blacklisted** if **he/she repeats** the process of submitting/ furnishing false/ fake/fabricated documents.

16.7 **Procedure for filling MS Excel BOQ Sheet:**

Bidders are **advised to fill** the **Macro enabled MS Excel BOQ sheet** as per following instructions.

16.7.1 The bidder has to download the **BOQ / Financial Bid** (**Macro enabled MS Excel BOQ sheet)** containing rates (including Goods and Services Tax) along with tender documents and subsequent Addendum/Corrigendum/ Clarifications, if any, issued at a later stage. Bidders shall fill the required details/prices in BOQ, save it and upload the filled-in BOQ in the portal.

16.7.2 Bidder to note that there are **'White'** cells in the BOQ excel sheet (which is locked), which should not be modified by the bidder.

16.7.3 Bidders are advised strictly not to alter or change the BOQ format/ contents. Bidders are also advised not to paste any image file in the BOQ work sheet.

16.7.4 For **Percentage Rate Tender**, the bidder shall quote his "**Excess (+) / Less (-)**" overall bid percentage (**in figures only and limited to a maximum of 2 decimal places**) in Macro enabled MS Excel BOQ sheet with which he intends to execute the work. Thus, the total amount (for overall quoted bid percentage) as computed through Macro Enabled MS Excel BOQ Sheet would be the quoted offered amount for the work, which will be shown in figures & words automatically. **In case rates are quoted to more than 2 decimal places** then, the **amount quoted towards the tender shall be worked out for the rates quoted to first 2 decimal points without rounding off**. The "Percentage" quoted by the Bidder shall be applicable uniformly to all the rates of the items indicated in BOQ Sheet.

"Excess (+)" or **"Less (-)"** can be selected from the dropdown menu by clicking on the cell.

If any bidder wants to quote At Par i.e. 0.00%, the bidder may select "Excess (+)" or "Less (-)" from the dropdown menu by clicking on the cell and then **he can enter 0.00% in quoted percentage cell**. Then the total amount as computed through Macro Enabled MS Excel BOQ Sheet would be the quoted offered amount for the work which will be equal to total amount of cost put

to tender i.e. **At Par**.

16.7.5 Only **"Bidder's Name"** and "**Excess (+)/ Less (-) Percentage (for percentage rate tender)"** or "**Rate for each item** (**for item rate tender**)" are to be filled by the bidder in the designated "**Sky Blue Cells**".

16.7.6 If a **Bidder quotes nil rates against each item** in **item rate tender** or **does not quote any percentage** above/ below /at par on the total amount of the tender or any section/ sub head in **percentage rate tender**, the **tender** shall be treated as **invalid** and will not be considered as lowest tenderer.

16.7.7 Do not insert any additional sheet and any condition in BOQ excel sheet. Please do not temper the BOQ excel sheet.

16.8 **Tampering of Financial Bid (BOQ excel sheet) Documents:**

The following shall be considered as Tampering of BOQ documents:

i) Submission of Scanned copy or Photocopy of Financial Bid (BOQ).

ii) Submission of any file other than original Financial Bid (BOQ).

iii) Insertion of additional sheet(s) in BOQ Excel Sheet.

iv) Change in content or context of the original file.

v) **'Hacking' or 'Corrupting' or 'Change or Removal of password protection**' of BOQ sheet.

Such Tempered BOQ will be summarily rejected at the time of Tender Evaluation.

16.9 **Online Bid Submission and Confirmation:**

16.9.1 **Tender Search & Selection:**

All tenders available on the e-procurement portal can be searched by using the **"Search Active Tenders"** under **"Bid Management"** menu in Bidder's profile. Use any of the searching criteria to search your tender. For a refined search, enter e-Tender ID under **"Tender ID"** or enter Work Title under **"Work/Item Title"** and click Submit. The intended tender(s) should be selected by clicking on the check box & then **"Set Open Tender as Favorite"** to set tender as Favorite. The bid submission process will start by clicking the menu **"My Tenders"**.

16.9.2 **Payment of Bid Fee & Earnest Money:**

The online bid submission process will start by clicking the menu **"My Tenders".** In this menu, the bidder has to click **"Proceed for Bid Submission"** to enter the next stage **"Online Payment"** page. The **"Online Payment"** page will display the total Tender Fee (i.e. Bid Fee) & EMD Fee (i.e. Earnest Money). Then the bidder has to click **"Submit"** for submission of Tender Fee ***(online mode only)*** & EMD Fee ***(online mode)***; and the system will redirect to **"Online Payment Gateway" >> SBI Bank MOPS Window**. SBI MOPS will have **two option** for **Net Banking** – **"SBI" & "Other Banks"**. Bidder can choose any of the options as desired and can **complete the Online Payment Process**.

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While creating tender for **offline payment method for earnest money**, the "**Fee Payment Mode**" shall be selected as "**online**". The "**EMD Amount**" (i.e. earnest money) shall be selected as "**0" (zero)** in the tendering template.

So, **while submitting the bid online** *(for **earnest money** amount **more than ` 25.00 lakh**)*, **the bidder will find that the "EMD Amount" is showing as "0" (zero) in the payment window** in e-procurement portal. The **bidder shall ignore this "0" (zero) EMD Amount** in the e-procurement portal & **pay the full amount of earnest money** *(using any of the **offline payment instrument** as permitted)* **amount as indicated in Tripura PWD Form-6**.

16.9.3 **After completion of payment** of Bid Fee ***(online mode only)*** & Earnest Money ***(online or offline mode)***, the **bidder has to submit the Technical & Financial Bid** along with all the copies of documents in the electronic form only through e-procurement portal https://tripuratenders.gov.in. **Bidder has to ensure that their bid submission is complete in all respect by clicking** on the **"Freeze Bid"** button. **The uploaded documents would not be saved in the portal until "Freeze Bid" button is clicked.** For bids in which **"Freeze Bid" button has not been clicked**, will be **considered as bid not submitted** and **hence not appear during tender opening stage.**

16.9.4 **Any revision/amendment (i.e. resubmission) of bid or withdrawal of bid, after successful bid submission, shall be possible only up to the due date and time of submission of bid**. If bidder fails to complete the Online Bid Submission/Re-encryption stage on the stipulated date and time, his/her bid will be considered as bid not submitted, and hence not appear during tender opening stage.

16.9.5 **Bidder** in turn will **receive** a bid submission confirmation as **"Bid Acknowledgement"** against every **Successful Bid Submission or Resubmission** in 'Bid Acknowledgement Page'**.** Bidder shall take printout of the "Bid Acknowledgement" as a proof of successful bid submission & keep it in a file for future reference. **Successful submission of bid** can also be **verified under "My Bids" section.**

16.9.6 **Successful bid submission** in the e-procurement portal **means**, **the bids as uploaded** by the bidder **has been received and stored in the portal**. **Portal does not certify for its correctness.**

16.9.7 The **bidder should also ensure** that the **bid documents submitted** should be **free from virus or non-corrupt** and **if the documents could not be opened, due to virus/corruption, during Bid opening, the bid is liable to be rejected**.

16.9.8 The **Tender Inviting Authority** (TIA) **will not be held responsible** for any sort of **delay or the difficulties faced** during the **submission of bids online** by the bidders **due to any local/internet/banking/financial/other issues etc**. **Bidders are advised to submit the bid well advance before the last date & time for bid submission.**

16.9.9 The **time displayed in the Server Clock** at the top of the e-procurement portal, will be valid for all actions of bid submission, bid opening etc. The Time followed in this portal is as per Indian Standard Time (IST) which is GMT+5:30. The bidders should adhere to this time during bid submission.

16.9.10 **Bidders participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online Tenders at the e-procurement portal https://tripuratenders.gov.in.**

17. **Last date / time for Submission of the Bids:**

17.1 Bids must be submitted before the last date and time of bidding as specified in NIT.

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17.2 The Tender Inviting Authority may **extend the dates** for receipt of bids by issuing an amendment/corrigendum through online process of **"Create Corrigendum"** tool in e-procurement portal, in which case all rights and obligations of the General Manager (Technical), TSCEL and the Bidders will remain same as previously.

18. **Late Bids:**

18.1 **The e-procurement portal https://tripuratenders.gov.in will not allow any Bidder to attempt bidding, after the scheduled date and time prescribed in NIT.**

E. BID OPENING AND EVALUATION

19. **Technical Bid opening:**

19.1 The **Technical bids** will be **opened online** by the pre assigned **Bid openers [minimum 2(two) in numbers out of 3(three) bid opener (as assigned at time of online tender creation)]** on behalf of the concerned Tender Inviting Authority (TIA), at the time and date as specified in the bid documents. All the Statements, documents, certificates, Demand Draft etc., as submitted/uploaded by the Bidders through online, will be downloaded, printed and verified for technical evaluation. The clarifications, particulars, if any, required from the bidders, will be obtained by addressing the bidders. The technical bids will be evaluated against the specified parameters / criteria same as in the case of conventional bids and the technically qualified bidders will be identified. **The result of Technical bids evaluation will be displayed in the e- procurement portal https://tripuratenders.gov.in and all the Bidders who participated in the Bids can access the same.**

The Bidders or their authorized representatives can be present at the time of opening of the bids. Either the Bidder himself or one of his representatives with proper authorization only will be allowed at the time of bid opening. If any of the Bidder is not present at the time of opening of bids, the Tender Inviting Authority will, on opening the bid of the absentee Bidder, reads out and record the deficiencies if any, which shall be binding on the Bidder.

The bidder can view online bid opening LIVE in the e-procurement portal from anywhere.

19.2 The Minutes of the Technical bid opening shall be recorded and signed by the Tender Inviting Authority (TIA) as well as Bidders or their Authorized Representatives present and the same shall be uploaded and can be accessed in the e-procurement portal.

20. **Clarification on the Technical Bid:**

20.1 The Tender Inviting Authority (TIA) may call upon any Bidder for clarification on the statements, documentary proof relating to the technical bid. The clarification called for from the Bidders (through official letter) shall be furnished within the stipulated time, which shall not be more than **10(ten) days**.

20.2 The Bidder if so desirous, shall agree in writing to furnish the clarification called for within the stipulated time and, for **disqualification and rejection of his bid in the event of failure to do so**.

21. **Evaluation of Technical Bids and Determination of Responsive/Non-Responsive Bid:**

21.1 The **"Tender Inviting Authority (TIA)"** will examine/evaluate the technical bids (*on the basis of guidelines & conditions given anywhere in the tender/bid documents*) submitted by each bidder by making detailed **"Comparative Statement (CS)"** and determine whether each Bidder is satisfying or non-satisfying the eligibility criteria as prescribed in the bid document. Based on technical bid documents & **CS** as submitted by TIA, the **"Tender Evaluation Committee (TEC)"** will decide and declares the bidder as technically responsive or non-responsive.

21.2 If the technical bid of a Bidder is not satisfying any of the eligibility criteria as prescribed in the bid document, the **TEC** will reject it. However, the **"Tender Accepting Authority (TAA)"** detects any error in the evaluation of technical bids done by **TEA**, the **TAA** while returning the bids may direct the **TEC** as the case may be, to re-evaluate the bids.

21.3 If any alteration is made by the Bidder in the bid documents, the conditions of the contract, the drawings, specifications or statements / formats or quantities the bid will be rejected.

21.4 **Details of Tender Evaluation Committee** (i.e. chairperson & members) & the **"Minutes of Meeting"** [of **technical bid evaluation** by the "Tender Evaluation Committee"] shall be **uploaded in the e-procurement portal https://tripuratenders.gov.in** and all the bidders can access the same.

21.5 **Responsive Bid:**

Some important points on the **basis of which** a technical bid may be **declared as Responsive** are given below:

21.5.1 The technical bid submitted by the bidder, is in the prescribed format & satisfying the eligibility & other criteria as per guidelines & conditions given anywhere in the tender/bid documents.

21.6 **Non-Responsive Bid:**

Tenders that do not meet the basic requirements specified in the bid documents are to be **treated as non-responsive and ignored**. **Some important points** on the **basis of which** a technical bid may be **declared as Non-Responsive** are given below:

21.6.1 The technical bid submitted by the bidder, is not in the prescribed format, or is not having the required documents as mentioned in **Para. No. 2 of SITB** as **qualification criteria**, or is unsigned or not signed as per the stipulations in the bid document;

21.6.2 If any alteration is made by the Bidder in the submitted bid documents, the conditions of the contract, the drawings, specifications or statements / formats or quantities.

21.6.3 The required Bid Fee & Earnest Money has not been provided or exemption from Earnest Money is claimed without acceptable proof of exemption;

21.6.4 The bidder is not eligible to participate in the bid as per laid down eligibility criteria (example: the tender enquiry condition says that the bidder has to be an enlisted contractor but the tenderer is not an enlisted contractor);

21.6.5 The tenderer has quoted for goods manufactured by a different firm without the required authority letter from the proposed manufacturer;

21.6.6 The bid departs from the essential requirements specified in the bidding document (for example, the tenderer has not agreed to give the required performance guarantee); or

21.6.7 Against a schedule in the list of requirements in the tender enquiry, the tenderer has not quoted for the entire requirement as specified in that schedule (example: in a schedule, it has been stipulated that the tenderer will supply the equipment, install and commission it and also train the purchaser's operators for operating the equipment. The tenderer has, however, quoted only for supply of the equipment).

22. **Financial Bid Opening:**

22.1 Only the **Financial Bids** of qualified bidders, whose technical bids are found responsive, will be **opened online by the authorized Bid openers [minimum 2(two) in numbers out of 4(four) bid opener (as assigned at time of online tender creation)] on behalf of** the concerned **Dy**. **General Manager, TSCEL** at the time, date and venue as specified in the bid documents**. The result will be seen in the e-procurement portal https://tripuratenders.gov.in by all the bidders who participated in the bids. However, qualified bidders or their authorized representatives may remain present at the Financial Bid opening place. The bid offers are read out, minutes recorded, and the signatures of the Bidders present are taken in the minutes.**

22.2 The **Financial Bid of the Bidders**, **whose technical bids** has been **found Non-Responsive, will not be opened and ignored.**

22.3 Bids shall be scrutinized in accordance with the conditions stipulated in the Bid document. In case of any discrepancy of non-adherence Conditions the Tender Accepting Authority shall communicate the same which will be binding on both the bid Opening authority and the Bidder. In case of any ambiguity, the decision taken by the Tender Accepting Authority on bids shall be final.

23. **Evaluation of Financial Bid and Comparison of Financial Bids:**

23.1 After opening of financial bid, the **"Tender Inviting Authority (TIA)"** will examine/evaluate the financial bids (*on the basis of guidelines & conditions given anywhere in the tender/bid documents*) submitted by each bidder by making detailed **"Comparative Statement (CS)"**. Based on financial bid documents & **CS** as submitted by **TIA**, the **"Tender Evaluation Committee (TEC)"** will decide the **reasonableness** of quoted percentage/item rates and the **Bid Rank** of the bidder such as lowest rate quoted bidder (L1), 2nd lowest rate quoted bidder (L2), 3rd lowest rate quoted bidder (L3) etc. based on online quoted amount of bidder in BOQ sheet.

23.2 **TEC** has to make **formal recommendation for Award of Contract** to the bidder whose bid has been determined to be **responsive and the lowest (L1) evaluated bid**. These **recommendations are submitted for approval** to the **"Tender Accepting Authority (TAA)". TAA** shall **approve and accept the tender** in **accordance with** the **latest Delegation of Financial Power Rules, Tripura** (**DFPRT**) in force.

23.3 However, the **TAA** detects any error in the evaluation of financial Bids done by **TEC**, the **TAA** while returning the bids may direct the TEC as the case may be, to re-evaluate the bids.

24. **Discrepancy in Quoted Bid Percentage/Item Rate:**

24.1 Bids shall be scrutinized in accordance with the conditions stipulated in the Bid document. For **Percentage Rate Tender**, the bidder shall **quote** his "**Excess (+) / Less (-)**" overall bid percentage (**in figures only**) in Macro enabled MS Excel BOQ sheet. Thus, the total amount (for overall quoted bid percentage) as computed through Macro Enabled MS Excel BOQ Sheet would be the **Quoted Amount** for

the work, which will be **shown in figures & words automatically**. For **Item Rate Tender**, bidder shall **quote rate** for **each item in figures only**. BOQ (in MS-Excel format) sheet shall be open with Macro Enabled for automatic conversion from figures to words. Thus, the total amount (for all the quoted items) as computed through MS-Excel Sheet would be the **Quoted Amount** for the work, which will be shown in **figures & words automatically**.

24.2 The quoted percentage/item rate and automatically calculated quoted total amount through Macro Enabled MS Excel BOQ Sheet can be verified by the bidder before uploading the BOQ in the portal using digital signing. **Generally, in online e-tender, chances of discrepancy in quoted bid percentage/item rates are NIL.** In case of any ambiguity, the decision taken by the Tender Accepting Authority on Bidders shall be final.

25. **Non-conformities between Figures and words:**

Generally, this situation normally does not arise in case of online e-tender. Sometimes, non-conformities/errors are also observed in responsive tenders between the quoted prices in figures and in words. This should be taken care of in the manner indicated below:

25.1 If, in the price structure quoted for the required goods, there is discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly;

25.2 If there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected; and

25.3 If there is a discrepancy between words and figures, the amount in words shall prevail;

Such a discrepancy in an offer should be conveyed to the tenderer asking him to respond by a target date and if the tenderer does not agree to Procuring Entity's observation, the tender is liable to be rejected.

26. **Financial Bid Evaluation Result:**

26.1 The **'BOQ Comparative Chart'** generated online & displayed by the system through the e-procurement portal, after the opening of Financial Bid, will show the amount calculated based on percentage/item rate quoted by the bidders. **The bidder shown as lowest (L1) in the bid rank of the 'BOQ Summary Details', may not be the lowest always**. **TIA** will prepare a **"Comparative Statement (CS)"** considering all parameters as per conditions given in the bid document. **TEC** will decide the bid rank in the CS. This **CS, declaring lowest bidder (L1)** and **"Minutes of Meeting"** [of Financial Bid Evaluation by the "Tender Evaluation Committee"] **will be displayed in the e-procurement portal subsequently.**

26.2 **Details of Tender Evaluation Committee** (i.e. chairperson & members) & the **"Minutes of Meeting"** [of **financial bid evaluation** by the "Tender Evaluation Committee"] shall be **uploaded in the e-procurement portal https://tripuratenders.gov.in** and all the bidders can access the same.

26.3 It is advisable that **TIA**, while completing the online process of Financial Evaluation, should select the **"Status"** from the list as **"Accept"** in **"Bid List"** section **for all bidder**. This process **gives wider choice** to **TIA** for selecting lowest accepted rate quoted bidder (L1 bidder) in **"Award of Contract (AOC)"** stage in case L1/L2 bidder withdraws his bid before finishing the online **AOC.**

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27. **Selection of Bidder among the Lowest & Equally Quoted Bidders:**

Selection of Bidder among the lowest & equally quoted Bidders will be done in the following process:

27.1 The Bidder whose **Bid Capacity is Higher** will be selected.

27.2 In case the **bid capacity is also same**, the Bidder whose **Annual Turnover is Higher** will be selected.

27.3 Even if the **criteria incidentally become the same**, the **higher turnover on similar works** and thereafter **more machinery available** for the work and then the **clean track record including litigation aspects** will be considered for selection.

Note: ***Above method can be applied for Two Bid System of tendering*** *with the support of available online submitted documents. But for* ***Single Bid Tender****, the supporting documents which are not available with the "Tender Evaluation Committee" for calculation/representation of Bid Capacity, Annual Turnover / machinery available for the work, track record regarding litigation aspects etc.,* ***shall be asked to the bidder by TIA to submit within a fixed time through official letter****.*

28. **Process to be Confidential:**

28.1 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 by the Tender Accepting Authority (TAA). Any effort by a Bidder to influence the processing of Bids or award decisions may result in the **rejection of his Bid**.

28.2 No Bidder shall contact the TAA or any authority concerned with finalization of bids 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 TAA, it should do so in writing.

28.3 Before recommending / accepting the bid, the Tender Evaluation Committee (TEC) /Tender Accepting Authority (TAA) shall verify the correctness of certificates submitted to meet the eligibility criteria and specifically experience. The authenticated agreements of previous works executed by the lowest Bidder may be called for.

29. **Discrepancies between original and additional/scanned/uploaded copies of a Tender:**

Discrepancies can be observed in responsive tenders **between** the **original copy** *[if asked to submit by Tender Inviting Authority (TIA) for document verification purpose]* and **additional/scanned/uploaded copies** of the same tender. **In such a case, the text, and so on, of the original copy will prevail**. Such a discrepancy in an offer should be conveyed to the tenderer asking him to respond by a target date and if the tenderer does not agree to TIA's observation, the **tender is liable to be rejected**. In e-Procurement there could be discrepancies between the uploaded scanned copies and the Originals submitted by the bidder. **However normally no submission of original payment documents in physical format, should be asked for in e-Procurement with online payment facility.**

30. **Minor Infirmity/Irregularity/Non-conformity:**

During the preliminary examination, some minor infirmity and/or irregularity and/or non- conformity may also be found in some tenders. Such minor issues

could be a missing pages/ attachment or illegibility in a submitted document; non-submission of requisite number of copies of a document. There have been also cases where the bidder submitted the amendment Bank Guarantee, but omitted to submit the main portion of Bid Document.

The court ruled that this is a minor irregularity. Such minor issues may be waived provided they do not constitute any material deviation and financial impact and, also, do not prejudice or affect the ranking order of the tenderers. Wherever necessary, observations on such 'minor' issues (as mentioned above) may be conveyed to the bidder by the **Tender Inviting Authority (TIA)** through registered letter/ speed post, and so on, asking him to respond by a **within 10(ten) days** from the date of issue of the letter, also mentioning therein that, if the bidder does not conform **TIA**'s view or respond by that specified date, his/her **tender will be liable to be rejected**. Depending on the outcome, such tenders are to be ignored or considered further.

31. **Clarification of Bids/ Shortfall Documents:**

During evaluation and comparison of bids, the **Tender Inviting Authority (TIA)** may, at his discretion, ask the bidder for clarifications on the bid. The request for clarification letter shall be given in writing by registered/ speed post by the **Tender Inviting Authority (TIA)**, asking the bidder to respond **within 10(ten) days** from the date of issue of the letter, and also mentioning therein that, if the bidder does not comply or respond by the date, **his/her tender will be liable to be rejected**. **Depending on the outcome, such tenders are to be ignored or considered further**. **No change in prices or substance of the bid including specifications, shall be sought, offered or permitted.**

No post-bid clarification at the initiative of the bidder shall be entertained. **The shortfall information/ documents should be sought only in case of historical documents which pre-existed at the time of the tender opening and which have not undergone change since then.** These should be called only on basis of the recommendations of the "Tender Evaluation Committee". (Example: if the Permanent Account Number, GSTN number has been asked to be submitted and the tenderer has not provided them, these documents may be asked for with a target date as above).

So far as the submission of documents is concerned with regard to qualification criteria, after submission of the tender, only related shortfall documents should be asked for and considered. (For example, if the bidder has submitted a contract without its completion/ performance certificate, the certificate can be asked for and considered.) **However, no new contract should be asked for so as to qualify the bidder.**

F. AWARD OF CONTRACT

32. **Award Criteria:**

32.1 The **Tender Accepting Authority (TAA)** will award or recommend for award of the contract to the Bidder who has been found Technically qualified (i.e. responsive) as per the bid conditions and whose Financial Bid Rate is lowest (L1), unless there is some valid objection.

32.2 TAA shall accept the tenders in accordance with the **latest Delegation of Financial Power Rules, Tripura (DFPRT)** in force.

33. **Tender Accepting Authority's (TAA) reserves the right to Accept any Bid and to Reject any or all Bids:**

33.1 Notwithstanding **Para 32 above**, the Tender Accepting Authority (TAA) reserves the right to accept or reject any Bid, and to cancel the Bidding process and reject all Bids, at any time prior to the Award of Contract, without thereby incurring any liability to the effected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the reasons for such action.

33.2 The Bidder is liable to be **disqualified for 1(one) year** if he/she has;

33.2.1 Furnished false / fake / fabricated particulars in the forms, statements and /annexures submitted in proof of the qualification requirements and/or

33.2.2 Not turned up for entering into agreement, when called upon in other works in the Department.

33.2.3 Even while execution of the work, if found that the work was awarded to the Contractor based on false / fake / fabricated certificates of experience, action will be taken as per **latest Tripura PWD Enlistment Rule in force**.

33.3 The **Bidder is liable** to be **Blacklisted** if he/she **repeats** the process of submitting/ furnishing false/ fake/fabricated documents in future.

34. **Notification of Award, Award of Contract and Signing of Agreement:**

34.1 The **Bidder, whose Bid has been accepted,** will be notified by the **TAA** prior to expiration of the Bid validity period. After the Bid for the work has been accepted, the same shall be communicated to the contractor by the **TIA** in a prescribed format in **Appendix-I** for submission of the **Performance Guarantee (PG)** by the contractor. The time allowed for submission of performance guarantee within a period of **15 (Fifteen) days** from the date of issue of **Letter of Acceptance (LOA)** (time period as mentioned in **Schedule-F**), *[however, depending upon the magnitude and / or urgency of the work, **TAA** can reduce this period]*. **This period can further be extended** at the **written request of the contractor** by the Engineer-in-charge for a **maximum period** of **7 (seven) days** with a **Late Fee @ 0.1% per day of performance guarantee amount**.

The date of **start/commencement of the work** may accordingly be fixed reckoning it after **7 to 21 days** from the date of issue of Letter of Acceptance, depending upon the magnitude and / or urgency of the work as per **Schedule- F**.

34.2 After submission of the performance guarantee by the contractor in the prescribed format in **Appendix-III**, an **intimation letter** to commence the work & Signing of Agreement (i.e. **"Letter of commencement of Work"**) shall be communicated to the contractor by **TIA** in prescribed format in **Appendix-II**.

34.3 The said **copy of "Letter of Commencement of Work" shall be uploaded in e-procurement portal to complete the online process of "Award of Contract (AOC)"**. While **completing the online AOC process**, the '**Radio Button'** against the **bidder's name** whose **bid** has been **accepted, shall be 'selected'** with other necessary data in relevant field. The bidder will get notified regarding AOC through auto-generated e-mail/SMS via. e-procurement portal.

34.4 The **full amount** of the **Earnest Money** of **all bidders (technically responsive & non-responsive) including L1** (lowest rate quoting bidder) will **automatically be returned back to their respective bank account *(in case of online payment mode)*** or, **will be released individually by the Tender Inviting Authority (TIA) *(in case of offline payment mode)***, once the **online process of "Award of Contract" (AOC) has been completed or tender process has been cancelled** in e-procurement portal.

Dy. General Manager,
Central Civil Division
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35. **Corrupt or Fraudulent or Anti-competitive or Coercive Practices:**

35.1 The Procuring Entity require that the bidders / tenderers/ suppliers, should observe the highest standard of ethics and should not indulge in the following prohibited practices, either directly or indirectly, at any stage during the procurement process or during execution of resultant contracts. In pursuance of this policy, the Procuring Entity

(a) Define for the purposes of the provision, the terms set forth below as follows:

(i) **"Corrupt practices"** means making offers, solicitation or acceptance of bribe, rewards or gifts or any material benefit, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process or contract execution; and

(ii) **"Fraudulent practice**" means any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. This includes making false declaration or providing false information for participation in a tender process or to secure a contract or in execution of the contract; and

(iii) **"Anti-competitive practice"** means any collusion, bid rigging or anti-competitive arrangement, or any other practice coming under the purview of The Competition Act, 2002, between two or more bidders (prior to or after Bid submission), with or without the knowledge of the procuring entity, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition; and

(iv) **"Coercive practice"** means harming or threatening to harm, persons or their property to influence their participation in the procurement process or affect the execution of a contract;

(b) **Will reject a proposal for award of contract** if it determines that the Bidder recommended for award has engaged in 'corrupt or fraudulent or anti-competitive or coercive practices' in competing for the contract in question.

(c) **Will disqualify the agency/firm for 3(three) year**, if at any time determines that the agency/firm has engaged in 'corrupt or fraudulent or anti-competitive or coercive practices' in competing for, or in executing a Contract.

(d) Furthermore, Bidders shall be aware of the provisions stated in the General Conditions of Contract (GCC).

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Central Civil Division
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IGBC Green New Building Rating System V3.0

The Indian Green Building Council (IGBC) has launched 'IGBC Green NewBuildings rating system® to address the national priorities. This rating programme is a tool which enables the designer to apply green concepts and reduce environmental impacts that are measurable. The rating programme covers methodologies to cover diverse climatic zones and changing lifestyles

Certification Levels

The threshold criteria for certification/pre-certification levels are as under:

Certification Level	Owner-occupied Buildings	Tenant-occupied Buildings	Recognition
Certified	40 - 49	40 - 49	Best Practices
Silver	50 - 59	50 - 59	Outstanding Performance
Gold	60 - 74	60 - 74	National Excellence
Platinum	75 - 100	75 - 100	Global Leadership

IGBC will recognise Green New Buildings that achieve one of the rating levels with a formal letter of certification and a mountable plaque.

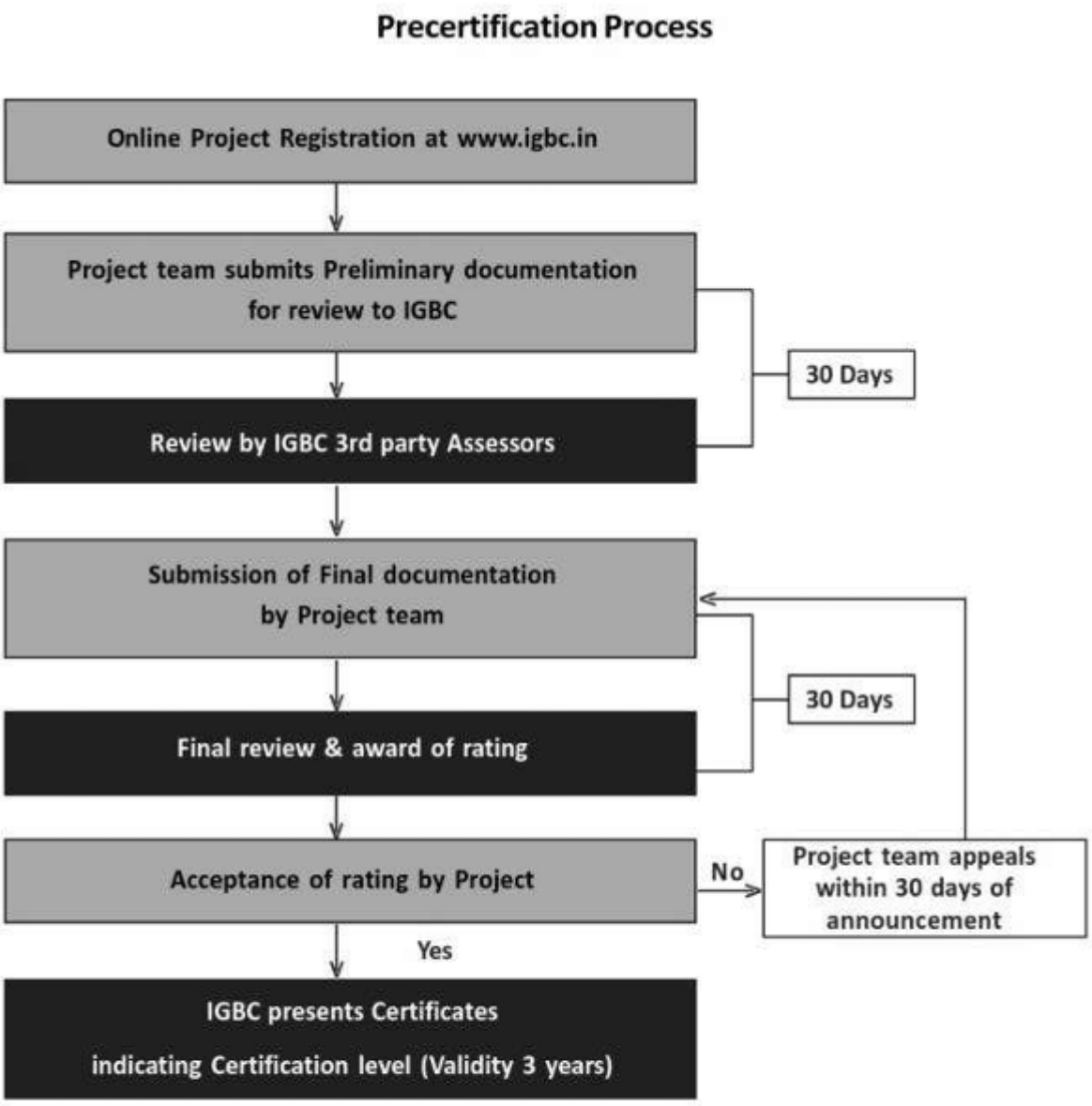
The project is targeting the Platinum level of certification under IGBC Green New Buildings rating System

IGBC Green New Building Rating System addresses green features under the following 7 credit categories –

1. Sustainable Architecture and Design
2. Site Selection and Planning
3. Water Conservation
4. Energy Efficiency
5. Building Materials and Resources
6. Indoor Environmental Quality
7. Innovation and Development

The guidelines detailed under each mandatory requirement & credit enable the design and construction of new buildings of all sizes and types. Different levels of green building certification are awarded based on the total credits earned. However, every Green New Building should meet certain mandatory requirements, which are non-negotiable. A Detail scorecard is given below:

Process –



Scorecard -

As project targeting for platinum, every credit point is crucial as we have to achieve more than 75 points out of 100. And requirements of prerequisite credits are mandatory. Please have a look at the scorecard attached below for a better idea of IGBC Green New Buildings Rating System.

Dy. General Manager,
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IGBC Green New Buildings Rating System Checklist		Points Available	
		Owner-occupied Buildings	Tenant-occupied Buildings
Modules		**100**	**100**
Sustainable Architecture and Design		**5**	**5**
SA Credit 1	Integrated Design Approach	1	1
SA Credit 2	Site Preservation	2	2
SA Credit 3	Passive Architecture	2	2
Site Selection and Planning		**14**	**14**
SSP Mandatory Requirement 1	Local Building Regulations	Required	Required
SSP Mandatory Requirement 2	Soil Erosion Control	Required	Required
SSP Credit 1	Basic Amenities	1	1
SSP Credit 2	Proximity to Public Transport	1	1
SSP Credit 3	Low-emitting Vehicles	1	1
SSP Credit 4	Natural Topography or Vegetation	2	2
SSP Credit 5	Preservation or Transplantation of Trees	1	1
SSP Credit 6	Heat Island Reduction, Non-roof	2	2
SSP Credit 7	Heat Island Reduction, Roof	2	2
SSP Credit 8	Outdoor Light Pollution Reduction	1	1
SSP Credit 9	Universal Design	1	1
SSP Credit 10	Basic Facilities for Construction Workforce	1	1
SSP Credit 11	Green Building Guidelines	1	1
Water Conservation		**18**	**19**
WC Mandatory Requirement 1	Rainwater Harvesting, Roof & Non-roof	Required	Required
WC Mandatory Requirement 2	Water Efficient Plumbing Fixtures	Required	Required
WC Credit 1	Landscape Design	2	2
WC Credit 2	Management of Irrigation Systems	1	1
WC Credit 3	Rainwater Harvesting, Roof & Non-roof	4	4
WC Credit 4	Water Efficient Plumbing Fixtures	5	5
WC Credit 5	Wastewater Treatment and Reuse	5	5
WC Credit 6	Water Metering	1	2

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Modules		Points Available	
		Owner-occupied Buildings	Tenant-occupied Buildings
Energy Efficiency		**28**	**30**
EE Mandatory Requirement 1	Ozone Depleting Substances	Required	Required
EE Mandatory Requirement 2	Minimum Energy Efficiency	Required	Required
EE Mandatory Requirement 3	Commissioning Plan for Building Equipment & Systems	Required	Required
EE Credit 1	Eco-friendly Refrigerants	1	1
EE Credit 2	Enhanced Energy Efficiency	15	15
EE Credit 3	On-site Renewable Energy	6	8
EE Credit 4	Off-site Renewable Energy	2	2
EE Credit 5	Commissioning, Post-installation of Equipment & Systems	2	2
EE Credit 6	Energy Metering and Management	2	2
Building Materials and Resources		**16**	**16**
BMR Mandatory Requirement 1	Segregation of Waste, Post-occupancy	Required	Required
BMR Credit 1	Sustainable Building Materials	8	8
BMR Credit 2	Organic Waste Management, Post-occupancy	2	2
BMR Credit 3	Handling of Waste Materials, During Construction	1	1
BMR Credit 4	Use of Certified Green Building Materials, Products & Equipment	5	5
Indoor Environmental Quality		**12**	**9**
IEQ Mandatory Requirement 1	Minimum Fresh Air Ventilation	Required	Required
IEQ Mandatory Requirement 2	Tobacco Smoke Control	Required	Required
IEQ Credit 1	CO_2 Monitoring	1	1
IEQ Credit 2	Daylighting	2	2
IEQ Credit 3	Outdoor Views	1	1

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Modules		Points Available	
		Owner-occupied Buildings	Tenant-occupied Buildings
IEQ Credit 4	Minimise Indoor and Outdoor Pollutants	1	1
IEQ Credit 5	Low-emitting Materials	3	3
IEQ Credit 6	Occupant Well-being Facilities	1	-
IEQ Credit 7	Indoor Air Quality Testing, After Construction and Before Occupancy	2	-
IEQ Credit 8	Indoor Air Quality Management, During Construction	1	1
Innovation and Development		**7**	**7**
ID Credit 1	Innovation in Design Process	4	4
ID Credit 2	Optimisation in Structural Design	1	1
ID Credit 3	Waste Water Reuse, During Construction	1	1
ID Credit 4	IGBC Accredited Professional	1	1

The threshold criteria for certification levels are as under:

Certification Level	Owner-occupied Buildings	Tenant-occupied Buildings	Recognition
Certified	40 - 49	40 - 49	Best Practices
Silver	50 - 59	50 - 59	Outstanding Performance
Gold	60 - 74	60 - 74	National Excellence
Platinum	75 -100	75 - 100	Global Leadership

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

FORMS OF QUALIFICATION

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

Annexure –I

CHECKLIST TO ACOMPANY THE BID

Sl. No.	Description	Whether Submitted (Yes/No)	Whether Required to be submitted	
			In case of Single Bid Tender	In case of Two Bid Tender
1.	Documents relating to the **Registration of the firm**, Registration as Civil Contractor, Partnership deed, Articles of Association under appropriate class.	Yes / No	**Yes**	**Yes**
2.	**GST registration certificate**.	Yes / No	**Yes**	**Yes**
3.	**Downloaded DNIT** as a proof of acceptance of all term's conditions in the DNIT.	Yes / No	**Yes**	**Yes**
4.	**Details of value of Civil Engineering works executed** in each year during the last five financial years by the bidder duly supported with work done certificates **(Statement-I)**.	Yes / No	**No**	**Yes**
5.	**Details of the existing commitments** i.e., work on hand and, yet to be completed as on the date of submission of the bid (duly supported with balance work to be done certificates) and works for which bids are submitted **(Statement No-II).**	Yes / No	**No**	**Yes**
6.	Availability of **Key Technical Personnel (Statement-III).**	Yes / No	**As per SITB Para. 2.3.B.(i)**	**Yes**
7.	**Tenderers / Contractor's Certificate** as per **Annexure-II.**	Yes / No	**Yes**	**Yes**
8.	**Declaration of the Bidder** as per **Annexure-III.**	Yes / No	**Yes**	**Yes**
9.	**Bank Solvency Certificate** as per **Annexure-IV.**	Yes / No	**As per SITB Para. 2.3.B.(ii)**	**Yes**
10.	**Integrity Pact** as per **Annexure-V.**	Yes / No	**Yes**	**Yes**
11.	**Integrity Agreement** as per **Annexure-VI.**	Yes / No	**Yes**	**Yes**
12.	**Power of attorney/Authorization** (including the **authorization of DSC user**), if applicable.	Yes / No	**Yes**	**Yes**
13.	**Scan copy** of the drawn **offline bank payment instrument**, against the related **Earnest Money** *(for earnest money amount more than `25.00 lakh)*	Yes / No	**No**	**Yes** *(as the case may be)*
14.	**Corrigendum**, if any.	Yes / No	**Yes**	**Yes**

Note:

1. *The **bidder, whose bid has been accepted,** shall be required to submit documents related to (i) **Programme Chart** (Time and progress), (ii) **Valid Labour License or, proof of applying for obtaining Labour License**, (iii) **Registration of employee/workers with EPFO** (Employees' Provident Fund Organisation) including **Provident Fund Code No. (applicable for Class-I Contractor**), (iv) **Registration of employee/workers with ESIC** (Employees' State Insurance Corporation) (**applicable for Class-I Contractor**) and (v) **Registration of employee/workers with BOCW** (Building and Other Construction Workers) **Welfare Board** (**applicable for Class-I Contractor**) **within the time period** specified in **'Schedule-F'.***

Signature of the Bidder

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

Annexure –II

TENDERERS / CONTRACTOR'S CERTIFICATE

1. I/We hereby declare that I/We have perused in detail and examined closely the Standard Specifications of TSECL of Tripura, all clauses of the preliminary specifications with all amendments and have either examined all the standards specifications or will examine all the standard specifications for items for which I/We tender, before I/We submit such tender and agree to be bound and comply with all such specifications for this agreement.
2. I/We certify that I/We have inspected the site of the work before quoting my "percentage rate on estimated cost put to tender in BOQ sheet (for percentage rate tender)" or, "item rate against each item in BOQ sheet (for item rate tender)". I /We have satisfied about the availability of working & storage space at site and transport facilities for materials.
3. I/We am/are prepared to furnish detailed data in support of all my quoted rates, if and when called upon to do so without any reservations.
4. I/We hereby declare that I/We will **not claim during pendency of the contract or in arbitration for idle labour and/or idle machinery etc. Similarly, no claim shall be entertained for business loss or any such loss.**
5. a) I/We declare that I/We will procure the required construction materials and use for the work after approval of the Engineer-in-Charge. The responsibility for arranging and obtaining the land for borrowing or exploitation in any other way shall rest with me/us for the materials for construction, I/WE shall ensure smooth and un-interrupted supply of materials.

   b) I/We declare that the responsibility for arranging and obtaining the land for disposal of spoil/soil not useful for construction purposes shall rest with me/us.

   c) I/We declare that I/We shall not claim any compensation or any payment for the land so arranged for disposal of soil and the land for borrow area. My/our quoted "percentage rate on estimated cost put to tender in BOQ sheet (for percentage rate tender)" or, "item rate against each item in BOQ sheet (for item rate tender)", are inclusive of the land so arranged and I/We will hand over the land so arranged for disposal of soil to; the department after completion of work.
6. I/We declare that I/We will execute the work as per the milestone programme, and if I/We fail to complete the work as per the mile stone programme I shall abide by the condition to recover liquidated damages as per the tender conditions.
7. I/We declare that I/We will abide by the mechanism for settlement of disputes as per the tender conditions.

Signature of the Bidder

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

Annexure-III

DECLARATION

I / we, have gone through carefully all the Bid conditions and solemnly declare that I / we will abide by any penal action such as disqualification or black listing or termination of contract or any other action deemed fit, taken by, the Department against us, if it is found that the statements, documents, certificates produced by us are false / fabricated.

I / we hereby declare that, I / WE have not been blacklisted / debarred / Suspended / demoted in any department in Tripura or in any State of India due to any reasons.

Signature of the Bidder

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

Annexure-IV

FORM OF SOLVENCY CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information Mr./Sri …… having marginally noted address, a customer of our bank are/is respectable and can be treated as good for any engagement up-to a limit of Rs…… (Rupees……).
This certificate is issued without any guarantee or responsibility on the Bank or any of the officers.

Ref. No: **Date of Issue:**

(Signature)
for the Bank
With Name of officer & official seal
with contact No.

NOTE:-

1. *In case of partnership firm, certificate to include names of all partners as recorded with the Bank.*
2. ***Bank solvency should not be older than 180 (one hundred and eighty) days*** *(i.e. Validity of Bank Solvency) ending on the start date for download of tender documents.*

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

STATEMENT – I

Details of value of "Civil Engineering Works Executed" in each year during the last five financial years by the Bidder.

Sl. No.	Financial Year	Value of Civil Engineering Works (in Rs.)

Note: Attach certificate(s) issued by the General Manager (Technical), TSCEL/Employer concerned or Chartered Accountant showing work wise /year wise value of work done in respect of all the works executed by the Bidder during last five financial years.

Signature of the Bidder

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

Supporting Work Wise / Year Wise Breakup Calculation Sheet for "Statement-I".

Sl. No.	Name of Work	Breakup of Value of Civil engineering Works for the last Five (5) Financial Year					Total Value of Work	Work Full/Part Work Completion Certificate attached (Yes/No)
		1st Year	2nd Year	3rd Year	4th Year	5th Year		
TOTAL								

Note: **1. "Civil Engineering Works Executed" includes "works completed" as well as "works in progress" by the Bidder during last five financial years.**

2. Attach certificate(s) issued by the Executive Engineer/Employer concerned or Chartered Accountant.

Signature of the Bidder

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

STATEMENT – II

Details of Existing Commitments.

Details of works on hand and, yet to be completed as on the date of submission of the Bid and works for which Bids have been submitted are to be furnished.

A) Existing Commitments on ongoing works:

Sl. No.	Name of work	Address of Agreement Concluding authority	Agreement No. & Date	Value of contract	Stipulated period of completion	Value of work done so far.	Balance Value of works to be completed	Anticipated date of completion
1	2	3	4	5	6	7	8	9

Note: Attach certificates issued by the General Manager (Technical), TSCEL/Employer concerned, indicating the balance work to be done, and likely period of completion.

Signature of the Bidder

B) Details of works for which Bids are submitted [awarded / likely to be awarded]

Sl. No.	Name of work	Address of Agreement Concluding authority	Estimated value of work	Stipulated period of completion	Date on which bid was submitted	Present stage of Bid.
1	2	3	4	5	6	7

Signature of the Bidder

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

STATEMENT – III

[Must be complied with Schedule- F, Para. No. 2.3.B.(i) of SITB & Clause 35(i), GCC]

Availability of Key Technical Personnel

Qualification and experience of Key Technical Personnel proposed to be deployed for execution of the Contract.

Sl. No	Name	Designation	Qualification	Total Experience	Working with the Bidder since.
1	2	3	4	5	6

Notes:

(i) Site Engineer shall give an undertaking below his Self-Attested degree/diploma certificate clearly mentioning that he/she is not employed with in any other contractor/agency/firm other than this bidder for the particular work site only at…….. The certificate is to be countersigned by the Bidder.

(ii) Presence of Site Engineer during execution of work is mandatory.

Signature of the Bidder

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

SECTION-II:

GENERAL CONDITIONS OF CONTRACT (GCC)

FORM – 7

TSECL OF TRIPURA PUBLIC WORKS DEPARTMENT

Percentage Rate Tender/Item Rate Tender & Contract for Works

(A) Tender for the work of:- **Construction of Super ECBC Building for TSECL at Power House Complex, Banamalipur, Agartala-799001, Tripura**

(i) To be uploaded by .....hours on..... in e-procurement portal **https;//tripuratenders.gov.in**

(ii) To be opened through online at e-procurement portal in presence of bidders (N.B.: bidders can view live online bid opening process through the e-procurement portal from anywhere) who may be present at..... hours on..... in the office of .....

TENDER

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

a) **Percentage Rate Contract (similar Tripura PWD Form-7)**, I / We undertake to execute the work at the same rate as filled up /quoted online by me/us in Bill of Quantity (in downloaded macro enabled MS-Excel Sheet) of the same bid as referred to "General Rules & Direction" of this tender document. In addition, the total amount as computed in macro enabled MS-Excel Sheet through online would be the quoted offered amount by me/us for the same bid as referred above.

[strike out as the case may be]

I/We hereby tender for the execution of the work specified for the Governor of Tripura within the time specified in **Schedule- F** viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in **Rule-1** of **General Rules and Directions** and in **Clause 11** of the **Conditions of Contract** and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

I/We agree to keep the tender open for **one hundred and eighty (180) days** from the due date of its opening and not to make any modification in its terms and conditions.

I/We have **paid Bid Fee *(online payment mode only)* & Earnest Money *(online payment mode)*** provided in the e-procurement portal and this **Earnest Money will not to bear any interest**.

If I/We, **fail to submit** the prescribed **Performance Guarantee** within prescribed period, I/We agree that the said Governor of Tripura or his successors, in office shall without prejudice to any other right or remedy, be at liberty to **forfeit** the said amount of **earnest money absolutely (100%)** which was paid through online or offline payment mode as the case may be. Further, if I/We **fail to commence work** as specified, I/ We agree that Governor of Tripura or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to **forfeit the equivalent amount (100%)** of **earnest money from the Performance Guarantee** already submitted by me/us in the form of **offline payment instrument**..

Further, I/We agree that **in case of forfeiture of Earnest Money** as aforesaid, **I/We shall be debarred for participation in the re-tendering process of the work**.

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

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

Dated:

Signature of Contractor

Witness:

Postal Address & Mobile No:

Address:
Occupation:

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

A C C E P T A N C E

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the **TSECL, Tripura** for a sum of ` ……..

(Rupees……

.……)

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

(a)

(b)

(c)

For & on behalf of **TSECL, Tripura**.

Signature……..

Designation……..

Dated:

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

TSECL

GENERAL RULES & DIRECTIONS

1. All work proposed for execution by contract will be notified in a form of invitation to tender Notice Board and signed by the officer inviting tender or by publication in Newspapers or posted on website as the case may be.

   This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the Performance Guarantee to be deposited by the successful tenderer and the percentage (i.e. Security Deposit**)**, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of inviting tender during office hours.

2. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the **Indian Partnership Act, 1932**.

3. Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm.

Applicable for Percentage Rate Tender Only similar to (Tripura PWD Form-7):

4. Applicable for **Percentage Rate Tender** only (similar to **Tripura PWD Form -7**).

   In case of Percentage Rate Tenders, contractor shall fill up the **uploaded BOQ sheet [in macro enabled MS-Excel format]**, stating at what percentage less/excess/at par (in figures) on the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as **invalid** if:-

   (i) The contractor does not quote percentage less/excess on the total amount of tender or any section/ sub head ***in percentage rate tender***, the **tender shall be treated as invalid**.
   (ii) **Tempering the uploaded BOQ sheet / DNIT conditions**

5. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected.

   *In case the **lowest tendered amount** (estimated cost ± amount worked on the basis of **percentage** excess/less) **of two or more contractors/bidders is same**, then selection of **contractor/bidder** will be done in the following process:*

   (i) The Bidder whose Bid Capacity is Higher will be selected.
   (ii) In case the bid capacity is also same, the Bidder whose Annual Turnover is Higher will be selected.

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(iii) Even if the criteria incidentally become the same, the higher turnover on similar works and thereafter more machinery available for the work and then the clean track record including litigation aspects will be considered for selection.

Note: *Above method can be applied for **Two Bid System** of tendering with the support of available online submitted documents. But for **Single Bid Tender**, the supporting documents which are not available with the "Tender Evaluation Committee" for calculation/representation of Bid Capacity, Annual Turnover for the work etc., shall be asked to the bidder **by TIA** to submit within a fixed time through official letter.*

*In case the **lowest tendered amount** (worked out on the basis of quoted **rate** of Individual **items) of two or more contractors/bidders is same**, then selection of **contractor/bidder** will be done in the following process:*

(iv) The Bidder whose Bid Capacity is Higher will be selected.
(v) In case the bid capacity is also same, the Bidder whose Annual Turnover is Higher will be selected.
(vi) Even if the criteria incidentally become the same, the higher turnover on similar works and thereafter more machinery available for the work and then the clean track record including litigation aspects will be considered for selection.

Note: *Above method can be applied for **Two Bid System** of tendering with the support of available online submitted documents. But for **Single Bid Tender**, the supporting documents which are not available with the "Tender Evaluation Committee" for calculation/representation of Bid Capacity, Annual Turnover / machinery available for the work, track record regarding litigation aspects etc., shall be asked to the bidder **by TIA** to submit within a fixed time through official letter.*

6. If a **Bidder quotes nil rates or does not quote rate against each item or any item *in item rate tender*** the **tender shall be treated as invalid.**

7. The **Tender Inviting Authority (TIA)** will enter the amounts of the several tenders in a comparative statement in a suitable form after on-line opening of Financial Bid through e-procurement portal. In the event of a tender being accepted, a letter for Acceptance [LOA] will be issued for submission of Performance Guarantee and also a letter for commencement of work will be issued for complete the formal agreement. On receipt of Performance Guarantee Fee, the earnest money shall thereupon be returned on-line to the successful bidder without any interest after completing the online process of **Award of Contract (AOC)**. In the event of a tender being rejected, the earnest money shall there upon be returned to the contractor remitting the same, without any interest.

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8. The Tender Inviting Authority (TIA) shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.
9. The receipt of an accountant or clerk for any Documents by the contractor will not be considered as any acknowledgment or payment/submission of documents to the Tender Inviting Authority (TIA) and the contractor shall be responsible for seeing that he procures a receipt signed by the Tender Inviting Authority (TIA).
10. The memorandum of work tendered for and the schedule of materials to be supplied by the department and their issue-rates, shall be filled and completed in the office of the Tender Inviting Authority (TIA) before the tender form is uploaded.
11. The tenderers shall sign a declaration under the ***Official Secret Act 1923***, for maintaining secrecy of the tender documents drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them.
12. Use of correcting fluid / **tempering of uploaded documents [softcopies]**, anywhere in tender document is not permitted. Such tender is liable for rejection.
13. In the case of any tender where unit rate of any item/items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.
14. (i) The **Contractor whose tender is accepted**, will be required to submit **performance guarantee** of **10% [Ten Percent]** of the tendered amount within the period specified in **Schedule - F**. This **guarantee shall be in the form** of **" Demand Draft"** drawn in favour of the Tender Inviting Authority (TIA) from a well-recognized **scheduled/commercial Bank** guaranteed by the Reserve Bank of India **having branch at Agartala, Tripura.**
15. On acceptance of the tender, the name of the accredited representative(s) of the **contractor** who **would be responsible for taking instructions from the Engineer-in-Charge or his authorized representative**, shall be communicated in writing to the Engineer-in-Charge.
16. **GST or any other tax applicable in respect of inputs procured by the contractor for this contract shall be payable by the Contractor and TSECL will not entertain any claim whatsoever in respect of the same.** However, component of GST at the time of supply of service (as provided in CGST Act 2017) provided by the contractor shall be varied if different from that applicable on the last date of receipt of tender including extension if any.
17. The contractor shall give a **list of** both gazetted and non-gazetted **TSECL. employees** related to him as **"Near Relatives".**

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18. The tender for the work shall not be witnessed by a contractor or contractors who himself/ themselves has/have tendered or who may and has/have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.

19. The tender for composite work includes, in addition to building work, all other works such as electrical work, mechanical works, roads and paths etc. The tenderer apart from being a registered contractor of appropriate class, must associate himself with agencies of appropriate class which are eligible to tender for electrical and mechanical works in the composite tender.

20. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineer/General Manager (Technical), TSCEL may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

CONDITIONS OF CONTRACT

DEFINITIONS:

1. The **Contract** means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of the Governor of Tripura and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them

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

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

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

   (iv) The **Governor** means the Governor of Tripura and his successors.

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

   (vi) **TSECL** shall mean the TSECL of Tripura.

   (vii) **Tender Accepting Authority (TAA)** shall mean the authority mentioned in **Schedule - F**.

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

   (ix) **Market Rate** shall be the rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in **Schedule - F** to cover, all overheads and profits.

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

(xi) **Department** means TSECL,Tripura or any department of TSECL of Tripura which invites tenders on behalf of Governor of Tripura as specified in **Schedule - F**.

(xii) **State Specifications** means the specifications followed by the State TSECL in the area where the work is to be executed.

(xiii) **Tendered/Bid value** means the value of the entire work as stipulated in the Letter of Acceptance (LOA).

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

SCOPE AND PERFORMANCE:

3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
4. Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
5. The contractor shall be provided free of cost, one certified copy of the contract documents except standard specifications, Schedule of Rates and such other printed and published documents, together with all drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

WORKS TO BE CARRIED OUT:

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

SUFFICIENCY OF TENDER:

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

DISCREPANCIES AND ADJUSTMENT OF ERRORS:

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

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

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

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

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

SIGNING OF CONTRACT:

9. The successful **Bidder/Tenderer/contractor**, on acceptance of his tender/bid by the **Tender Accepting Authority**, shall **start of the work & sign the agreement** (**within the time period** as mentioned in **Schedule-F**) consisting of:-

(i) The Notice Inviting Tender, all the bid documents including additional conditions, specifications and drawings, if any, forming part of the tender as uploaded at the time of invitation of tender and hardcopy of MS Excel BOQ sheet in which rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence/tender corrigendum leading thereto including Pre-Bid Conference record note (if any).

(ii) Standard TSECL Form as mentioned in **Schedule - F** consisting of:

a) Various standard clauses with corrections up to the date stipulated in **Schedule - F** along with annexures thereto.

b) **Safety and Labour Law:**

The contractor shall comply with the provision of all laws including Labour Laws, rules, regulations and notifications issued thereunder from time to time. All safety and Labour Laws enforced by the statutory agencies of the state or central TSECL shall be applicable in the performance of this contract and the contractor shall abide by these laws.

The contractor shall take all measures necessary or proper to protect the personnel/workers and shall observe all reasonable safety rules and instructions. Any fire works like gas cutting or welding jobs will be carried out with full safety precautions. The contractor shall report as soon as possible any evidence which may indicate or likely to lead to an abnormal or dangerous

situation and shall take all necessary emergency control steps to avoid such abnormal situations.

During the tenure of this contract nothing shall be done by the contractor in contravention of any law, rule, act and/or rules and regulations.

The contractor shall at his own expenses, arrange appropriate insurance to cover all risks assumed by the contractor under this contract in respect of its personnel/worker working under this contract as well as contractor's equipments , tools, or any other belongings of the contractor or their personnel during the entire period of their engagement in connection with this contract.

The department as well as the state TSECL will have no liability on this account. Should there be any lapses in any insurance required to be carried out by the contractor hereunder for any reason, losses resulting from shall be to the sole account of the contractor.

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

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

CLAUSES OF CONTRACT

CLAUSE 1 : PERFORMANCE GUARANTEE

(i) The **contractor shall submit** a **Performance Guarantee of 10% (Ten Percent)** of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) **within period specified in Schedule - F from the date of issue of letter of acceptance**. **This period can be further extended** by the Engineer-in-Charge up **to a maximum period as specified in Schedule- F** on **written request of the contractor stating the reason for delays in procuring the Performance Guarantee**, to the satisfaction of the Engineer-in-Charge. This guarantee shall be in the **form** of **"Demand Draft"** drawn in favour of the Tender Inviting Authority (TIA) from a well-recognized **scheduled/commercial Bank** guaranteed by the Reserve Bank of India **having branch at Agartala, Tripura**.

In case the **contractor fails to deposit the said performance guarantee within the period** as indicated in **Schedule- F, including the extended period if any, the Earnest Money** deposited by the contractor **shall be forfeited automatically without any notice to the contractor.**

The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee.

(ii) The **Performance Guarantee** shall be **initially valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the contractor, including Defect Liability Period (DLP)**. **In case** the **time for completion** of work gets **enlarged**, the contractor shall get the **validity of Performance Guarantee extended to cover such enlarged time for completion of work**. **After issuing of the completion certificate for the work** by the competent authority, the **performance guarantee** shall be **returned** to the **contractor, without any interest** and after the **contractor duly performs & completes all obligations** under the contract.

(iii) The performance guarantee will be **forfeited in full and credited to the Procuring Entity's account** in the following event of breach of contract by the contractor.

(a) **Failure by the contractor to extend the validity of the Performance Guarantee** as described herein above.

(b) **Failure by the contractor to pay** TSECL any **amount due**, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement, within **30 (thirty) days** of the service of notice to this effect by Engineer- in-Charge.

(c) In the event of the **contract being determined or rescinded** under provision of any of the Clause/Condition of the agreement.

Dy. General Manager,
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CLAUSE 1 A : RECOVERY OF SECURITY DEPOSIT

The person/persons **whose tender(s) may be accepted** (hereinafter called the **contractor**) shall **permit TSECL** at the time of making any payment to him for work done under the contract **to deduct a sum at the rate of 2.5% (two point five percent) of the gross amount of each running and final bill**.

The security deposit shall be collected from the running bills and the final bill of the contractor at the rates mentioned above.

The contractor may, at his option, replace the **Security Deposit** with an unconditional Bank Guarantee from a bank acceptable to the Procuring Entity at the following stages:

i) After the amount reaches half the value of the limit of Security Deposit; and

ii) After the amount reaches the maximum limit of Security Deposit. One-half of the Security Deposit (or Bank Guarantee, which replaced Security Deposit) shall be released on the issue of the taking-over certificate; if the **Taking Over Certificates (TOCs)** are issued in parts, then in such proportions as the engineer may determine, having regard to the value of such part or section. The **other half** of the Security Deposit (or Bank Guarantee, which replaced the Security Deposit) **shall be released upon 365 days after the final payment or expiry of DLP of the works**, **whichever is earlier**, on certification by the engineer. In the event of different defect liability periods being applicable to different sections or parts, the expiration of defect liability period shall be the latest of such periods.

Provided further that the validity of bank guarantee shall be in conformity with provisions contained in **clause 17** which shall be extended from time to time depending upon extension of contract granted under provisions of **clause 2** and **clause 5**.

CLAUSE 2 : COMPENSATION FOR DELAY

If the contractor **fails to maintain the required progress** in terms of **Clause 5 or** to **complete the work on or before the stipulated date of completion** for the contract **or justified extended date of completion**, as per clause 5 (excluding any extension under Clause 5.5) as well as any extension granted under clauses 12 and 15, he shall, without prejudice to any other right or remedy available under the law to the TSECL on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the authority specified in **Schedule - F** may decide on the amount of Tendered Value of the work for every completed day/month (as determined) that the progress remains below that specified in Clause 5 or that the work remains incomplete.

This will also apply to items or group of items for which a separate period of completion has been specified.

(i) Compensation for delay of work	**With maximum rate @ 1% (one percent) of the contract value per week of delay to be computed on per day basis based on quantum of damage suffered due to stated delay on the part of Contractor.**

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Central Civil Division
79 Tilla, Agartala.

Provided always that the total amount of compensation for delay to be paid under this Condition **shall not exceed 10% (ten percent) of the contract value of work**.

In case no compensation has been decided by the authority in **Schedule - F** during the progress of work, this shall be no waiver of right to levy compensation by the said authority if the work remains incomplete on final justified extended date of completion. If the Engineer in Charge decides to give further extension of time allowing performance of work beyond the justified extended date, the contractor shall be liable to pay compensation for such extended period.

If any variation in amount of contract takes place during such extended period beyond justified extended date and the contractor becomes entitled to additional time under **clause 12**, the net period for such variation shall be accounted for while deciding the period for levy of compensation. However, during such further extended period beyond the justified extended period, if any delay occurs by events under sub **clause 5.2**, the **contractor shall be liable to pay compensation for such delay**.

Provided that compensation during the progress of work before the justified extended date of completion for delay under this clause shall be for non-achievement of sectional completion or part handing over of work on stipulated/justified extended date for such part work or if delay affects any other works/services. This is without prejudice to right of action by the Engineer in Charge under clause 3 for delay in performance and claim of compensation under that clause.

In case action under **clause 2** has not been finalized and the work has been determined under **clause 3**, the right of action under this clause shall remain post determination of contract but levy of compensation shall be for days the progress is behind the schedule on date of determination, as assessed by the authority in Schedule - F, after due consideration of justified extension. The compensation for delay, if not decided before the determination of contract, shall be decided after the determination of contract.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the TSECL. In case, the contractor does not achieve a particular milestone mentioned in Schedule - F, or the re-scheduled milestone(s) in terms of **Clause 5.4**, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied as above. With-holding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor.

However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

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CLAUSE 2A : INCENTIVE FOR EARLY COMPLETION

In case, the contractor completes the work ahead of stipulated date of completion or justified extended date of completion as determined under clauses 5.3, 12 & 15, an **incentive to the maximum amount @ 0.25 % (Zero point two five percent) of the contract value per week of early completion** as per mile stone achieved will be paid to the Bidder. **In no case the total respective value of the incentive should exceed 2% of the total value of works as per milestone**. **Incentive is allowed for the work whose estimated cost is above ` 1(one) crore for original works.** Provided always that provision of the Clause 2A shall be applicable only when so provided in **'Schedule - F'**.

CLAUSE 3 : WHEN CONTRACT CAN BE DETERMINED

Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely **determine the contract** in any of the following cases:

(i) If the contractor having been given by the Engineer-in-Charge, a **notice in writing to rectify, reconstruct or replace any defective work** or that the work is being performed in an inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirement of such notice for a period of **7(seven) days** thereafter.

(ii) If the contractor has, without reasonable cause, **suspended the progress of the work or has failed to proceed with the work with due diligence** so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of **7(seven) days** from the Engineer-in-Charge.

(iii) If the contractor **fails to complete the work or section of work with individual date of completion on or before the stipulated or justified extended date**, on or before such date of completion; and the Engineer in Charge without any prejudice to any other right or remedy under any other provision in the contract has given further reasonable time in a notice given in writing in that behalf as either mutually agreed or in absence of such mutual agreement by his own assessment making such time essence of contract and in the opinion of Engineer-in-Charge the contractor will be unable to complete the same or does not complete the same within the period specified.

(iv) If the contractor persistently **neglects to carry out his obligations under the contract and/ or commits default** in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7(seven) days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.

(v) If the contractor offer or give or agree to give to any person in TSECL service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other

contract for TSECL.

(vi) If the contractor enter into a contract with TSECL in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-Charge.

(vii) If the contractor secured the contract with TSECL as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement.

(viii) If the **contractor being** an individual, or if a firm, any partner thereof shall at any time be adjudged **insolvent** or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.

(ix) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.

(x) If the contractor suffers an execution being levied on his goods and allow it to be continued for a period of **21(twenty-one) days**.

(xi) If the contractor assigns, (excluding part(s) of work assigned to other agency(s) by the contractor as per terms of contract), transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer -in-Charge. When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the Governor of Tripura shall have powers:

(a) To determine the contract as aforesaid so far as performance of work by the Contractor is concerned (of which determination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the TSECL.

(b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. **The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work including any new items needed to complete the work.**

In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of

the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

CLAUSE 3A

In case, the work cannot be started due to **reasons not within the control of the contractor within 1/8th** of the **stipulated time** for **completion of work** or **30(thirty)days**, **whichever is more**, **either party may close the contract** by giving notice to the other party stating reasons. In such eventuality, **the Performance Guarantee of the contractor shall be refunded** within following time limits:

(i)	If the Tendered value of work is up to ` 1.00 Crore	30 days
(ii)	If the Tendered value of work is more than ` 1.00 Crore and up to ` 10.00 Crore	45 days
(iii)	If the Tendered value of work exceeds ` 10.00 Crore	60 days

Neither party shall claim any compensation for such eventuality. This clause is not applicable for any breach of the contract by either party.

CLAUSE 4 : CONTRACTOR LIABLE TO PAY COMPENSATION EVEN IF ACTION NOT TAKEN UNDER CLAUSE 3

In any case in which any of the powers conferred upon the Engineer-in-Charge by Clause-3 thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/or any part thereof, paying or allowing for the same in account at the contract rates, or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final, and binding on the contractor, to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

CLAUSE 5 : TIME AND EXTENSION FOR DELAY

The time allowed for execution of the Works as specified in the **Schedule – F** or the

extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such **time period** as mentioned in **Schedule – F** or **from the date of handing over of the site** notified by the Engineer-in-Charge, **whichever is later**. If the **Contractor commits default in commencing the execution of the work** as aforesaid, **the performance guarantee shall be forfeited by the Engineer in Charge and shall be absolutely at the disposal of the TSECL without prejudice to any other right or remedy available in law**.

5.1 As soon as possible but within **21 (twenty-one) days** of award of work and in consideration of

a) Schedule of handing over of site as specified in the **Schedule – F**

(i) The **Contractor** shall **submit a Time and Progress Chart** for each mile stone. The Engineer-in- Charge may within **10(ten) days** thereafter, if required modify, and communicate the program approved to the contractor failing which the program submitted by the contractor shall be deemed to be approved by the Engineer-in-Charge. The work programme shall include all details of balance drawings and decisions required to complete the contract with specific dates by which these details are required by contractor without causing any delay in execution of the work. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents.

(ii) In case of **non-submission of construction programme** by the **contractor**, the **program provided by the Engineer-in-Charge** shall be **deemed to be final**.

(iii) The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract.

(iv) The contractor shall submit the Time and Progress Chart **quarterly** and progress report using the mutually agreed software or in other format decided by Engineer-in-Charge for the work done during previous **quarter** to the Engineer-in-charge on or before 5th day of **starting of each quarter** failing which a recovery **@Rs. 2500.00** (for works Agreement value upto ` 20 Crores) **/ @ ` 5000.00** (for works Agreement value more than ` 20 Crores) shall be made on per week or part basis in case of delay in submission of the **quarterly** progress report. **This method of reporting system shall be strictly followed for monitoring of the project work.**

5.2 If the **work(s) be delayed** by:-

(i) force majeure, natural calamity, any other cause which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control, or

(ii) serious loss or damage by fire, or

(iii) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or

(iv) delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract, or

(v) non-availability of stores, which are the responsibility of TSECL to supply or

(vi) non-availability or break down of tools and Plant to be supplied or supplied by TSECL or

(vii) any other cause like above which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control.

Then upon the **happening** of any such **event causing delay**, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge for entry in the

Hindrance Register but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

The contractor shall have no claim of damages for extension of time granted or rescheduling of milestone/s for events listed in sub clause 5.2.

5.3 In case the work is hindered by any reasons, in the opinion of the contractor, by the Department or for someone for whose action the Department is responsible, the contractor may immediately give notice thereof in writing to the Engineer-in-Charge in the same manner as prescribed under sub Clause 5.2 seeking extension of time or rescheduling of milestone/s. The **authority** as indicated in **Schedule- F** shall, if justified, give a fair and reasonable **extension of time and reschedule the mile stones** for completion of work after due consideration of the same within **30(thirty) days of receipt of such request**. In event of non-application by the contractor for extension of time Engineer-in-Charge after affording opportunity to the contractor may give, supported with a programme, a fair and reasonable extension within a reasonable period of occurrence of the event. Such extension of time or rescheduling of milestone/s shall be without prejudice to any other right or remedy of the parties in contract or in law; provided further that for concurrent delays under this sub clause and sub clause 5.2 to the **extent the delay** is covered under sub clause 5.2 the **contractor** shall be **entitled** to **only extension of time but no damages on that account.**

5.4 Request for rescheduling of Mile stones or extension of time, to be eligible for consideration, shall be made by the Contractor in writing within **14(fourteen) days** of the happening of the event causing delay on the prescribed forms i.e. Form of application by the contractor for **seeking rescheduling of milestones** (**Appendix –VI**) along with Form of application by the contractor for **seeking extension of time** (**Appendix –V**) respectively to the authority as indicated in **Schedule- F**. The Contractor shall indicate in such a request the period by which rescheduling of milestone/s or extension of time is desired.

With every request for **rescheduling of milestones**, or if at **any time the actual progress of work falls behind** the approved programme by **more than 10% of the stipulated period of completion** of contract, the contractor shall produce a **revised programme** which shall include all details of pending drawings and decisions required to complete the contract and also the target dates by which these details should be available without causing any delay in execution of the work. A **recovery** as specified in **Schedule – F** shall be **made on per week basis in case of delay in submission of the revised programme**.

5.4.1 In any such case the authority as indicated in **Schedule- F** may give a fair and reasonable extension of time for completion of work or reschedule the mile stones. Engineer -in-Charge shall finalize/ reschedule a particular mile stone before taking an action against subsequent mile stone. Such extension or

rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in **Schedule-F** in writing, **within 21(twenty-one) days** of the date of receipt of such request from the Contractor in prescribed form. In event of non-application by the contractor for extension of time E-in-C after affording opportunity to the contractor, may give, supported with a programme (as specified under 5.4 above), a fair and reasonable extension within a reasonable period of occurrence of the event.

5.5 In case the work is delayed by any reasons, in the opinion of the Engineer-in-Charge, by the contractor for reasons beyond the events mentioned in clause 5.2 or clause 5.3 or clause 5.4 and beyond the justified extended date; without prejudice to right to take action under Clause 3, the Engineer-in-Charge may grant extension of time required for completion of work without rescheduling of milestones. The contractor shall be liable for levy of compensation for delay for such extension of time.

CLAUSE 6 : MEASUREMENTS OF WORK DONE & MANUAL MEASUREMENT BOOK (MMB)

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement, the value in accordance with the contract of work done.

All measurement of all items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all works performed under the contract.

All measurements and levels shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer- in-Charge and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

If for any reason the contractor or his authorized representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing **3(three) days** in advance by the Engineer-in-Charge or his authorized representative or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the Contractor.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available, then a mutually agreed method shall be followed.

The contractor shall give, not less than seven days' notice to the Engineer-in-Charge or his authorized representative in charge of the work, before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or

placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing, the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

CLAUSE 6A : COMPUTERIZED MEASUREMENT BOOK (CMB)

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract.

All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book having pages of A-4 size as per the format of the department so that a complete record is obtained of all the items of works performed under the contract.

All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the Engineer-in-Charge or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in- Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from the Engineer-in-Charge and/or his authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer-in- Charge and/or his authorized representative would thereafter check this MB, and record the necessary certificates for their checks/test checks.

The final, fair, computerized measurement book given by the contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department. Thereafter, the MB shall be taken in the Divisional Office records, and allotted a number as per the Register of Computerised MBs. This should be done before the corresponding bill is submitted to the Division Office for payment. The contractor shall submit two

spare copies of such computerized MB's for the purpose of reference and record by the various officers of the department.

The contractor shall also submit to the department separately his computerized

Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered along with two spare copies of the 'bill. Thereafter, this bill will be processed by the Division Office and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements/levels by the Engineer-in- Charge or his representative.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than 7(seven) days' notice to the Engineer-in-Charge or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of checking and/or test checking the measurement of any work in order that the same may be checked and/or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and/or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who shall within the aforesaid period of 7(seven) days inspect the work, and if any work shall be covered up or placed beyond the reach of checking and/or test checking measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that checking and/or test checking the measurements of any item of work in the measurement book and/or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

CLAUSE 6B : ELECTRONIC MEASUREMENT BOOK (e-MB)

Like manual system, e-MB will be allotted to Junior Engineer (JE) by General Manager (Technical), TSCEL (EE) through online and e-MB will be responsive and flow based as per the norms of the department. An ID will be generated through the system for every e-MB and proper tracking will be maintained on details of the allottee and recipients. Like measurement book, e-MB will keep record of every item in respect of length, breadth, height and number or formulae. Once measurements are recorded in e-MB by

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JE, it can be test checked by Senior Manager (SM) and General Manager (Technical), TSCEL (EE) by logging on to the system by using log-in details of the respective official. Every test check will be recorded and mapping of the entire activities will be mapped and maintained. Once

measurements are recorded in e-MB against corresponding items available in BOQ or any extra/ additional item (s), abstract of cost will be generated automatically based on the inputs of rates. Similarly based on same data, bill can be generated for payment as per prevailing rules and guidelines.

CLAUSE 7 : PAYMENT ON INTERMEDIATE CERTIFICATE TO BE REGARDED AS ADVANCES

No payment shall be made for work, **estimated to cost `1.00 Lakh (Rupees One Lakh) or less till after the whole of the work shall have been completed and certificate of completion given**. For **works estimated to cost over `1.00 Lakh (Rupees One Lakh),** the interim or running account bills (**amounting not less than @10% of the tendered value subject to minimum value of work amounting `1.00 Lakh)** shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the Department in triplicate on or before the date of every month fixed for the same by the Engineer-in-Charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in **Schedule – F**, in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Engineer-in-Charge shall prepare or cause to be prepared such bills in which event no claims whatsoever due to delays on payment *including that of interest shall be payable* to the contractor. Payment on account of amount admissible shall be made by the Engineer-in- Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-Charge. The amount admissible shall be paid by 10th working day after the day of presentation of the bill by the Contractor to the Engineer-in-Charge or his Asstt. Engineer together with the account of the material issued by the department, or dismantled materials, if any. In the case of works outside the headquarters of the Engineer- in-Charge, the period of ten working days will be extended to fifteen working days. **In case of delay in payment no interest shall be paid to the contractor.**

All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-Charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer-in-Charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided without prejudice to the right of the

department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

The Engineer-in-Charge in his sole discretion on the basis of a certificate from the Assistant Engineer to the effect that the work has been completed up to the level in question make interim advance payments without detailed measurements for work done (other than foundations, items to be covered under finishing items) up to lintel level (including sunshade etc.) and slab level, for each floor working out at 75% of the assessed value. The advance payments so allowed shall be adjusted in the subsequent interim bill to be submitted by the contractor within 10 days of the interim payment. *In case of delay in payment no interest shall be paid to the contractor.*

PAYMENTS IN COMPOSITE CONTRACTS

*In case of **composite tenders**, running payment for the major component shall be made by DGM of major discipline to the main contractor. Running payment for minor component shall be made by the Engineer-in-Charge of the discipline of minor component directly to the main contractor.*

In case main contractor fails to make the payment to the contractor associated by him within 15(fifteen) days of receipt of each running account payment, then on the written complaint of contractor associated for such minor component, Engineer in charge of minor component shall serve the show cause to the main contractor and if reply of main contractor either not received or found unsatisfactory, he may make the payment directly to the contractor associated for minor component as per the terms and conditions of the agreement drawn between main contractor and associate contractor fixed by him. Such payment made to the associate contractor shall be recovered by Engineer-in-charge of major or minor component from the next R/A/ final bill due to main contractor as the case may be.

CLAUSE 7A

No Running Account Bill shall be paid for the work **till the following documents are submitted by the contractor to the Engineer-in-Charge, if demanded**

(i) **Valid Labour License** regarding engagement of workers in the contract works from Labour Department, TSECL of Tripura, and

(ii) Certificate regarding **registration of employee/workers with EPFO** (Employees' Provident Fund Organisation) including **Provident Fund Code No.** (***applicable for Class-I Contractor***)***.***

(iii) Certificate regarding **registration of employee/workers with ESIC** (Employees' State Insurance Corporation) (***applicable for Class-I Contractor***).

(iv) Certificate regarding **registration of employee/workers with BOCW** (Building and Other Construction Workers) **Welfare Board** (***applicable for Class-I Contractor***).

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CLAUSE 8 : COMPLETION CERTIFICATE AND COMPLETION PLANS *(FOR BUILDING WORK)*

Within 10(ten) days of the completion of the work, the **contractor** shall **give notice** of such completion to the Engineer-in-Charge and **within 30(thirty) days** of the **receipt of such notice**, the **Engineer-in-Charge shall inspect the work** and if there is **no defect** in the work, **shall furnish the contractor** with a **final certificate of completion**, **otherwise** a **provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates**, shall be **issued**.

But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements made for his/their work people from the premises of work site by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is executed or of which he may have had possession for the purpose of the execution; thereof, and not until the work shall have been measured by the Engineer-in-Charge.

If the contractor fail to comply with the requirements of this Clause as **to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements** as aforesaid and cleaning off dirt **on or before the date fixed for the completion of work**, the **Engineer-in-Charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc**., and **dispose of the same as he thinks fit and clean off such dirt as aforesaid**, and the **contractor shall have no claim** in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

CLAUSE 8A : CONTRACTOR TO KEEP SITE CLEAR

When the annual repairs and maintenance of works are carried out, the splashes and droppings from white washing, colour washing, painting etc., on walls, floor, windows, etc shall be removed and the surface cleaned simultaneously with the completion of these items of work in the individual rooms, quarters or premises etc. where the work is done: without waiting for the actual completion of all the other items of work in the contract. In case the contractor fails to comply with the requirements of this clause, the Engineer-in-Charge shall have the right to get this work done at the cost of the contractor either departmentally or through any other agency. Before taking such action, the Engineer-in-Charge shall give **10(ten) days'** notice in writing to the contractor.

CLAUSE 8B : COMPLETION PLANS TO BE SUBMITTED BY THE CONTRACTOR (FOR COMPOSITE WORKS ONLY)

The contractor shall submit **completion plan for Internal and External Civil, Electrical and Mechanical Services within 30(thirty) days** of the completion of the work provided that the service plans having been issued for execution by the Engineer-in-Charge, unless the contractor, by virtue of any other provision in the contract, is required to prepare such plans.

In case, the **contractor fails to submit** the **completion plan** as aforesaid, he shall be **liable to pay a sum of 0.1 % of Tendered Value or limit prescribed in Schedule – F, whichever is more** as may be fixed by the **NIT Approving Authority** and in this respect the decision of the authority shall be final and binding on the contractor.=

CLAUSE 9 : PAYMENT OF FINAL BILL

The **final bill shall be submitted by the contractor** in the same manner as specified in interim bills **within 90(ninety) days of physical completion of the work** or **within 30(thirty) days of the date of the final certificate of completion furnished by the Engineer-in-Charge**, **whichever is earlier**. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within the period specified hereinunder, the period being reckoned from the date of receipt of the bill by the Engineer-in- Charge or his authorized Assistant Engineer, complete with account of materials issued by the Department and dismantled materials.

(i)	If the Tendered value of work is up to ` 1.0 Crore	60 days
(ii)	If the Tendered value of work is more than `1.0 Crore and up to ` 10.00 Crore	90 days
(iii)	If the Tendered value of work exceeds ` 10.00 Crore	180 days

In case of delay in payment, no interest shall be paid to the contractor.

CLAUSE 10 : MATERIALS SUPPLIED BY TSECL

Materials which will be supplied by the TSECL are shown in Schedule 'B' which also stipulates quantum, place of issue and rate(s) to be charged in respect thereof. The contractor shall be bound to procure them from the Engineer-in-Charge.

As soon as the work is awarded, the contractor shall finalise the programme for the completion of work as per **Clause-5** of this contract and shall give his estimates of materials required on the basis of drawings/or schedule of quantities of the work. The Contractor shall give in writing his requirement to the Engineer-in-Charge which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in-Charge, in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement.

Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, from any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, the contractor shall certify that balance of materials supplied is available at site in original good condition.

The contractor shall submit along with every running bill (on account or interim bill) material wise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/section-wise in the case of steel) and resulting variations and reasons therefore. Engineer-in-Charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 41 at any stage of the work if reconciliation is not found to be satisfactory.

The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any other clause of the contract and all stores/materials so supplied to the contractor or procured with the assistance of the TSECL shall remain the absolute property of

TSECL and the contractor shall be the trustee of the stores/materials, and the said stores/materials shall not be removed/disposed off from the site of the work on any account and shall be at all times open to inspection by the Engineer-in-Charge or his authorized agent. Any such stores/materials remaining unused shall be returned to the Engineer-in- Charge in as good a condition in which they were originally supplied at a place directed by him, at a place of issue or any other place specified by him as he

shall require, but in case it is decided not to take back the stores/materials the contractor shall have no claim for compensation on any account of such stores/materials so supplied to him as aforesaid and not used by him or for any wastage in or damage to in such stores/materials.

On being required to return the stores/materials, the contractor shall hand over the stores/ materials on being paid or credited such price as the Engineer-in-Charge shall determine, having due regard to the condition of the stores/materials. The price allowed for credit to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him, excluding the storage charge, if any. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to account for contravention of the terms of the licences or permit and/or for criminal breach of trust, be liable to TSECL for all advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any delay in supply or non-supply thereof all or any such materials and stores provided further that the contractor shall be bound to execute the entire work if the materials are supplied by the TSECL within the original scheduled time for completion of the work plus 50% thereof or schedule time plus 6 months, **whichever is more**. If the time of completion of work exceeds 12 months, but if a part of the materials only has been supplied within the aforesaid period, then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the aforesaid period. For the completion of the rest of the work, the contractor shall be entitled to such extension of time as may be determined by the Engineer-in-Charge whose decision in this regard shall be final and binding on the contractor.

The contractor shall see that only the required quantities of materials are got issued. Any such material remaining unused and in perfectly good/original condition at the time of completion or determination of the contract shall be returned to the Engineer-in-Charge at the stores from which it was issued or at a place directed by him by a notice in writing. The contractor shall not be entitled for loading, transporting, unloading and stacking of such unused material except for the extra lead, if any involved, beyond the original place of issue.

CLAUSE 10A : MATERIALS TO BE PROVIDED BY THE CONTRACTOR

The contractor shall, at his own expense, provide all materials, required for the works other than those which are stipulated to be supplied by the TSECL.

The contractor shall, at his own expense and without delay, supply to the Engineer-in-Charge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in- Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply. The Engineer-in-Charge shall within thirty days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples are approved by him or not. If samples are not

approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval, fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-Charge shall be issued after the test results are received.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analysed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-Charge. **The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.**

The **contractor shall**, **at his risk and cost**, make all arrangements and shall provide all facilities as the Engineer-in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-Charge and **bear all charges and cost of testing** unless specifically provided for otherwise elsewhere in the contract or specifications. The **Engineer-in-Charge or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.**

The Engineer-in-Charge shall have full powers to remove from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.

The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests (*works value more than Rs. 500 lacs*). The lab shall be equipped at least with the testing equipment as specified in **Schedule - F**.

CLAUSE 10B

10B (i) : SECURED ADVANCE AGAINST MATERIAL BROUGHT TO SITE

Secured Advance on the security of materials (which are not combustible, fragile or perishable in nature) brought to the site but not yet incorporated in the works will be made up to **75% (seventy-five percent)** of invoice value, or the 75% (seventy-five percent) of the corresponding value of the materials determined on the basis of BOQ rates, whichever is less, subject to the condition that their quantities are not excessive and shall be used within a period of 90 (ninety) days and subject to other stipulations in the contract. The contractor will be required to sign an indenture bond, hypothecating the goods to the procuring entity, and also be responsible for their safe custody. Before the advance is released, the procuring entity may inspect the site to ensure that the Contractor has safeguarded the materials against pilferage and deterioration. It may be ensured that the contractor has not taken any loan/ limit from banks against hypothecation of the materials against which the secured advance is claimed. An undertaking in this regard may also be taken from the contractor.

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Generally, as per the provisions of the contracts, the contractors are required to submit proof of cost of materials and the delivery of material at site while claiming such advances. The stock register should be maintained from the commencement of the

contract and, unless otherwise prescribed in the contracts, the stock, so considered for advance, should generally be only paid stock (and not brought on credit). Where the materials are supplied from a captive source of the contractor, the reasonableness of the valuation of such materials may be ensured.

The advance will be repaid from each succeeding running bill (periodic/ interim payment) to the extent materials for which advance has been previously paid have been incorporated into the works. In all cases, the repayment of the advance will be affected after expiry of a period of 120 days since payment of advance, whether the material is consumed in the work or not.

Provided always that provision of Clause 10 B (i) shall be applicable only when so provided in 'Schedule F'.

10B (ii) : MOBILISATION ADVANCE

If considered justified in certain specialized and capital intensive works, Contract may provide for an **interest-bearing** mobilisation advance to be paid to the contractor exclusively for the costs of mobilisation at **10% (ten percent)** of the contract price on the provision by the contractor of an unconditional BG. Such BGs shall remain effective until the advance payment has been fully repaid, but the amount thereof shall be progressively reduced by the amount repaid by the contractor, as indicated in the interim payment certificates.

The aforesaid advance of **10% (ten percent)** may be paid in **2(two) instalments, each of 5% (five percent)**. The first one may be paid on commencement of the work and provision by the contractor of the unconditional BG in respect of the advance. The second instalment may be paid on certification by the engineer of the contractor's having achieved a financial progress of 10% (ten percent) of the contract price, as also provision of a BG by the contractor for this part of the advance. Mobilisation expenditure mentioned herein shall not include the margin money and bank commission, and so on, paid by the contractor for procurement of BGs against performance security and mobilization advance.

Provided always that provision of Clause 10 B (ii) shall be applicable only when so provided in 'Schedule F'.

10B (iii) : PLANT, MACHINERY AND SHUTTERING MATERIAL ADVANCE

Another **interest-bearing** advance of **5% (five percent)** of the contract price, depending on the merits of the case, may be paid against the **new key construction equipment purchased for the work and brought to the site**, if so provided in the Bid Documents and so requested by the contractor. The advance should normally not be more than **50% (fifty percent)** of the depreciated cost of such plants and machinery should be hypothecated to the Govt., before the payment of advance is released. This advance shall be subject to the following conditions: (i) the contractor shall produce satisfactory proof of payment; (ii) such equipment is considered necessary by the engineer for the works; (iii) the equipment has been verified to have been brought to site; (iv) the contractor gives an undertaking on stamp paper that the equipment will work only on that job and will not be removed from the site without obtaining written approval from

the engineer; and (v) the contractor furnishes a BG to cover the advance. No advance shall be admissible on equipment purchased under a hire purchase scheme/ financing arrangement or on hired equipment.

The rate of interest shall be stipulated in the bid documents [say 10 (ten) per cent per annum] or as may be notified by the Procuring Agency from time to time.

The repayment of advances shall be done through proportionate percentage deductions from running bill (periodic/ interim payment). The time of commencement of repayment, rate of deductions from interim payments, and time by which the advance should be fully repaid will be as specified in the contract.

All advances shall be used by the contractor exclusively for mobilisation expenditure, including the acquisition of construction-related plant and equipment. Should the contractor misappropriate any portion of the advance, it shall become due and payable immediately, and no further advance will be made to the contractor thereafter. In such cases, the contractor shall also be liable for appropriate action under the contract.

Provided always that provision of Clause 10B (iii) shall be applicable only when so provided in 'Schedule F'.

10B (iv) : INTEREST & RECOVERY

The mobilization advance in (ii) and Plant, Machinery & shuttering Material Advance in (iii) above, will bear simple interest at the rate of 10% (ten percent) per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by the deduction from the contractors bills commencing after first ten per cent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty per cent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of recovery of the instalment.

10B (v) :

If the circumstances are considered reasonable by the Engineer-in-Charge, the period mentioned in (ii) & (iii) for request by the contractor in writing for grant of advance may be extended in the discretion of the Engineer-in-Charge.

CLAUSE 10 CC : PRICE VARIATION

This clause will deal with rise and fall of the prices in construction materials/ labour and other key inputs. However, this **shall not be applicable in the contracts where period of completion is 24 (twenty-four) months or less**.

The amount payable to the contractor shall be adjusted in respect of the rise or fall in the cost of labour, Petroleum, Oils and Lubricants (POL) and materials to the work for which appropriate formulae shall be prescribed in the contract and shall form part of the tender document.

If the **prices of materials** (not being materials supplied or services rendered at fixed prices by the department in accordance with **clause 10 & 34** thereof) and/or **wages of labour** required for execution of the work **increase**, the **contractor shall be compensated for such increase as per provisions detailed below and the amount of**

the contract shall accordingly be varied, subject to the condition that that such compensation for escalation in prices and wages shall be available only for the work

done during the stipulated period of the contract including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. However, for the work done during the justified period extended as above, the compensation as detailed below will be limited to prices/wages prevailing at the time of updated stipulated date of completion considering the effect of extra work (extra time to be calculated on pro-rata basis only as cost of extra work x stipulated period/tendered cost). No such compensation shall be payable for a work for which the stipulated period of completion is equal to or less than the time as specified in Schedule F. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions: -

(i) The base date for working out such escalation shall be the last stipulated date of receipt of tenders including extension, if any.

(ii) The cost of work on which escalation will be payable shall be reckoned as below:

(a) Gross value of work done up to this quarter: (A)
(b) Gross value of work done up to the last quarter: (B)
(c) Gross value of work done since previous quarter(A-B): (C)
(d) Full assessed value of Secured Advance fresh paid in this quarter: (D)
(e) Full assessed value of Secured Advance recovered in this quarter: (E)
(f) Full assessed value of Secured Advance for which escalation Payable in this quarter (D-E): (F)
(g) Advance payment made during this quarter: (G)
(h) Advance payment recovered during this quarter: (H)
(i) Advance payment for which escalation is payable in this Quarter(G-H): (I)
(j) Extra items/deviated quantities of items paid as per Clause 12 Based on prevailing market rates during this quarter: (J)

Then, M = C+F+I-J

N= 0.85 M

(k) Less cost of material supplied by the department as per Clause 10 and recovered during the quarter (K)

(l) Less cost of services rendered at fixed charges as per Clause 34 and recovered during the quarter (L)

Cost of work for which escalation is applicable: W = N - (K + L)

(iii) Components for materials labour, etc. shall be pre-determined for every work and incorporated in the conditions of contract attached to the tender papers included in Schedule 'F'. The decision of the Engineer-in-Charge in working out such percentage shall be binding on the contractors.

(iv) The compensation for escalation for other materials shall be worked as per the formula given below:-

$$Vm = W \times \frac{Xm}{100} \times \frac{MI - MIo}{MIo}$$

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Vm= Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

W=Cost of Work done worked out as indicated in sub-para (ii) of Clause 10CC.

Xm = Component of 'materials' expressed ad percent of the total value of work
MI = All India Wholesale Price Index for civil component/electrical component of construction material as worked out on the basis of All India Wholesale. Price Index for Individual Commodities/ Group Items for the period under consideration as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weightages to the Individual Commodities/Group Items. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of updated stipulated date of completion considering the effect of extra work (extra time to be calculated on prorata basis only as cost of extra work x stipulated period/tendered cost, shall be considered.)

Ml_o = All India Wholesale Price Index for civil component/electrical component* of construction material as worked out on the basis of All India Wholesale Price Index for Individual Commodities/Group Items valid on the last stipulated date of receipt of tender including extension, if any, as published by the Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weightages to the Individual Commodities/Group items.

Adjustment for civil component / electrical component of construction 'Materials'

***Note: relevant component only will be applicable**.

(v) The following principles shall be followed while working out the indices mentioned in para (iv) above.

(a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bills paid during the three calendar months of the said quarter. The dates of preparation of bills as finally entered in the Measurement Book by the Senior Manager/ date of submission of bill finally by the contractor to the department in case of computerised measurement books shall be the guiding factor to decide the bills relevant to the quarterly interval. The first such payment shall be made at the end of three months after the month (excluding the month in which tender was accepted) and thereafter at three months' interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.

(b) The index (MI/FI etc.) relevant to any quarter/period for which such compensation is paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to date of completion after the quarter covered by the last such instalment of payment, is less than three months, the index Ml and Fl shall be the average of the indices for the months falling within that period.

(vi) The compensation for escalation for labour shall be worked out as per the formula given below:-

$$VL = W \times \frac{Y}{100} \times \frac{LI - LIo}{LIo}$$

VL : Variation in labour cost i.e. amount of increase or decrease in rupees to be paid or recovered.

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W : Value of work done, worked out as indicated in sub-para (ii) above.

Y : Component of labour expressed as a percentage of the total value of the work.

LI : Minimum wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the minimum wage prevailing on the last date of quarter previous to the quarter pertaining to updated stipulated date of Completion considering the effect of extra work (extra time to be calculated on pro rata basis only as cost of extra work x stipulated period/tendered cost, shall be considered.)

Llo : Minimum daily wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as on the last stipulated date of receipt of tender including extension, if any.

(vii) The following principles will be followed while working out the compensation as per sub- para (vi) above.

(a) The minimum wage of an unskilled male mazdoor mentioned in sub-para (vi) above shall be the higher of the wage notified by TSECL of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.

(b) The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters;

(c) Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled adult male mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.

(viii) In the event the price of materials and/or wages of labour required for execution of the work decrease/s, there shall be a downward adjustment of the cost of work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formula herein before stated under this Clause 10CC shall mutatis mutandis apply, provided that:

(a) no such adjustment for the decrease in the price of materials and/or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is equal to or less than the time as specified in Schedule 'F'.

(b) the Engineer-in-Charge shall otherwise be entitled to lay down the procedure by which the provision of this sub-clause shall be implemented from time to time and the decision of the Engineer-in-Charge on his behalf shall be final and binding on the contractor.

Note: Updated stipulated date of completion (period of completion plus extra time for extra work for compensation under clause 10CC)

The factor of 1.25 taken into account for calculating the extra time under clause 12.1 for extra time shall not be considered while calculating the updated stipulated date of completion for this purpose in clause 10CC.

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CLAUSE 10 D : DISMANTLED MATERIAL GOVT. PROPERTY

The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as **TSECL's property** and such materials shall be disposed off to the best advantage of TSECL according to the instructions in writing issued by the Engineer-in-Charge.

CLAUSE11: WORK TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, ORDERS ETC.

The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and **instructions in writing** in respect of the work signed by the Engineer-in-Charge and the contractor shall be furnished free of charge one copy of the contract **documents** together with specifications, designs, drawings and instructions as are not included in the standard specifications of **Central Public Works Department (CPWD)/MoRD/MoRTH** or in any **Bureau of Indian Standard (BIS)** or any other, published standard or code or, Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

CLAUSE 12 : DEVIATIONS/VARIATIONS EXTENT AND PRICING

The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

The **completion cost of any agreement** for **Construction/Maintenance works** including works of upgradation, aesthetic, special repair, addition/ alteration **shall not exceed the Tendered amount**. Any further deviation beyond this limit shall be approved by the appropriate authority as per **latest Delegation of Financial Power Rules, TSECL (DFPRT) in force** with recorded reason and take suitable corrective action.

12.1 T h e time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows:

(i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus

(ii) 10% of the time calculated in (i) above or such further additional time as may be considered reasonable by the appropriate authority of TSECL .

12.2

DEVIATION, EXTRA ITEMS AND PRICING

A. FOR PROJECT AND ORIGINAL WORKS

In the case of extra item(s) (items that are completely new, and are in addition to the items contained in the contract), the contractor may within 15(fifteen) days of receipt of order Or occurrence of necessity of the item(s) shall submit the claim of rates, supported by proper analysis, which shall include invoices, vouchers etc. and Manufacturer's specification for the work failing which the rate approved later by the Engineer- in- charge shall be binding and the Engineer-in-charge shall within prescribed time limit of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and communicate the accepted rate to the contractor so determined at the earliest.

B. FOR MAINTENANCE WORKS INCLUDING WORKS OF UPGRADATION, AESTHETIC, SPECIAL REPAIR, ADDITION/ ALTERATION:

In the case of Extra Item(s) being the schedule items (Tripura Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus/minus percentage above/ below quoted contract amount.

Payment of Extra items in case of non-schedule items (Non-SoR, Tripura items) shall be made as per the prevailing market rate.

DEVIATION, SUBSTITUTED ITEMS, PRICING

A. FOR PROJECT AND ORIGINAL WORKS:

In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para.

(a) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

(b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

B. FOR MAINTENANCE WORKS INCLUDING WORKS OF UPGRADATION, AESTHETIC, SPECIAL REPAIR, ADDITION/ ALTERATION:

In the case of Substitute Item(s) being the schedule items (Tripura Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus/minus percentage above/ below quoted contract amount. Payment of Substitute in case of non-schedule items (Non-SoR, Tripura items) shall be made as per the prevailing market rate.

DEVIATION, DEVIATED QUANTITIES, PRICING

A. FOR PROJECT AND ORIGINAL WORKS:

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in **Schedule -F**, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within prescribed time limit of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

B. FOR MAINTENANCE WORKS INCLUDING WORKS OF UPGRADATION, AESTHETIC, SPECIAL REPAIR, ADDITION/ ALTERATION:

In the case of contract items, which exceed the limits laid down in **Schedule -F**, the contractor shall be paid rates specified in the schedule of quantities.

The prescribed time limits for finalising rates for Extra Item(s), Substitute Item(s) and Deviated Quantities of contract items is **within 30 (thirty) days after submission of proposal by the contractor without observation of the Engineer-in-Charge**.

12.3

A. FOR PROJECT AND ORIGINAL WORKS:

The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Schedule- F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

B. FOR MAINTENANCE WORKS INCLUDING WORKS OF UPGRADATION, AESTHETIC, SPECIAL REPAIR, ADDITION/ ALTERATION:

In case of decrease in the rates prevailing in the market of items for the work in excess of the limits laid down in **Schedule- F**, the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

12.4 The contractor shall send to the Engineer-in-Charge once every three months, an

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up to date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Superintending Engineer may authorise consideration of such claims on merits.

12.5 F o r the purpose of operation of **Schedule - F**, the following works shall be treated as **works relating to foundation unless & otherwise defined** in the contract:

(i)	For Buildings:	All works up to 1.2 metres above ground level or up to floor 1 level whichever is lower.
(ii)	For abutments, piers and well staining:	All works up to 1.2 m above the bed level.
(iii)	For retaining walls, wing walls, compound walls, chimneys, over- head reservoirs / tanks and other elevated structures:	All works up to 1.2 metres above the ground level.
(iv)	For reservoirs/tanks (other than overhead reservoirs/tanks):	All works up to 1.2 metres above the ground level
(v)	For basement:	All works up to 1.2 m above ground level or up to floor 1 level whichever is lower.
(vi)	For Roads, all items of excavation and filling including treatment of sub base.	

12.6 Any operation incidental to or necessarily has to be in contemplation of tenderer while filing. tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

CLAUSE 13 : **FORECLOSURE OF CONTRACT DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK**

If at any time after acceptance of the tender, or during the progress of work, the purpose or object for which the work is being done changes due to any supervening cause and as a result of which the work has to be abandoned or reduced in scope, the Engineer-in-Charge shall give notice in writing to that effect to the contractor and the contractor stating the decision as well as the cause for such decision and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

The contractor shall be paid at contract rates, full amount for works executed at site and, in addition, a reasonable amount as certified by the Engineer-in-Charge for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the foreclosure:

(i) Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office; storage accommodation and water storage tanks.

(ii) TSECL shall have the option to take over contractor's materials or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided, however TSECL shall be bound to take over the materials or such portions thereof as the contractor does not desire to retain. For materials taken over or to be taken over by TSECL, cost of such materials as detailed by Engineer-in- Charge shall be paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the contractor.

(iii) If any materials supplied by TSECL are rendered surplus, the same except normal wastage shall be returned by the contractor to TSECL at rates not exceeding those at which these were originally issued, less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the contractor. In addition, cost of transporting such materials from site to TSECL stores, if so required by TSECL, shall be paid.

(iv) Reasonable compensation for transfer of T & P from site to contractor's permanent stores or to his other works, whichever is less. If T & P are not transported to either of the said places, no cost of transportation shall be payable.

(v) Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary.

The contractor shall, if required by the Engineer- in-Charge, furnish to him, books of account, wage books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.

The reasonable amount of items on (i), (iv) and (v) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the TSECL as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, the Engineer-in-Charge shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the TSECL from the contractor under the terms of the contract.

In the event of action being taken under Clause 13 to reduce the scope of work, the contractor may furnish fresh Performance Guarantee on the same conditions, in the same manner and at the same rate for the balance tendered amount and initially valid up to the extended date of completion or stipulated date of completion if no extension has been granted plus 60 days beyond that.

Wherever such a fresh Performance Guarantee is furnished by the contractor the Engineer-in-Charge may return the previous Performance Guarantee.

CLAUSE 14 : **CARRYING OUT PART WORK AT RISK & COST OF CONTRACTOR**

If contractor:

(i) At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; or

(ii) Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge; or

Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge.

The Engineer- in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to TSECL, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to:

(a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or

(b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.

The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/ part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by TSECL because of action under this clause.

In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

Any excess expenditure incurred or to be incurred by TSECL in completing the part work/ part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by TSECL as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to TSECL in law or as per agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall

be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.

In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

CLAUSE 15 : SUSPENSION OF WORK

(i) The contractor shall, on receipt of the order in writing of the Engineer-in-Charge, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-Charge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons:

(a) on account of any default on the part of the contractor or;

(b) for proper execution of the works or part thereof for reasons other than the default of the contractor; or

(c) for safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in- Charge.

(ii) If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:

(a) the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and;

(b) If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in- Charge may consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in- Charge within fifteen days of the expiry of the period of 30 days.

(iii) If the works or part thereof is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for reason (a) in sub- para (i) above, the contractor may after receipt of such order serve a written notice on the Engineer-in-Charge requiring permission within **15(fifteen) days** from receipt by the Engineer- in-Charge of the said notice, to proceed with the work or part

thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by TSECL or where it affects whole of the works, as an abandonment of the works by TSECL, shall within **10(ten) days** of expiry of such period of **15(fifteen) days** give notice in writing of his intention to the Engineer-in-Charge. In the event of the contractor treating the suspension as an abandonment of the contract by TSECL, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within **30(thirty) days** of the expiry of the period of **90(ninety) days.**

CLAUSE 15 A : COMPENSATION IN CASE OF DELAY OF SUPPLY OF MATERIAL BY TSECL

The contractor shall not be entitled to claim any compensation from TSECL for the loss suffered by him on account of delay by TSECL in the supply of materials in schedule 'B' where such delay is covered by the difficulties relating to the supply of wagons, force majeure or any reasonable cause beyond the control of the TSECL.

This clause 15 A will not be applicable for works where no material is stipulated.

CLAUSE 16: ACTION IN CASE WORK NOT DONE AS PER SPECIFICATIONS

All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer-in-charge, his authorized subordinates in charge of the work and all the superior officers, officer of the Quality Assurance Unit of the Department or any organization engaged by the Department for Quality Assurance and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

If it appears to the Engineer-in-charge or his authorized subordinates in-charge of the work or to the Chief Engineer in charge of Quality Assurance or his subordinate officers or the officers of the organization engaged by the Department for Quality Assurance, that any work has been executed with unsound, imperfect, or unskilful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand in writing which shall be made within **12 (twelve) months** [**6(six) months** in the case of work costing **`10 Lakh and below except road work**] of the completion of the work from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable

materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Engineer-in- Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 2 of the contract (for non-completion of the work in time) for this default.

In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but **may accept** such items at **reduced rates** as the **authority specified** in **Schedule - F** may **consider reasonable during the preparation of on account bills or final bill** if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

In order to control the quality of work, a **Quality Assurance Cell** shall be formed comprising of multi-disciplinary professionals/ engineers to cover **works [value more than `5.00 Crore]**, such as civil, mechanical, electrical etc.

In case of non-availability of qualified professionals/ engineers in house for the purpose of quality assurance cell, then the approval of competent authority shall have to be taken for deploying professionals from outside agencies. The provision for third party quality check may also be considered for a work beyond a specified amount and nature of works as desired by Engg-in-Charge with the approval of the Department.

CLAUSE 17 : CONTRACTOR LIABLE FOR DAMAGES DEFECTS DURING DEFECT LIABILITY PERIOD

If the contractor or his working people or servants break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within **12(twelve) months** [**6(six) months** in the case of work costing **`10.00 lakh (Rupees Ten lakh)** and below except road work] after a certificate final or otherwise of its completion shall have been given by the Engineer- in-Charge as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof.

The security deposit of the contractor shall not be refunded before the expiry of 12 (twelve) months [6(six) months in the case of work costing `10.00 Lakh (Rupees Ten Lakh) and below except road work] after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later. Provided that **in the case of Road Work**, if in the opinion of the Engineer-in-Charge, **half of the security deposit** is **sufficient, to meet all liabilities** of the contractor under this contract, **half of the security deposit** will be refundable **after 6(six) months** and the **remaining half after 12(twelve) months** of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is

later.

In case of **Maintenance and Operation works of E&M services**, the security deposit deducted from contractors shall be refunded within **1(one) month** from the date of final payment or within **1(one) month** from the date of completion of the **maintenance contract** whichever is earlier.

For **new Road work**, the **Defect Liability Period** will be **12 (twelve) months** after completion certificate given by the Engineer-in-charge and **36 (thirty-six) months** as **maintenance period**.

CLAUSE 18 : CONTRACTOR TO SUPPLY TOOLS & PLANTS ETC.

The **contractor shall provide at his own cost all materials** (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer-in-Charge's stores), **machinery, tools & plants** as specified in **Schedule-F**. In addition to this, appliances, implements, other plants, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-Charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work.

The **contractor** shall **also supply without charge** the requisite number of **persons with the means and materials**, necessary for the purpose of **setting out works, and counting, weighing and assisting the measurement for examination** at any time and from time to time **of the work or materials**. **Failing his so doing**, the **same may be provided by the Engineer-in-Charge at the expense of the contractor** and the **expenses may be deducted, from any money due to the contractor**, under this **contract** or otherwise and/or from his **security deposit** or the proceeds of sale thereof, or of a sufficient portions thereof.

CLAUSE 18 A : RECOVERY OF COMPENSATION PAID TO WORKMEN

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, TSECL is obliged to pay compensation to a workman employed by the contractor, in execution of the works, TSECL will recover from the contractor, the amount of the compensation so paid; and, without prejudice to the rights of the TSECL under sub-section (2) of Section 12, of the said Act, TSECL shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by TSECL to the contractor whether under this contract or otherwise. TSECL shall not be bound to contest any claim made against it under sub-section (1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to TSECL full security for all costs for which TSECL might become liable in consequence of contesting such claim.

CLAUSE 18 B : ENSURING PAYMENT AND AMENITIES TO WORKERS IF CONTRACTOR FAILS

ln every case in which by virtue of the provisions of the Contract Labour (Regulation

and Abolition) Act, 1970, and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, TSECL is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19H or under the P.W.D. Contractor's Labour Regulations, or under the Rules framed by TSECL from time to time for the protection of health and sanitary arrangements for workers employed by P.W.D. Contractors, TSECL will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the TSECL under sub-section(2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, TSECL shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by TSECL to the contractor whether under this contract or otherwise TSECL shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the TSECL full security for all costs for which TSECL might become liable in contesting such claim.

CLAUSE 19: LABOUR LAWS TO BE COMPLIED BY THE CONTRACTOR

The contractor shall obtain a valid licence under the Contract Labour (R&A) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.

The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.

The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfil these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.

CLAUSE 19A

No labour below the **age** of **14** (**fourteen) years** shall be employed on the work.

CLAUSE 19 B

Payment of wages:

(i) The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the C. P.W.D. Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, or Tripura State Contractor's Labour Regulations, wherever applicable.

(ii) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, as if the labour

had been immediately employed by him.

(iii) In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the Central/State Public Works Department contractor's Labour Regulations made by TSECL from time to time in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorized made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.

(iv) (a) The Engineer-in-Charge concerned shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.

(b) Under the provision of Minimum Wages (Central) Rules, 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, the Engineer-in-Charge shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-Charge concerned..

(v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made thereunder from time to time.

(vi) The contractor shall indemnify and keep indemnified TSECL against payments to be made under and for the observance of the laws aforesaid and the Labour Regulations without prejudice to his right to claim indemnity from his contractors.

(vii) The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.

(viii) Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.

(ix) The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

CLAUSE 19C

In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the **contractor shall** at his **own expense arrange** for the **safety provisions** and shall at his own expense provide for **all facilities** in connection therewith. In case the **contractor fails to make arrangement** and provide **necessary facilities** as aforesaid, the Engineer-in- Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

CLAUSE 19 D

The contractor shall submit by the 4th and 19th of every month, to the Engineer-in-Charge, a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively: -

1. the **number of labourers employed by him on the work**,
2. their working hours,
3. the wages paid to them,
4. the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and
5. the number of female workers who have been allowed maternity benefit according to Clause 19F and the amount paid to them.

CLAUSE 19 E

In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with all the rules framed by TSECL from time to time for the protection of health and sanitary arrangements for workers employed by the Public Works Department and its contractors.

CLAUSE 19 F

Leave and pay during leave shall be regulated as follows:-

1. Leave:
   (i) in the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks up to and including the day of delivery and 4 weeks following that day,
   (ii) in the case of miscarriage - upto 3 weeks from the date of miscarriage.
2. Pay:
   (i) in the case of delivery - leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of **3(three) months** immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater.
   (ii) in the case of miscarriage - leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done

during a period of **3(three) months** immediately preceding the date of such miscarriage.

3. Conditions for the grant of Maternity Leave:

No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave.

CLAUSE 19 G

If Engineer-in-Charge feels that the contractor(s) is/are **not properly observing and complying** with the provisions of the **Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970**, **and the Contract Labour (R& A) Central Rules 1971**, for the protection of health and sanitary arrangements for work-people employed by the contractor(s) (hereinafter referred as "the said Rules") the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the contractor(s) shall fail within the period specified in the notice to comply with and/observe the said Rules and to provide the amenities to the work-people as aforesaid, the Engineer-in-Charge shall have the power to provide the amenities hereinbefore mentioned at the cost of the contractor(s). The contractor(s) shall erect, make and maintain at his/their own expense and to approved standards all necessary huts and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said huts and sanitary arrangements be remodelled and/or reconstructed according to approved standards, and if the contractor(s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Engineer-in-Charge shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor(s).

CLAUSE 19 H

The contractor(s) shall at his/their own cost provide his/their labour with a sufficient number of huts (hereinafter referred to as the **camp**) of the following specifications on a suitable plot of land to be approved by the Engineer-in-Charge.

(i) (a) The minimum height of each hut at the eaves level shall be 2.10m (7 ft.) and the floor area to be provided will be at the rate of 2.7 sqm (30 sqft) for each member of the worker's family staying with the labourer.

(b) The contractor(s) shall in addition construct suitable cooking places having a minimum area of 1.80m x 1.50m (6'x5') adjacent to the hut for each family.

(c) The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women.

(d) The contractor(s) shall construct sufficient number of bathing and washing

places, one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened.

(ii) (a) All the huts shall have walls of sun-dried or burnt-bricks laid in mud mortar or other suitable local materials as may be approved by the Engineer-in-Charge. In case of sun-dried bricks, the walls should be plastered with mud gobri on both sides. The floor may be kutcha but plastered with mud gobri and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with thatch or any other materials as may be approved by the Engineer-in-Charge and the contractor shall ensure that throughout the period of their occupation, the roofs remain water-tight.

(b) The contractor(s) shall provide each hut with proper ventilation.

(c) All doors, windows, and ventilators shall be provided with suitable leaves for security purposes.

(d) There shall be kept an open space of at least 7.2m (8 yards) between the rows of huts which may be reduced to 6m (20 ft.) according to the availability of site with the approval of the Engineer-in-Charge. Back to back construction will be allowed.

(iii) **Water Supply -** The contractor(s) shall provide adequate supply of water for the use of labourers. The provisions shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provided. The contractor(s) shall also at his/ their own cost make arrangements for laying pipe lines for water supply to his/ their labour camp from the existing mains wherever available, and shall pay all fees and charges therefore.

(iv) The site selected for the camp shall be high ground, removed from jungle.

(v) **Disposal of Excreta** - The contractor(s) shall make necessary arrangements for the disposal of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the contractor(s) shall make arrangements for the removal of the excreta through the Municipal Committee/authority and inform it about the number of labourers employed so that arrangements may be made by such Committee/authority for the removal of the excreta. All charges on this account shall be borne by the contractor and paid direct by him to the Municipality/authority. The contractor shall provide one sweeper for every eight seats in case of dry system.

(vi) **Drainage** - The contractor(s) shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.

(vii) The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.

(viii) **Sanitation** - The contractor(s) shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.

CLAUSE 19 I

The Engineer-in-Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors' employ upon the work who may be

incompetent or misconduct himself and the contractor shall forthwith comply with such requirements. In respect of maintenance/repair or renovation works etc. where the labour have an easy access to the individual houses, the contractor shall issue identity cards to the labourers, whether temporary or permanent and he shall be responsible for any untoward action on the part of such labour. SM/Manager will display a list of contractors working in the colony/Blocks on the notice board in the colony and also at the service centre, to apprise the residents about the same.

CLAUSE 19J

It shall be the responsibility of the contractor to see that the building under construction is not occupied by anybody unauthorized during construction, and is handed over to the Engineer-in-Charge with vacant possession of complete building. If such building though completed is occupied illegally, then the Engineer-in-Charge shall have the option to refuse to accept the said building/buildings in that position. Any delay in acceptance on this account will be treated as the delay in completion and for such delay, a levy upto 5% of tendered value of work may be imposed by the Superintending Engineer whose decision shall be final both with regard to the justification and quantum and be binding on the contractor.

However, the Superintending Engineer, through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.

CLAUSE 19K: EMPLOYMENT OF SKILLED/ SEMI-SKILLED WORKERS

The contractor shall, at all stages of work, deploy skilled/semi-skilled tradesmen who are qualified and possess certificate in particular trade from **CPWD/PWD Training Institute /Industrial Training Institute /National Institute of construction Management and Research (NICMAR)/ National Academy of Construction, CIDC/RPL or any similar reputed and recognized Institute managed/ certified by State/Central TSECL**. **The number** of such qualified tradesmen **shall not be less than 20% of total skilled/semi-skilled workers required in each trade at any stage of work**. The contractor shall submit number of **man days required in respect of each trade**, it's scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer in charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in- Charge. **Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of ` 100 per such tradesman per day**. Decision of Engineer in Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding.

In case of shortfall of required number of skilled workers, the **contractor shall arrange on site training** as per norms in co-ordination with the organisation as stated.

CLAUSE 19L : CONTRIBUTION OF EPF AND ESI

The ESI (Employees' State Insurance) and EPF (Employees' Provident Fund) contributions on the part of employer in respect of this contract shall be paid by the contractor.

CLAUSE 20 : MINIMUM WAGES ACT TO BE COMPLIED WITH

The contractor shall comply with all the provisions of the **Minimum Wages Act, 1948**, and **Contract Labour (Regulation and Abolition) Act, 1970**, amended from time to time and rules framed thereunder and other labour laws affecting contract labour that may be brought into force from time to time.

CLAUSE 21 WORK NOT TO BE SUBLET. ACTION IN CASE OF INSOLVENCY

The contract shall not be assigned or sublet without the written approval of the Engineer-in - Charge. And if the contractor assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor, or any of his servants or agent to any public officer or person in the employ of TSECL in any way relating to his office or employment, or if any such officer or person become in any way directly or indirectly interested in the contract, the Engineer- in-Charge on behalf of the Governor of Tripura shall have power to adopt the course specified in Clause 3 hereof in the interest of TSECL and in the event of such course being adopted, the consequences specified in the said Clause 3 shall ensue.

However, the works contract may provide for the contractor to get specified works executed from sub-contractors included in the pre-qualification application or later agreed to by the Procuring Entity, with a caveat that the responsibility for all sub-contract work rests with the prime contractor. Sub-contracting will generally be for specialized items of work, such as reinforced earth retaining walls, pre-stressing works, and so on. Procurement of material, hire of equipment or engagement of labour will not mean sub-contracting. **The total value of sub-contracting work will not exceed 25 (twenty-five) percent of the contract price**. **Sub-contracting by the contractor without the approval of the Procuring Entity shall be a breach of contract**.

CLAUSE 22

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of TSECL without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

CLAUSE 23 : CHANGES IN FIRM'S CONSTITUTION TO BE INTIMATED

Where the contractor is a **partnership firm**, the previous approval in writing of the Engineer-in- Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern, such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 hereof and the same action may be taken, and the same consequences shall ensue as provided in the said Clause 21.

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CLAUSE 24

All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in-Charge who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

CLAUSE 25: DISPUTE REDRESSAL COMMITTEE (DRC), SETTLEMENT OF DISPUTES & ARBITRATION

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:

If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-Charge or if the Engineer in Charge considers any act or decision of the contractor on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable and is disputed, such party shall promptly within **15 days** of the arising of the disputes request the Chief Engineer concerned who shall refer the disputes to Dispute Redressal Committee (DRC) within **30 days** along with a list of disputes with amounts claimed if any in respect of each such dispute. The Dispute Redressal Committee (DRC) shall give the opposing party two weeks for a written response, and, give its decision within a period of 60 days extendable by 30 days by consent of both the parties from the receipt of reference from the Chief Engineer.

Dispute Redressal Committee (DRC) to be constituted by the TSECL, comprising of the following Members:

A. For total claims more than ` 25.0 lakh:

a. One Managing Director(Chairman) (other than under whose jurisdiction work falls).

b. One General Manager(Technica) (other than under whose jurisdiction work falls) who shall be Member.

c. The Addl. General Manager in-charge of the work shall present case before DRC but shall not have any part in decision making.

B. For total claims up to ` 25.0 lakh:

a. Two General Manager (Technical), TSCELs other than the General Manager (Technical), TSCEL under whose jurisdiction the work falls one of whom shall be General Manager (Technical), TSCEL (Planning / HQ) and who shall be the Member Secretary.

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b. The Dy. General Manager, TSCEL in-charge of the work shall present the case before DRC but will not have any part in decision making.

The constitution of Dispute Redressal Committee (DRC) shall be as indicated above, provided that no party shall be represented before the Dispute Redressal Committee by an advocate/legal counsel etc.

The DRC will submit its decision to the concerned Dy.General Manager for acceptance. The Dy.General Manager within a period of 30 days from receipt of DRC's decision shall convey acceptance or otherwise on the said decision.

If the Dispute Redressal Committee (DRC) fails to give its decision within the aforesaid period or the General Manager fails to give his decision within the aforesaid time limit or any party is dissatisfied with the decision of Dispute Redressal Committee (DRC) or concerned Dy.General Manager or expiry of time limit given above, then either party may within a period of 30(thirty) days from the receipt of the decision of Dispute Redressal Committee (DRC) or upon expiry of the aforesaid time period, as the case may be, shall give notice to the concerned General Manager, TSECL, with name of nominee Arbitrator with his consent letter for Arbitration, on prescribed proforma as per Appendix-IV under intimation to the other party.

It is a term of contract that any party invoking arbitration must exhaust the aforesaid mechanism of settlement of claims/disputes prior to invoking arbitration.

The Dy. General Manager shall in such case appoint nominee Arbitrator of the Department within **30 days** of receipt of such request and refer such disputes to arbitration. The **Arbitral Tribunal** shall **consist** of **3(three) Arbitrators**. The contractor shall appoint his nominee arbitrator and make request for arbitration. Dy General Manager shall **appoint the nominee Arbitrator** for the Department **within 30 days of** receipt of such request from **Petitioner** and **two appointed arbitrators shall appoint** the **third arbitrator** who shall **act as** the **Presiding Arbitrator**. In the event of the two appointed Arbitrators failing to appoint the Presiding Arbitrator, the General Manager,TSECL shall appoint the 3rd (third) or Presiding Arbitrator.

It may be stated that when there are two parties, one may nominate an Arbitrator and the other may appoint another, the parties to nominate their respective Arbitrator, their authority to nominate cannot be questioned. What really in that circumstances can be called in question is the procedural compliance and the eligibility of their Arbitrator depending upon the norms provided under the **Arbitration & Conciliation Act, 1996** and the schedules appended thereto.

The requirements of the Arbitration and Conciliation Act, 1996 (26 of 1996) and any further statutory modifications or re-enactment thereof and the rules made there under and for the time being in force shall be applicable.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed, if any, in respect of each such dispute along with the notice for arbitration and giving reference to the decision of the DRC.

Decision of the Arbitral Tribunal is final & binding upon both the parties.

Parties, before or at the time of appointment of Arbitral Tribunal may agree in writing for fast track arbitration as per the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015.

Subject to provisions of the **Arbitration and Conciliation Act, 1996** (26 of 1996)

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whereby the counter claims if any can be directly filed before the Arbitrator/Arbitral Tribunal without any requirement of reference by the appointing authority, the arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him and in all cases where the total amount of the claims by any party **exceeds `1,00,000**, the Arbitrator/Arbitral Tribunal shall give reasons for the award.

It is also a term of the contract that if any fees are payable to the arbitrator, these shall be paid as per the provisions of the **Arbitration and Conciliation Act, 1996**.

The **place of arbitration** shall be **at Agartala, Tripura**.

The **language of arbitration** shall be **English**.

The **venue of the arbitration proceedings** shall be at such place as may be fixed by the Arbitral Tribunal in consultation with both the parties. However, failing any such agreement, the Arbitral Tribunal shall decide and declare the venue.

CLAUSE 26 : CONTRACTOR TO INDEMNIFY GOVT. AGAINST PATENT RIGHTS

The contractor shall fully indemnify and keep indemnified the TSECL of Tripura against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against TSECL in respect of any such matters as aforesaid, the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise therefrom, provided that the contractor shall not be liable to indemnify the TSECL of Tripura if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

CLAUSE 27 : LUMPSUM PROVISIONS IN TENDER

When the estimate on which a tender is made includes lump sum in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-Charge payable of measurement, the Engineer-in-Charge may at his discretion pay the lump-sum amount entered in the estimate, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of the clause.

CLAUSE 28 : ACTION WHERE NO SPECIFICATIONS ARE SPECIFIED

In the case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the **Bureau of Indian Standards Specifications**. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per **manufacturers' specifications**, if not available then as per **State Specifications**. **In case there are no**

such specifications as available above, the **work shall be carried out** in all respects **in accordance with the instructions and requirements of the Engineer-in-Charge.**

CLAUSE 29 : WITHHOLDING AND LIEN IN RESPECT OF SUM DUE FROM CONTRACTOR

(i) Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-Charge or the TSECL shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Engineer-in- Charge or the TSECL shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalisation or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Engineer-in-Charge or the TSECL shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Engineer-in-Charge of the TSECL or any contracting person through the Engineer- in-Charge pending finalization of adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or the TSECL will be kept withheld or retained as such by the Engineer-in-Charge or TSECL till the claim arising out of or under the contract is determined by the arbitrator(if the contract is governed by the arbitration clause) or by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in- Charge or the TSECL shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

(ii) TSECL shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for TSECL to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by the TSECL to the contractor, without any interest thereon whatsoever.

Provided that the TSECL shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Addl. General Manager or General Manager (Technical), TSCEL on the one hand and the contractor on the other under any term of the contract

permitting payment for work after assessment by the Addl. General Manager or the General Manager (Technical), TSCEL.

CLAUSE 29A : LIEN IN RESPECT OF CLAIMS IN OTHER CONTRACTS

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or the TSECL or any other contracting person or persons through Engineer-in-Charge against any claim of the Engineer-in-Charge or the TSECL or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer- in-Charge or the TSECL or with such other person or persons.

It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer-in-Charge or the TSECL will be kept withheld or retained as such by the Engineer-in-Charge or the TSECL or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

CLAUSE 30 : UNFILTERED WATER SUPPLY

The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.

(i) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge.

(ii) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk and cost of contractor(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in- Charge, unsatisfactory.

CLAUSE 30 A : DEPARTMENTAL WATER SUPPLY, IF AVAILABLE

Water if available may be supplied to the contractor by the department subject to the following conditions:-

(i) The water charges @ 1 % shall be recovered on gross amount of the work done.

(ii) The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply.

(iii) The Department do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor(s) to make alternative arrangements for water at his/ their own cost in the event of any temporary break down in the TSECL water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of water charges will be entertained on account of such break down.

CLAUSE 31 : ALTERNATE WATER ARRANGEMENTS

(i) Where there is no piped water supply arrangement and the water is taken by

the contractor from the wells or hand pump constructed by the TSECL, no charge shall be recovered from the contractor on that account. The contractor shall,

however, draw water at such hours of the day that it does not interfere with the normal use for which the hand pumps and wells are intended. He will also be responsible for all damage and abnormal repairs arising out of his use, the cost of which shall be recoverable from him. The Engineer-in-Charge shall be the final authority to determine the cost recoverable from the contractor on this account and his decision shall be binding on the contractor.

(ii) The contractor shall be allowed to construct temporary wells in TSECL land for taking water for construction purposes only after he has got permission of the Engineer-in- Charge in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.

CLAUSE 32 : RETURN OF SURPLUS MATERIALS

Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of TSECL either by issue from TSECL stocks or purchase made under orders or permits or licences issued by TSECL, the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the TSECL and return, if required by the Engineer-in-Charge, all surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as the Engineer-in- Charge shall determine having due regard to the condition of the materials.

The price allowed to the contractor however shall not exceed the amount charged to him excluding the element of storage charges. The decision of the Engineer- in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to action for contravention of the terms of the licence or permit and/or for criminal breach of trust, be liable to TSECL for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

CLAUSE 33 : HIRE OF PLANT & MACHINERY

(i) The contractor shall arrange at his own expense all tools, plant, machinery and equipment (hereinafter referred to as T&P) required for execution of the work except for the Plant & Machinery listed in Schedule 'C' and stipulated for issue to the contractor. If the contractor requires any item of T&P on hire from the T&P available with the TSECL over and above the T&P stipulated for issue, the TSECL will, if such item is available, hire it to the contractor at rates to be agreed upon between him and the Engineer-in-Charge. In such a case, all the conditions hereunder for issue of T&P shall also be applicable to such T&P as is agreed to be issued.

(ii) Plant and Machinery when supplied on hire charges shown in Schedule 'C' shall be made over and taken back at the departmental equipment yard/shed shown in Schedule 'C' and the contractor shall bear the cost of carriage from the place of issue to

the site of work and back. The contractor shall be responsible to return the plant and machinery with condition in which it was handed over to him, and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation and otherwise during transit including damage to or loss of plant and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Divisional Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.

(iii) The plant and machinery as stipulated above will be issued as and when available and if required by the contractor. The contractor shall arrange his programme of work according to the availability of the plant and machinery and no claim, whatsoever, will be entertained from him for any delay in supply by the Department.

(iv) The hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machinery made over upto and inclusive of the date of the return in good order even though the same may not have been working for any cause except major breakdown due to no fault of the contractor or faulty use requiring more than three working days continuously (excluding intervening holidays and Sundays) for bringing the plant in order. The contractor shall immediately intimate in writing to the Engineer-in- Charge when any plant or machinery gets out of order requiring major repairs as aforesaid. The Engineer-in-Charge shall record the date and time of receipt of such intimation in the log sheet of the plant or machinery. Based on this if the breakdown before lunch period or major breakdown will be computed considering half a day's breakdown on the day of complaint. If the breakdown occurs in the post lunch period of major breakdown will be computed starting from the next working day. In case of any dispute under this clause, the decision of the Superintending Engineer shall be final and binding on the contractor.

(v) The hire charges shown above are for **each day of 8 hours (inclusive of the one hour lunch break)** or part thereof.

(vi) Hire charges will include service of operating staff as required and also supply of lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc. for running the plant and machinery and also the full time chowkidar for guarding the plant and machinery against any loss or damage shall be arranged by the contractor who shall be fully responsible for the safeguard and security of plant and machinery. The contractor shall on or before the supply of plant and machinery sign an agreement indemnifying the Department against any loss or damage caused to the plant and machinery either during transit or at site of work.

(vii) Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer-in-Charge may, at his discretion, allow the plant and machinery to be worked for more than normal period of 8 hours a day. In that case, the hourly hire charges for overtime to be borne by the contractor shall be 50% more than the normal proportionate hourly charges (1/8th of the daily charges) subject to a minimum of half day's normal charges on any particular day. For working out hire charges for over time, a period of half an hour and above will be charged as one hour and a period of less than half an hour will be ignored.

(viii) The contractor shall release the plant and machinery every seventh day for periodical servicing and/or wash out which may take about three to four hours or more. Hire charges for full day shall be recovered from the contractor for the day of servicing/ wash out irrespective of the period employed in servicing.

(ix) The plant and machinery once issued to the contractor shall not be returned by him on account of lack of arrangements of labour and materials, etc. on his part, the

same will be returned only when they are required for major repairs or when in the opinion of the Engineer-in-Charge, the work or a portion of work for which the same was issued is completed.

(x) Log Book for recording the hours of daily work for each of the plant and machinery supplied to the contractor will be maintained by the Department and will be countersigned by the contractor or his authorized agent daily. In case the contractor contests the correctness of the entries and/or fails to sign the Log Book, the decision of the Engineer- in-Charge shall be final and binding on him. Hire charges will be calculated according to the entries in the Log Book and will be binding on the contractor. Recovery on account of hire charges for road rollers shall be made for the minimum number of days worked out on the assumption that a roller can consolidate per day and maximum quantity of materials or area surfacing as noted against each in the annexed statement (see attached annexure).

(xi) In the case of concrete mixers, the contractors shall arrange to get the hopper cleaned and the drum washed at the close of the work each day or each occasion.

(xii) In case rollers for consolidation are employed by the contractor himself, log book for such rollers shall be maintained in the same manner as is done in case of departmental rollers, maximum quantity of any items to be consolidated for each roller-day shall also be same as in Annexure to **Clause 33(x)**. For less use of rollers, recovery for the less roller days shall be made at the stipulated issue rate.

(xiii) The contractor shall be responsible to return the plant and machinery in the condition in which it was handed over to him and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation or otherwise or during transit including damage to or loss of parts, and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Divisional Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.

(xiv) The contractor will be exempted from levy of any hire charges for the number of days he is called upon in writing by the Engineer-in-Charge to suspend execution of the work, provided TSECL plant and machinery in question have, in fact, remained idle with the contractor because of the suspension.

(xv) In the event of the contractor not requiring any item of plant and machinery issued by TSECL though not stipulated for issue in Schedule 'C' any time after taking delivery at the place of issue, he may return it after two days written notice or at any time without notice if he agrees to pay hire charges for two additional days without, in any way, affecting the right of the Engineer-in-Charge to use the said plant and machinery during the said period of two days as he likes including hiring out to a third party.

CLAUSE 34 : CONDITION RELATING TO USE OF ASPHALTIC MATERIALS

(i) The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used.

(ii) The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the process of painting is started and shall hypothecate it to the Engineer-in-Charge. If any bitumen or tar remains unused on completion of the work on account of lesser use of materials in actual execution for reasons other than authorized changes of specifications and abandonment of

portion of work, a corresponding deduction equivalent to the cost of unused materials as determined by the Engineer-in-Charge shall be made and the material return to the contractors. Although the materials are hypothecated to TSECL, the contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the consent of the Engineer-in- Charge in writing.

(iii) The contractor shall be responsible for rectifying defects noticed within a year from the date of completion of the work and the portion of the security deposit relating to asphaltic work shall be refunded after the expiry of this period.

CLAUSE 35 : EMPLOYMENT OF TECHNICAL STAFF AND EMPLOYEES

Contractors Superintendence, Supervision, Technical Staff & Employees

(i) The contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract.

The contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-in-Charge, the name(s), qualifications, experience, age, address(s) and other particulars along with their certificates, of the **Principal Technical Personnel** to be in charge of the work and **other Technical Personnel**, who will be supervising the work. Minimum requirement of such technical personnel and their qualifications and experience shall not be lower than specified in **Schedule-F**. The Engineer-in-Charge shall within **3(three) days** of receipt of such communication intimate in writing his approval or otherwise of such a personnel(s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such personnel(s) according to the provisions of this clause. Decision of the Tender Accepting Authority shall be final and binding on the contractor in this respect. Such a principal technical personnel and other technical personnel(s) shall be appointed by the contractor soon after receipt of the approval from Engineer-in-charge and **shall be available at site before start of work**.

All the provisions applicable to the principal technical personnel under the Clause will also be applicable to other technical personnel(s) **The principal Technical Personnel and other Technical Personnel(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required, to the Engineer-in-Charge and/or his designated representative to take instructions**. **Instructions given to the principal Technical Personnel or other Technical Personnel shall be deemed to have the same force as if these have been given to the contractor**.

The principal **Technical Personnel** and other Technical Personnel(s) shall be actually **available at site** fully during all stages of execution of work, **during recording/checking/test checking of measurements of works** and whenever so required by the Engineer-in-Charge and shall also **note down instructions conveyed by the Engineer-in- Charge or his designated representative(s)** in the "**Site Order Book**" and shall **affix his/their signature in token of noting down the instructions** and **in token of acceptance of measurements/ checked measurements/ test checked measurements**. The representative(s) shall not look after any other work. Substitutes, duly approved by Engineer-in-Charge of

the work in similar manner as aforesaid shall be provided in event of absence of any of the representative(s) by more than two days.

If the Engineer-in-Charge, whose decision in this respect is final and binding on the contractor, is convinced that no such technical personnel(s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this clause, a **recovery (non- refundable)** shall be effected from the contractor as specified in **Schedule- F** and the decision of the Engineer-In-Charge as recorded in the site order book and measurement recorded checked/test checked in Measurement Books shall be final and binding on the contractor. **Further if the contractor fails to appoint suitable technical Principal Technical Personnel and/or other Technical Personnel and if such appointed persons are not effectively present or are absent by more than 2(two) days without duly approved substitute or do not discharge their responsibilities satisfactorily, the Engineer-in-Charge shall have full powers to suspend the execution of the work until such date as suitable other Technical Personnel is/are appointed and the contractor shall be held responsible for the delay so caused to the work.** The contractor shall submit a certificate of employment of the technical personnel (in the form of copy of Form-16 or CPF deduction issued to the Engineers employed by him) along with every account bill final bill and shall produce evidence if at any time so required by the Engineer-in-Charge.

(ii) The contractor shall provide and employ on the site only such **technical assistants** as are skilled and experienced in their respective fields and such **foremen and supervisory staff** as are competent to give proper supervision to the work.

The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work.

The Engineer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-in-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer- in-Charge and the persons so removed shall be replaced as soon as possible by competent substitutes.

CLAUSE 36 : LEVY/TAXES PAYABLE BY CONTRACTOR

(i) GST, Building and other Construction Workers Welfare Cess or any other tax, levy or Cess in respect of input for or output by this contract shall be payable by the contractor and TSECL shall not entertain any claim whatsoever in this respect except as provided under Clause 37.

(ii) The contractor shall deposit royalty and obtain necessary permit for supply of the sand, stone, red bajri, kankar, etc. from local authorities.

If pursuant to or under any law, notification or order any royalty, cess or the likes become payable by the TSECL of Tripura and does not at any time become payable by the contractor to the State TSECL or Local authorities in respect of any material used by the contractor in the works, then in such a case, it shall be lawful on the part of the TSECL of Tripura to have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.

CLAUSE 37 : CONDITIONS FOR REIMBURSEMENT OF LEVY/TAXES IF LEVIED AFTER RECEIPT OF TENDERS

(i) All tendered rates shall be inclusive of any tax, levy or cess applicable on last stipulated date of receipt of tender including extension if any. **No adjustment** i.e. increase or decrease shall be made for any variation in the rate of GST, Building and Other Construction Workers Welfare Cess or any tax, levy or cess applicable on inputs.

However, effect of variation in rates of GST or Building and Other Construction Workers Welfare Cess or imposition or repeal of any other tax, levy or cess applicable on output of the works contract shall be adjusted on either side, be it on increase or decrease in such rates.

Provided further that for Building and Other Construction Workers Welfare Cess or any tax (other than GST), levy or cess enhanced or imposed after the last date of receipt of tender including extension if any, shall be reimbursed to the contractor only if the contractor necessarily and properly pays such increased amount of taxes, levies, cess etc.

Provided further that such increase, including GST, imposed during the extended period of contract for which the contractor alone is responsible by way of delay as **determined by the authority for extension of time under Clause 5 in Schedule-F shall not be reimbursed**.

(ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the TSECL and/or the Engineer-in-Charge and shall also furnish such other information/document as the Engineer-in-Charge may require from time to time.

(iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, or variation or repeal of such tax or levy or cess give a written notice thereof to the Engineer-in-charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

CLAUSE 38 : TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR

Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the Divisional Officer on behalf of the Governor of Tripura shall have the option of terminating the contract without compensation to the contractor.

CLAUSE 39 : IF RELATIVE WORKING IN TSECL TRIPURA THEN THE CONTRACTOR NOT ALLOWED TO TENDER

The contractor shall not be permitted to tender for works in the TSECL Tripura circle responsible for award and execution of contracts in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Addl. General Manager and Manager (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted Officer in the Tripura.

. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department. If however the

contractor is registered in any other department, he shall be debarred from tendering in TSECL Tripura for any breach of this condition.

NOTE: By the term "near relatives" is meant wife, husband, parents and grandparents, children and grandchildren, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.

CLAUSE 40 : NO GAZETTED ENGINEER TO WORK AS CONTRACTOR WITHIN 2(TWO) YEAR OF RETIREMENT

No engineer of gazetted rank or other gazetted officer employed in engineering or administrative duties in an engineering department of the TSECL of Tripura shall work as a contractor or employee of a contractor for a period of **2(two) year after his retirement** from TSECL service without the previous permission of TSECL of Tripura in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of TSECL of Tripura as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

CLAUSE 41 RETURN OF MATERIAL & RECOVERY FOR EXCESS MATERIAL ISSUED

(i) After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, consumed and in balance - (see **Clause 10**), theoretical quantity of materials issued by the TSECL for use in the work shall be calculated on the basis and method given here under:-

(a) Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the Schedule of Rates mentioned in **Schedule - F**. In case any item is executed for which standard constants for the consumption of cement or bitumen are not available in the above mentioned schedule/statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Engineer-in-Charge.

(b) Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorized by Engineer-in-Charge, including authorized lappages, chairs etc. plus 2% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section wise and category wise separately.

(c) Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables, pig lead and G.I./M.S. sheets shall be taken as quantity actually required and measured plus 5% for wastage due to cutting into pieces (except in the case of G.I./M.S. sheets it shall be 10%), such determination & comparison being made diameter wise & category wise.

(d) For any other material as per actual requirements.

(ii) Over the theoretical quantities of materials so computed a variation shall be allowed as specified in **Schedule - F**. The difference in the net quantities of material actually issued to the contractor and the theoretical quantities including such authorized variation, if not returned by the contractor or if not fully reconciled to the satisfaction of the Engineer-in- Charge within fifteen days of the issue of written notice by the Engineer-in-charge to this effect shall be recovered at the rates specified in **Schedule-F**, without prejudice to the provision of the

relevant conditions regarding return of materials governing the contract. Decision of Engineer-in-Charge in regard to theoretical quantities of materials, which should have been actually used as per the Annexure of the standard schedule of rates and recovery at rates specified in **Schedule-F**, shall be final & binding on the contractor.

For non-scheduled items, the decision of the Addl. General Manager regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor.

(iii) The said action under this clause is without prejudice to the right of the TSECL to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.

CLAUSE 42 : COMPENSATION DURING WARLIKE SITUATIONS

The work (whether fully constructed or not) and all materials, machines, tools and plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation, the contractor shall when ordered (in writing) by the Engineer-in-Charge to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in- Charge, such payments being in addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Divisional Officer upto `5,000/- and by the Superintending Engineer concerned for a higher amount. The contractor shall be paid for the damages/destruction suffered and for restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of the Engineer-in-Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding upon all parties to this contract.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operations (a) unless the contractor had taken all such precautions against air raids as are deemed necessary by the Air Raid Precautions (ARP) Officers or the Engineer-in-Charge (b) for any material etc. not on the site of the work or for any tools, plant, machinery, scaffolding, temporary building and other things not intended for the work.

In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Divisional Officer.

CLAUSE 43 : APPRENTICES ACT PROVISIONS TO BE COMPLIED WITH

The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineer may, in his discretion,

cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CLAUSE 44 : CLOSURE OF CONTRACT

A : COMPLETION OF CONTRACT

The **contract is not to be treated as completed until a Defects Liability Certificate (DLC) has been issued**. **There will be only one DLC**. It will be issued when the contractor has completed all his obligations under the contract. While making the final payment to the contractor and before releasing the Performance Guarantee, it should be ensured that there is nothing outstanding from the contractor, because it would be difficult to retrieve such amounts after releasing the performance guarantee/ final payment. Before the bank guarantee is released a **"No Claim Certificate"** may be taken from the contractor as per the format given in **Appendix-IX**. **For work value more than `10.00 Crore**, it should be ensured that before the release of the bank guarantee (final payment, if there is no bank guarantee), the following reconciliations should be done across departments involved in the execution of the contract.

B : MATERIAL AND WORKS RECONCILIATION

The Department should confirm that all Works ordered in the contract and paid for have been taken over in good condition and there is no shortcoming. Full reconciliation of all materials, machinery and assets provided to the contractor should be done including wastages and return of scrap/off-cuts.

C : RECONCILIATION WITH THE USER DEPARTMENT

Besides Works reconciliation, the user department should certify in writing that the following activities (wherever applicable) have been completed by the contractor, to the department's satisfaction, as per the contract:

i) Achievement of performance standards of Work;
ii) Installation and commissioning, if any;
iii) Support service during the Defect Liability Period (DLP) which has ended on _____;
iv) As Made Drawings;
v) Return of all ID cards, gate passes, documents, drawings, protective gear, material, equipment, facilities and assets loaned to contractor.

D : PAYMENT RECONCILIATION

The Departments may reconcile payments made to the contractor to ensure that there is no liability outstanding against the contractor on account of:

i) Liquidity Damage;
ii) Price reduction enforced on account of shortfall in standards of Work;
iii) Variations/ deviations from the scope of the contract;
iv) Overpayments/ duplicate payments, if any;
v) Services availed from Procuring Entity and vacation thereof such as accommodation, electricity, water, security, transport, cranes and other machinery, and so on;
vi) Demurrage, insurance premiums or claims, and so on;
vii) Works reconciliation;
viii) Price variations;
ix) Statutory duties paid on behalf of the contractor by Procuring Entity; and

On satisfactory reconciliation and against a "no claim certificate" from the contractor, the bank guarantee may be released and its acknowledgement taken from the contractor.

INTEGRITY PACT **Annexure –VII**

(To be filled by Dy. General Manager, TSCEL/TIA)

To,

……..,

……..,

……..

Sub: NIT No. …… for the work ……

Dear Sir,

It is here by declared that TSECL Tripura is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the TSECL Tripura .

Yours faithfully

Dy. General Manager, TSCEL

……*……

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

INTEGRITY PACT **Annexure –V**

(To be filled by Bidder)

To,

Dy. General Manager , TSCEL,

……..,

……..

Sub: Submission of Tender for the work of **Construction of Super ECBC Building for TSECL at Power House Complex, Banamalipur, Agartala-799001, Tripura**

Dear Sir,

I/We acknowledge that TSECL Tripura is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of
this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by TSECL Tripura. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, TSECL Tripura shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid is accordance with terms and conditions of the tender/ bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

Annexure –VI

TO BE SIGNED BY THE BIDDER AND SAME SIGNATORY COMPETENT / AUTHORIZED TO SIGN THE RELEVANT CONTRACT ON BEHALF OF TSECL TRIPURA.

INTEGRITY AGREEMENT

This Integrity Agreement is made at ..... on this ..... day of ..... 20.....

BETWEEN

Governor of Tripura represented through Dy. General Manager, TSCEL,

.....,

(Name of Division)

TSECL Tripura,....., (Hereinafter referred as the

(Address of Division)

'**Principal/Owner**', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....

....

(Name and Address of the Individual/firm/Company) through.....(Hereinafter referred

(Details of duly authorized signatory)

to as the "**Bidder/Contractor**" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No .....) (hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for

Construction of Super ECBC Building for TSECL at Power House Complex, Banamalipur, Agartala-799001, Tripura

Hereinafter referred to as the "Contract".

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

(1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

(a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

(b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.

(c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

(2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

(1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the TSECL / Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

(2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

(a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.

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79 Tilla, Agartala.

(b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.

(c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/ Contract(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

(d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly, Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

(e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

(3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

(4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the TSECL interests.

(5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

(1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.

(2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.

(3) Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

(1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central TSECL or State TSECL or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

(2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.

(3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

(1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.

(2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

(3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor **12(twelve) months** after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, TSECL Tripura.

Article 7- Other Provisions

(1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Principal/Owner, who has floated the Tender.

(2) Changes and supplements need to be made in writing. Side agreements have not been made.

(3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

(4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

(5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8- LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....
(For and on behalf of Principal/Owner)
.....
(For and on behalf of Bidder/Contractor) WITNESSES:

.....
(signature, name and address)

.....
(signature, name and address)

Place:
Dated :

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

APPENDIX-I

(BY REGISTERED/SPEED POST)

Sample "Letter of Acceptance (LOA)" of Tender

No. …… Dated, the ……

From,

The Dy. General Manager,
…….. Division, (.……),
……., TSCEL

To,

……(Name and address of the contractor)

Subject: **Construction of Super ECBC Building for TSECL at Power House Complex, Banamalipur, Agartala-799001, Tripura**

Reference:

(i) NIT No: ……

(ii) E-Tender ID: ……

Dear Sir (s),

Your tender for the work mentioned above has been accepted on behalf of the Governor of Tripura at your tendered/negotiated tender amount of Rs…… (Rupees…… only), which is……% below/above the estimated cost of Rs. …… (Rupees……only) in accordance with the procedures intimated in the relevant bid documents.

You are requested to submit the **performance guarantee** of Rs…… (Rupees.……only) within ……**days** of issue of this letter. The performance guarantee shall be in the prescribed form as provided in **Clause 1** of the General Conditions of Contract (GCC) for TSCEL Works, and shall be **valid up to** ……

On receipt of the prescribed performance guarantee, necessary letter to commence the work shall be issued, and the site of work handed over to you thereafter.

Please note that the time allowed for carrying out the work as entered in the tender (…….. days/weeks/months) shall be reckoned from the ……**day** after the date of issue of this letter.

This notification concludes the legally binding contract between you and the TSECL of Tripura, till issue of a formal contract.

Yours faithfully,
Dy. General Manager
CCD,79 Tilla,Agartala,
For and on behalf of TSCEL of Tripura
Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

APPENDIX-II

(BY REGISTERED/SPEED POST)

Sample "Letter for Commencement of Work"

No. …… Dated, the ……

From,

The Dy. General Manager,

TSCEL,
TSECL of Tripura

To,

(Name and address of the contractor)

Subject: Construction of Super ECBC Building for at Power House Complex, Banamalipur, Agartala-799001, Tripura

(Name of the work as appearing in the tender for the work)

Reference:

(i) Performance Guarantee submitted by you vide your letter no. ……, dated. ……for the above work.

(ii) This office **Letter of Acceptance (LOA)** of your tender no…… date ……..……..

Dear Sir (s),

You are requested to contact the Assistant Engineer …… (complete address) for taking possession of work site and starting the work at once.

In continuation to the letters referred to above, you are requested to attend this office to **complete the formal agreement** within **…… days** from the date of issue of this letter.

Yours faithfully,

Dy.General Manager (Technical), TSCEL For and on behalf of

TSECL of Tripura

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

APPENDIX-III

Form of Performance Security (Guarantee)

Bank Guarantee Bond

In consideration of the TSECL, Tripura having offered to accept the terms and conditions of the proposed agreement between……..and …….. (hereinafter called "the said Contractor(s)") for the work… ……(hereinafter called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for ` …….. (Rupees …….. only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

1. We,……(hereinafter referred to as "the Bank") hereby undertake to pay to the TSECL an amount not exceeding ` …….. (Rupees… ……Only) on demand by the TSECL.

2. We, …….. (indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the TSECL stating that the amount claimed as required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding `……(Rupees ……only)

3. We, the said bank further undertake to pay the TSECL any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We,……(indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the TSECL under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer- in- Charge on behalf of the TSECL certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. We, …….. (indicate the name of the Bank) further agree with the TSECL that the TSECL shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the TSECL against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the TSECL or any indulgence by the TSECL to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. We,.....(indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the TSECL in writing.

8. This guarantee shall be valid up to ……unless extended on demand by the TSECL. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to ` …… (Rupees ……..) and unless a claim in writing is lodged with us within **6(six) months** of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the ……day of ……for… .....(indicate the name of the Bank, Branch & Branch Code No.)

(Signature)

for the Bank

[With Name of Bank officer, designation, employee code no. & official seal with contact no.]

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

APPENDIX-IV

Notice for appointment of Arbitrator
[Refer Clause 25]

To

The Chief Engineer

……

Dear Sir,

In terms of **Clause 25** of the agreement, particulars of which are given below, I/we hereby give notice to seeking arbitration for settlement of disputes mentioned below:

1. Name of applicant
2. Whether applicant is Individual/Prop. Firm/Partnership Firm/Ltd. Co.
3. Full address of the applicant
4. Name of the work and contract number in which arbitration sought
5. Name of the Division which entered into contract
6. Contract amount in the work
7. Date of contract
8. Date of initiation of work
9. Stipulated date of completion of work
10. Actual date of completion of work (if completed)
11. Total number of claims made
12. Total amount claimed
13. Date of intimation of final bill (if work is completed)
14. Date of payment of final bill (if work is completed)
15. Amount of final bill (if work is completed)
16. Date of request made to SE for decision
17. Date of receipt of SE's decision
18. Date of appeal to you
19. Date of receipt of your decision.

The name & address of nominee Arbitrator appointed by me with his consent letter is enclosed herewith.

Enclo: As stated

Specimen signatures of the applicant

(Only the person/authority
who signed the contract should sign)

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

I/We certify that the information given above is true to the best of my/our knowledge.
I/We enclose following documents.

1. Statement of claims with amount of claims.

2.

3.

4.

Yours faithfully,

(Signatures)

Copy in duplicate to:

1. The Dy. General Manager , TSCEL,

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

APPENDIX-V

FORM OF APPLICATION BY THE CONTRACTOR FOR SEEKING EXTENSION OF TIME
(Refer Clause 5)

1. Name of contractor: ……..
2. Name of work as given in the agreement: ……..
3. Agreement no: ……..
4. Estimated amount put tender: ……
5. Date of commencement of work as per agreement: ……..
6. Period allowed for completion of work as per agreement: ……
7. Date of completion stipulated in agreement: ……..
8. Period for which extension of time if has been given by authority in Schedule 'F' previously: ……

Sl. No.	Letter No. and Date	Extension granted	
1	(a) 1st extension ……	Months	Days
2	(b) 2nd extension ……		
3	(c) 3rd extension ……..		
4	(d) 4th extension ……		
5	(e) Total extension previously given		

9. Reasons for which extension have been previously given (copies of the previous applications should be attached)
10. Period for which extension if applied for
11. Hindrances on account of which extension is applied for with dates on which hindrances occurred and the period for which these are likely to last (for causes under **clause 5.2/ and 5.3**).
    a) Serial no: .....
    b) Nature of hindrance: .....
    c) Date of occurrence: .....
    d) Period for which it is likely to last: .....
    e) Period for which extension required for this particular hindrance: .....
    f) Overlapping period if any, with reference to item: .....
    g) Net extension applied for: .....
    h) Remarks, if any: .....

Total period, on account of hindrances, mentioned above is ..... Days

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

12. Extension of time required for extra work: .....

13. Details of extra work and the amount involved: .....

    a) Total value of extra work: .....

    b) Proportionate period of extension of time based on estimated amount put to tender on account of extra work: .....

14. Total extension of time required for 11 & 12: .....

Submitted to the Authority indicated in **Schedule- F,** with copy to the Engineer-in-charge and Sub-Divisional Officer.

Signature of Contractor

Dated

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

APPENDIX-VI

FORM OF APPLICATION OF THE CONTRACTOR FOR SEEKING RESCHEDULING OF THE MILESTONES

(Refer Clause 5)

1. Name of contractor: .....
2. Name of work as given in the agreement: .....
3. Agreement No: .....
4. Estimated amount put tender: .....
5. Date of commencement of work as per agreement: .....
6. Period allowed for completion of work as per agreement: .....
7. Date of completion stipulated in agreement: .....
8. Rescheduling of milestones done previously

Milestone No. Already Rescheduled	EE's Letter No. and Date	Rescheduling of Milestones Done	
		Original Date	Rescheduled Date
(A) 1st Milestone			
(B) 2nd Milestone			
.....			

Rescheduling of milestone applied for

Milestone No. for which Rescheduling is Applied	Original/ Rescheduled Date	Details and Period of Hindrances	Comments of Dy. Manager (Technical), TSCEL	Proposed Rescheduled Date
(A) 1st Milestone				
(B) 2nd Milestone				
.....				

Submitted to the Sub Divisional Officer

Signature of Contractor, Dated

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

APPENDIX-VII

FORMAT OF INVITATION AND DECLARATION FOR NEGOTIATIONS

INVITATION FOR NEGOTIATIONS

No: ..... Dt: .....

To M/s.....Registered A/ D

Sub: Tender No ..... opened on ..... for the Work .....

Dear Sir,

The rates quoted in your tender are considered high. You are therefore, requested to come for negotiations of rates, on ..... (date) at ..... (time) at..... (venue).

You should, however, come for negotiations only in case you are prepared to furnish before such date the declaration appended herewith.

A copy of the form in which you may submit your revised offer after negotiations is enclosed.

Yours faithfully,

Enclosure: (Authorised Officer)
1. Form of Declaration
2. Form of Revised Offer

FORM OF DECLARATION

(To be signed and submitted before start of negotiations)

(On company letterhead)

No: ..... Dt: .....

To .....

Sub: Tender No ..... Opened on ..... for the work .....

Ref: Your invitation for negotiations No: ..... dated: .....

Dear Sir,

I ..... duly authorised on behalf of M/s. ..... do declare that in the event of failure of the contemplated negotiations relating to Tender

No. ..... opened on.....my original tender shall remain open for acceptance on its original terms and conditions.

Yours faithfully,

Place: ..... Signatures of bidder

Date: .....

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

APPENDIX-VIII

FORMAT OF REVISED OFFER IN NEGOTIATIONS

REVISED OFFER IN NEGOTIATIONS

(On company letterhead)

From ……..

Full address ……..

To ……

Dear Sir,

Sub: Tender No …… opened on …… for the work ……

Ref: Your invitation for negotiations no: …… dated: ……

1. On further discussions with you on……in response to your letter no …….. dated ……..

I/We am/are not prepared to reduce the rates already quoted in the original tender, which will remain valid up to……..

Or

1. I/we reduce my/ our rates @…… %. My/our reduced offer amounting to Rs. …….. which is @……% above/below the estimated cost put to tender (**for the percentage rate tender**)

Or

I/we reduce my/ our rates for the items as enclosed. My/our reduced offer amounting to Rs. ……(**for the item rate tender**)

2. I/we am/ are aware that the provisions of the original bidding document remain valid and binding on me.

3. I/we undertake to execute the work as per contract Agreement.

4. I/ we agree to abide by this tender on the revised rate quoted by me/ us, it is open for acceptance for a period of 120 days from this date, i. e., up to……and in default of my/ our doing so, I/ we will forfeit the earnest money deposited with the original tender/ attached herewith. Eligibility as valid tenderers shall be deemed to be the consideration for the said forfeiture.

Yours faithfully,

Signatures of bidder

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

APPENDIX-IX

FORMAT OF NO CLAIM CERTIFICATE

NO CLAIM CERTIFICATE

(On company letterhead)

To,

(Contract Executing Officer)

Procuring Entity .....

NO CLAIM CERTIFICATE.

Subject: Contract Agreement no. ..... dated ..... for the supply of .....

I/We have received the sum of Rs. (Rupees ..... only) in full and final settlement of all the payments due to us for the supply of under the above mentioned contract agreement, between us and TSECL. I/We hereby unconditionally, and without any reservation whatsoever, certify that with this payment, I/we shall have no claim whatsoever, of any description, on any account, against Procuring Entity, against aforesaid contract agreement executed by us. I/We further declare unequivocally, that with this payment, I/we have received all the amounts payable to me/us, and have no dispute of any description whatsoever, regarding the amounts worked out as payable to me/us and received by me/us, and that I/we shall continue to be bound by the terms and conditions of the contract agreement, as regards performance of the contract.

Yours faithfully,

Signatures of contractor or
Officer authorised to sign the contract documents
on behalf of the contractor
(Company stamp)

Date: .....

Place: .....

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

PROFORMA OF SCHEDULES

[Operative Schedules/BOQ sheet to be uploaded (macro enabled MS-Excel sheet)]

SCHEDULE -A

Schedule of Quantities

(i) Percentage Rate Tender(TripuraPWDForm-7)

Sl. No.	Item Description	Quantity	Units	Estimated Rate	Total Amount	TotalAmount (inwords)
1	2	3	4	5	6	7

(ii) Item Rate Tender(TripuraPWDForm-8)

Sl. No.	Item Description	Quantity	Units	Estimated Rate	Quoted Rate	Total Amount	Total Amount (in words)
1	2	3	4	5	6	7	8

SCHEDULE-B

Schedule of materials to be issued to the contractor.

Sl. No.	Item Description	Quantity	Rates in figures & words at which the material will be charged to the contractor	Placeof Issue
1	2	3	4	5

SCHEDULE-C

Tools and plants to be hired by the contractor

Sl.No.	Description	Hire Charge perday	PlaceofIssue
1	2	4	5

SCHEDULE-D

Extra Schedule-For specific requirements/document for the work, if any.

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

SCHEDULE-E

Reference to General Conditions of Contract	TSECL/Tripura PWD Form7 with up to date correction
Name of work:	……..
Estimated cost of work:	……..
Earnest money:	……. (@2%oftheestimatedcostputtotenderandtobereturned after receiving performance guarantee)
Performance Guarantee:	**@ 10% of tendered value.**
Security Deposit:	**@ 10% of tendered value**

SCHEDULE-F

General Rules & Directions:

Officer Inviting Tender / **Tender Inviting Authority (TIA)**:	……..

Conditions of Contract:

Definitions:

2(v)	Engineer-in-Charge	……
2(vii)	Tender Accepting Authority(TAA)	**As per latest DFPRT in force**
2(ix)	Percentage on cost of materials and labour to cover all over heads and profits.	**15%**
2(x)	Standard Schedule of Rates	……
2(xi)	Department	……
9(ii)	Standard TSECL/Tripura PWD contract Form GCC 2021, Tripura PWD Form 7 as modified & corrected up to	……

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

TripuraPWD-6:

i)**Time** allowed for **submission** of **Programme Chart** (Time and progress) from the date of issue of Letter of Acceptance (LOA) **[7 to 21 days depending upon the magnitude and urgency of work]**	..... **days**
ii)**Time** allowed for **submission** of applicable **Labour Licenses**, from the date of issue of Letter of Acceptance (LOA)	**60(sixty)days**
iii) **Time** allowed for **submission** of certificate regarding registration of employee/workers with **EPFO** (Employees' Provident Fund Organisation) including **Provident Fund Code No**, from the date of issue of Letter of Acceptance (LOA). **(applicable for Class-I Contractor)**	**60(sixty)days/ Not Applicable**
iv) **Time** allowed for **submission** of certificate regarding registration of employee/workers with **ESIC** (Employees' State Insurance Corporation) from the date of issue of Letter of Acceptance (LOA). **(applicableforClass-IContractor)**	**60(sixty)days/ Not Applicable**
v) **Time** allowed for **submission** of certificate regarding registration of employee/workers with **BOCW** (Building and Other Construction Workers) **Welfare Board**, from the date of issue of Letter of Acceptance (LOA). **(applicable for Class-I Contractor)**	**60(sixty)days/ Not Applicable**

Clause1:

i) **Time** allowed for **submission** of **Performance Guarantee** from the date of issue of Letter of Acceptance(LOA)	**10days**
ii)**Maximum allowable extension** with **late fee** @0.1% per day of Performance Guarantee amount beyond the period provided in (i) above	**7days**

Clause2:

Authority for fixing compensation under **clause2**. **[SE of concern circle, PWD/Addl. CE or SE of Project Unit, PWD(Buildings)]**	……..

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

Clause2A:

Whether **incentive for early completion** under **Clause2A** Shall be applicable ***[only applicable to the contract for estimated cost put to tender more than Rs. 1(one) Crore for original works]***	**YES/NO**

Clause5:

Number of days from the date of issue of Letter of Acceptance (LOA)for reckoning **Dateof Start** & **Signing of Agreement** **[7 to 21 days depending upon the magnitude and urgency**	**…….. days**

Milestone(s) as per table given below:-

Sl. No.	Description of Milestone(Physical)	Time allowed in days (From date of start)	Amount to be with held in Case of non-achievement of milestone
1	……	……	……
2	……	……	……
3	……	……	……

Time allowed for execution of work	..... days

Authority to decide:

Extension of time	[Engineer in Charge or Engineer in Charge of Major Component in case of Composite Contracts, as the case may be]
Rescheduling of mile stones	[Superintending Engineer(SE)in Charge or Superintending Engineer in Charge of Major Component in case of Composite Contracts, as the case may be]
Shifting of date of start in case of delay in handing over of site	[General Manager (Technical), TSCEL(EE) in Charge or General Manager (Technical), TSCEL in Charge of Major Component in case of Composite Contracts, as the case may be]

Clause5.4:

Recovery Rate for **Non-submission of Rescheduling of Milestones** under **Clause 5.4**	
(i)forworksAgreementvalue**upto `20Crores**	**@`2500.00perweek**
(ii)forworksAgreementvalue**morethan `20Crores**	**@`5000.00perweek**

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

Clause6,6A,6B:

ApplicableClause-**6**(**MMB**)or**6A**(**CMB**)or**6B** (**e-MB**)	……

Clause7:

Gross work to be done together with net payment/adjustment of advances for material collected, if any ,since the last such payment for Being eligible to interim payment	@**10%**oftheTenderedValue (subject to minimum value of workRs.1.00Lakh).

Clause7A:

Whether**Clause7A**shallbeapplicablefor	
(i) **Labour License**	**YES**
(ii) Certificate of registration of employee/ workers with **EPFO** (Employees' Provident Fund Organisation) **(applicableforClass-IContractor)**	**YES/NotApplicable**
(iii) Certificate of registration of employee/ workers with **ESIC** (Employees' State Insurance Corporation) **(applicable for Class-I Contractor)**	**YES/NotApplicable**
(iv)Certificate of registration of employee/ workers with **BOCW**(Building and Other Construction Workers) **Welfare Board (applicable for Class-I Contractor)**	**YES/NotApplicable**

Clause8B:

Whether submission of **Completion Plan** by the contractor under **Clause 8B** shall be applicable **(Applicable for Composite Works only)**	YES/NO

Clause10A:[ApplicableforworkvaluemorethanRs.5.00(five)crore]

List of Testing Equipment to be provided by the contract or at Site Lab.					
Sl. No.	Item	Sl. No.	Item	Sl. No.	Item
1	……	4	……	7	……
2	……	5	……	8	……
3	……	6	……	9	……

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

Clause10B:

Whether**Clause10B(i)** regarding "**Secured Advance against Material brought to Site"** shall be applicable or not	**Applicable / Not Applicable**
Whether **Clause10B(ii)** regarding " **Mobilisation Advance"** Shall be applicable or not	**Applicable / Not Applicable**
Whether**Clause10B(iii)**regarding"**Plant,Machineryand Shuttering Material Advance"** shall be applicable or not	**Applicable / Not Applicable**

Clause11:

Specifications to be followed for execution of work	**CPWD/MoRD/MoRTH/BIS/others** (as applicable)

Clause12:

*(The **completion cost of any agreement** for **Construction/Maintenance** works including works of up gradation, aesthetic, special repair, addition/ alteration **shall not exceed the Tendered amount.** Any further deviation beyond this limit shall be approved by the appropriate authority **as per latest Delegation of Financial Power Rules, Tripura (DFPRT)in force** with recorded reason and take suitable corrective action.)*

Typeofwork:	……

Note:

(i) **To be filled by NIT Approving Authority** either **Project and Original work** or **Maintenance works** including works of up gradation, aesthetic, special repair, addition/ alteration in buildings. The items related to road work like up gradation/ improvement of footpath & central verge, improvement of carriage way by patch repair or annual/periodical repairs of road surface and A/R & M/O works pertaining to road shall be treated as maintenance work.

(ii) **New road construction works** and the **strengthening of road surface** shall be considered as **Original works**.

Clause16:

Competent Authority for deciding **reduced rates**	**Chief Engineer**

Clause18:

List of mandatory machinery, tools & plants to be deployed by the contract or at site.

Sl. No.	Item	Sl. No.	Item	Sl. No.	Item
1	……	4	……	7	……
2	……	5	……	8	……
3	……	6	……	9	……

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

Clause19K:

Whether**penalty**under**Clause19K**shallbe applicable	YES/NO
If **YES** ,then rate of penalty per trades man per day	**`100.00**

Clause35(i)ofGCC&Para.No.2.3.B.(i)ofSIBT:

Details of requirement of **Technical Personnel(s)** and **Recovery Rate**							
Sl. No.	Minimum Qualification	Discipline	Designation	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 35(i) of GCC & Para. No. 2.3.B.(i)ofSITB	
						Figures	Words
1.	……..	…	…	……..	…….	……...	……
2.	……..	…	…	……..	…….	……...	……
3.	……..	…	…	……..	…….	……...	……
4.	……..	…	…	……..	…….	……...	……

Clause41:

(i)	(a)	Statement for determining Theoretical Quantity of cement & bitumen on the basis of latest CPWD / MoRD / MoRTH/ DSR specification.	
(ii)		**Variations Permissible** on Theoretical Quantities	
	(a)	**Cement:** For works with estimated cost put to tender **not more than `25 lakh** For works with estimated cost put to tender **more than ` 25 lakh**	**±3%** **±2%**
	(b)	**Bitumen** All Works	**2.5%plus & only &Nil onminus side**
	(c)	**Steel Reinforcement** and **structural steel sections** for each diameter, section and category	**±2%**
	(d)	All other materials	**Nil**

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

RECOVERY RATES FOR QUANTITIES BEYONDPERMISSIBLE VARIATION

Sl. No.	DescriptionofItem	Rates in figures and words at which recovery shall be made from the Contractor	
		Withinpermissible variation	Excess beyond permissible variation
1.	Cement		Double the issue rate
2.	Steel reinforcement		Double the issue rate
3.	Structural Steel Sections		Double the issue rate
4.	Bitumen issued free of cost		Double the issue rate
5.	Bitumen issued at Stipulated fixed price		Double the issue rate

Dy. General Manager,
Central Civil Division
79 Tilla, Agartala.

PARAMETER		DETAILS	MAKE
BUILDING ENVELOPE	Roof Details	150mm RCC Slab + 50mm Cement Screed + 50mm XPS Insulation	Cement - PPC Make –Star/Ultratech/ /Crown/Dhalmia etc as per ECBC specification Locally procured with minimum of 25% Flyash
		U value - 0.51 W/m2.K | 0.09 btu/hr.Ft2.F	
	Wall Details	250mm AAC Blocks	AAC Blocks Make - Magic Crete/Brikoliteor as computable as per ECBC specification Locally procured with minimum of 25% Flyash
		U value - 0.68 W/m2.K | 0.12 btu/hr.Ft2.F	
	Glass Details	VLT - 50%	ET - 150 Saint Gobain/Asahi India glass ltd./AIS Glass
		U value - 5 W/m2.K | 0.88 btu/hr.Ft2.F	
		SHGC - 0.5	
		SC - 0.58	
LIGHTING POWER DENSITY	Restrooms	3.8 W/m2	Make – Phillips/Havels/Crompton etc. as per ECBC specification.
	Conference/Meeting	5.7 W/m2	
	Enclosed - Office	5.4 W/m2	
	Open Plan - Office	5.4 W/m2	
	Reading Area (Library)	5.7 W/m2	
	Lounge/Recreation	4.6 W/m2	
	Stairway	2.7 W/m2	
	Corridor/Transition	2.3 W/m2	
	Lobby	4.6 W/m2	
HVAC	Unitary Packaged System	BEE 5 star = 3.4 COP or more	Daikin/Blue Star/Godrej etc. as per ECBC specification
	VRV/VRF	<40 kWr = 3.28 EER	
		>40 kWr to <70 kWr = 3.26 EER	
		>70 kWr = 3.02 EER	
WATER FIXTURES	Water Closets	6 LPF (High flush) - 1 Flush	Jaquar/Hindware Sanitaryware Limited as per ECBC specification
	3 LPF (Low flush)	1 Flush	
	Health Faucet/ Bidet, Hand-held spray*	6 LPM - 15 Seconds	
	Faucet/ taps*	6 LPM - 15 Seconds	
	Kitchen Sink*	6 LPM - 15 Seconds	
	Urinal*	4 LPF - 1 Flush	
	Showerhead* / Hand-held Spray*	10 LPM - 8 Minutes	
Interior Finishes			
Paints and	Paints, Coatings		Berger Paints India Ltd./Asian

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Coatings		paint as per ECBC specification
Paints and Coatings	Paints, Coatings	Nippon Paint India. /Asian paint as per ECBC specification
Tiles and Ceramics	Tiles, Ceramics	Prism Johnson Limited/Kajaria
Flooring Materials	Carpet Tiles	Interface Flor India Pvt Ltd.
Wood Products	Doors, Windows	Indian Timber Products (P) Ltd. /Teak wood/Karai /gamairetc. as required
Gypsum Products	Gypsum Boards, Plaster	Saint-Gobain India Pvt Ltd – Gyproc/gypelite India pvt.
Plumbing Fixtures	Sanitaryware	Jaquar/Hindware Sanitaryware Limited
Insulation Materials	Mineral Wool Insulation	Rockwool India
Exterior Finishes		
Paints and Coatings	Paints, Coatings	Berger Paints India Ltd. /Asian paint as per ECBC specification
Paints and Coatings	Paints, Coatings	Nippon Paint India/ Asian paint as per ECBC specification
Siding Materials	Vinyl Siding, Fiber Cement Siding	CertainTeed Corporation
Siding Materials	Fiber Cement Siding	James Hardie Building Products
Roofing Materials	Asphalt Shingles	GAF Materials /Owens Corning
Roofing Materials	Asphalt Shingles, Roofing Accessories	Owens Corning
Stone and Brick	Brick, Stone Veneer	Boral Building Products/localyavailable.test report to be produced before execution
Stone and Brick	Brick, Stone Veneer	Glen-Gery Corporation/localy available. test report to be produced before execution
Metal Roofing	Metal Roofing	Brampton Metal Roofing
Metal Roofing	Metal Roofing	MBCI / TATA/Durasin/ Dyna

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ADDITIONAL CONDITIONS & SPECIFICATIONS FOR CIVIL(BUILDING) WORKS

1. Unless otherwise specified, **CPWD Specifications 2019, volume I & volume II**, with up-to-date corrections slips shall be followed in general. Any additional item of work, if taken up subsequently, shall also conform to the relevant CPWD specifications mentioned above. If there is any difference or discrepancy between the description of items as given in the schedule of quantities and particular specifications for individual items of work and I.S. Codes etc., the following order of preference shall be observed:

i. Description of items as given in Schedule of quantities.

ii. Particular specifications, if any, for the item in agreement.

iii. Special conditions, if any, in the agreement.

iv. Additional conditions, if any, in the agreement.

v. Drawings attached to tender / issued during execution.

vi. CPWD Specifications 2019 including up to date correction slips.

vii. General Conditions of Contract for Tripura PWD works 2021 with up-to-datecorrection slips.

viii. Indian Standards Specifications of B.I.S.

ix. ASTM, BS or other foreign origin code mentioned in agreement.

x. Manufacturer's specifications for the item, as decided by Engineer-in-charge.

xi. Sound Engineering practices or well-established local construction practices asdecided by Engineer-in-Charge.

2. The Contractors are advised to **inspect and examine the site** and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc. constraints put by local regulations, if any, weather conditions at site, general ground / subsoil conditionsetc. or any other circumstances which may affect or influence their tenders.

3. The Contractor shall, if required by him, inspect the drawings in the Office of the Engineer-in-Charge before submission of the tender. The Department shall not bear any responsibility for the lack of knowledge and also the consequences, thereof to the Contractor. The information and data shown in the drawings and mentioned in the tender documents for general information and guidance only. No claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in tender document is different or in-correct otherwise or actual working drawings or structural drawings are at variance with the drawings available for inspection or attached to the tender documents. It is presumed that the Contractor shall satisfy himself for all possible contingencies, incidental charges, wastages, bottlenecks etc. likely during execution of work. Nothing extra shall be payable on this account.

4. Unless otherwise specified in the schedule of quantities, the rates of all items of workshall be considered as inclusive of executing all work, wherever required, in or under water and / or liquid mud, including bailing out water encountered from any source

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such as rain, floods, tides ingress of water through pressure relieving sleeves left during PCC at base, sub-soil water table being high and / or any other source whatever.During entire execution of work, the contractor shall carry out dewatering (at his owncost), as and when required or specified herein. Nothing extra shall be payable.

5. The nomenclature of the item given in the schedule of quantities gives in general the work content but is not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shallbe carried out, in accordance with true intent and meaning of the CPWD Specificationsand the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and / or described in the Specifications, providedthat the same can be reasonably inferred there from.

6. Unless otherwise provided in the Schedule of Quantities, the rates quoted by the Contractor shall be inclusive of carrying out the works at and /or upto all heights, lifts, leads and depths. The contractor shall make all arrangements for the same. Nothingextra shall be payable on this account.

7. If space is not available for accommodation of labour huts, site office, stores, installation of batching plant etc. at the site of work, Contractor shall make his own arrangements to provide such accommodation. Before tendering, he shall visit the siteand assess the manner in which he is able to arrange the above facilities. The Engineer- in-Charge shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained. Nothing extra shall be payable on thisaccount.

8. The Contractor shall submit the following details immediately after award of work.

i. List of Equipment proposed to be deployed for this work.

ii. Site organization chart with Bio-data of Project Manager and Key Personnel proposed to be deployed at site.

iii. A certified copy of Power of Attorney, if any, in the name of person who has signedthe tender document and uploaded during submission of Bid.

iv. The details of shuttering and scaffolding material proposed to be used to complete the entire R.C.C structural work commensurate with overall stipulated period for completion of work.

v. The contractor shall prepare and submit a tentative integrated Bar Chart [for Civil, Electrical & Mechanical (E&M) services] clearly indicating the various activities, in a manner to complete the entire work covered under this tender within the stipulatedperiod.

9. The Contractor shall keep himself fully informed of all acts and laws of the Central &State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employedand anything related to carrying out the work. The contractor shall adhere to all the rules & regulations and byelaws laid down by local Bodies and any other statutory bodies, during the execution of work. The Contractor shall also adhere to all traffic restrictions notified by the local authorities. All statutory taxes, levies, charges (including water and sewerage charges, charges for temporary service connections and / or any other charges) payable to such authorities for carrying out the work, shall beborne by the Contractor. The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and shall pay to such authority all the fees that

is required to be paid for the execution of work. He shall protect and indemnify the Department and its

officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts. The fee payable to statutory authorities for obtaining the various permanentservice connections and Occupancy Certificate for the building shall be borne by the Department.

10. Royalty at the prevalent rates shall be paid by the Contractor or the Ready Mixed Concrete (RMC) supplier as per the terms of supply between them on all materials such as boulders, metals, sand etc. collected by him for the execution of the work, directly to the revenue authority of the state government concerned. Nothing extra shall be payable on this account.

11. No foreign exchange shall be made available by the Department for importing (purchase) of equipment, plants, machinery, materials of any kind or any other items required to be carried out during execution of the work. No delay and no claim of any kind shall be entertained from the Contractor, on account of variation in the foreign exchange rate.

12. The Contractor shall assume all liability, financial or otherwise in connection with thiscontract and shall protect and indemnify the Department from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Department against all claims in respect of patent rights, royalties, design, trademarksof name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the Department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

13. The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workman like manner, the details about the salient features of the project, as required by the Engineer-in-Charge. The Contractor shall fabricate and put up a sign board in an approved location and to an approved designindicating name of the project, client/ owner, Department etc. besides providing space for names of other Contractors, Sub-Contractors and specialized agencies. Nothing extra shall be payable on this account.

14. The contractor shall prepare following drawings for various civil and electrical services showing details of lay out plan including sectional elevations and submit the same forthe approval of Engineer-in-Charge.

i. Plumbing drawings uPVC, GI and CI line

ii. Layout of conduits, switchboard, Distribution boxes etc.

Subsequently Integrated drawings shall be prepared and submitted by the Contractoras per local Byelaws and as per the site conditions to facilitate convenient installationas well as maintenance. Nothing extra shall be payable on this account.

15. Necessary protective and safety equipment shall be provided to the Site Engineer, workers & Supervisory staff by the Contractor at his own cost and to be used at site.

16. The Contractor shall do proper sequencing of the various activities by suitably staggering the activities within various pockets in the plot so as to achieve early completion. The agency may deploy adequate equipment, machinery and labour as required for the completion of the entire work within the stipulated period specified. Also, ancillary facilities shall be provided commensurate with requirement to complete the entire work within the stipulated period. Nothing extra shall be payable on this account. Adequate number/sets of equipment in working condition, along withadequate stand-by arrangements, shall be deployed during entire construction period.It shall be ensured by the Contractor that all the equipment,

Tools & Plants, machineries etc. provided by him are maintained in proper working conditions at all times during the progress of the work and till the completion of the work. Further, all the constructional tools, plants, equipment and machineries provided by the Contractor, on site of work or his work shop for this work, shall be exclusively intended for use in the construction of this work and they shall not be shifted / removed from site without the permission of the Engineer-in- Charge.

17. The Contractor shall not stack building material / debris / muck on any other land outside site barricading. The muck, rubbish etc. shall be removed periodically as directed by the Engineer-in-Charge, from the site of work to the approved dumping grounds as per the local byelaws and the Contractor shall obtain regulations of the concerned authorities and all necessary permissions in this regard from the local bodies. Nothing extra shall be payable on this account. The contractor shall be liable to pay any charges/penalties as may be levied by local bodies. The Engineer –in-Chargeshall be at liberty to recover, such sums due but not paid to the concerned authorities on the above counts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.

18. The Contractor shall execute his work in such a way, so as not to interfere with or hinder the progress of the work being performed by other Contractors or by the Engineer-in-Charge. As far as possible, he shall arrange his work and place, so as notto interfere with the operations of other Contractors or shall arrange his work with that of the others, in an acceptable and coordinated manner and shall perform it in proper sequence.

19. The Contractor shall cooperate with and provide the facilities to the other agencies working at site for smooth execution of the work. The Contractor shall

i. Allow use of toilets, sheds etc.

ii. Properly co-ordinate their work with the work of other contractors.

iii. Provide control lines and benchmarks to his Sub-Contractors and the other Contractors.

iv. Provide electricity and water at mutually agreed rates.

v. Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.

vi. Adjust work schedule and site activities in consultation with the Engineer-in- Charge and other Contractors to suit the overall schedule completion.

vii. Resolve the disputes with other Contractor amicably and the Engineer-in- Charge shall not be made intermediary or arbitrator. The contractor shall indemnify the Department against any claim(s) arising out of such disputes.

20. The **site of work shall be always kept clean** due to constraints of space and to avoid any nuisance to the users of buildings in the adjacent plots. The Contractor shalltake all care to prevent any water- logging at site. The wastewater, slush etc. shall notbe allowed to be collected at site. It may be directly pumped into the creek with prior approval of the concerned authorities. For discharge into public drainage system, necessary permission shall be obtained from relevant authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account.

21. The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the

owners, tenants or occupants of the adjacent properties and to the public in general. The Contractor shall take all care, as not to damage any other adjacent property or other services running adjacent to the plot. If any damage is done, the same shall be made good by the Contractor at his own cost and to the entire satisfaction of the Engineer-in-Charge. The Contractor shall use such methodology and equipment for execution of the work, so as to cause minimum environmental pollution of any kind during construction, to have minimum construction time and minimum inconvenience to road users and to the occupants of the buildings on the adjacent plot and public in general, etc. He shall make good at his own cost and to the entire satisfaction of the Engineer in Charge any damage to roads, paths, cross drainage works or public or private property whatsoever caused, due to the executionof the work or by traffic brought thereon, by the Contractor. Further, the Contractor shall take all precautions to prevent any pollution of streams and waterways. All waste or superfluous materials shall be carted away by the Contractor, entirely to the satisfaction of the Engineer-in-Charge. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to theoccupants / users of adjoining buildings. No claim what so ever on account of site constraints mentioned above or any other site constraints not specifically stated here,shall be entertained from the Contractor. Therefore, the Contractors are advised to visit site and get firsthand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.

22. Scaffolding should be suitably fixed, by the Contractor. It shall be provided strictly with steel double scaffolding system, suitably braced for stability, with all the accessories, gangways, etc. with adjustable suitable working platforms to access the areas with ease for working and inspection. It shall be designed to take all incidentalloads. It should cater to the safety features for workmen. Nothing extra shall be payable on this account. It shall be ensured that no damage is caused to any structuredue to the scaffolding.

23. The Contractor shall maintain all the work in good condition till the completion of entire work. The Contractor shall be responsible for and shall make good, all damagesand repairs, rendered necessary due to fire, rain, traffic, floods or any other causes. The Engineer-in-Charge shall not be responsible for any claims for injuries to person/workmen or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the Contractor or of any other of his representatives, in his employment during the execution of the work. The compensation, if any, shall be paid directly to the Department / authority / persons concerned, by the Contractor at his own cost.

24. For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amountsfor any reason to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulationsand the agreement entered upon by the Contractor with them.

25. In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained not withstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any.

26. The Contractor shall render all help and assistance in documenting the total sequencesof this project by way of photography, slides, audio / video recording etc. Nothing extra shall be payable to Contractor on this account. However, cost of photographs, slides, audio / videography etc. shall be borne by the Department. The original films shall be the property of the Department. No copy shall be prepared without the prior approval of the Engineer- in – Charge.

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27. The Contractor shall make all necessary arrangements for protecting from rains, the work already executed and for carrying out the further work, during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account. Also, no claims for hindrance shall be entertained on this account.

28. For all items of work, the entire incidental charges of any kind including cartage, storage, wastage and safe custody of material etc. shall be borne by the Contractor and no claim of any kind, whatsoever, shall be entertained on this account.

29. The Agency shall be responsible for the watch and ward / guard of the building's safety, fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.

30. No inflammable materials including Petroleum, Oil, & Lubricants (P.O.L.) shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be stored at site subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Engineer - in- Charge in this regard. Also, all precautions and safety measures shall be taken by the Contractor for safe handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.

31. The Engineer-in-Charge shall not be precluded or stopped from taking any measurements, and framing of estimates or detaining any certificates made either before or after the completion and acceptance of the work and payment, from showing the true amount and character of the works performed and materials furnished by the Contractor and from showing that any such measurements, estimates or certificates untrue or incorrectly made and that Engineer-in-Charge shall not be precluded or stopped from recovering from the Contractor such damages as it may be sustained by reasons of his failure to comply with the terms and conditions of the contract.

32. The Contractor shall demonstrate trouble free functioning of all the Civil, Electrical &Mechanical (E&M) installations and services. The Engineer-in-Charge or his authorized representatives shall carry out final inspection and performance test as per standing specifications of the various Civil and E & M services and installations. Any defect(s) noticed during demonstration shall be rectified by the Contractor at his own cost to the entire satisfaction of the Engineer-in-Charge. Nothing extra shall be payable on this account.

33. Unless otherwise provided in the Schedule of quantities, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account. Payment for centering, shuttering, however, if required to be done for heights greater than 3.5 m shall be admissible at rates arrived at in accordance with clause 12 of the agreement if not already specified.

34. The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the department concerned. In this connection, necessary Clause of SBD i.e. **Clause 11 of PWD Form 6& Clause 30, 30A, 31 of GCC** shall be followed.

35. Other agencies doing work related with this project will also simultaneously execute the works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying, burying in the work pipes, cables, conduits, clamps, boxes and hooks for fan clamps, etc. as may be required for other agencies conduits for Electrical wiring/cables will be laid in a way that they leave enough space for concreting and do not adversely affect the structural members. Nothing extra over the agreement rates shall be paid for the same.

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36. Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on this account.

37. (a) The building components will be carried out in the manner complying in all respect with the requirements of relevant by laws of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer- in-Charge and nothing extra will be paid on this account.

(b) The contractor shall comply with proper and legal orders and directions of the Local or Public authority or Municipality and abide by their rules and regulationsand pay all fees and charges, which he may be liable.

38. Any cement slurry or epoxy-based bonding agent added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the items and nothing extra shall be payable or extra cement shall be considered in consumptionon this account.

39. Sample of building materials, fittings and other articles required for execution of work shall be got approved from the Engineer-in-Charge before use in the work. The qualityof samples brought by the agency shall be judged by standards laid down in the relevant CPWD/ BIS specifications. In case, samples provided by agency are not approved, agency shall submit new samples of the materials and other articles for approval of Engineer-in-charge. Decision of Engineer-in-charge with respect to approval of samples of materials shall be final and binding on the contractor. All materials and articles brought by the agency to the site for use shall conform to the samples approved by the Engineer-in-Charge which shall be preserved till the completion of the work.

The agency shall procure the required materials in advance so that there is sufficient time for testing of the materials and clearance of the same before use in the work. Theagency shall provide at his own cost suitable weighing and measuring arrangements at site for checking the weight / dimensions as may be necessary for execution of work.

Samples of various materials required for testing shall be provided free of charge by the Contractor including its transportation to testing laboratories. The cost of tests for all materials shall be borne by the Contractor. The test shall be carried out by the contractor from the approved laboratory of Department. Testing of materials shall only be got conducted from any Government Testing Labs as per direction and decision of the Engineer-in-charge. However, in case of exigencies of some works, testing may be permitted from the approved Private Labs other than Government Testing Labs on written request by the Contractor and duly approved by the Engineer- in-Charge in writing. However, permission for testing materials from Private Labs depends solely at the discretion of the Engineer-in-Charge.

Lot size, number of required tests and frequency of testing:

While deciding these criteria CPWD Specifications & Provisions of BIS Code and Standard Practices may be referred. Volume of work, practical difficulties and site conditions etc. may also be kept in view. The lot size, number of tests and frequencies of testing can be altered or modified by the Engineer-in-charge from the prescribed limits.

40. All the registers of tests carried out at construction site or in outside laboratories shallbe maintained by the agency, which may be inspected by Engineer-in-charge or his/her representative. All the entries in the registers will be made by the designated Engineering Staff of the agency. Agency shall be responsible for safe custody of all thetest registers.

41. All the test in field lab setup at construction site shall be carried out by the Quality control

team/engineer to be engaged by the agency at the free of cost, which can be witnessed by Engineer-in-charge or his/her representative. A daily intimation of tests to be conducted on a day shall be given to Engineer-in-charge or his/her representative.No extra payment will be made for this purposes.

42. The Agency shall allow access to Third Party Quality Assurance Agency (TPQAA) engaged by Engineer-in-charge to have a control on quality and methodology of execution. **At least 25% of Samples of materials** including Cement Concrete Cubes shall be taken jointly by Agency and TPQA / Engineer-in-charge or his authorized representative. All arrangements for transporting and getting them tested shall be made by the Agency.

43. The Structural and Architectural drawings shall be all times be properly co-related before executing any work. However, in case of any discrepancy in the item given in the schedule of quantities, appended with the tender and Architectural drawings relating to the relevant item, the former shall prevail unless and otherwise given in writing by the Engineer-in-Charge.

44. For the purpose for recording measurements and preparing abstract of running / finalaccount bills, the full nomenclature of the items shall be reproduced.

45. **Conditions of National Green Tribunal**

The agency shall not store/ dump construction material or debris on the metaledroad.

The agency shall get prior approval from Engineer-in-Charge for the area wherethe construction material or debris can be stored beyond the metaled road. Thisarea shall not cause any obstruction to the free flow of traffic/inconvenience tothe pedestrians. It should be ensured by the agency that no accidents occur on account of such permissible storage.

The agency shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and/or other similar material to ensure that no construction material dust fly outside the plot area.

The agency shall ensure that all the trucks or vehicles of any kind which are usedfor construction purposes/or are carrying construction material like cement, sand and other allied material are fully covered. The agency shall take every necessary precaution that the vehicles are properly cleaned and dust free to ensure that en route their destination, the dust, sand or any other particles are not released in air/contaminate air.

The agency shall provide mask to every worker on the construction site involvingin loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.

The agency shall compulsorily use of wet jet in grinding and stone cutting.The agency shall comply all the preventive and protective environmental stepsas stated in the Ministry of Environment and Forests (MoEF) guidelines, 2010.The agency shall carry out on road Inspection for black smoke generatingmachinery. The agency shall use cleaner fuel.The agency shall ensure that all DG set comply emission norms notified by MoEF.The agency shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to20 Kmph. Speed bumps shall be used to ensure speed reduction. In case where reduction speed cannot effectively reduce fugitive dust, the agency shall divert traffic to nearby paved areas.

The agency shall ensure that the construction material is covered by tarpaulin. The agency shall take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such

storage.Wind breaking wall around construction site.The agency shall take needful measures to prevent wastage and misuse of water by providing float valves to prevent overflows of water from Over Head Tanks / Roof Top Reservoirs.Any violation of orders of MoEF including guidelines of State Government, any officer of any department shall lead to stoppage of work for which Agency shallbe responsible and no hindrance shall be accounted in this regard.

46. Existing structures, which are within the specified area and which are designated for removal shall be removed up to the limits and extent specified in the drawings or as,indicated by the Engineer-in-Charge.

Dismantling and removal operations shall be carried out with such equipment and in such a manner as to leave undisturbed, adjacent structures and any other work to beleft in place.

All operations necessary for the removal of any existing structure, which might endanger for new construction in the area, shall be completed prior to the start of newwork.

47. Holes and depressions caused by dismantling operations shall be backfilled- with excavated or other approved materials and compacted to required density as directedby the Engineer-in-Charge.

48. All materials obtained by dismantling operations shall be disposed of as directed by the Engineer-in-Charge with all lifts and lead.

49. The pile cut-off depth shall be referred from structural drawing. It is to be ensured that sound concrete is met at cut-off level. Else the pile should be chipped off till the sound concrete is met and rebuilt up to cut-off level, if required. Concrete in driven cast-in-situ piles shall be cast upto a height of minimum 1.00mtr. or more, (as required) above the designedtop level of pile [cut-off level], which shall be stripped off to obtain sound concrete either before final set or after 3 days. **No payment will be made for casting and stripped off pile head and rebuilt up to cut-off level, if required, to obtain sound concrete.**

50. Wastage and unauthorized overlaps shall not be paid for [referred to CPWD]. Annealed steel wire required for binding or tack welding shall not be measured. Where ever tackwelding is used in lieu of binding, such welds shall not be measured. Chairs, separators etc. shall be provided as directed by Engineer-in-Charge and measured separately andpaid for.

51. The analysis of rate of schedule items is a basic frame work for finding out of costing of individual items. This analysis of rate shall not be referred in any case after finalization of tender and execution of agreement by any party. Any type of analysis of rate against schedule agreement items, will not be entertained by the department.

There may be several incidental works, which are not mentioned in the nomenclature of each item but will be necessary to complete the item as per specification in all respect. The Contractor should examine each if the item and rate before quoting. No extra claim, whatsoever, shall be allowed admittance from the contractor after acceptance of tender.

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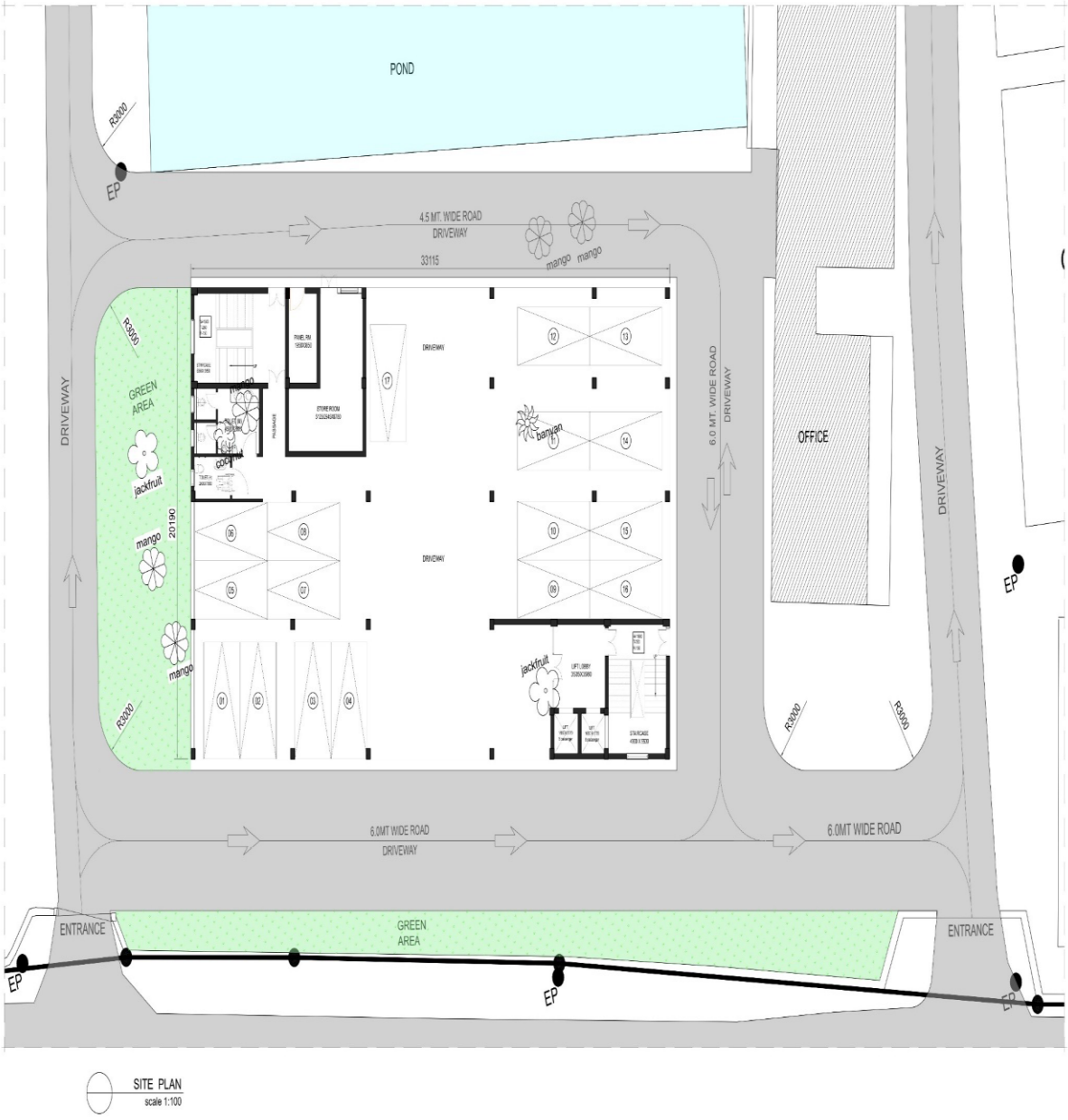

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GROUND FLOOR PLAN -669 SQM..

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FIRST FLOOR PLAN - 575 SQM.

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SECOND FLOOR PLAN - 575 SQM.

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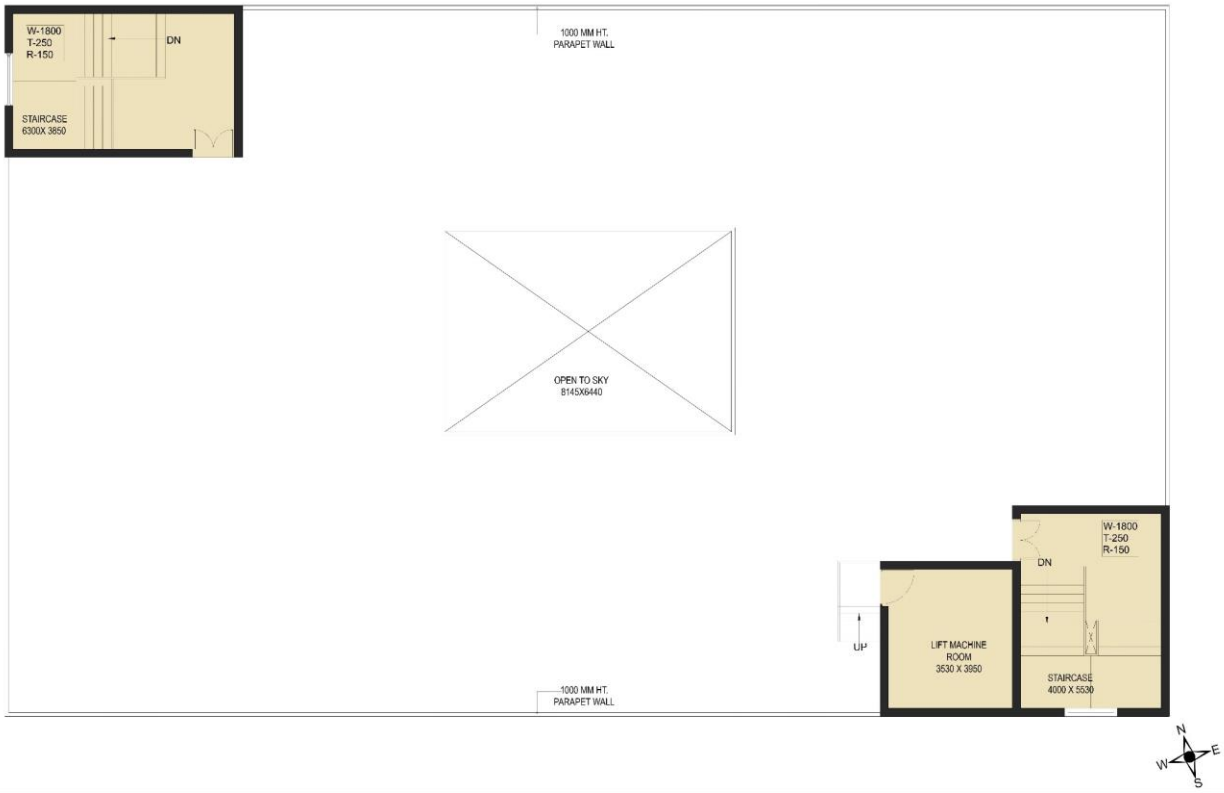

TERRACE FLOOR PLAN

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VOLUME –ll

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BOQ

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Cost Of Estimate

Name of Work: -Construction of Super ECBC Building for TSECL at Power House Complex, Banamalipur, Agartala, West Tripura

PROJECT :- TSECL- TRIPURA SUPER ECBC							
BUILDING NAME : - TSECL							
ESTIMATE							
Sl. No.	**SOR-2023**	**DESCRIPTION**	**UNIT**	**Qty.**	**RATE**	**SOR Amount**	**DSR/MR Amount**
A	2.0	**EARTH WORKS**					
1	2.12	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.					
i	i	All kinds of soil	Cum	729.49	**179.00**	130578.21	
2	2.18	Extra for additional lift of 1.5m or part thereof					
i	i	All kinds of soil.	Cum	23.70	**66.10**	1566.26	
3	2.13	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.					
i	i	All kinds of soil	Cum	133.72	**231.60**	30969.55	
4	2.16	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	354.06	**161.30**	57109.58	
5	1.1.2	Carriage of Earth by mechanical transport including loading, unloading and Stacking including royalty & carriage up to 5 KM complete.	Cum	25.07	**257.50**	6454.40	
6	2.19	Supplying and filling in plinth, under floor, foundations etc. with sand (fine) from local quarry with all lifts including spreading in horizontal layers, watering, grading to required slope, ramming, consolidating and compacting each layer by using plate compactor or by any suitable method complete.	Cum	92.55	**1177.30**	108958.43	
7	2.4	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. All kinds of soil.	Sqm	920.00	**18.10**	16652.00	
8	2.20	Supplying chemical emulsion in sealed containers including delivery as specified					
i	2.20.1	Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	litre	104.43	**225.60**	23559.41	
		Anti termite treatment					
9	2.21	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) :					
a)	2.21.4	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor :					
i	2.21.4.1	With Chlorpyriphos/Lindane E.C. 20% with 1% concentration.	Sqm	783.22	**166.40**	130328.39	

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		TOTAL (Carried Over to Summary of Civil Works)				**506176.22**	**0.00**
B	4.0	**CONCRETE WORKS**					
1	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					
i	4.1.5	1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	8.13	**10570.60**	85906.84	
ii	4.1.7	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	Cum	93.17	**9960.70**	928024.24	
2	4.4	Centering and shuttering including strutting, propping etc. and removal of form work for :					
i	4.4.1	Foundations, footings, bases for columns	Cum	108.96	**303.10**	33024.78	
3	4.11.1	Providing and laying damp-proof course with cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate 20mm nominal size).D.P.C. 50 mm thick.	Sqm	36.52	**606.00**	22130.51	
4	4.12	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	per 50 kg cement	9.35	**77.70**	726.41	
5	4.13	Providing & applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7kg per square metre on damp proof course after cleaning the surface with brushes and finally with apiece of cloth lightly soaked in kerosene oil.	Sqm	36.52	**173.20**	6325.09	
6	4.17	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	Sqm	82.01	**894.30**	73342.97	
		TOTAL (Carried Over to Summary of Civil Works)				**1149480.85**	**0.00**
C	5.0	**REINFORCED CEMENT CONCRETE WORK**					
1	5.8	Centering shuttering including struttings, propping etc. and removal of form work for:					
a	5.8.1.1	Foundations, footings, bases for columns etc. for mass concrete with timber plank	Sqm	196.75	**333.90**	65693.76	
b	5.8.3	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc. using shuttering ply	Sqm	87.06	**496.10**	43192.30	
c	5.8.4.3	Suspended floors, roofs, landings, balconies and access platform with M.S. plates and props.	Sqm	1682.81	**710.60**	1195802.24	
d	5.8.2	R.C.C. Cast-in-situ Shelves	Sqm	16.74	**338.30**	5664.36	
e	5.8.5.1	Lintels, beams, plinth beams, girders, bressummers and cantilevers with shuttering ply.	Sqm	1391.17	**499.40**	694748.60	
f	5.8.6.1	Columns, Pillars, Piers, Abutments, Posts and Struts with shuttering ply	Sqm	870.57	**625.50**	544539.66	
g	5.8.7.1	Stairs (excluding landings) except spiral-staircases with wooden plank	Sqm	132.26	**590.20**	78059.56	
h	5.8.14	Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	Sqm	5.37	**554.50**	2978.58	
i	5.8.12.1	Edges of slabs and breaks in floors and walls under 20 cm. wide	Rmt	392.07	**121.70**	47714.92	
j	5.8.13	Weather shade, Chajjas, corbels etc., including edges.	Sqm	178.87	**531.30**	95032.57	

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2	5.11.1	Extra for additional height in centring, shuttering where ever required with adequate bracing, propping etc. including cost of de-shuttering and decentring at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof: Suspended floors, roofs, landing, beams and balconies (Plan area to be measured).	Sqm	290.33	**267.40**	77632.91	
3	5.19	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.					
i	5.19.4	Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	64574.03	**103.90**	6709242.10	
4	5.20	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.					
i	5.20.4	Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	99933.08	**103.90**	10383047.38	
5	5.34	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centring, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per the direction of Engineer-in-Charge. (Note :- Cement content considered in this item is @ 418 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately).					
a)	5.34.1	All works upto plinth level					
i	5.34.1.1	Reinforced cement concrete grade M-25 using 418 kg of cement per cum	Cum	164.35	**12866.30**	2114561.96	
b)	5.34.2	All works above plinth level upto floor V level					
i	5.34.2.1	Reinforced cement concrete grade M-25 using 418 kg of cement per cum	Cum	585.19	**14176.60**	8296061.97	
6	5.37	Add for using extra cement or deduct for using less cement in the items of design mix over and above the specified cement content therein.	quintal	149.91	**985.60**	147750.00	
		TOTAL (Carried Over to Summary of Civil Works)				**30501722.84**	**0.00**
D	**6.0**	**BRICK WORK**					
1	6.1	First class brick work in foundation and plinth including cost of all materials as required complete:-					
i	6.1.5	In cement mortar 1:6 (1 cement : 6 fine sand).	Cum	24.21	**9515.20**	230380.54	
2	6.3	First class brick work in superstructure above plinth level & upto floor-five level including cost of all materials as required complete:-					
i	6.3.5	In cement mortar 1:6 (1 cement : 6 fine sand).	Cum	1329.96	**11064.80**	14715713.33	
3	6.12	Half brick masonry work with first class bricks in superstructure upto floor five level including cost of all materials as required complete:-					
i	6.12.3	In cement mortar 1:4 (1 cement : 4 fine sand).	Sqm	867.34	**1533.50**	1330068.70	
4	6.19.3	Extra for providing & placing in position 2 nos 6mm dia MS bars at every 4th course of half brick masonry work including anchorage in joints of 75mm in each side in superstructure for all level including cost of all materials as required complete:- In cement mortar 1:4 (1 cement : 4 fine sand).	Sqm	867.34	**252.10**	218656.88	
5	DSR-2023 (6.44)	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	Rmt	98.31	**60.85**		5982.00
		TOTAL (Carried Over to Summary of Civil Works)				**16494819.44**	**5982.00**
E	7.0	**MARBLE & GRANITE WORK**					

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1	7.2	Providing and fixing gang saw cut of approved thickness mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base of cement mortar 1:4 (1 cement : 4 fine sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing , curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels:-					
a)	7.2.3	18 mm thick Granite of any colour and shade duly approved:-					
i	7.2.3.2	Area of slab over 0.50 sqm.	Sqm	16.74	**4498.60**	75322.76	
2	7.3.3	Providing edge moulding to approved thickness marble stone counters, vanities etc. including machine polishing to edge to give high gloss finish etc. complete at all levels as required as per design approved by the Engineer-in-charge:- 18 mm thick Granite work.	Rmt	29.69	**361.20**	10722.58	
3	7.6	Extra for providing opening of required size & shape for wash basins/ kitchen sink in kitchen platform, vanity counters and similar location in marble/Granite/Stone work including necessary holes for pillar taps etc. including rubbing and polishing of cut edge etc. complete.	Each	15.00	**610.20**	9153.00	
4	7.10	Providing and fixing stone slab with table rubbed, edges rounded and polished of size 75x50 cm deep and approved thickness fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 fine sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-incharge and finished smooth including rubbing,					
i	7.10.3	Granite of any colour and shade duly approved of 18 mm thick	Sqm	4.05	**4103.10**	16617.56	
5	Refer SOR- 2023 (7.11.1)	Providing and fixing machine cut, mirror/ eggshell polished, Granite stone work for wall lining (veneer work) including dado, skirting, risers of steps etc., in required design and pattern wherever required, stones of different finished surface texture, on 12mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry @ 3.3 kg/sqm including pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing, polishing etc. all complete as per Architectural drawings, and as directed by the Engineer-in-Charge. Granite of colour black, cherry/ruby red 18-20mm thick (slab area above 0.50 sqm)	Sqm	14.14	**6780.60**	95870.90	
6	10.40.2	Providing and fixing 1st class quality ceramic glazed wall tiles conforming to IS : 15622 - 2017 (thickness to be specified by the manufacturer) of approved make in all colours, shades of any size as approved by Engineer-incharge in skirting, risers of steps and dados, laid over 12 mm thick bed of cement mortar 1 : 3 (1 cement : 3 fine sand) jointed with ordinary cement slurry including pointing with white cement mixed with pigment of matching shade etc. all complete as per direction of the Engineer in-charge. 600 mm X 300 mm in all shades and design.	Sqm	536.38	**1110.30**	595541.60	
		TOTAL (Carried Over to Summary of Civil Works)				**803228.40**	**0.00**
F	8.0	**WOOD & PVC WORK**					
1	8.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position :					
i	8.1.3	Local Teak Wood	Cum	1.81	**106388.30**	192157.00	

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2	8.19	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.					
i	8.19.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	Sqm	85.32	**2313.90**	197421.95	
3	8.21	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (over all area of door shutter to be measured) Over item no. 8.18 and 8.19	Sqm	85.32	**527.50**	45006.30	
4	8.46	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. all complete.					
i	8.46.2	Fixed to openings /wooden frames with rawl plugs screws etc.	kg	2314.80	**169.70**	392822.00	
5	8.44	Providing and fixing curtain rods of 1.25 mm thick chromium plated brass plate, with two chromium plated brass brackets fixed with C.P. brass screws and wooden plugs, etc., wherever necessary complete :					
i	8.44.2	20 mm dia	Rmt	197.75	**501.00**	99072.75	
6	8.124	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.					
i	8.124.2	1.0 mm thick	Sqm	170.64	**701.30**	119669.83	
7	8.51	Providing 40 × 5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30 × 10 × 15 cm 1:3:6 mix (1 cement : 3 fine sand : 6 graded stone aggregate 20mm nominal size)	Each	188.00	**190.10**	35739.00	
8	8.103	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board including providing and fixing of frame work made of special section power pressed/ role form G.I. sheet with zinc coating of grade 175 consisting of floor and ceiling channel 50 mm wide having equal flanges of 32 mm and 0.50 mm thick fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.50 mm dia-mater, 40 mm length and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts at both ends of partition fixed flush to wall with rawl plugs at spacing 450 mm centre to centre and fixing of boards to either side of frame work by 25 mm drive all screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre, including jointing and finishing to a flush finish with recommended jointing compound , jointing tape, joint finisher and two coats of primer suitable for boards as per manufacture's specification and direction of the Engineer-In-					
i	8.103.2	75mm overall thickness partition with 12.5mm thick double skin plain Gypsum board conforming to IS: 2095: part I	Sqm	275.89	**1666.70**	459829.28	
		SS Hardware					
9	8.174	Providing and fixing bright /matt finished Stainless Steel handles of approved quality & make with necessary screws etc all complete.					
i	8.174.1	125 mm	Each	80.00	**113.10**	9048.00	
10	NS-1	Providing and fixing Stainless Steel tower bolts of approved make with necessary screws etc. complete :					
i	i	300x10mm	Each	80.00	**362.05**		28964.00
ii	ii	150x10mm	Each	10.00	**279.95**		2799.50

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11	NS-2	Providing and fixing Stainless Steel hanging floor door stopper of approved make with necessary screws etc. complete.					
i	i	Single rubber stopper	Each	40.00	**224.30**		8972.00
12	NS-3	Providing and fixing Concealed Door Closer With Track Arm (SS Finish), Slide in SS Cover Stainless Steel door closer, door weight upto 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	Each	40.00	**2652.20**		106088.00
13	NS-4	Providing and fixing of Mortise Lock with Handles Stainless Steel Finish (Solid Casted) with necessary screws etc. complete as per design & approved by Engineer in Charge.	Each	12.00	**5117.75**		61413.00
14	NS-5	Providing and fixing stainless steel sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete : 300x16 mm	Each	10.00	**417.40**		4174.00
15	NS-6	Providing and fixing Stainless steel Al-drop	Each	17.00	**280.80**		4773.60
16	8.159.D	Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately). Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.					
		Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.					
a)	8.159.D.1	Two and half track three panels sliding window with two glazed & one wire mesh panels with Aluminium channel for roller track, wool pile, nylon rollers with SS 304 body.	Sqm	94.50	**8180.60**	773066.70	
b)	8.159.D.2	Three track three panels sliding window with fly proof SS wire mesh (Two nos. glazed & one no. wire mesh panels) made of (small series) frame 92 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension (Area of window upto 1.75 sqm).	Sqm	75.00	**10949.30**	821197.50	

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c)	8.159.B	Providing and fixing factory made uPVC white colour fixed glazed windows/ ventilators comprising of uPVC multi- chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), , uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in Charge. (Single / double glass panes and silicon sealant shall be paid separately). Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.					
i	8.159.B.1	Fixed window / ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area upto 0.75 sqm.)	Sqm	23.40	**7682.30**	179765.82	
e	8.162	Providing and fixing zinc alloyed (white powder coated) touch lock for uPVC sliding window with necessary screws etc.complete.	each	84.00	**187.20**	15724.80	
f	8.163	Providing and fixing steel roller for uPVC sliding window with necessary screws etc. complete.	each	168.00	**103.20**	17337.60	
17	8.149	Providing and fixing fire resistant door frame of section 50 x 60 mm on horizontal side & 35 x 60 mm on vertical sides having built in rebate made out of 1.6 mm thick GI sheet (Zinc coating not less than 120gm/m^2) suitable for mounting 120 min Fire Rated Glazed Door Shutters. The frame shall be filled with Mineral wool Insulation having density min 96Kg/m^3 . The frame will have a provision of G.I. Anchor fasteners 14 nos (5 each on vertical style & 4 on horizontal style of size M10 x 80) suitable for fixing in the opening along with Factory made Template for SS Ball Bearing Hinges of Size 100x89x3mm for fixing of fire rated glazed shutter . The frame shall be finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per the directions of Engineer - in- charge . (Cost of SS ball bearing hinges is excluded).	Rmt	48.00	**1904.40**	91411.20	
18	8.150	Providing and fixing 60 mm thick glazed fire resistant door shutters of 120 min Fire Rating confirming to IS:3614 (Part II) or EN1634-1:1999, tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, top rail & side rail 60 mm x 60 mm wide and bottom rail of 110 mm x 60 mm made out of 1.6mm thick G.I. sheet (zinc coating not less than 120gm/m^2) duly filled mineral wool insulation having density min 96 kg/m^3 and fixing with necessary stainless steel ball bearing hinges of size 100x89x3mm of approved make, including applying a coat of approved fire resistant primer or powder coating not less than 30 micron etc all complete as per direction of Engineer-in- charge (panelling to be paid for separately).	Sqm	23.04	**10352.40**	238519.30	

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19	8.152	Providing and fixing glazing in fire resistant door shutters, fixed panels & partitions etc., with G.I. beading made out of 1.6 mm thick G.I. sheet (zinc coating not less than 120 gm/m²) of size 20 x 33 mm screwed with M4 x 38 mm SS screws at distance 75 mm from the edges and 150 mm c/c , including applying a coat of approved fire resistant primer/powder coating of not less than 30 micron on G.I. beading, & special ceramic tape of 5 x 20 mm size etc complete in all respect as per direction of Engineering- charge. The glass should be clear, toughened, interlayered, non-wired fire resistant having 11 mm thickness CFDL of approved brand with 120 minutes of fire resistance both integrity & radiation control (EW120) and minimum 15 min of insulation (EI15) and having a sound reduction of ≥37dB and LT of 86%. Glass shall be compliant to class 2(B)2 category of Impact Resistance as per EN 12600. The glass should be manufactured in UL & TUV audited Facility and including UL-EU Certification. The maximum glazing size cannot be more than 1100 mm x 2200 mm (w x h) or 2.42 sq mts in total area. The test report for the complete system (Glazed Door or Partition) will be considered valid only if it contains the stamp and signature of the authorized signatory from the glass manufacturer. (Actual glass size is to be measured at site for payments).	Sqm	3.46	**42527.80**	146976.08	
20	8.153	Supply & fixing of SS Ball Bearing Hinges of size 100 x 75 x 3mm complete with SS Screws of BB1953 Becker Fire Solution / 3090F DORMA / 8011008 GEZE Make (5 Nos. per panel) (Required For All Doors) as per the directions of Engineer-in-charge.	Each	48.00	**705.10**	33844.80	
21	8.154	Supply & fixing of Slim body Mortise Sash Lock With SS Lever Handle Of Becker Fire Solution / DORMA 952 Series / GEZE Make (Required For Service Room Location Such As AHU, Electrical Rooms Etc.)as per direction of Engineer in Charge.	Each	8.00	**21002.70**	168021.60	
22	8.155	Supply & fixing of door closers of BLC-0408 Becker Fire Solution/ TS-83 DORMA / TS2000 GEZE Make. (Required For All Fire Doors Except Shaft Door)as per direction of Engineer in Charge.	Each	16.00	**10320.20**	165123.20	
23	8.156	Supply & fixing of Stainless Steel 304 grade 300mm Long Tower Bolt of BFBS1930 Becker Fire Solution / 9114306 DORMA/ 8157007 GEZE Make with necessary screws as required inDouble Leaf Doors Only.	Each	16.00	**2226.70**	35627.20	
		TOTAL (Carried Over to Summary of Civil Works)				**4237381.90**	**217184.10**
G	9.0	**STEEL WORK**					
1	9.2	Providing structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete as required.	kg	4566.68	**109.60**	500508.00	
2	9.5	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6mm angle iron and 3mm M.S. gusset plates at the junctions and corners, & with cleats with bolts & nuts, rivets, locking arrangement, handles, hooks & eyes, pinlets including embedding in cement concrete of required grade for fixing in position, all necessary fittings, including applying a priming coat of approved steel primer etc. complete as required:-					
i	9.5.1	Using M.S. angels 40x40x6 mm for diagonal braces	Sqm	2.21	**4711.70**	10389.30	

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3	9.6	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 275mm long wire springs grade No.2 and M.S. top cover of required thickness for rolling shutters & with handles, hold fast including embedding in cement concrete of required grade required for fixing in position, all necessary fittings, including applying of approved steel primer etc. complete as required:-					
i	9.6.1	80x1.25 mm M.S. laths with 1.25 mm thick top cover	Sqm	8.10	**3669.30**	29721.00	
4	9.7	Providing and fixing ball bearing for rolling shutters (exceeding 10 sqm area) of approved make complete as required.	Each	2.00	**629.20**	1258.00	
5	9.8	Extra for providing & fixing mechanical device chain and crank operation for operating rolling shutters of approved make complete as required:-					
i	9.8.1	Exceeding 10.00 Sqm and upto 16.8 Sqm in the area.	Sqm	8.10	**1231.30**	9974.00	
6	9.14	Providing and fixing circular/ Hexagonal cast iron or M.S. sheet box for ceiling fan clamp of internal dia 140mm, 73mm height, top lid of 1.5mm thick M.S. sheet with its top surface hacked for proper bonding, top lid shall be screwed into the cast iron/ M.S. sheet box by means of 3.3mm dia. round headed screws, one lock at the corners. Clamp shall be made of 12mm dia M.S. bar bent to shape, including painting the exposed portion as per standard drawing complete as required (provided in case of low ceiling height).	each	15.00	**193.60**	2904.00	
7	9.15	Steel work welded in built up section/framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using steel etc. complete as required:-					
i	9.15.1	In stringers, treads, landing etc. of stair cases including use of chequered plate wherever required, all complete.	Kg	150.00	**121.80**	18270.00	
ii	9.15.2	In grating, frames, guard bar, railing, brackets, gates and similar works, all complete.	Kg	698.25	**142.30**	99360.98	
8	9.21	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer- in-charge.					
i	9.21.1	10 x 60 mm	Each	601.00	**100.10**	60160.10	
9	9.22	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, including fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., f required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in- charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	1752.95	**695.80**	1219699.13	
		TOTAL (Carried Over to Summary of Civil Works)				**1952244.50**	**0.00**
H	10.0	**FLOORING WORK**					
1	10.5	Cement concrete flooring 1:2:4 (1 cement : 2 fine sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. all complete etc as per direction of Engineer-in-charge.					
i	10.5.1	40 mm thick with 20 mm nominal size stone aggregate	Sqm	5.00	**631.00**	3155.00	

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2	10.31	Providing and fixing Kota stone in floors over 20 mm thick bed of cement mortar 1 : 4 (1 cement : 4 fine sand) jointed with ordinary cement slurry including pointing with ordinary cement mixed with pigment of matching shade, including rubbing and polishing etc. all complete as per direction of Engineer-in-charge.					
i	10.31.1	Kota stone slab 25mm thick	Sqm	287.11	**1764.20**	506526.70	
3	10.32	Kota stone slabs 25 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1 : 3 (1 cement : 3 fine sand) and joined with ordinary cement slurry mixed with pigment to match the shade of slabs, including rubbing and polishing etc. all complete as per direction of Engineer-in-charge.	Sqm	18.31	**1887.20**	34549.91	
4	10.33	Extra for pre-finished nosing in treads of steps of Kota stone.	Rmt	219.90	**138.70**	30500.13	
5	10.34	Extra for Kota stone in treads of steps and risers using single length up to 1.05 metre.	Sqm	85.50	**24.60**	2103.30	
6	10.41.1.2	Providing and laying 1st class quality ceramic floor tiles in different sizes (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 - 2017 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid over 20 mm thick cement mortar 1:4 (1 cement : 4 fine sand), Jointing with grey cement slurry @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc. all complete as per direction of the Engineer in-charge. Mat Finish Tiles/ Anti-skid Tiles/ Glossy Tiles. 600 mm x 600 mm in all shades and designs 1st class quality ceramic floor Porcelain tiles.	sqm	84.05	**1177.10**	98937.61	
7	10.42	Providing and laying 1st class quality vitrified floor tiles in different sizes (thickness to be specified by the Manufacturer) with water absorption less than 0.08% and conforming to IS: 15622 - 2017, of approved make, in all colours and shades, laid over 20mm thick cement mortar 1:4 (1 cement : 4 fine sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc. all complete as per direction of the Engineer-in-charge..					
i	10.42.2.1	Double charged Stain free vitrified tiles (Glossy) Size of tile 600 mm x 600 mm.	sqm	1370.31	**1169.80**	1602982.99	
8	10.45	Extra for providing and laying Vitrified tiles (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622 - 2017, of approved make, in all colours and shades, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 fine sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. all complete as per direction of the Engineer-in-charge					
i	10.45.1	Soluble Salt Stain free vitrified tiles (Glossy) / Double charged Stain free vitrified tiles (Glossy) / Glazed Vitrified Tiles (Glossy / Mat Finish/ Anti-Skid) / Glazed Vitrified Tiles - Full Body (Glossy / Mat Finish/ Anti-Skid)	sqm	67.40	**330.80**	22297.00	
		TOTAL (Carried Over to Summary of Civil Works)				**2301052.64**	**0.00**
I	11.0	**ROOFING**					
1	11.17.1	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 fine sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design and as per direction of Engineer-in-charge : In 75x75 mm deep chase.	Rmt	205.39	**220.90**	45370.65	

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2	11.18	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 fine sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 fine sand) and a coat of neat cement, rounding the edges and making and finishing the outlet etc. complete as per direction of Engineer-in-charge.	Each	8.00	**302.00**	2416.00	
3	11.32	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval,					
		including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cut-outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with : at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square					
i	11.32.3	12.5 mm thick tapered edge gypsum moisture resistant board.	Sqm	943.49	**1239.70**	1169646.34	

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4	11.33	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm centre to centre and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm centre to centre along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in- charge.					
i	11.33.2	GI Metal Ceiling Lay in perforated Tegular edge global white colour tiles of size 595x595 mm and 0.5 mm thick with 8 mm drop; made of GI sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC (Noise Reduction Coefficient) of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation, and backed with a black Glass fibre acoustical fleece.	Sqm	341.93	**2014.10**	688675.60	
5	11.20	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) .50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in- charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required and as per direction of Engineer-incharge.	Sqm	152.22	**859.50**	130835.28	
6	11.21	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+ 0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete for Ridges/Valley/Gutter/Flashing of width 600mm etc. complete as per direction of Engineer-incharge.	metre	51.18	**476.50**	24388.22	
7	11.50	Providing and fixing Heat Resistant Terrace Tiles (300 mm x 300 mm x 20 mm) with SRI (solar refractive index) > 78, solar reflection > 0.70 and initial emittance > 0.75 on waterproof and sloped surface of terrace, laid on 20 mm thick cement sand mortar in the ratio of 1:4 (1 cement : 4 fine sand) and grouting the joints with mix of white cement & marble powder in ratio of 1:1, including rubbing and polishing of the surface upto 3 cuts complete, including providing skirting upto 150 mm height along the parapet walls in the same manner. all complete as per direction of Engineer-in-Charge.	Sqm	644.93	**1483.20**	956560.03	
		TOTAL (Carried Over to Summary of Civil Works)				**3017892.12**	**0.00**

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J	12.0	**FINISHING WORK**					
1	12.1	12 mm cement plaster of mix					
i	12.1.4	Cement mortar 1:6 (1 cement : 6 fine sand)	Sqm	1005.58	**205.20**	206345.06	
2	12.2	15 mm cement plaster on rough side of single or half brick wall of mix :					
i	12.2.4	Cement mortar 1:6 (1 cement : 6 fine sand)	Sqm	1005.58	**237.90**	239227.53	
3	12.3	20 mm cement plaster of mix :					
i	12.3.2	Cement mortar 1:4 (1 cement : 4 fine sand)	Sqm	1571.90	**314.20**	493891.06	
4	12.9	6 mm cement plaster of mix :					
i	12.9.1	Cement mortar 1:3 (1 cement : 3 fine sand)	Sqm	310.11	**185.70**	57587.02	
5	12.14	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	per bag of 50KG Cement Used in Mix	557.56	**70.80**	39475.44	
6	12.15	Extra for plastering exterior walls of height more than 10 m from GL for every additional height of 3 m or part thereof complete.					
i	i	10 to 13m	Sqm	396.29	**47.80**	18942.83	
ii	ii	13 to 16m	Sqm	114.90	**95.60**	10984.55	
7	12.19	Providing and applying plaster of Paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	Sqm	310.11	**156.40**	48501.00	
8	12.36	Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 grams/ litre, of approved brand and manufacture, of required shade and colour complete, as per manufacturer's specification. [Payment shall be made after submission of Test Certificate issued by the Manufacturer]					
i	12.36.1	Two coats	Sqm	1253.60	**68.10**	85370.00	
9	12.38	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :					
i	12.38.1	Water thinnable cement primer.	Sqm	3264.76	**48.10**	157035.00	
10	12.56	Wall painting with acrylic plastic emulsion paint of approved brand and manufacture to give an even shade [Payment shall be made after submission of Test Certificate issued by the Manufacturer] :					
i	12.56.1	Two or more coats on new work	Sqm	2011.16	**115.60**	232490.00	
11	12.39	Finishing walls with water proofing cement paint of required shade of approved brand and manufacture [Payment shall be made after submission of Test Certificate issued by the Manufacturer] :					
i	12.39.1	New work (Two or more coats applied @ 3.84 kg/10 sqm)	Sqm	50.00	**78.30**	3915.00	
12	12.40	Finishing walls with textured exterior paint of required shade of approved brand and manufacture [Payment shall be made after submission of Test Certificate issued by the Manufacturer] :					
i	12.40.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm	Sqm	1571.90	**269.40**	423470.00	
13	12.43	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications [Payment shall be made after submission of Test Certificate issued by the Manufacturer]:					
i	12.43.2	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture.	Sqm	56.69	**134.30**	7613.00	
14	12.45	Applying priming coat [Payment shall be made after submission of Test Certificate issued by the Manufacturer] :					

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i	12.45.1	With ready mixed Pink or Grey primer of approved brand and manufacture on wood work (hard & soft wood).	Sqm	56.69	**48.70**	2761.00	
ii	12.45.3	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	Sqm	25.00	**42.40**	1060.00	
15	12.59	12.59 Painting with synthetic enamel paint of approved brand and manufacture to give an even shade [Payment shall be made after submission of Test Certificate issued by the Manufacturer]:					
i	12.59.1	Two or more coats on new work	Sqm	643.79	**106.90**	68821.00	
16	5.24	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	meter	784.14	**48.70**	38188.00	
17	12.20	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete	Sqm	3633.06	**100.60**	365486.00	
		TOTAL (Carried Over to Summary of Civil Works)				**2501163.49**	**0.00**
K	16.0	ROAD WORK					
1	DSR-2023 (16.1)	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm. depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth lead upto 50 metres.	Sqm	895.00	**218.90**		195916.00
2	DSR-2023 (16.3.9)	Supplying and Stacking of Good Earth by mechanical transport including loading, unloading including royalty & carriage up to 5 KM complete.	Cum	373.00	**775.50**		289262.00
3	DSR-2023 (2.8+16.2)	Spreading of sludge, dump manure and/or good earth in required thickness and extra for compaction of earth work as per direction of officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).	Cum	373.00	**99.80**		37225.00
4	DSR-2023 (16.3)	Supplying and stacking at site.					
i	DSR-2023 (16.3.1)	90 mm to 45 mm size stone aggregate	Cum	31.75	**2385.30**		75722.00
ii	DSR-2023 (16.3.2)	63 mm to 45 mm size stone aggregate	Cum	31.75	**1922.95**		61045.00
iii	DSR-2023 (16.3.3)	53 mm to 22.4 mm size stone aggregate	Cum	21.16	**2129.25**		45062.00
iv	DSR-2023 (16.3.6)	Stone screening 13.2 mm nominal size (Type A)	Cum	21.16	**2298.35**		48641.00
v	DSR-2023 (16.3.7)	Stone screening 11.2 mm nominal size (Type B)	Cum	21.16	**2511.75**		53157.00
5	DSR-2023 (16.4)	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .	Cum	126.98	**1046.95**		132943.00
6	DSR-2023 (16.75)	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-incharge. (The panel shuttering work shall be paid for separately). (Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).	Cum	111.00	**10237.80**		1136396.00
7	DSR-2023 (16.44)	Extra for providing and mixing hardening compound of approved quality as per manufacturer's specification in cement concrete.	Litre	62.00	**55.50**		3441.00

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8	DSR-2023 (16.45)	Providing and fixing in position pre-moulded joint filler in expansion joints.	per cm depth per cm width per m length	388.00	**5.30**		2056.00
9	DSR-2023 (16.46.1)	Providing and laying in position bitumen hot sealing compound for expansion joints etc. Using grade 'A' sealing compound.	depth per cm width per m length	388.00	**8.65**		3356.00
10	DSR-2023 (16.62)	Providing and applying 2.5 mm thick road marking strips (retroreflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications.	Sqm	73.00	**747.80**		54589.00
11	DSR-2023 (16.63)	Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement: 3 coarse sand:6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction of Engineer-in-charge.	Sqm	50.00	**610.40**		30520.00
12	DSR-2023 (16.69)	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in- charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	11.00	**10121.50**		111337.00
13	DSR-2023 (16.91.1)	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge. 60mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.	Sqm	156.21	**1061.75**		165856.00
14	10.55	Providing and laying 500x500x40 mm thick Turf paver (Turfpave XD) on 150 mm thick sub grade of compacted bed of 20 mm thick nominal size stone aggregate and base course and filling with 150 mm thick Jamuna sand, including spreading, well ramming, consolidating and finishing smooth etc. all complete as per direction of Engineer-in-charge.	Sqm	10.00	**2249.50**	22495.00	
15	DSR-2023 (16.92)	Providing and fixing 10x10x7.50 cm Granite stone block hand cut and chisel dressed on top, for paving in floors, drains etc. laid over 20mm thick base mortar 1:4 (1cement:4 coarse sand) with joints 10mm wide filled with same mortar including ruled pointing etc. complete as per direction of engineer-in charge.	Sqm	10.00	**2218.65**		22187.00

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16	DSR-2023 (19.36)	Providing and laying Non Pressure NP-4 class (Heavy duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete					
i	DSR-2023 (19.36.1)	450 mm dia RCC pipes.	Rmt.	50.00	**3118.40**		155920.00
		TOTAL (Carried Over to Summary of Civil Works)				**22495.00**	**2624631.00**
L	**DSR-2020**	**HORTICULTURE AND LAND SCAPING**					
1	2.4	Supplying and stacking at site dump manure from approved source, including carriage upto 5 km complete (manure measured in stacks will be reduced by 8% for payment) :					
i	2.4.2	Screened through sieve of I.S. designation 16 mm	Cu.Mt.	18.65	**290.70**		5422.00
ii	2.4.3	Screened through sieve of I.S. designation 4.75 mm	Cu.Mt.	18.65	**319.90**		5966.00
2	2.7	Fine dressing of the ground.	Sq.Mt.	150.00	**3.70**		555.00
3	2.8	Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).	Cu.Mt.	21.16	**52.35**		1108.00
4	2.9	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge	Cu.Mt.	21.16	**36.55**		774.00
5	2.10	Grassing with selection No. 1 grass including watering and maintenance of the lawn for 60 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the grass and earth shall be paid for separately).					
i	2.10.2	With grass Turf	Sq.Mt.	150.00	**13.30**		1995.00
6	2.14	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any, with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately) :					
i	2.14.1	Holes 1.2 m dia and 1.2 m deep	Each	10	**335.5**		3355.00
ii	2.14.2	Holes 90 cm dia, and 90 cm deep	Each	7	**143.1**		1002.00
iii	2.14.3	Holes 60 cm dia, and 60 cm deep	Each	5	**43.8**		219.00
iv	2.14.4	Holes 45 cm dia, and 45 cm deep.	Each	8	**18.7**		150.00
7	2.33	Providing and laying Nigiri/Mexican grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with tools wooden (Dhurmos) and than rolling the surface with light roller make the surface smoothen and light watering with sprinkler and maintenance for 30 days or more till the grass establish properly, as per direction of officer-in-charge.	Sq.Mt.	75.00	**214.40**		16080.00
8	2.35	Supplying & Stacking of Selection No.1 doob grass turf at site fresh & free from weeds having proper roots in green including loading, unloading, carriage and all taxes paid etc. And as per direction of officer in charge.	Sq.Mt.	75.00	**50.80**		3810.00
9	2.40	Complete maintenance of the entire garden features having as per yard stick in the garden area i.e. lawn trees, shrubs, hedge, flower beds, foliages, creepers etc. including hoeing, weeding pruning replacement of plants, gap filling, watering, mowing of lawn, grass cutting by lawn mover and brush cutter , removal of garden waste, applying insecticide, pesticide & fertilizers(whenever required) top dressing of lawn with good earth and manure and maintenance of other garden related works as directed by office-in-charge (Cost of Good Earth, Manure, Fertilizer, Insecticide , Pesticide will be provided by the Department & lawn mover and brush cutter with fuel , other T & P material/articles shall be provided by the contractor.)					

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i	2.40.5	Play grounds / Public parks (as per yard stick 1Mali =2.00Acre).	**Per Sq.Mt. 6 Month**	150.00	**14.40**		2160.00
10	2.43	Complete maintenance of shrubs (Out side garden features), jobs like making of basin at regular interval i/c watering, weeding, pruning & application of fertilizer etc, (excluding the cost of material which shall be supplied by the department) and as per direction of officer in charge.	**Per Shrub 6 Month**	50	**228.00**		11400.00
11	2.55	Providing and applying anti termite treatment of infected trees i/c all branches/leaves by spraying chemical emulsion 0.5% (Chlorpyriphos 20% EC) concentration through power spray machine (@ 100 ml Chlorpyriphos per tree i/c cost of chemical) and as per direction of officer-in-charge. And as per direction of officer-in-charge.	Each Tree	30	**59.6**		1788.00
12	2.56	Anti termite treatment of lawn area through premise 30.50% I P. one litre premise diluted in 499 litres water and applying solution @ 1.00 litre solution per sqm lawn or bed area.(two application) i/c cost of chemical)and as per direction of officer-in charge. And as per direction of officer-in-charge.	Sq.Mt.	37.50	**7.55**		283.00
13	4.0	**Rose Plants**					
i	4.91	Providing and Displaying plants Budded Rose (H.T. variety) 3 to 4 healthy branch 30 cm and above ht. well developed with one and above flower plant in 20 cm Earthen Pot, as per direction of the officer-in-charge.	Each	10	**32.80**		328.00
ii	4.92	Providing and Displaying plants Creeper Rose variety 3 to 4 healthy branch 60 cm and above ht. well developed with one and above flowers in 25 cm Earthen Pot, as per direction of the officer-in-charge.	Each	5	**75.85**		379.00
iii	4.93	Providing and Displaying plants Standard Rose (H.T. variety) 3 to 4 healthy branch 90 cm and above ht. well developed with one and above flowers in 25 cm Earthen Pot, as per direction of the officer-in-charge.	Each	10	**150.70**		1507.00
14	5.0	**Ornamental Plants**					
i	5.1	Providing and Displaying Acalypha plant Different colour well developed, fresh & healthy with good foliage, multi branch 30 to 45 cm ht. in 20 cm size of Earthen Pot/ Plastic Pot bushy plant as per direction of the officer-in-charge.	Each	10	**35.90**		359.00
ii	5.3	Providing and Displaying Acalypha red plant well developed with fresh & healthy 30 to 45 cm ht. in 20 cm size Earthen Pot/ Plastic Pot as per direction of the officer-in-charge.	Each	7	**41.00**		287.00
iii	5.26	Providing and Displaying Ficus reginold piller type Topiary plant well developed with fresh & healthy 210 to 240 cm ht in 40 cm Cement Pot as per direction of the officer-in-charge.	Each	5	**2460.00**		12300.00
iv	5.12	Providing and Displaying Bougainvillea named variety, Sobhra, Thima, Marry palmar, Cherry Blossom etc. well developed with fresh & healthy bushy plant in full bloom 75 to 90 cm ht. in 40 cm Cement Pot as per direction of the officer-in-charge.	Each	5	**322.90**		1615.00
v	5.21	Providing and Displaying Ficus Long Island topiary plant well developed with fresh & healthy 5 to 6 ball specific size and shape 120 to 150 cm ht in 40 cm Cement Pot as per direction of the officer-in-charge.	Each	5	**1230.00**		6150.00
15	6.0	**Ground Covers Plants**					
i	6.7	Providing and Displaying of Clerodendron inerme plant of ht. 30 cm to 40 cm multi branched in 25 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge.	Each	5	**20.00**		100.00
ii	6.17	Providing and Displaying of Iresine herbstii plant, of height 20- 30 cm., full of branches well developed in 20 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge..	Each	5	**20.00**		100.00

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iii	6.31	Providing and Displaying of Wadelia trilobata plant, full of leaves in 15 cm size of Poly bags & as per direction of the officer-in- charge.	Each	5	**15.00**		75.00
16	7.0	**Tree Plants**					
i	7.75	Providing and stacking of Polyalthia longifolia (Ashok) of height 180-195 cm. in gunny bag of size 30 cm as per direction of the officer-in-charge.	Each	10	**100.00**		1000.00
ii	7.90	Supply and stacking of Washingtonia filifera palm plant stem ht. 120-135 cm with 8-10 healthy leaves lush green leaves well developed in big size HDPE Bags as per direction of the officer-in charge.	Each	5	**650.00**		3250.00
		TOTAL (Carried Over to Summary of Civil Works)				**0.00**	**83517.00**
M	**15**	**PILE WORK:-**					
1	15.2	Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct Mud Circulation (DMC) or Bailer and Chisel Technique by Tripod and Mechanical Winch Machine all complete, including removal of excavated earth with all its lifts and leads. (Length of pile for payment shall be measured upto bottom of pile cap). Note: Truck Mounted rotary / TMR / Tubewell Boring Machine shall not be used.					
i	15.2.1	450 mm dia piles	metre	2288.50	**2629.00**	6016467.00	
2	15.7	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer incharge:-					
a)	15.7.2	Single pile above 50 tonne and upto 100 tonne safe capacity pile:-					
i	15.7.2.1	Initial test (Test Load 2.5 times the safe Capacity).	per test	2.00	**63008.60**	126017.00	
ii	15.7.2.2	Routine test (Test Load 1.5 times the Safe capacity)	per test	2.00	**33432.00**	66864.00	
3	14.3	Demolishing reinforced cement concrete manually / by mechanical means including stacking of steel bars properly and disposal of unserviceable material with all lifts and upto 50 m lead etc. complete as per direction of the Engineer- in-charge.	Cum	14.07	**2087.30**	29365.00	
		TOTAL (Carried Over to Summary of Civil Works)				**6238713.00**	**0.00**
N	**16.0**	**ALUMINIUM & STRUCTURAL GLAZING WORK**					
1	16.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixing with dash fasteners of required dia and size, including necessary filling up of gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws, all complete as per architectural drawing and the direction of Engineer-in-charge. (Glazing and panelling and dash fasteners to be paid for separately) :-					
a)	16.1.1	For fixed portion of approved quality:-					

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i	16.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	KG	75.00	**516.40**	38730.00	
b)	16.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges / pivots and making provision for fixing fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately):-					
i	16.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	KG	50.00	**598.10**	29905.00	
2	16.2	Providing and fixing 12 mm thick prelaminated three layer medium density (exterior grade) particle board grade-I, type II conforming to IS : 12823 bonded with phenol formaldehyde synthetic resin, of approved brand and manufacture in panelling fixed in aluminium doors, windows, shutters and partition frames with C.P. brass / stainless steel screws all complete as per architectural drawing and the direction of Engineer-in- charge :-					
i	16.2.2	Pre-laminated particle board with decorative lamination on both sides	Sqm	10.00	**1131.60**	11316.00	
3	16.3	Providing and fixing glazing of approved quality in aluminium doors, windows, ventilator, shutters and partition etc. with EPDM rubber / neoprene gasket etc. complete as per architectural drawing and the direction of Engineer-in-charge (Cost of snap beading shall be paid in basic item) :-					
i	16.3.2	With float glass panes of 5.5 mm thickness (weight not less than 13.75 kg / sqm)	Sqm	10.00	**1507.30**	15073.00	
4	16.8	Filling the gap in between aluminium frame and adjacent RCC/brick work by providing weather silicon sealant over backer rod of approved quality etc. complete as per architectural drawing and direction of the Engineer-in charge:-					
i	i	Upto 5 mm depth and 5 mm width.	metre	620.00	**102.10**	63302.00	
5	16.19	Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings , the aluminium quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account).	kg	367.92	**425.00**	156366.00	
6	16.20	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including:	Sqm	45.99	**3451.50**	158734.00	
		a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminium sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum- smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalization & drainage and protection against fire hazard including:					

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		b) Fabricating and supplying serrated M.S. hot dip galvanized / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimensional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon separator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers..					
		c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment , including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass					
		d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight.					
		e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, dully approved by Engineer-in-charge.					
		The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer in-Charge.					

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		Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this sub- head. However, for the purpose of payment, only the actual area of structural glazing (including width of grooves) on the external face shall be measured in sqm. up to two decimal places. Note:- 2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accredited by NABL (National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately. The NIT approving authority will decide the necessity of testing on the basis of cost of the work, cost of the test and importance of the work. Performance Testing of Structural glazing system Tests to be conducted in the NBL Certified laboratories. (1) Performance Laboratory Test for Air Leakage Test (-50pa to - 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr. (2) Static Water Penetration Test. (50pa to 1500pa) as per ASTME- 331-09 testing method for a range up to 2000 ml. (3) Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml. (4) Structural Performance Deflection and deformation by static air					
7	16.21	Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened (as approved) glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner heat strengthened (as approved) clear float glass 6mm thick, spacer tube 12mm wide, desiccants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor. (Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.1.8.16 above). For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (To be fixed on extruded aluminium sections. and cost of aluminium sections to be paid in relevant item)					
i	i	(i) Coloured tinted float glass 6mm thick Heat Strengthened substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc.	Sqm	238.89	**4447.60**	1062487.00	
8	16.18	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately).	Sqm	86.22	**6026.50**	519605.00	
9	NS-7	Providing and fixing Pull Handle back to Back (Article code: 903.05.700) Hafele/Dorma/Godrej & Boyce or eq. makes of Fixing 25mm dia x300mm c/c, SS Matt with necessary screws etc. complete as per direction of Engineer-in-Charge.	Each	88.00	**2685.40**		236315.2

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10	NS-8	Providing and fixing Corner Patch Lock With Cylinder (Article code: 981.50.030) Hafele/Dorma/Godrej or eq. makes, SS Matt with necessary screws etc. complete as per direction of Engineer-in-Charge.	Each	44.00	**6537.45**		287647.8
11	NS-9	Providing and fixing SS floor mounted half dome door stopper of dia 45mm including necessary screws etc. all complete.	Each	44.00	**274.75**		12089
12	NS-10	Providing and fixing in position 12 mm thk Toughened Clear Glass in partition panels by using various glass fittings of approved make (DORMA / HAFELE / HETTICH) to be fixed with necessary fittings on the ceiling duly finished without giving any load on the false ceiling by using necessary hardware of Dorma / Hafele make what ever necessary and required numbers to complete the job in all respect. Rate including cost of door opening with approval hardware such as patch fitting lock, handle etc of approved make but without cost of floor spring. Contractor is advised to submit working drawing with details of approved make patch fitting, sizes of glass panels etc and take approvals of consultants before execution of works. All complete as per detail drawing, as specified and as directed by Architect / Consultant / Project - In - Charge.	Sqm	454.12	**7692.80**		3493432.412
13	NS-11	Providing and fixing self adhesive type translucent film of 3M make or approved equivalent, in required pattern over glass etc. as per drawings, including cleaning the receiving surface of glass etc., all complete as per manufacturer's specification and direction of Engineer in charge:	Sqm	408.71	**1351.50**		552365.40
		WPC Jali					
14	DSR-2023 (26.91)	Providing and fixing factory made 18 mm thick single extruded WPC (Wood Polymer Composite) solid plain white colour board Jali, CNC (Computer numeric control) routed of approved design by Engineer-in -charge which are machine cut for duct/shaft covering, partitions and facades comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibres (wood powder/ rice husk/wheat husk) and non toxic additives(maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with properties of being termite/borer proof, water/moisture proof and fire retardant and fixing on M.S (mild steel) frame made of 25 x 25 x 1.5 mm square hollow box section including applying a priming coat of approved steel primer, placed at grid made at 1.0 x 1.0 m or as per requirement at site with necessary stainless steel fasteners and SS screws etc., all complete as per direction of Engineer-In- Charge. (Note: M.S (mild steel) framework with priming coat and necessary SS fasteners and SS	Sqm	17.50	**3437.15**		60150.00
		TOTAL (Carried Over to Summary of Civil Works)				**2055518.00**	**4641999.81**
O	17.0	**WATER PROOFING**					
1	17.3	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of :					
		(i) Ist course of applying cement slurry @ 4.4 Kg/Sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface. (ii) IInd course of 20mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface. (iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 Kg. per Sqm of area. (iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 Kg/Sqm.)	sqm	58.81	**704.50**	41431.00	

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2	DSR-2023 (16.3.4)	Supplying and Stacking Filling sunken floor with over burnt jhama brick aggregate 120mm to 40mm including compacting of materials complete as specified and directed for all levels.	Cum	17.64	**798.10**		14080.82
3	17.7	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: (a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment. (b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and					
		(c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineering- charge. (d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineering- charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep. (e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge :					
i	17.7.1	With average thickness of 120 mm and minimum thickness at khurras as 65 mm.	Sqm	644.93	**1651.10**	1064843.76	
		TOTAL (Carried Over to Summary of Civil Works)				**1106274.76**	**14080.82**
		ALL SUB-HEAD				**72888163.18**	**7587394.73**
		Total of SOR & NSOR				**80475557.90**	

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SUMMARY SHEET OF ELECTRICAL ESTIMATE

S. No.	SUBHEAD DESCRIPTION	TOTAL AMOUNT OF DSR ITMES (₹)	TOTAL AMOUNT OF MR ITMES (₹)
1.0	SUBHEAD- I- INTERNAL WIRING	19,66,247.00	20,631.56
2.0	SUBHEAD- II-DATA TELEPHONE & WIFI	5,19,005.00	8,79,413.01
3.0	SUBHEAD- III- LT PANEL	-	6,34,323.75
4.0	SUBHEAD- IV-UPS	-	6,11,090.54
5.0	SUBHEAD- V-CABLE TRAYS, CABLES & TERMINATION	1,57,801.00	9,05,879.16
6.0	SUBHEAD- VI-EARTHING AND LIGHTNING PROTECTION	1,00,565.00	-
7.0	SUBHEAD- VII-LIGHTING FITTINGS & EXIT SIGNAGE	1,77,778.00	11,89,786.04
8.0	SUBHEAD- VIII- FIRE ALARM AND PUBLIC ADDRESS SYSTEM	19,49,497.00	-
9.0	SUBHEAD- IX-CCTV	2,39,712.00	14,97,117.89
10.0	SUBHEAD- XI- MISC.	43,05,900.00	34,50,320.00
TOTAL AMOUNT FOR DSR ITEMS		**94,16,505.00**	**91,88,561.95**
TOTAL AMOUNT FOR ELECTRICAL WORKS			**1,86,05,066.95**

Please note GST will be extra as applicable

DSR Item Code	MR S.No.	Description	Qty	Unit	DSR Rate	MR Rate	DSR Amount	MR Amount
		SUBHEAD- I- INTERNAL WIRING						
1.10		Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.						
1.10.1		Group A	161	Point	1,015.00		**1,63,415.00**	
1.11		Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.	RO	Point	1,562.00			
1.14		Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required,						
1.14.1		2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	1300	Metre	233.00		**3,02,900.00**	
1.14.2		2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	1420	Metre	275.00		**3,90,500.00**	
1.14.3		2 X 4 sq. mm + 1 X 4 sq. mm earth wire	1380	Metre	334.00		**4,60,920.00**	
1.30		Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. (For light plugs to be used in non residential buildings).	18	Each	477.00		**8,586.00**	

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1.31		Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	48	Each	586.00		**28,128.00**	
1.32		Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection etc as required.	RO	Each	87.00			
1.50		Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.						
1.50.1		Group A	273	Point	649.00		**1,77,177.00**	
1.51		Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 Nos. 3 pin 5/6 A modular socket outlet and 2 Nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings).	191	Each	676.00		**1,29,116.00**	
1.52		Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	48	Each	727.00		**34,896.00**	
2.3		Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)						
2.3.4		2 + 12 way, Double door	1	Each	3,141.00		**3,141.00**	
	1.1	2 + 16 way, Double door	3	Each		4,776.96		**14,330.89**
2.5		Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's (but without MCB's and incomer) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)						
2.5.2		8 way (4 + 24), Double door	2	Each	10,165.00		**20,330.00**	
2.5.3		12 way (4 + 36), Double door	7	Each	12,833.00		**89,831.00**	
2.6		Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.						

DSR Item Code	MR S.No.	Description	Qty	Unit	DSR Rate	MR Rate	DSR Amount	MR Amount
2.6.1		Single pole	270	Each	256.00		**69,120.00**	
2.7		Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	72	Each	13.00		**936.00**	
2.8		Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.						
2.8.1		40 amps	3	Each	435.00		**1,305.00**	
2.9		Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.						
	1.2	25 amps	2	Each		1,576.74		**3,153.48**
2.9.1		40 amps	7	Each	970.00		**6,790.00**	

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2.10		Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.						
2.10.1		25 amps	2	Each	2,028.00		**4,056.00**	
2.10.2		40 amps	27	Each	2,642.00		**71,334.00**	
2.17		Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enamelled white on both sides, and with inscription in single red colour on front side as required.	14	Each	269.00		**3,766.00**	
								17,484.37
		TOTAL AMOUNT FOR SUBHEAD- I				**₹**	**19,66,247.00**	**20,631.56**
		SUBHEAD- II-DATA TELEPHONE & WIFI						
1.20		Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.						
1.20.1		20mm dia.	370	Rm	223.00		**82,510.00**	
1.20.2		25mm dia.	864	Rm	256.00		**2,21,184.00**	
1.18		Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmoured telephone cable in the existing surface/ recessed steel/ PVC conduit as required.						
1.18.2		2 Pair	1760	Metre	38.00		**66,880.00**	
1.19		Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	60	Metre	47.00		**2,820.00**	
1.23		Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.						
1.23.6		Telephone socket outlet	88	Each	148.00		**13,024.00**	
1.23.7		TV antenna socket outlet	3	Each	148.00		**444.00**	
	2.1	S.I.T.C of modular type switched socket outlet complete with flush mounting GI back box with earth terminal, civil works and making good to rough finish plaster so that the box is lined and levelled including wiring as expressed above complete in all respect.						
	2.1.1	RJ-45 UTP Cat-6 Data Socket Outlet	97	Each		829.94		**80,503.73**
1.48		Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed steel/ PVC conduit as required.						
1.48.1		1 run of cable	247	Metre	57.00		**14,079.00**	
1.48.2		2 run of cable	370	Metre	96.00		**35,520.00**	
1.48.3		3 run of cable	616	Metre	134.00		**82,544.00**	
	2.2	Supplying, Fixing, Testing and Commissioning of MDF Enclosure, ITD/DOT approved, indoor type with wall mounting/concealed facility having front door with lock along with aluminium frame for mounting disconnection type Krone modules with silver plated terminal contacts, cabinet fabricated						

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		out of 18 SWG CRCA sheet with powder coating in appropriate manner and suitable for following capacity of pairs, including Krone make modules, crimping and terminations, etc. complete with all accessories and fixing materials as required and as directed by Engineer-in charge.						
	2.2.1	100Pair Tag Block with MDF enclosure	1	Each		14,534.16		**14,534.16**
	2.3	Supply, Pulling, End Termination, Testing and Commissioning of following pair 0.5mm armoured telephone cable annelid tinned electrolytic grade copper conductor, PVC insulated, twisted pairs in concentric layers, overall PVC sheated in existing suitable size medium class PVC conduit.						
	2.3.1	100- Pair	10	Rm		1,770.96		**17,709.60**
	2.4	Supplying and erecting Digital/ PCM/ TDM EPABX system having SMT design, system with flexible universal slots, inbuilt Auto attendant facility, Minimum 15 Nos. conference, Analog extension line, Calling GSM, E&M line, PRI/ EI/ & VOIP program me through Analog Telephone Digital Key from Ethernet, Public Address cord shall have unrestricted simultaneous dialing facility, QSIG protocol on PRI, 95/ STD/ ISD/ local- locking, class of service, Quick Dial, Single Digit Dialing of any two external nos. Once only ring device, Boss - Secretary Do Not Disturb facility, Power Down Mode, HOT Line, HOT outward dialing, Day night mode, Auto Call back, Bargen, Call pick-up and Call Transfer, Call Transfer while Ringing, with Voice Guide System, (DISA), Caller ID (CLI), CLI base ECF, CLI base routing Internet Ready Port, External Music Port, Call Dudgeting, Call Most Calculation (ASMDR), DID Direct Inverse Dialing, External Music Input, Fax Homing, Global						
		Nos. of Extension- 100, Nos. of Expandable Ports- 20, Operator Console-2, Compatible- ISDN and Networking.	1	Set		3,92,500.00		**3,92,500.00**
	2.5	Supply, Installation testing and commissioning of patch cord as mentioned below :-						
	2.5.1	CAT-6 RJ45 Patch Cord UTP 1 Mtr.	97	Each		299.04		**29,006.64**
	2.5.2	CAT-6 RJ45 Patch Cord UTP 2 Mtr.	97	Each		329.00		**31,913.00**
	2.6	Supply Installation, Testing and Commissioning of 19" modular patch panel. (I/O shall not be PCB mounted) complete with all accessories and fixing materials as required and as directed by Engineer-in-charge.						
	2.6.1	48-Port 1U RJ-45 Data Ports	3	Each		19,186.58		**57,559.73**
	2.7	Supply, Installation, Testing and Commissioning of following port 10/100/1000Mbps GIGABIT ports smart manageable switch for data networking complete with all accessories and fixing materials as required and as directed by Engineer-in-charge.						
	2.7.1	48-Port	3	Each		40,512.80		**1,21,538.40**
	2.8	Supply, Installation, Testing and Commissioning of following 19" wall mounted rack with lockable front transparent glass door, ventilated top and bottom, 2-Pairs of front and back adjustable mounting rails, fully powder coated rigid steel						

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		body made up of min. 1.2mm thick CRC mild steel having 1Nos roof mounting cooling fan, 1Nos power strip comprising of 6Nos 5A socket and 2Nos cable managers with 1Set of mounting hardware complete with all accessories and fixing materials as required and as directed by Engineer-in-charge. .						
	2.8.1	24U cabinet, 800mm (W) X 1000mm (D)	1	Each		19,234.75		**19,234.75**
								7,45,265.26
TOTAL AMOUNT FOR SUBHEAD- II					**₹**		**5,19,005.00**	**8,79,413.01**
SUBHEAD- III- LT PANEL								
		Receiving, installation, testing and commissioning of front operated, front/back access, cubicle type, indoor duty, floor/wall /recess/ surface mounted (as specified below), totally enclosed dust and vermin proof switch boards/panels with minimum Ingress protection classification of IP54, fabricated in compartmentalized design from 2mm thick CRCA sheets for frame work and covers, 3 mm thick for gland plates, including cleaning & finishing complete with 7 tank process with dip coat priming and epoxy powder coated finish in approved shade. The panels must be suitable for 415V 3-Phase, 4 Wire, 50Hz, system, must be able to withstand symmetrical fault level of 70kA (as specified for various panels) for 1sec. at 415V and must include all interconnections, earthing and bonding requirements etc. The panels must conform to Drawings & Standards specified in relevant specifications, as required and as						
		The Switch boards shall be provided with detachable gland plates for entry of cables from the top / bottom as required.						
		All live accessible parts shall be shrouded and all equipment shall be finger touch proof. SMC/DMC shrouds and bus bar supports suitably spaced shall be used. Hinged doors with pad locking facility shall be provided on all outgoing feeders with switch handles lockable in OFF position.						
		The panel shall have capacity extensible type TPN Aluminium Bus Bar with bar type feeder connections, spacer set with full sized neutral.						

DSR Item Code	MR S.No.	Description	Qty	Unit	DSR Rate	MR Rate	DSR Amount	MR Amount
		Earthing all components, frames etc. to a common internal copper earth bar as required by the fault withstand level specified for the board.						
		All accessories and supporting structures such as channels, ISMC-100 base frame, mounting brackets, lifting lugs, panel heaters, ventilation arrangement etc. shall be provided as required.						
		Panel/Switchboard design shall be compact and components/ accessories of compact sizes shall be used to economize the room space available. Employer reserve the right to seek compact items in place of larger ones.						
		Surge Protection Device shall be Type 1 / Class B SPD shall be provided in all panels for all Main Distribution Board Incomers						
		Surge Protection Device shall be Type 2 / Class C SPD shall be provided in all panels for all Submain Distribution Board Incomers						

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	3.1	MAIN LT PANEL	1	Set		3,55,672.50		**3,55,672.50**
		INCOMER						
		1Nos 320A, 4P, 35kA, MCCB with Microprocessor Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.25 - 1 x In, Adjustable instantaneous setting 1.5 - 12 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement.						
		METERING						
		LED indication lamp for ON, OFF, TRIP						
		LED phase indication lamp for R-Y-B.						
		1Nos 6A, SP, 10kA, MCB						
		1Nos. Flush type Voltmeter (0-500V), analogue type, selector switch for voltmeter and protection MCB.						
		1 Nos. Flush Pattern analogue type Ammeter (0-320A) with Selector Switch and one set of 3Nos.CT's of ratio 320/5A Class 1.0 accuracy and 10VA burden.						
		BUSBAR						
		TPN aluminium bus bars of minimum of 500Amps capacity with heat shrinkable coloured sleeves and i/c DMC/SMC bus bar cross section, size supports & their spacing etc. for withstanding fault level of 35kV for 1 Sec.						
		OUTGOING						
		12Nos 40A, 4P, 10kA, MCB						
		3Nos 63A, 4P, 25kA, MCCB with Thermal Magnetic Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.8 – 1 x In, Adjustable short-circuit setting 6 – 10 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement, 380-415V Shunt Trip Release.						
		1Nos 100A, 4P, 25kA, MCCB with Thermal Magnetic Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.8 – 1 x In, Adjustable short- circuit setting 6 – 10 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement, 380-415V Shunt Trip Release.						
	3.2	UPS I/P PANEL	1	Set		96,937.50		**96,937.50**
		INCOMER						
		1Nos 100A, 4P, 35kA, MCCB with Microprocessor Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.25 - 1 x In, Adjustable instantaneous setting 1.5 - 12 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement.						
		METERING						
		LED indication lamp for ON, OFF, TRIP						
		LED phase indication lamp for R-Y-B.						
		1Nos 6A, SP, 10kA, MCB						
		1Nos. Flush type Voltmeter (0-500V), analogue type, selector switch for voltmeter and protection MCB.						
		1 Nos. Flush Pattern analogue type Ammeter (0-100A) with Selector Switch and one set of 3Nos.CT's of ratio 100/5A Class 1.0 accuracy and 10VA burden.						
		BUSBAR						
		TPN aluminium bus bars of minimum of 200Amps capacity with heat shrinkable coloured sleeves and i/c DMC/SMC bus bar cross section, size supports & their spacing etc. for withstanding fault level of 35kV for 1 Sec.						

DSR Item Code	MR S.No.	Description	Qty	Unit	DSR Rate	MR Rate	DSR Amount	MR Amount
		OUTGOING						
		2Nos 63A, 4P, 25kA, MCCB with Thermal Magnetic Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.8 – 1 x In, Adjustable short-circuit setting 6 – 10 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement, 380-415V Shunt Trip Release.						
		METERING- 2 SET						
		LED indication lamp for ON, OFF, TRIP						
		LED phase indication lamp for R-Y-B.						
		1Nos 6A, SP, 10kA, MCB						

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		1Nos. Flush type Voltmeter (0-500V), analogue type, selector switch for voltmeter and protection MCB.						
		1 Nos. Flush Pattern analogue type Ammeter (0-63A) with Selector Switch and one set of 3Nos.CT's of ratio 63/5A Class 1.0 accuracy and 10VA burden.						
	3.3	UPS O/P PANEL	1	Set		84,952.50		**84,952.50**
		1Nos 63A, 4P, 25kA, MCCB with Microprocessor Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.25 - 1 x In, Adjustable instantaneous setting 1.5 - 12 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement.						
		METERING						
		LED indication lamp for ON, OFF, TRIP						
		LED phase indication lamp for R-Y-B.						
		1Nos 6A, SP, 10kA, MCB						
		1Nos. Flush type Voltmeter (0-500V), analogue type, selector switch for voltmeter and protection MCB.						
		1 Nos. Flush Pattern analogue type Ammeter (0-63A) with Selector Switch and one set of 3Nos.CT's of ratio 63/5A Class 1.0 accuracy and 10VA burden.						
		BUSBAR						
		TPN aluminium bus bars of minimum of 200Amps capacity with heat shrinkable coloured sleeves and i/c DMC/SMC bus bar cross section, size supports & their spacing etc. for withstanding fault level of 35kV for 1 Sec.						
		OUTGOING						
		4Nos 25A, 4P, 10kA, MCB						
		2Nos 40A, 4P, 25kA, MCB						
								5,37,562.50
		TOTAL AMOUNT FOR SUBHEAD- III				**₹**	-	**6,34,323.75**
		SUBHEAD- IV-UPS						
	4.1	**UNINTERRUPTED POWER SUPPLY SYSTEM**						
		S.IT.C of true parallel redundant 2x15KVA online, UPS system suitable for providing power supply to emergency lighting and Computerized Control panel load of approved make, suitable for incoming 415volts, 3phase +10% -20%, 50Hz, supply and 3-phase 415 volts, output voltage, variation ±1%, including in-built isolation transformer, IGBT rectifier modules/dual converter, static switch, inverter, filters, by-pass & static transfer switch for automatic switch over without giving any break of power, maintenance bypass switch, Microprocessor/software controlled annunciation, protection (including against input phase reversal), and menu run diagnostic module, associated cabling and connections/terminations, erection including associated foundation/masonry or RCC work for mounting on base channels etc. complete as per specifications and as required.						
		Note-1:The price of above item is exclusive of automatic changeover switch suitable for terminating 2nos of fire survival copper conductor cables as per technical specifications on the incoming side of UPS and is included in the UPS ATS item. The Automatic changeover switch may be wall mounted in the UPS room or as provided. From changeover switch to UPS, the connection should be through an adequately rated fire survival copper cable, and RS485 port for display of ON/OFF status of UPS on BMS workstation through MODBUS protocol.						
		Supply, Installation, Testing and Commissioning "sealed maintenance free lead acid" each having 30 minutes back up time at full load with interconnecting cables, racks and standard accessories UPS above. Battery shall comply with relevant regulations and battery racks shall be made of acid resistant material.						

DSR Item Code	MR S.No.	Description	Qty	Unit	DSR Rate	MR Rate	DSR Amount	MR Amount
		All the items/parts mentioned in relevant clauses of the M&W specifications and not specifically mentioned in BOQ shall be deemed to be included in the quoted rates, unless specifically excluded.	1	Set		**5,17,873.34**		**5,17,873.34**
								5,17,873.34
		TOTAL AMOUNT FOR SUBHEAD- IV				**₹**		**6,11,090.54**

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SUBHEAD- V-CABLE TRAYS, CABLES & TERMINATION								
4.6		Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.						
4.6.3		200 mm width X 50 mm depth X 1.6 mm thickness	120	Mtrs.	895.00		**1,07,400.00**	
	5.1	Supplying, testing and commissioning of 650/1100V grade stranded/solid Aluminium/Copper conductor power cable, XLPE insulated, cores laid up, PVC tape/extruded Inner sheathed for multicore, armoured with aluminium wire/strip, extruded PVC Type ST2 sheathed, as per IS:7098 (Part 1) 1988, ISI marked as per following sizes. (excluding cost of laying). (Earthing will be measured separately and need not be quoted under this item). All complete as required and as directed by Engineer-in-						
	5.1.1	3C x 10 Sq.mm 2XWYCable	60	Rm		494.07		**29,644.41**
	5.1.2	4C x 4 Sq.mm 2XWYCable	40	Rm		282.44		**11,297.58**
	5.1.3	4C x 10 Sq.mm 2XWYCable	180	Rm		646.64		**1,16,394.79**
	5.1.4	4C x 16 Sq.mm 2XWYCable	80	Rm		1,994.29		**1,59,543.09**
	5.1.5	3½C x 25 Sq.mm 2XWY Cable	25	Rm		265.52		**6,638.01**
	5.1.6	3½C x 185 Sq.mm 2XWY Cable	300	Rm		1,438.11		**4,31,434.11**
7.5		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.						
7.5.3		Above 95 sq. mm and upto 185 sq. mm	300	Metre	77.00		**23,100.00**	
7.8		Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.						
7.8.1		Upto 35 sq. mm (clamped with 1mm thick saddle)	385	Metre	45.00		**17,325.00**	
7.9		Supplying and making cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	10	Each	585.00		**5,850.00**	
	5.2	Supplying and making end termination with brass compression gland and Copper lugs for following size of PVC insulated and PVC sheathed / XLPE Copper conductor cable of 1.1 KV grade as required.						
	5.2.1	3 X 10 sq. mm (22mm)	6	Each		468.27		**2,809.62**
	5.2.2	4 X 10 sq. mm (25mm)	18	Each		372.40		**6,703.16**
	5.2.3	4 X 16 sq. mm (28mm)	8	Each		403.68		**3,229.43**
9.1		Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.						
9.1.20		3½ X 25 sq. mm (28mm)	2	Each	313.00		**626.00**	

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9.1.27		3½ X 185 sq. mm (57mm)	4	Each	875.00		3,500.00	
								7,67,694.21
		TOTAL AMOUNT FOR SUBHEAD- V				₹	1,57,801.00	9,05,879.16
		SUBHEAD- VI-EARTHING AND LIGHTNING PROTECTION						
5.2		Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	6	Each	6,855.00		41,130.00	
5.9		Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	60	Metre	144.00		8,640.00	
5.15		Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	90	Metre	244.00		21,960.00	
6.2		Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	5	Each	518.00		2,590.00	
6.4		Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	37	Each	113.00		4,181.00	
6.7		Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	110	Metre	126.00		13,860.00	
6.8		Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	20	Metre	197.00		3,940.00	
6.11		Providing and fixing testing joint, made of 20 mm X 3 mm thick G.I. strip, 125 mm long, with 4 nos. of G.I. bolts, nuts, chuck nuts and spring washers etc. complete as required.	4	Each	121.00		484.00	
6.12		Providing and laying G.I. tape 32 mm X 6 mm from earth electrode directly in ground as required.	4	Metre	195.00		780.00	
6.13		Laying copper/ G.I. tape 32 mm X 6 mm from earth electrode directly in ground as required.	40	Metre	75.00		3,000.00	
		TOTAL AMOUNT FOR SUBHEAD- VI				₹	1,00,565.00	-
		SUBHEAD- VII-LIGHTING FITTINGS & EXIT SIGNAGE						
	7.1	Supply of following Led tube rod comprising of LED tube with non integral / integral driver, 6500K colour temp having 40000 burning hrs. life with minimum @ L 70, system lumen output should be minimum with efficacy > 80 lm/W LED driver PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70.						

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		Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection wire, testing etc. to complete the job. 2 Yrs. Guarantee certificate from manufacturer.						
	7.1.1	1 X 18/20/22W, Integral Make: K-LITE Model: KL-1589	11	Each		3,494.23		**38,436.49**
	7.1.2	1 X 5/8W Integral Tube fitting complete		Each		-		-
	7.2	Supply of following surface mounting type Led light fixture, LED of 1 to 3 W each assembled on single MCPCB, having colour temp 6500K & having 50000 burning hrs. life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver, PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Housing made of CRCA with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 /IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs. Guarantee certificate from manufacturer.						
	7.2.1	12 W, 180/200mm Make: K-LITE Model: KL-3612	64	Each		825.17		**52,810.70**
	7.2.2	15 W , 180/200mm Make: K-LITE Model: KL-3612	136	Each		825.17		**1,12,222.75**
	7.3	Supply of following light fixtures.						
	7.3.1	12W Profile Light Make: K-LITE Model: KL-7281	48	Rm		4,737.07		**2,27,379.42**
	7.3.2	40W Profile Light Make: K-LITE Model: KL-3401	25	Rm		4,777.82		**1,19,445.51**
	7.3.3	12W Cove Light Make: K-LITE Model: KL-7281	458	Rm		305.62		**1,39,972.82**
	7.3.4	36W 2X2 Square Light Make : K-LITE Model: KL-2281	121	Each		2,628.31		**3,18,025.57**
1.39		Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	863	Each	206.00		**1,77,778.00**	
								10,08,293.26
		TOTAL AMOUNT FOR SUBHEAD- VII				**₹**	**1,77,778.00**	**11,89,786.04**
		SUBHEAD- VIII- FIRE ALARM AND PUBLIC ADDRESS SYSTEM						

DSR Item Code	MR S.No.	Description	Qty	Unit	DSR Rate	MR Rate	DSR Amount	MR Amount

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17.2.1		Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5% V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analogue/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP						
17.2.1.2		Two Loop Panel.	1	Each	2,39,225.00		**2,39,225.00**	
17.2.2		Supplying, installation, testing & commissioning of central graphical fire alarm management system to centrally monitor and operate the fire alarm system complete as required.	1	Each	2,00,611.00		**2,00,611.00**	
17.2.3		Supplying, installation, testing & commissioning of repeater panel with 320 character/ Touch screen LCD display with inbuilt reset, acknowledge and silence switches complete as required.	1	Each	1,08,688.00		**1,08,688.00**	
17.2.5		Supplying, installation, testing & commissioning of response indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	30	Each	276.00		**8,280.00**	
17.2.6		Supplying, installation, testing & commissioning of intelligent addressable programmable sounder complete as required.	1	Each	2,651.00		**2,651.00**	
17.2.7		Supplying, installation, testing & commissioning of fault isolator complete with base as required.	10	Each	3,270.00		**32,700.00**	
17.2.9		Supplying, installation, testing & commissioning of intelligent addressable thermal detector with rate of rise cum fixed temperature thermistor complete with base as required.	105	Each	2,726.00		**2,86,230.00**	
17.2.10		Supplying, installation, testing & commissioning of addressable fire control module complete as required.	1	Each	3,003.00		**3,003.00**	
17.2.11		Supplying, installation, testing & commissioning of addressable phone control module complete as required.	1	Each	3,267.00		**3,267.00**	
17.2.14		Supplying, installation, testing & commissioning of addressable manual call point complete as required.	6	Each	3,871.00		**23,226.00**	
17.2.15		Supplying, installation, testing & commissioning of addressable horn cum strobe complete as required.	6	Each	3,506.00		**21,036.00**	
17.2.17		Supplying, installation, testing & commissioning of fire fighter telephone handset complete as required.	2	Each	5,740.00		**11,480.00**	
17.2.19		Supplying, installation, testing & commissioning of fire fighter phone jack complete as required.	2	Each	1,600.00		**3,200.00**	
17.3.1		Supplying, installation, testing & commissioning of 6 zone, voice alarm controller with USB, MP3 player (including 6 zone button paging station) with seamless integration facility with main fire alarm panel for voice evacuation complete as required.	1	Each	1,26,411.00		**1,26,411.00**	
17.3.3		Supplying, installation, testing & commissioning of 1.5/3/6W metal box ceiling/wall speakers complete as required.	30	Each	1,793.00		**53,790.00**	

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17.3.6		Supplying, installation, testing & commissioning of digital audio amplifier 50 Watt, 25V rms operating at 240 volt AC supply complete as required.	1	Each	96,779.00		**96,779.00**	
17.3.7		Supplying, installation, testing & commissioning of digital audio amplifier 75 Watt, 25V rms operating at 240 Volt AC Supply complete as required.	3	Each	1,45,793.00		**4,37,379.00**	
17.3.8		Supplying, installation, testing & commissioning of exit point directional sound speaker with voice and integral audio amplifier with selectable sound pulse patterns complete as required.	3	Each	10,145.00		**30,435.00**	
17.3.9		Supplying, installation, testing & commissioning of Voice command keypad 6 zone, with microphone assembly complete as required.	1	Each	81,756.00		**81,756.00**	

DSR Item Code	MR S.No.	Description	Qty	Unit	DSR Rate	MR Rate	DSR Amount	MR Amount
17.5.1		Supplying & laying of 2x1.5 sqmm fire survival armoured cable, 600/1000V rated with annealed copper conductor having glass mica fire barrier tape covered by an extruded layer of Cross Linkable Ethylene Propylene Rubber (EPR) insulation and LSZH inner bedding, steel wire armouring & LSZH outer sheath complete as required.	450	Metre	359.00		**1,61,550.00**	
17.5.3		Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.						
17.5.3.2		Speaker cable Two pair, 2-core, 1.5 sqmm	200	Metre	89.00		**17,800.00**	
TOTAL AMOUNT FOR SUBHEAD- VIII						₹	**19,49,497.00**	**-**
SUBHEAD- IX-CCTV								
	9.1	Supply, Installation, Testing & Commissioning of IP Network TDN Low-Light IR Indoor Dome Camera, 2MP 1/3" CMOS, should support upto 30fps, triple stream, Min. Illumination required 0.01 lux @ F1.6 (colour), 120dB True WDR, Min. Pixels 1200×1080p, triple stream, 2.7mm - 12 mm motorized focus & zoom lens, Backlight Compensation, 3DNR, Privacy Mask, 3 IR LEDs Smart IR with upto 30m IR distance, H.265& MJPEG, Inbuilt Video Analytics : Tripwire/Intrusion Trace, Object Left Behind, Object removed. Dual channel Audio G.711a/G.711u/AAC, 16GB SD card support, IP 67 & IK10, Alarm: 1 In & 1out, 300m PoE, H.264 High Profile and MJPEG, PoE Class 3/ 12V DC/24VAC, Die-Cast Aluminium Construction, IP67, IK10, Having Operating temp range : –30°C to 55° C.	33	Each		17,102.71		**5,64,389.51**
	9.2	Supply, Installation, Testing & Commissioning of IP Network TDN Low-Light IR Outdoor Box/ Bullet Camera, 2MP 1/3" CMOS, should support upto 30fps, triple stream, Min. Illumination required 0.01 lux @ F1.6 (colour), 120dB True WDR, Min. Pixels 1200×1080p, triple stream, 2.7mm 12 mm motorized focus & zoom lens, Backlight Compensation, 3DNR, Privacy Mask, min. 2 or 3 IR LEDs Smart IR with upto 30m IR distance, H.265& MJPEG, Inbuilt Video Analytics : Tripwire/Intrusion Trace, Object Left Behind, Object removed. Dual channel Audio G.711a/G.711u/AAC, 16GB SD card support, IP-67 & IK10, Alarm: 1 In & 1out, 300m PoE, H.264 High Profile and MJPEG, PoE Class 3/ 12V DC/24VAC, Die-Cast Aluminium Construction, IP67, IK10, Having Operating temp range : –30°C to 55° C. Certifications: ONVIF Profile S, G & Q compliant, UL CAP cybersecurity certification, UL, CE, EN,	2	Each		23,724.43		**47,448.85**

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	9.4	S.I.T.C of 64 channel POE based Network Video Recording System with storage of upto 20/40 TB of internal storage with fail over and RAID-6 redundancy features and 4HDD ports each supporting 10 SATA hard drives, video playback with D1 resolution at real time. Compression supported upto H.265/ H.264/MJPEG, 4 x 1GbE and Dual 10GbE SFP, 2U, 8 bay including rack mount kit, Smart coded, NDAA Section 889 HD resolution live view and playback upto 8MP (4K), RAID 1,5,6, audio streaming/recording support, cloud-based configuration, Vendor to quote all necessary components as required to complete the system.	1	Set		59,275.56		**59,275.56**
	9.5	Supply, Installation, testing and Commissioning of Central Management software Include all necessary Server requirement, to run the VMS software for 500 cameras with 5 user clients. The software should include functionalities as mentioned below. Should have distributed architecture to collect, manage and present video from all the cameras and supports emerging technologies in the industry, like 4K resolution, H.265 video compression codec, multi-imager/lens cameras and 360° fisheye cameras. The NVMMS shall have option to support database redundancy and 1+1 and N+M NSM failover features for unforeseen/maintenance scenarios for increased system reliability. NVMMS shall support NSM's from a multiple location licenced for 90 cameras & 2 users clients, licenses should expandable upto 500 cameras & 10 user clients without any additional version upgrade.						

DSR Item Code	MR S.No.	Description	Qty	Unit	DSR Rate	MR Rate	DSR Amount	MR Amount
		The NVMMS should support network joystick controller, GPU rendering support for H.264 and H.265 decoding , video on demand, Adaptive video throttling, rule engine, operator role management, server based Video Motion Detection (VMD), edge storage backfill support, bookmark with manual comment, bookmark based search, timeline search, Preview search, synchronous playback from all NSMs, monitor wall support, surrounding camera mode, Cybersecured with features such as Digital Signing, General Data Protection Regulation (GDPR) compliance, HTTPS & SSL base, smart web client, secured firewall configuration, password expiry, non-recoverable password; support ANDROID & iOS phones, seamless integration with integrated security platform which provides HSDK&API for further integration with 3rd party systems. NVMMS shall support iLIDS certified Analytics like intrusion/LoiteTrace.	1	Set		4,70,176.25		**4,70,176.25**
	9.6	Supply, Installation, testing and Commissioning of monitor station for the Cameras monitoring 24/7 video wall with 42" LED screen with necessary supports and other accessories as required.	1	Each		67,979.63		**67,979.63**
	9.7	S.I.T.C of modular type switched socket outlet complete with flush mounting GI back box with earth terminal, civil works and making good to rough finish plaster so that the box is lined and levelled including wiring as expressed above complete in all respect.						
	9.7.1	RJ-45 UTP Cat-6 Data Socket Outlet	33	Each		1,499.24		**49,474.84**

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	9.8	Supply, Installation testing and commissioning of patch cord as mentioned below:						
	9.8.1	CAT 6 Patch Chords - 5M length at rack side	2	Each		506.61		**1,013.23**
	9.8.2	CAT 6 Patch Chords - 2M	33	Each		272.31		**8,986.11**
1.48		Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed steel/ PVC conduit as required.						
1.48.1		1 run of cable	132	Metre	57.00		**7,524.00**	
1.48.2		2 run of cable	198	Metre	96.00		**19,008.00**	
1.48.3		3 run of cable	330	Metre	134.00		**44,220.00**	
1.20		Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.						
1.20.2		25mm dia.	660	Rm	256.00		**1,68,960.00**	
								12,68,743.97
		TOTAL AMOUNT FOR SUBHEAD- IX				₹	**2,39,712.00**	**14,97,117.89**
					SUBHEAD- XI- MISC.			
14.2		Excavation for cable trenches of depth upto 1.2 m in soft soil including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres.	130	cum	400.00		**52,000.00**	
14.3		Filling available excavated earth (excluding rock) in trenches, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 metres.	130	cum	255.00		**33,150.00**	
14.14		Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required.						
14.14.3		250 mm dia	130	metre	975.00		**1,26,750.00**	
	9.9	Supplying , Instalation, testing and commissioning of grid interactive roof top solar photo voltaic power generation system including space frame.	50.00	KWP		58,480.00		**29,24,000.00**
14.14.4		LIFTS with power operated centre opening doors and AC variable voltage & variable frequency controls						
		8(Passenger)	1	Nos.		19,39,000.00	**19,39,000.00**	
		13 (Passenger)	1	Nos.		21,55,000.00	**21,55,000.00**	
								29,24,000.00
		TOTAL AMOUNT FOR SUBHEAD- XI				₹	**43,05,900.00**	**34,50,320.00**

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DSR Item Code	MR S.No.	Description	Qty	Unit	List Price	Discount	Total	T&H	Total	Wastage	Total	Installation	Total	O/H & P	Total
SUBHEAD- I- INTERNAL WIRING															
2.3		Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)													
	1.2	2 + 16 way, Double door	1	Each	4,500.00	2,475.00	2,025.00	40.50	2,065.50	-	2,065.50	2,000.00	4,065.50	711.46	4,776.96
2.9		Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.													
	1.3	25 amps	1	Each	2,673.00	1,470.15	1,202.85	24.06	1,226.91	-	1,226.91	115.00	1,341.91	234.83	1,576.74
TOTAL AMOUNT FOR SUBHEAD- I															
SUBHEAD- II-DATA TELEPHONE & WIFI															
	2.2	S.I.T.C of modular type switched socket outlet complete with flush mounting GI back box with earth terminal, civil works and making good to rough finish plaster so that the box is lined and levelled including wiring as expressed above complete in all respect.													
	2.2.1	RJ-45 UTP Cat-6 Data Socket Outlet	1	Each	1,241.00	744.60	496.40	9.93	506.33	-	506.33	200.00	706.33	123.61	829.94
	2.3	Supplying, Fixing, Testing and Commissioning of MDF Enclosure, ITD/DOT approved, indoor type with wall mounting/concealed facility having front door with lock along with aluminium frame for mounting disconnection type Krone modules with silver plated terminal contacts, cabinet fabricated out of 18 SWG CRCA sheet with powder coating in appropriate manner and suitable for following capacity of pairs, including Krone make modules, crimping and terminations, etc. complete with all accessories and fixing materials as													

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		required and as directed by Engineer-in charge.														
	2.3.1	100Pair Tag Block with MDF enclosure	1	Each	8,500.00	1,275.00	7,225.00	144.50	7,369.50	-	7,369.50	5,000.00	12,369.50	2,164.66	14,534.16
	2.6	Supply, Pulling, End Termination, Testing and Commissioning of following pair 0.5mm armoured telephone cable annelid tinned electrolytic grade copper conductor, PVC insulated, twisted pairs in concentric layers, overall PVC sheated in existing suitable size medium class PVC conduit.													
	2.6.1	100- Pair	1	Rm	1,259.00	755.40	503.60	-	503.60	-	503.60	250.00	753.60	131.88	885.48
	2.5	Supplying and erecting Digital/ PCM/ TDM EPABX system having SMT design, system with flexible universal slots, inbuilt Auto attendant facility, Minimum 15 Nos. conference, Analog extension line, Calling GSM, E&M line, PRI/ EI/ & VOIP programme through Analog Telephone Digital Key from Ethernet, Public Address cord shall have unrestricted simultaneous dialing facility, QSIG protocol on PRI, 95/ STD/ ISD/ local-locking, class of service, Quick Dial, Single Digit Dialing of any two external nos. Once only ring device, Boss - Secretary Do Not Disturb facility, Power Down Mode, HOT Line, HOT outward dialing, Day night mode, Auto Call back, Bargen, Call pick-up and Call Transfer, Call Transfer while Ringing, with Voice Guide System, (DISA), Caller ID (CLI), CLI base ECF, CLI base routine Internet Ready Port, External Music Port, Call Dudgeting, Call Most Calculation (ASMDR), DID Direct Inverse Dialing, External Music Input, Fax Homing, Global													
		Nos. of Extension-100, Nos. of Expandable Ports-20, Operator Console-2, Compatible- ISDN and Networking.	1	Set	4,50,000.00	67,500.00	3,82,500.00	-	3,82,500.00	-	3,82,500.00	10,000.00	3,92,500.00	-	3,92,500.00

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	2.6	Supply, Installation testing and commissioning of patch cord as mentioned below :-													
	2.6.1	CAT-6 RJ45 Patch Cord UTP 1 Mtr.	1	Each	225.00	-	225.00	4.50	229.50	-	229.50	25.00	254.50	44.54	299.04
	2.6.2	CAT-6 RJ45 Patch Cord UTP 2 Mtr.	1	Each	250.00	-	250.00	5.00	255.00	-	255.00	25.00	280.00	49.00	329.00
	2.7	Supply Installation, Testing and Commissioning of 19" modular patch panel. (I/O shall not be PCB mounted) complete with all accessories and fixing materials as required and as directed by Engineer-in-charge.													
	2.7.2	48-Port 1U RJ-45 Data Ports	1	Each	8,950.00	-	8,950.00	179.00	9,129.00	-	9,129.00	7,200.00	16,329.00	2,857.58	19,186.58
	2.8	Supply, Installation, Testing and Commissioning of following port 10/100/1000Mbps GIGABIT ports smart manageable switch for data networking complete with all accessories and fixing materials as required and as directed by Engineer-in-charge.													
	2.8.2	48-Port	1	Each	23,999.00	-	23,999.00	479.98	24,478.98	-	24,478.98	10,000.00	34,478.98	6,033.82	40,512.80
	2.9	Supply, Installation, Testing and Commissioning of following 19" wall mounted rack with lockable front transparent glass door, ventilated top and bottom, 2-Pairs of front and back adjustable mounting rails, fully powder coated rigid steel body made up of min. 1.2mm thick CRC mild steel having 1Nos roof mounting cooling fan, 1Nos power strip comprising of 6Nos 5A socket and 2Nos cable managers with 1Set of mounting hardware complete with all accessories and fixing materials as required and as directed by Engineer-in-charge. .													
	2.9.2	24U cabinet, 800mm (W) X 1000mm (D)	1	Each	13,500.00	-	13,500.00	270.00	13,770.00	-	13,770.00	2,600.00	16,370.00	2,864.75	19,234.75
TOTAL AMOUNT FOR SUBHEAD- II															
SUBHEAD- III- LT PANEL															

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		Receiving, installation, testing and commissioning of front operated, front/back access, cubicle type, indoor duty, floor/wall /recess/ surface mounted (as specified below), totally enclosed dust and vermin proof switch boards/panels with minimum Ingress protection classification of IP54, fabricated in compartmentalized design from 2mm thick CRCA sheets for frame work and covers, 3 mm thick for gland plates, including cleaning & finishing complete with 7 tank process with dip coat priming and epoxy powder coated finish in approved shade. The panels must be suitable for 415V 3-Phase, 4 Wire, 50Hz, system, must be able to withstand symmetrical fault level of 70kA (as specified for various panels) for 1sec. at 415V and must include all interconnections, earthing and bonding requirements etc. The panels must conform to Drawings & Standards specified in relevant specifications, as required and as													
DSR Item Code	MR S.No.	Description	Qty	Unit	List Price	Discount	Total	T&H	Total	Wastage	Total	Installation	Total	O/H & P	Total
		The Switch boards shall be provided with detachable gland plates for entry of cables from the top / bottom as required.													
		All live accessible parts shall be shrouded and all equipment shall be finger touch proof. SMC/DMC shrouds and bus bar supports suitably spaced shall be used. Hinged doors with pad locking facility shall be provided on all outgoing feeders with switch handles lockable in OFF position.													
		The panel shall have capacity extensible type TPN Aluminium Bus Bar with bar type feeder connections, spacer set with full sized neutral.													
		Earthing all components, frames etc. to a common internal copper earth bar as required by the fault withstand													

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		level specified for the board.													
		All accessories and supporting structures such as channels, ISMC-100 base frame, mounting brackets, lifting lugs, panel heaters, ventilation arrangement etc. shall be provided as required.													
		Panel/Switchboard design shall be compact and components/ accessories of compact sizes shall be used to economize the room space available. Employer reserve the right to seek compact items in place of larger ones.													
		Surge Protection Device shall be Type 1 / Class B SPD shall be provided in all panels for all Main Distribution Board Incomers													
		Surge Protection Device shall be Type 2 / Class C SPD shall be provided in all panels for all Submain Distribution Board Incomers													
	3.1	MAIN LT PANEL	1	Set	2,85,000 .00	-	2,85,000 .00	5,700 .00	2,90,700 .00	-	2,90,700 .00	12,000.0 0	3,02,700. 00	52,972 .50	3,55,672 .50
		INCOMER													
		1Nos 320A, 4P, 35kA, MCCB with Microprocessor Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.25 - 1 x In, Adjustable instantaneous setting 1.5 - 12 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement.													
		METERING													
		LED indication lamp for ON, OFF, TRIP													
		LED phase indication lamp for R-Y-B.													
		1Nos 6A, SP, 10kA, MCB													
		1Nos. Flush type Voltmeter (0-500V), analogue type, selector switch for voltmeter and protection MCB.													
		1 Nos. Flush Pattern analogue type Ammeter (0-320A) with Selector Switch and one set of 3Nos.CT's of ratio 320/5A Class 1.0 accuracy and 10VA burden.													
		BUSBAR													
		TPN aluminium bus bars of minimum of 500Amps capacity with heat													

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		shrinkable coloured sleeves and i/c DMC/SMC bus bar cross section, size supports & their spacing etc. for withstanding fault level of 35kV for 1 Sec.													
		OUTGOING													
		12Nos 40A, 4P, 10kA, MCB													
		3Nos 63A, 4P, 25kA, MCCB with Thermal Magnetic Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.8 – 1 x In, Adjustable short-circuit setting 6 – 10 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement, 380-415V Shunt Trip Release.													
		1Nos 100A, 4P, 25kA, MCCB with Thermal Magnetic Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.8 – 1 x In, Adjustable short- circuit setting 6 – 10 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement, 380-415V Shunt Trip Release.													
	3.2	UPS I/P PANEL	1	Set	75,000.00	-	75,000.00	1,500.00	76,500.00	-	76,500.00	6,000.00	82,500.00	14,437.50	96,937.50
		INCOMER													
		1Nos 100A, 4P, 35kA, MCCB with Microprocessor Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.25 - 1 x In, Adjustable instantaneous setting 1.5 - 12 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement.													
		METERING													
		LED indication lamp for ON, OFF, TRIP													
		LED phase indication lamp for R-Y-B.													
		1Nos 6A, SP, 10kA, MCB													
		1Nos. Flush type Voltmeter (0-500V), analogue type, selector switch for voltmeter and protection MCB.													
		1 Nos. Flush Pattern analogue type Ammeter (0-100A) with Selector Switch and one set of 3Nos.CT's of ratio 100/5A Class 1.0 accuracy and 10VA burden.													

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		BUSBAR													
		TPN aluminium bus bars of minimum of 200Amps capacity with heat shrinkable coloured sleeves and i/c DMC/SMC bus bar cross section, size supports & their spacing etc. for withstanding fault level of 35kV for 1 Sec.													
		OUTGOING													
		2Nos 63A, 4P, 25kA, MCCB with Thermal Magnetic Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.8 – 1 x In, Adjustable short-circuit setting 6 – 10 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement, 380-415V Shunt Trip Release.													
		METERING- 2 SET													
		LED indication lamp for ON, OFF, TRIP													
		LED phase indication lamp for R-Y-B.													
		1Nos 6A, SP, 10kA, MCB													
		1Nos. Flush type Voltmeter (0-500V), analogue type, selector switch for voltmeter and protection MCB.													
		1 Nos. Flush Pattern analogue type Ammeter (0-63A) with Selector Switch and one set of 3Nos.CT's of ratio 63/5A Class 1.0 accuracy and 10VA burden.													

DSR Item Code	MR S.No.	Description	Qty	Unit	List Price	Discount	Total	T&H	Total	Wastage	Total	Installation	Total	O/H & P	Total
	3.3	UPS O/P PANEL	1	Set	65,000.00	-	65,000.00	1,300.00	66,300.00	-	66,300.00	6,000.00	72,300.00	12,652.50	84,952.50
		INCOMER													
		1Nos 63A, 4P, 25kA, MCCB with Microprocessor Release with Ics = 100% of Icu as per IS/IEC 60947-2, Adjustable overload setting 0.25 - 1 x In, Adjustable instantaneous setting 1.5 - 12 x In, Spreader Links and Phase Barriers, extender rotary handle, manually operated with pad lock arrangement.													

DSR Item Code	MR S.No.	Description	Qty	Unit	List Price	Discount	Total	T&H	Total	Wastage	Total	Installation	Total	O/H & P	Total
		METERING													
		LED indication lamp for ON, OFF, TRIP													
		LED phase indication lamp for R-Y-B.													
		1Nos 6A, SP, 10kA, MCB													
		1Nos. Flush type Voltmeter (0-500V), analogue type, selector switch for voltmeter and protection MCB.													
		1 Nos. Flush Pattern analogue type Ammeter (0-63A) with Selector Switch and one set of 3Nos.CT's of ratio 63/5A Class 1.0 accuracy and 10VA burden.													
		BUSBAR													
		TPN aluminium bus bars of minimum of 200Amps capacity with heat shrinkable coloured sleeves and i/c DMC/SMC bus bar cross section, size supports & their spacing etc. for withstanding fault level of 35kV for 1 Sec.													

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		OUTGOING													
		4Nos 25A, 4P, 10kA, MCB													
		2Nos 40A, 4P, 25kA, MCB													
TOTAL AMOUNT FOR SUBHEAD- III															
SUBHEAD- IV-UPS															
	4.1	**UNINTERRUPTED POWER SUPPLY SYSTEM**													
		S.IT.C of true parallel redundant 2x15KVA online, UPS system suitable for providing power supply to emergency lighting and Computerized Control panel load of approved make, suitable for incoming 415volts, 3phase +10% -20%, 50Hz, supply and 3-phase 415 volts, output voltage, variation ±1%, including in-built isolation transformer, IGBT rectifier modules/dual converter, static switch, inverter, filters, by-pass & static transfer switch for automatic switch over without giving any break of power, maintenance bypass switch, Microprocessor/software controlled annunciation, protection (including against input phase reversal), and menu run diagnostic module, associated cabling and connections/terminations, erection including associated foundation/masonry or RCC work for mounting on base channels etc. complete as per specifications and as required.													
		Note-1:The price of above item is exclusive of automatic changeover switch suitable for terminating 2nos of fire survival copper conductor cables as per technical specifications on the incoming side of UPS and is included in the UPS ATS item. The Automatic changeover switch may be wall mounted in the UPS room or as provided. From changeover switch to UPS, the connection should be through an adequately rated fire survival copper cable, and RS485 port for display of ON/OFF status of UPS on BMS workstation through MODBUS protocol.													
		Supply, Installation, Testing and Commissioning "sealed maintenance free lead acid" each having 30 minutes back up time at full load with interconnecting cables, racks and standard accessories UPS above. Battery shall comply with relevant regulations and battery racks shall be made of acid resistant material.													
		All the items/parts mentioned in relevant clauses of the M&W specifications and not specifically mentioned in BOQ shall be deemed to be included in the quoted rates, unless specifically excluded.	1	Set	4,58,326.00	45,832.60	4,12,493.40	8,249.87	4,20,743.27	-	4,20,743.27	20,000.00	4,40,743.27	77,130.07	5,17,873.34
TOTAL AMOUNT FOR SUBHEAD- IV															
SUBHEAD- V-CABLE TRAYS, CABLES & TERMINATION															
	5.1	Supplying, testing and commissioning of 650/1100V grade stranded/solid Aluminium/Copper conductor power cable, XLPE insulated, cores laid up, PVC tape/extruded Inner sheathed for multicore, armoured with aluminium wire/strip, extruded PVC Type ST2 sheathed, as per IS:7098 (Part 1) 1988, ISI marked as per following sizes. (excluding cost of laying). (Earthing will be measured separately and need not be quoted under this item). All complete as required and as directed by Engineer-in-													
	5.1.1	3C x 10 Sq.mm 2XWYCable	1	Rm	1,263.00	858.84	404.16	8.08	412.24	8.24	420.49		420.49	73.59	494.07
	5.1.2	4C x 4 Sq.mm 2XWYCable	1	Rm	722.00	490.96	231.04	4.62	235.66	4.71	240.37		240.37	42.07	282.44
	5.1.3	4C x 10 Sq.mm 2XWYCable	1	Rm	1,653.00	1,124.04	528.96	10.58	539.54	10.79	550.33		550.33	96.31	646.64
	5.1.4	4C x 16 Sq.mm 2XWYCable	1	Rm	2,549.00	1,733.32	815.68	16.31	831.99	16.64	848.63		848.63	148.51	997.14
	5.1.5	3½C x 25 Sq.mm 2XWY Cable	1	Rm	543.00	325.80	217.20	4.34	221.54	4.43	225.97		225.97	39.55	265.52
	5.1.6	3½C x 185 Sq.mm 2XWY Cable	1	Rm	2,941.00	1,764.60	1,176.40	23.53	1,199.93	24.00	1,223.93		1,223.93	214.19	1,438.11
	5.2	Supplying and making end termination with brass compression gland and Copper lugs for following size of PVC insulated and PVC sheathed / XLPE Copper conductor cable of 1.1 KV grade as required.													
	5.2.1	3 X 10 sq. mm (22mm)	1	Each	465.74	232.87	232.87	4.66	237.53	-	237.53	161.00	398.53	69.74	468.27
	5.2.2	4 X 10 sq. mm (25mm)	1	Each	621.44	310.72	310.72	6.21	316.93	-	316.93		316.93	55.46	372.40
	5.2.3	4 X 16 sq. mm (28mm)	1	Each	673.64	336.82	336.82	6.74	343.56	-	343.56		343.56	60.12	403.68
TOTAL AMOUNT FOR SUBHEAD- V															
SUBHEAD- VII-LIGHTING FITTINGS & EXIT SIGNAGE															

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	7.1	Supply of following Led tube rod comprising of LED tube with non integral / integral driver, 6500K colour temp having 40000 burning hrs. life with minimum @ L 70, system lumen output should be minimum with efficacy > 80 lm/W LED driver PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection wire, testing etc. to complete the job. 2 Yrs. Guarantee certificate from manufacturer.													
	7.1.1	1 X 18/20/22W, Integral	1	Each	3,430.00	514.50	2,915.50	58.31	2,973.81	-	2,973.81		2,973.81	520.42	3,494.23
	7.1.2	1 X 5/8W Integral Tube fitting complete	1	Each		-	-	-	-	-	-		-	-	-
	7.3	Supply of following surface mounting type Led light fixture, LED of 1 to 3 W each assembled on single MCPCB, having colour temp 6500K & having 50000 burning hrs. life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver, PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Housing made of CRCA with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 /IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs. Guarantee certificate from manufacturer.													
	7.2.2	12 W, 180/200mm	1	Each	810.00	121.50	688.50	13.77	702.27	-	702.27		702.27	122.90	825.17
	7.3.1	15 W , 180/200mm	1	Each	810.00	121.50	688.50	13.77	702.27	-	702.27		702.27	122.90	825.17
	7.4	Supply of following light fixtures.													
	7.4.1	12W Profile Light Make: Model:	1	Rm	4,650.00	697.50	3,952.50	79.05	4,031.55	-	4,031.55		4,031.55	705.52	4,737.07
	7.4.1	40W Profile Light Make: Model:	1	Rm	4,690.00	703.50	3,986.50	79.73	4,066.23	-	4,066.23		4,066.23	711.59	4,777.82
	7.4.2	12W Cove Light Make: Model:	1	Rm	300.00	45.00	255.00	5.10	260.10	-	260.10		260.10	45.52	305.62
	7.4.2	12W Cove Light/Strip Light Make: Model:	1	Rm	4,650.00	697.50	3,952.50	79.05	4,031.55	-	4,031.55		4,031.55	705.52	4,737.07
	7.4.3	36W 2X2 Square Light Make : Crompton Model : LCTLRF3-36-WW	1	Each	2,580.00	387.00	2,193.00	43.86	2,236.86	-	2,236.86		2,236.86	391.45	2,628.31
TOTAL AMOUNT FOR SUBHEAD- VII															
SUBHEAD- IX-CCTV															
	9.1	Supply, Installation, Testing & Commissioning of IP Network TDN Low-Light IR Indoor Dome Camera, 2MP 1/3" CMOS, should support upto 30fps, triple stream, Min. Illumination required 0.01 lux @ F1.6 (colour), 120dB True WDR, Min. Pixels 1200×1080p, triple stream, 2.7mm - 12 mm motorized focus & zoom lens, Backlight Compensation, 3DNR, Privacy Mask, 3 IR LEDs Smart IR with upto 30m IR distance, H.265& MJPEG, Inbuilt Video Analytics : Tripwire/Intrusion Trace, Object Left Behind, Object removed. Dual channel Audio G.711a/G.711u/AAC, 16GB SD card support, IP 67 & IK10, Alarm: 1 In & 1out, 300m PoE, H.264 High Profile and MJPEG, PoE Class 3/ 12V DC/24VAC, Die-Cast Aluminium Construction, IP67, IK10, Having Operating temp range : -30°C to 55° C.	1	Each	16,500.00	2,475.00	14,025.00	280.50	14,305.50	-	14,305.50	250.00	14,555.50	2,547.21	17,102.71
	9.2	Supply, Installation, Testing & Commissioning of IP Network TDN Low-Light IR Outdoor Box/ Bullet Camera, 2MP 1/3" CMOS, should support upto 30fps, triple stream, Min. Illumination required 0.01 lux @ F1.6 (colour), 120dB True WDR, Min. Pixels 1200×1080p, triple stream, 2.7mm 12 mm motorized focus & zoom lens, Backlight Compensation, 3DNR, Privacy Mask, min. 2 or 3 IR LEDs Smart IR with upto 30m IR distance, H.265& MJPEG, Inbuilt Video Analytics : Tripwire/Intrusion Trace, Object Left Behind, Object removed. Dual channel Audio G.711a/G.711u/AAC, 16GB SD card support, IP-67 & IK10, Alarm: 1 In & 1out, 300m PoE, H.264 High Profile and MJPEG, PoE Class 3/ 12V DC/24VAC, Die-Cast Aluminium Construction, IP67, IK10, Having Operating temp range : -30°C to 55° C. Certifications: ONVIF Profile S, G & Q compliant, UL CAP cybersecurity certification, UL, CE, EN,	2	Each	23,000.00	3,450.00	19,550.00	391.00	19,941.00	-	19,941.00	250.00	20,191.00	3,533.43	23,724.43

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	9.4	S.I.T.C of 64 channel POE based Network Video Recording System with storage of upto 20/40 TB of internal storage with fail over and RAID-6 redundancy features and 4HDD ports each supporting 10 SATA hard drives, video playback with D1 resolution at real time. Compression supported upto H.265/ H.264/MJPEG, 4 x 1GbE and Dual 10GbE SFP, 2U, 8 bay including rack mount kit, Smart coded, NDAA Section 889 HD resolution live view and playback upto 8MP (4K), RAID 1,5,6, audio streaming/recording support, cloud-based configuration, Vendor to quote all necessary components as required to complete the system.	1	Set	46,652.00	6,997.80	39,654.20	793.08	40,447.28	-	40,447.28	10,000.00	50,447.28	8,828.27	59,275.56
	9.5	Supply, Installation, testing and Commissioning of Central Management software Include all necessary Server requirement, to run the VMS software for 500 cameras with 5 user clients. The software should include functionalities as mentioned below. Should have distributed architecture to collect, manage and present video from all the cameras and supports emerging technologies in the industry, like 4K resolution, H.265 video compression codec, multi-imager/lens cameras and 360° fisheye cameras. The NVMMS shall have option to support database redundancy and 1+1 and N+M NSM failover features for unforeseen/maintenance scenarios for increased system reliability. NVMMS shall support NSM's from a multiple location licenced for 90 cameras & 2 users clients, licenses should expandable upto 500 cameras & 10 user clients without any additional version upgrade.													
		The NVMMS should support network joystick controller, GPU rendering support for H.264 and H.265 decoding , video on demand, Adaptive video throttling, rule engine, operator role management, server based Video Motion Detection (VMD), edge storage backfill support, bookmark with manual comment, bookmark based search, timeline search, Preview search, synchronous playback from all NSMs, monitor wall support, surrounding camera mode, Cybersecured with features such as Digital Signing, General Data Protection Regulation (GDPR) compliance, HTTPS & SSL base, smart web client, secured firewall configuration, password expiry, non-recoverable password; support ANDROID & iOS phones, seamless integration with integrated security platform which provides HSDK&API for further integration with 3rd party systems. NVMMS shall support iLIDS certified Analytics	1	Set	4,50,000.00	67,500.00	3,82,500.00	7,650.00	3,90,150.00	-	3,90,150.00	10,000.00	4,00,150.00	70,026.25	4,70,176.25
	9.6	Supply, Installation, testing and Commissioning of monitor station for the Cameras monitoring 24/7 video wall with 42" LED screen with necessary supports and other accessories as required.	1	Each	65,000.00	9,750.00	55,250.00	1,105.00	56,355.00	-	56,355.00	1,500.00	57,855.00	10,124.63	67,979.63
	9.7	S.I.T.C of modular type switched socket outlet complete with flush mounting GI back box with earth terminal, civil works and making good to rough finish plaster so that the box is lined and levelled including wiring as expressed above complete in all respect.													
	9.7.1	RJ-45 UTP Cat-6 Data Socket Outlet	1	Each	1,241.00	186.15	1,054.85	21.10	1,075.95	-	1,075.95	200.00	1,275.95	223.29	1,499.24
	9.8	Supply, Installation testing and commissioning of patch cord as mentioned below:													
	9.8.1	CAT 6 Patch Chords - 5M length at rack side	1	Each	480.00	72.00	408.00	8.16	416.16	-	416.16	15.00	431.16	75.45	506.61
	9.8.2	CAT 6 Patch Chords - 2M	1	Each	250.00	37.50	212.50	4.25	216.75	-	216.75	15.00	231.75	40.56	272.31
TOTAL AMOUNT FOR SUBHEAD- IX															

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OFFICE BUILDING AT TRIPURA							
Schedule Of Quantites - HVAC Works							
S NO.	**DSR Item /MR**	**DESCRIPTION.**	**UNIT**	**QTY**	**RATE**	**DSR AMOUNT RS**	**NDSR AMOUNT RS**
1.0	Delhi Schedule of Rates (Items for VRF/VRV AIR-CONDITIONING SYSTEM)- **2019 Item-1**	Supply Installation, Testing & Commissioning of modular type Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor units suitable for cooling and heating, having all hermetically sealed inverter type Scroll Compressor(s), minimum two compressors for above 14 HP modules, microprocessor based Controller, top discharge type condensing unit(s), with R 410 A Refrigerant, vibration isolators, with suitable foundation etc. complete as required. The unit shall deliver the rated capacity at AHRI Conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V +/- 10%, 3 Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5					
		Outdoor units:-(Heating & Cooling Both)					
	a	Ground Floor 38.0 HP. / 1st Floor 28.0 HP & 2nd Floor 32 HP. = **Total 98.0 HP**					
		98.0 HP	HP	98	16,415.00	16,08,670	
		Makes:- Mitsubishi / Carrire Thoshiba / BlueStar					
2.0	**Item no-2**	Supply, installation, testing and commissioning of following minimum capacity **4-way flow VRV/VRF Split Type Indoor** ceiling mounted unit equipped with synthetic washable media pre- filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration isolation, cord less remote control etc., suitable for operation on single phase 230 V ± 10%, 50Hz AC supply, complete, as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature.					
2a	Item no-2.5	2.0 TR	Nos	8	30,801	2,46,408	
	Item no-2.3	1.28 TR	Nos	12	29,488	3,53,856	
	Item no-2.2	1.0 TR	Nos	17	29,137	4,95,329	
2b	Item no-2.1	0.8 TR	Nos	3	27,381	82,143	
3.0	**Item no-4**	Supply, installation, testing and commissioning of following minimum capacity and external static pressure **VRF/VRV Ceiling mounted Ductable Type** Indoor unit equipped with washable synthetic media Pre-filter,fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, corded remote control, outer cabinet, vibration isolators, drain pan, other necessary supports etc., suitable for operation on single phase AC supply 230 V± 10%, 50 Hz complete as required. The unit shall have automatic force shut down provision in case of fire on receiveing signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and					

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		19 Degree C WB temperature.					
		High Static Ductable units (minimum 110 pascal external static pressure)					
	Item no-4.19	8.0 TR	Nos	1	89,590	89,590	
3a	Item no-4.17	5.5 TR	Nos	2	85,766	1,71,532	
4.0	**Item no-5**	Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :					
4a	Item no-5.1	6.4 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Rmt.	125	245	30,625	
4b	Item no-5.2	9.5 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Rmt.	75	331	24,825	
4c	Item no-5.3	12.7 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Rmt.	88	466	41,008	
4d	Item no-5.4	15.86 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Rmt.	45	588	26,460	
4e	Item no-5.5	19.1 mm dia (OD) (hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Rmt.	25	707	17,675	
4f	Item no-5.6	22.2 mm dia (OD) (hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Rmt.	45	865	38,925	
4g	Item no-5.7	25.4 mm dia (OD) (hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Rmt.	15	1,022	15,330	
4h	Item no-5.8	28.58 mm dia (OD) (hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Rmt.	25	1,108	27,700	
4i	Item no-5.9	31.8 mm dia (OD) (hard drawn) with tube thickness 1.62 mm with 19 mm thick insulation	Rmt.	25	1,170	29,250	
4j	Item no-5.10	34.9 mm dia (OD) (hard drawn) with tube thickness 1.62 mm with 19 mm thick insulation	Rmt.	25	1,230	30,750	
5.0	**Market Rate**	Refrigerant R-410A to top up the system if required.	Kgs	65	1,550	1,00,750	

OFFICE BUILDING AT TRIPURA

Schedule Of Quantites - HVAC Works

S NO.	DSR Item /MR	DESCRIPTION.	UNIT	QTY	RATE	DSR AMOUNT	NDSR
6.0	**Market Rate**	Supply,installation, testing and commissionig of refrigerant Copper **Y-Joints and T-Joints.**	Set	44	4950	0	2,17,800
6.a	**Market Rate**	Installation, testing & commissioning of self Diagnostic Type **Remote** controllers . Corded Type	Set	43	2650	0	1,13,950
		Makes:- Mitsubishi / Carrire Thoshiba / BlueStar					
7.0	DSR-2023	Providing and fixing in position the following CPVC Drain with all necessary fittings and joints.					
7a	Item-18.7.4	32 mm dia drain pipe.	Rmt.	65	480.55	31,236	
7b	Item-18.7.3	25 mm dia drain pipes.	Rmt.	195	369.2	71,994	
8.0	**Market Rate**	Supply,Installation, Testing and Commissioning of Master Remote Control panel including all necessary control wiring. Master Remote Control Panel shall be connected to all indoor/outdoor units. **Master Remote** Control Panel shall be one **Touch Screen** type.					

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8a		Suitable for 64 Nos of indoor unit.	Nos	1	88,750		88,750
	Market Rate	1.5 TR (5 star Split Units Stand By For (Server & UPS Area)	Nos	2	44,500		89,000
		Makes:- Mitsubishi / Carrire Thoshiba / BlueStar					
9.0	**Market Rate**	Supplying, installing, testing and commissioning of direct driven Propeller fan as shown in drawings. Each fan shall be complete with permanent split capacitor or shaded pole motor, mounting plate, accessories like wire guard, bird screen and fixed louvers for weather protection as required. Electrical characteristics shall be 220 volt, 1 phase, 50 Hz, AC supply. **The prices shall include electrical wiring from socket to fan considering 3 m** **distance between socket and fan.**					
9a	**Market Rate**	225 dia free flow propeller fan with gravity louvers.	Nos	14	6,750		94,500.00
		Makes:- Raviair / Balance Air / Fanair					
10.0	**Market Rate**	Supply, installation, testing and commissioning of **Inline Fan** exhaust fan with centrifugal blower and motor encased in sheet metal casing, as per specifications. The motor shall be suitable for 220 ± 6% V, 50 Hz AC supply. **The price shall include fan speed regulator and cowl with bird screen and electrical wiring from socket to fan considering 3 m distance between** **socket and fan.**					
10a		600 cfm inline fan at 15mm static presssure.	Nos	1	17,500.0		17,500.0
11.0	**DSR-2023** 16.12.1	Supply, installation, balancing and commissioning of **Factory Fabricate**d GSS sheet metal rectangular/round ducting (Zinc coating 120 gm/m²) complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.					
11a	16.12.1.1	Thickness 0.63 mm Sheet (24 Guage)	Sqmt	225	1,080	2,43,000	
11b	16.12.1.2	Thickness 0.80 mm Sheet (22 Guage)	Sqmt	10	1,263	12,630	
11c	16.12.1.3	Thickness 1.00 mm Sheet (20 Guage) (For Supply Air Plenum)	Sqmt	0	1,381	0	
12.0	**Market Rate**	Supply and installation of flexible ducting made of steel helix wire with insulation of fibreglass 25 mm thick and of density 24 kg/ cum covered with AL foil from both sides. Item shall be complete with duct joining clamps, duct sealing tapes , supports etc. Flexible ducts to be hung stretched and not to be left sagging.					
		100 mm ⦰ Flexible Duct (For Cassette Units)	Rmt	150	775.00		1,16,250
13.0	**Market Rate**	Supply, installation, testing and commissioning of double **Canvas** for outlet connection of the equipments.	Sq.Mt	2	6,500		13,000
14.0	**DSR-2023** Item-16.13	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, screws linkages, flanges etc, as per specifications.	Sq.Mt	1	7,046	7,046	
15.0	**DSR-2023** Item-16.15	Supplying & fixing of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers as per specifications.	Sq.Mt	1	9,105	9,105	
16.0	**DSR-2023** Item-16.16	Supplying & fixing of powder coated extruded aluminium Return Air Grills without aluminium volume control dampers as per specifications.	Sq.Mt	1	5,910	5,910	
17.0	**DSR-2023** Item-16.17	Supplying, fixing testing commissioning of supply air diffusers of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core.	Sq.Mt	1	12,184	12,184	
18.0	**DSR-2023** Item-16.18	Supplying, fixing testing commissioning of Return/Exhaust air diffusers of powder coated aluminium without aluminium volume control dampers with anti smudge ring & removable	Sq.Mt	2	8,121	16,242	

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		core.					
19.0	**Market Rate**	Supplying, fixing testing commissioning of powder coated aluminium Fresh/Exhaust air louvers With Damper and Bird screen.	Sq.Mt	6	16,500	99,000	99,000
		Makes:- Balance Air / Greenzon / cooltek					
20.0	**DSR-2023** Item-16.21	Supply and fixing of **Acoustic Lining** of supply Air Duct and plenum with 25 mm thick resin bonded glass wool having density of 32 kg/m³, with 25 mm X 25 mm GI section of 1.25 mm thick, at 600 mm centre to centre covered with Reinforced Plastic tissue paper and 0.5 mm thick perforated aluminium sheet fixed to inside surface of ducts with cadmium plated nuts, bolts, stick pins, CPRX compound etc. complete as required and as per specifications.	Sq.Mt	15	708.0	10,620.0	
21.0	**DSR-2023** Item-16.23.	Supplying and fixing of following thickness duly laminated aluminium foil of mat finish closed cell Nitrile rubber (Class "O") insulation on duct after applying suitable adhesive for Nitrile rubber. The joints shall be sealed with 50 mm wide and 3 mm thick self adhesive nitrile rubber tape insulation complete as per specifications and as required.					
	Item-16.23.1	19 mm Thick	Sq.Mt	220	754	1,65,880.0	
22.0	**Market Rate**	Supply and application of 50 mm thick Expanded Polystyrene (TF quality) 24 kg density thermocole under deck insulation.**(underdeck)**	Sq.Mt	165	1,095		1,80,675.0
		Makes:- Hira / K-flex / Aerolam					
23.0		**Electrical:-**					
23.1.2	**Market Rate**	**HVAC PANEL**					
		INCOMING :					
a.		One No. 200 amps,25 ka, 4-pole MCCB complete with adjustable overload circuit protection.					
b.		0-500 Volts 96 x 96 mm square voltmeter digital type with selector switch 1 Set					
c.		0-50 amps ammeter digital type with 250/5 amps CT's and selector switch 1 Set					
d.		Phase indicating lamps with control SP MCB.					
e.		Aluminium bus bar sleeve type rated at 250 amps for three phase & neutral phase bus bar shall have maximum current density of 1.0 amp per sq. mm and the neutral bus bar of not less than 50 % capacity					
		OUTGOING :					
a		6 Nos 63 amps, 25 k, TPN MCCB with single phase /overload circuit protection.					
		PANEL AS DESCRIBED ABOVE :	No.	1	2,25,000		2,25,000.00
24.0	**Market Rate**	Supply and Laying of 2 core x 1.5 sqmm pvc insulated copper conductor communication control cable in Pvc Conduit.	Rmt	85	95		8,075.0
25.0	**Market Rate**	Supply and Laying of 3 core x 2.5 sqmm pvc insulated copper conductor cable for indoor units.	Rmt	95	170		16,150.0
26.0	**Market Rate**	Supply and Laying 4.0 core x 6 Sq.mm copper conductor armoured cable	Rmt	65.0	910.0		59,150.0
27.0	**Market Rate**	Supply and Laying 4.0 core x 10 Sq.mm copper conductor armoured cable	Rmt	80	1,200.0		96,000.0
28.0	**Market Rate**	Supply and Laying 4.0 core x 16 Sq.mm copper conductor armoured cable	Rmt	65	1,400.0		91,000.0
29.0	**Market Rate**	Supply and fixing of Perforated type 300 (w)x 75 (d) x1.6 (thickness) Hot dip Galvanised G.I. cable tray With Cover complete with bend/tee joints, coupling plate & nuts bolts etc. as	Rmt	75	650.0		48,750.0
30.0	**Market Rate**	Supply and fixing of Perforated type 150 (w)x 50 (d) x1.6 (thickness) Hot dip Galvanised G.I. cable tray With Cover complete with bend/tee joints, coupling plate & nuts bolts etc. as required for fixing complete. **(with VRV Pipe Support)**	Rmt	450	275.0		1,23,750.0
		Makes:- Application / Ajayma Electrical					

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31.0	**Market Rate**	Comprehensive **Annual Maintenance** contract for VRF System with BMS System including Energy monitoring & Central Remote Control for Suitable for **98.0 HP**					
31.1		After First year	L/s	1	2,10,000.0		2,10,000.0
31.2		After Second year	L/s	1	2,75,000.0		2,75,000.0
		Makes:- Mitsubishi / Carrier Toshiba / BlueStar					
		TOTAL COST (RS)				**41,15,672.75**	**21,83,300.00**
		GROSS TOTAL AMOUNT				**6298972.75**	

SUMMARY OF PLUMBING WORKS

S. No.	Description of Item	DSR Amount (Rs.)	MR Amount (Rs.)
1	SUB HEAD - I - (SANITARY FIXTURES & INTERNAL PLUMBING)	194447.25	2455948.00
2	SUB HEAD - II - (SOIL, WASTE, RAIN WATER AND VENT PIPES)	78785.00	417809.00
3	SUB HEAD - III - (WATER SUPPLY)	107158.33	141650.40
4	SUB HEAD - IV - (SEWERAGE AND DRAINAGE)	1000157.43	838128.00
5	SUB HEAD - V - EXTERNAL WATER SUPPLY	304333.37	92959.00
6	SUB HEAD - VI - Bulk Services		800714.00
	TOTAL	**1684881.38**	**4747208.40**
	TOTAL M.R. + DSR		**6432089.78**

PROJECT :- TSECL- TRIPURA SUPER ECBC

ITEMS - PLUMBING

Item no.	DSR 2023	Description of Item	Qty	Unit	DSR Rate (Rs.)	Market Rate (Rs.)	DSR Amount (Rs.)	Market Amount (Rs.)
		SUB HEAD - I - (SANITARY FIXTURES & INTERNAL PLUMBING)						
1	M.R	Providing, fixing, testing and commissioning of white vitreous China wall mounted European water closet including providing & fixing CP bolts, nuts, fisher / anchor bolt are required for hanging of WC, nuts, supporting arrangements, Bakelite/poly propylene seat & cover with CP hinges & rubber buffers, WC pan connector (straight /offset type Macfit single body push fit type WC pan connector with factory supplied spring loaded seal guard of McAlpine, UK with integral single mould sealing fins made of flexible EVA body, including bush/adaptor for use with C.I. Pipe as supplied with the pan connector) complete with all accessories. Including cutting & making good the walls & floors wherever required.	20	Each		34322.00		686440.00

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2	**M.R.**	Providing, fixing, testing and commissioning of star white colour vitreous China below / over counter Oval Wash Basin / circular basin (Size 560 x 410 mm or as/architectural detail drawing) with CP brass waste assembly complete including CI / MS brackets duly painted, cutting and making good the walls floors wherever required.	17	Each		21371.00		363307.00
3	**M.R.**	Providing, fixing, testing and commissioning of CP brass bottle trap with wall connection pipe for wash basins.						
3.1	**M.R.**	32 mm dia	20	Each		3238.00		64760.00
4	**17.31**	Providing and fixing 600 x 450mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete in all respect	17	Each	1607.95		27335.15	
5	**M.R.**	Providing and fixing C.P. brass towel ring with C.P. brass wall brackets & C.P brass screws complete in all respect	17	Each		3691.00		62747.00
6	**M.R.**	Providing and fixing unplasticized PVC connection pipe with brass unions, 45 cm length.						
6.1		15 mm dia nominal bore	54	Each		1101.00		59454.00
7	**M.R.**	Providing and fixing C.P. brass liquid soap container with C.P. brass lid and brackets fixed to wall with wooden cleats and C.P. brass screws, including cutting and making good the walls wherever required complete in all respect	17	Each		7124.00		121108.00
8	**17.34**	Providing and fixing toilet paper holder.						
8.1	**17.34.1**	C.P. brass	20	Each	803.70		16074.00	
9	**M.R.**	Providing and fixing CP brass twin coat hooks fixed on toilet door/wall with CP brass screws, complete in all respect	20	Each		2849.00		56980.00
10	**17.10**	Providing and fixing stainless steel kitchen sink A ISI 304 (18/8) as per I.S.13983 with C.I brackets and stainless steel plug 40mm including painting of fittings and brackets, cutting and making good the walls wherever required complete in all respect						
10.1	**17.10.1.3**	Kitchen sink with drain board 510 x 1040 bowl depth 200 mm	2	Each	7159.00		14318.00	
11	**M.R.**	Providing, fixing, testing and commissioning of C.P. brass single hole sink mixer with CP wall flange, swinging spout complete as required and making good.						
11.1	**M.R.**	15 mm nominal dia.	2	Each		12304.00		24608.00
12	**M.R.**	Providing, fixing, testing and commissioning of white glazed vitreous China semi-stall lipped Urinal CI hangers CP spreader, 32/40 mm CP brass domical waste and pipe to wall with CP flange, automatic flushing system with concealed type electric operated, waterproof compact model solenoid valve with built in strainer, flow control mechanism, stainless steel outer case, pre flush and main flush function and low battery indication, for individual urinals to ensure flushing only when in use, comprising of all plumbing & any other item required to provide satisfactory functioning as approved by the Architects complete including cutting and making good the walls and floors where required. (The gap between fixture and wall to be filled up with approved type poly sulphide sealant) Set of One urinal with flushing system.						
12.1	**M.R.**	Urinal of size 580x380x350 mm or as/final architectural drawings.	6	Each		33157.00		198942.00
13	**M.R.**	Providing, fixing, testing and commissioning of CP brass bottle trap with wall connection pipe for urinals.						
13.1	**M.R.**	40 mm dia	6	Each		3432.00		20592.00

PROJECT :- TSECL- TRIPURA SUPER ECBC								
ITEMS - PLUMBING								
Item no.	**DSR 2023**	**Description of Item**	**Qty**	**Unit**	**DSR Rate (Rs.)**	**Market Rate (Rs.)**	**DSR Amount (Rs.)**	**Market Amount (Rs.)**

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14	**8.10**	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 75x50 cm deep and 1.8 cm thick, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.						
14.1	8.10.2	Granite Stone of approved shade	6	Each	4051.85		24311.10	
15	**M.R.**	Providing and Fixing, testing & commissioning of ABS Health Faucet (complete with hook and flexible tube min. Length 1.0 m) as required complete in all respect	20	Each		3432.00		68640.00
16	**M.R.**	Providing and Fixing, testing & commissioning of chrome plated brass battery based infrared sensor operated pillar cock, having foam flow technology.						
16.1		15 mm nominal bore	17	Each		11009.00		187153.00
17	**M.R.**	Supply, Installation, Testing and commissioning of wall hanging drinking online water cooler with bottle filler facility, made by stainless steel top and heavy duty galvanized steel frame. With cooling capacity, ADA Compliant, size 472 mm Depth X 447mm width, flexible bubbler guard , operated between 50 to 120 PSI, Chiller unit Suitable to R134a Refrigerant, Adjustable thermostat control, suitable for 220- 230v/50-60 hz A/C Supply Complete with all accessories which include MD-CU29, which is an EPA registered antimicrobial copper that fights off microorganisms which include MRSA and e-coli. The water Fountain shall possess NSF-USA, GRIHA, TUV, and to be placed at different location of building. Agency has to execute all civil work for installing the Water Fountain/Online water cooler for proper functioning and aesthetic view as directed by the engineer- in-charge without any extra cost.						
17.1	**M.R.**	WITH 40 LPH RO System with 40 ltr HTP Storage tank. 40 Lph RO System including with, RAW WATER PUMP, MICRON FILTER, MEMBRANE HOUSING, Membrane Boosting Pump, RO Membranes, CONTROL INSTRUMENTS, SKID Hanging with Pressure tank of capacity of 60 Ltr.	1	Each		193106.00		193106.00
18	**M.R.**	Providing and Fixing, testing & commissioning of C.P. brass tap of approved quality conforming to IS standards.						
18.1		15 mm nominal bore	5	Each		1230.00		6150.00
		Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank	9000	LTS	11.00		99000.00	
19	18.52	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.						
19.1	18.52.1	15 mm nominal bore	20	Each	670.45		13409.00	
20	**M.R.**	Providing and Fixing, testing & commissioning of C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931.						
20.1		15 mm nominal bore	54	Each		2655.00		143370.00
		Handicap toilet :-						
21	**M.R.**	Providing and fixing of WB 46 x 36 with one pair mounting brackets, EWC & Cistern complete with fittings & seat cover, one no. hinged rail 76 cm & 4 nos. of grab rails 60 cm.	3	Each		66197.00		198591.00
		Total Carried to Summary					**194447.25**	**2455948.00**

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PROJECT :- TSECL- TRIPURA SUPER ECBC								
ITEMS - PLUMBING								
Item no.	DSR 2023	Description of Item	Qty	Unit	DSR Rate (Rs.)	Market Rate (Rs.)	DSR Amount (Rs.)	Market Amount (Rs.)
		SUB HEAD - II - (SOIL, WASTE, RAIN WATER AND VENT PIPES)						
1	**M.R.**	Providing, fixing and testing **uPVC soil, waste and vent pipes** conforming to IS 4985 (6KG) type A with rubber ring (conforming IS:5382) joint inclusive of all necessary specials like bends, tees, offsets, door ends, junctions, cowls, etc., laid under floor/fixed on walls, and in pipe shafts etc., complete. The quoted rate should include necessary MS angle supports, grip bolts and clamps etc.,(price to be inclusive of fire rated uPVC wherever crossing from one floor to another floor occurs.)						
1.1	**M.R.**	40 mm dia.						
1.1.1		UPVC PIPE	22	Metre		414.00		9108.00
1.2	**M.R.**	50 mm dia.						
1.2.1		UPVC PIPE	6	Metre		538.00		3228.00
1.3	M.R.	100 mm dia.						
		UPVC PIPE	234	Metre		902.00		211068.00
2	M.R.	Providing and fixing Upvc trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors: (F.T. + U.T.)	17	Each		809.00		13753.00
3	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:						
3.1	4.1.3	1:2:4 (1 cement :2 coarse sand: 4 hard stone aggregate 20mm and down gauge).	10	cum	7878.50		78785.00	
4	MR	Providing, fixing and jointing UV stabilized uPVC rain water pipes conforming to IS:4985 (working pressure 6 kg/sqcm.) including all fittings such as bends, clamps, tees, cowls, clean out plugs etc including Fixing at wall / ceiling level supported by steel clamps & hangers etc. including Cutting, chases/holes in floors / walls / slab and making good the same after pipe have been duly laid and testing complete in all respects.						
4.1		(I) Single socketed pipes						
4.1.1		110 mm diameter	120	Metre		781.00		93720.00
5	MR	Providing & fixing 75mm x 50mm Upvc. waste with reducing elbow & nipple cutting chases, the floor / slab, repairs complete as required and connection to Upvc waste pipe.	13	Nos.		427.00		5551.00
6	MR	Providing and fixing Heavy Class SS grating with of approved design including setting in floor with cement motor to match with floor finish as per architect requirement .	30	Nos.		1038.00		31140.00

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7	MR	Providing and fixing Heavy Class SS grating with Cockroach proof SS strainer of approved design including setting in floor with cement motor to match with floor finish as per architect requirement suitable for waster and FT	30	Nos.		1282.00		38460.00
8	MR	Providing and fixing UPVC HOPPER EXTENSION PIECE for 100 mm dia floor trap formed out of main pipe (Type A) with multiple side inlets, suitable for various dia pipes, side connections, including all fixtures and fittings as per site conditions and as per standard details and water tight sealing of joints and area surrounding the grating and as directed.	17	Nos.		693.00		11781.00
		Total Carried to Summary					**78785.00**	**417809.00**
		SUB HEAD - III - (WATER SUPPLY)						
1	**18.7**	Providing and fixing, testing and commissioning of chlorinated polyvinyl chloride (CPVC) pipes, having thermal stability for hot & cold water pipes conforming to IS capable to withstand 27.6 kg/cm² at room temperature water and 7.03 kg/cm² at 82°C and all fittings of CPVC SDR 11 like elbow, tee, reducers, couplers, brass threated male & female (adapters, elbow, tees) and pipe clamps at 1.00 m spacing. The pipe fitting joining to be done with solvent cement as per manufacturers specifications & recommendations. This includes testing of joints complete as per direction of Engineer-Incharge.						
		Concealed work, including cutting chases and making good the walls etc.						
1.1	18.7.1	15 mm dia nominal bore	80	Metre	286.80		23001.36	
1.2	18.7.2	20 mm dia nominal bore	93	Metre	335.00		31155.00	
1.3	18.7.3	25 mm dia nominal bore	27	Metre	401.55		10801.70	
1.4	18.7.4	32 mm dia nominal bore	49	Metre	518.75		25366.88	
1.5	18.7.5	40 mm dia nominal bore	8	Metre	702.95		5623.60	
1.6	18.7.6	50 mm dia nominal bore	12	Metre	934.15		11209.80	
2	**18.1**	Providing and fixing, G.I pipes complete with G.I fittings and Clamps, including cutting and making goods the walls etc.						
		Internal work - Exposed on wall						
2.1	MR	65 mm dia nominal bore	5	Metre		1466.00		7330.00
2.2	MR	80 mm dia nominal bore	12	Metre		1800.00		21600.00
3	**18.38**	Painting of exposed pipes with two or more coats of synthetic enamel paint of approved quality over a coat of red oxide zinc chromate primer including painting of legends in English with direction arrows.						
3.1	MR	65 mm dia nominal bore	5	Metre		104.00		520.00
3.2	MR	80 mm dia nominal bore	12	Metre		122.00		1464.00
4	**MR**	Providing and fixing Nitrile Rubber Insulation 9 mm thick on hot water supply/return pipes without outer mechanical protection						
4.1		15 mm dia. (9 mm thickness)	16	Metre		37.00		599.40
4.2		20 mm dia. (9 mm thickness)	12	Metre		49.00		588.00
5	**MR**	Providing & fixing full way lever operated forged brass ball valve of brass body with forged brass hard chrome plated steel ball tested to a pressure not less than 10 Kg / sqcm with threaded / flanged joints complete with nuts, bolts, gaskets, washers etc.						
5.1		15 mm dia.	3	Nos.		452.00		1356.00
5.2		20 mm dia.	8	Nos.		624.00		4992.00
5.3		25 mm dia.	2	Nos.		989.00		1978.00
5.4		32 mm dia.	1	Nos.		1652.00		1652.00

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5.5		40 mm dia.	3	Nos.		2406.00		7218.00
5.6		50mm dia.	1	Nos.		3454.00		3454.00
6	MR	Providing and fixing motorised butterfly valve with float type sensors suitable for 240 volts with working pressure rating of not less than 5 kg/cm2 with control panel and sensors to open valve when water level is low in tanks and to close when water level is high in water tanks including necessary cables, conduits, upto junction box etc., complete.						
6.1		40 mm dia.	2	Nos.		26105.00		52210.00
6.2		50 mm dia.	1	No.		26656.00		26656.00
7		Providing and fixing Butter fly valve Rated for PN16 pressure rating including rubber gasket, flanges, nuts, bolts, washers & painting complete as required.						
7.1	MR	65 mm dia	1	Nos.		3183.00		3183.00
7.2	MR	80 mm dia	2	Nos.		3425.00		6850.00
		Total Carried to Summary					**107158.33**	**141650.40**
		SUB HEAD - IV - (SEWERAGE AND DRAINAGE)						
1	**2.10**	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50m						
1.1	2.10.1.2	Pipes, cables etc. exceeding 80mm dia. But not exceeding 300mm dia.	200	Metre	352.15		70430.00	
2	**2.11**	Extra over for item no. 1.1 excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.5 m, but not exceeding 3 m. (Rate is over corresponding basic item for depth up to 1.5 metre)						
2.1	2.11.1.2	Pipes, cables etc. exceeding 80mm dia. But not exceeding 300mm dia.	150	Metre	447.23		67084.58	
3	**MR**	Providing and laying non-pressure NP3 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete.						
3.1		150 mm dia R.C.C pipe	75	Metre		531.00		39825.00
3.2		300 mm dia R.C.C pipe		Metre		1192.00		
3.3		450 mm dia R.C.C pipe		Metre		2396.00		
4	19.3	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 20 mm nominal size) up to haunches of S.W./RCC pipes including bed concrete as per standard design :						
4.1	19.3.2	150 mm dia R.C.C pipe	75	Metre	743.10		55732.50	
4.2	19.3.5	300 mm dia R.C.C pipe		Metre	1173.35			
4.3	MR	450 mm dia R.C.C pipe		Metre		2186.00		
5	**19.1**	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete:						
5.1	19.1.2	150 mm dia S.W. pipe	50	Metre	695.80		34790.00	
5.2	19.1.4	250 mm dia S.W. pipe	75	Metre	1505.60		112920.00	
6	**19.2**	Providing and laying cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 20 mm nominal size) all-round S.W./RCC pipes including bed concrete as per standard design:						
6.1	19.2.2	150 mm diameter	50	Metre	1179.85		58992.50	
6.2	19.2.4	250 mm diameter	75	Metre	1590.55		119291.25	
7	**2.6**	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. (For Manholes)						

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7.1	2.6.1	All kinds of soil	60	cum	177.50		10638.40	
8	**19.7**	Constructing brick masonry manhole cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C. top slab with 1:2:4 mix (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1cement : 4 coarse sand : 8 graded stone aggregate 20 mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making necessary channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design.						
8.1	19.7.1	Inside size 90 x 80 cm and 45 cm deep including C.I. cover with frame (light duty) 455 x 610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg)						
8.1.1	19.7.1.1	With F.P.S. bricks with class designation 75	18	Nos.	12770.55		229869.90	
8.2	19.7.2	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :						
8.2.1	19.7.2.1	With F.P.S. bricks with class designation 75	2	Nos.	26405.50		52811.00	
9	**19.8**	Extra depth for manholes						
9.1	19.8.1.1	Size 90 x 80 cm (With F.P.S. bricks with class designation 75)	2	Metre	8825.40		17650.80	
9.2	19.8.2.1	Size 120 x 90 cm (With F.P.S. bricks with class designation 75)	1	Metre	10585.50		10585.50	
10	**19.27**	Constructing brick masonry road gully chamber 50x45x60 cm with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design:						
10.1	19.27.1	With F.P.S. bricks	20	Each	5957.90		119158.00	
11	**19.31**	Extra depth beyond 45 cm of brick masonry chamber						
11.1	19.31.1	For 455 x 610 mm size						
11.1.1	19.31.1.1	With F.P.S. bricks	1	Metre	6117.00		6117.00	
12	**19.4**	Providing and fixing square-mouth S.W. gully trap class SP- 1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:						
12.1	19.4.1	100x100 mm size P type						
12.1.1	19.4.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	4	Each	2707.65		10830.60	
13	**19.16**	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specification and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30 x 20 x 15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	42	Each	553.70		23255.40	

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14	**MR**	Material & labour for constructing Silt trap of size 1500mm x 3000mm x 2000mm deep in brick masonry with bricks of class designation 7.5 in cement mortar 1:6 (1 cement: 6 coarse sand) including necessary excavation and foundation concrete 150mm thick in 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate of 40mm nominal size), inside plaster 12mm thick in cement mortar 1:4 (1 cement : 4 coarse sand) finished with a floating coat of neat cement, C.C. floor, RCC slab in mix 1:2:4 & RCC baffle wall including reinforcement, centering & shuttering etc. and SFRC manhole cover and frame 610 x 455 mm heavy duty HD 10 conforming to IS: 12592 complete in all respects as shown on drawing.	1	Nos.		225941.00		225941.00
15	**MR**	Material and labour for Constructing Brick masonry percolation pit 3m dia and 5m deep with bricks of class designation 7.5 in cement mortar 1:6, base concrete 1:3:6 below the brick wall, including cost of necessary excavation in any type of soil, back filling as required in 20cm thick layers, dewatering if any, shuttering and shoring and disposal of surplus excavated material within the plot. 2 nos. 300mm dia borings to a depth of 50 metre (to be measured from the bottom of the percolation pit), provisioning and fixing 160 O.D. PVC pipes, tested to 6kg/sqcm, in each bore and upto the height of 300mm above the RCC top slab. The PVC pipe shall be slotted except 3.0 metres at the top and 3.0 metres below from the bottom of the percolation pit, which shall be blind. Top of the PVC pipe shall be covered with PVC Socket & plug. Each bore around the PVC pipe shall be filled with pea gravels. The percolation pit shall be filled with river stone/pebbles as shown in drawings.						
15.1		The top slab shall be 150mm thick with RCC (1:2:4) including nominal reinforcement and 2 nos. heavy duty 560 dia SFRC manhole covers with frames as per IS:12592 (weight not less than 182 kg) shall be provided in the top slab. PVC encased 12mm dia steel bar Footrests shall be provided 300 centre to centre. The above shall be provided all as specified and shown on drawings. 300mm dia RCC pipe for inlet and overflow as shown on drawings shall be measured separately.	1	Nos.		572362.00		572362.00
		Total Carried to Summary					**1000157.43**	**838128.00**

PROJECT :- TSECL- TRIPURA SUPER ECBC

ITEMS - PLUMBING

Item no.	DSR 2023	Description of Item	Qty	Unit	DSR Rate (Rs.)	Market Rate (Rs.)	DSR Amount (Rs.)	Market Amount (Rs.)
		SUB HEAD - V - EXTERNAL WATER SUPPLY						
1	2.10	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :						
		All kinds of soil						
1.1	2.10.1.1	Pipes, cables etc, not exceeding 80 mm dia.	145	Metre	215.60		31262.00	
1.2	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	100	Metre	352.15		35215.00	
2	**18.72**	Providing and laying S&S Centrifugally Cast (Spun)/Ductile Iron pipes confirming to is:8329:						
2.1	18.72.15	100 mm dia Ductile Iron Class K-9 pipes	100	Metre	1344.60		134460.00	

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3	**18.70**	Providing push-on-joints to Centrifugally (Spun) Cast Iron pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket						
3.1	18.70.1	100 mm dia pipes	33	joint	119.45		3981.67	
4	18.12	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.						
4.1	18.12.8	80 mm dia nominal bore	10	Metre	1041.70		10417.00	
4.2	MR	100 mm dia nominal bore	10	Metre		2134.00		21340.00
5	18.4	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :						
5.1	18.40.8	80 mm diameter pipe	10	Metre	44.00		440.00	
5.2	MR	100 mm diameter pipe	10	Metre		153.00		1530.00
6	**MR**	Providing, fixing, joints and testing in position the following UPVC Pipe confirming to IS:4985 of 6kg sqcm for garden irrigation system cut to required length pipe to be laid below level in trenches up to required depth, including excavation in all kind of soil (hard rock) dewatering, refilling, watering, ramming and removing the surplus excavated material and putting 100 m sand all-round and making good the same.						
6.1		32 mm OD	25	Metre		113.00		2825.00
6.2		40 mm OD	50	Metre		115.00		5750.00
6.3		90 mm OD	70	Metre		794.00		55580.00
7	**MR**	Providing & fixing in position 25 mm dia lawn hydrants consisting of 25 mm dia Ball valve, GI nipple and threaded hose receiver complete as required.	6	Each		989.00		5934.00
8	**18.31**	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) :						
	18.31.1	100 mm nominal bore	3	Each	4985.85		14957.55	
	18.31.1.2	Class-II						
9	**18.33**	Constructing masonry Chamber 60 x 60 x 75 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement : 4 fine sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and180 mm deep (inside) with chain lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement :3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design.						
9.1	18.33.1	With F.P.S. bricks	3	Each	10862.40		32587.20	
10	**18.32**	Constructing masonry Chamber 30 x 30 x 55 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement : 4 fine sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and180 mm deep (inside) with chain lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement :3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design.						
10.1	18.32.1	With F.P.S. bricks	6	Each	1992.60		11955.60	

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11	**18.41**	Providing and filling sand of grading zone V or coarser grade all-round the G.I. pipes in external work.						
11.1	**18.41.8**	80 mm dia	10	Metre	281.80		2818.00	
11.2	**18.41.9**	100 mm dia	10	Metre	298.50		2985.00	
12	**18.59**	Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc. if required will be paid separately)						
12.1	18.59.3	100 mm dia	2	Each	8893.00		17786.00	
13	**18.6**	Providing and fixing enclosed type water meter (bulk type) conforming to IS : 2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc. (The tall pieces if required will be paid separately)						
13.1	18.60.2	100 mm dia nominal bore	1	Each	5468.35		5468.35	
		Total Carried to Summary					**304333.37**	**92959.00**
		SUB HEAD - VI - Bulk Services						
1	MR	Designing ,installation, commisioning 10 KLD WTP, Including all require piping ,valves ,pumps and equipments complete in all respect	1	Job		800714.00		800714.00
		Total Carried to Summary						**800714.00**

FIRE FIGHTING AND PLUMBING WORKS COST SUMMARY			
S.No.	**Description**	**DSR-Amount**	**NSR-Amount**
I	FIRE FIGHTING SYSTEM.	2099883.90	3843522.00
	TOTAL AMOUNT	**2099883.90**	**3843522.00**

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BILL OF QUANTITIES FOR FIRE FIGHTING WORKS							
SI. No.	**CPWD DSR-2022/ NSR**	**Description**	**Total Qty.**	**Unit**	**Rate**	**Amount**	
						DSR	**Non DSR**
FIRE FIGHTING WORKS							
1		**Sub Head-I Fire Fighting System**					
1.1	DSR Fire-18.1	Supplying, installation, testing and commissioning of Electric driven Main Fire Pump suitable for automatic operation and consisting of following, complete in all respects, as required :					
		Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.					

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		Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.					
		M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.					
		Suitable cement concrete foundation duly plastered with anti vibration pads.					
1.1.1	18.1.5	1620 LPM at 70 m Head	1	Set	369064	369064.00	0.00
1.2	DSR Fire-18.2	Supplying, installation, testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Diesel Driven Pump)					
		Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.					
		Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.					
		M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.					
		Suitable cement concrete foundation duly plastered with anti vibration pads.					
1.2.1	18.2.4	1620 LPM at 70 m Head	1	Set	635909	635909.00	0.00
1.3	DSR Fire-18.3	Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Jockey Pump)					
		Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520.					

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		Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.					
		M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.					
		Suitable cement concrete foundation duly plastered with anti vibration pads.					
1.3.1	18.3.2	180 LPM at 70 m Head	1	Set	103304	103304.00	0.00
1.4	DSR Fire-18.5	Fabrication, supply, Installation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, interconnection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump & diesel pump set complete as per CPWD specification with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply with enclosure protection class IP 42 as required :					
	18.5.2	Incomings					
		400A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-400 A) with selector switch & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500Amps					
		Outgoings					
		(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)					
		Main Fire Pumps					

PROJECT :- TSECL- TRIPURA SUPER ECBC							
BILL OF QUANTITIES FOR FIRE FIGHTING WORKS							
SI. No.	**CPWD DSR-2022/ NSR**	**Description**	**Total Qty.**	**Unit**	**Rate**	**Amount**	
						DSR	**Non DSR**

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		200 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.					
		Jockey Pump					
		100 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.					
		Diesel Engine Control					
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter					
		All standard relays and accessories for automatic operation of diesel engine System Controller					
1.4.1		Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	1	Set	287855	287855.00	0.00
1.5	2.10	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m					
	2.10.1	All kinds of soil					
1.5.1	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	10	Metre	352.15	3521.50	0.00

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1.6	DSR Fire-18.8	Providing, laying, testing & commissioning of 'c' class heavy duty G.I. pipe conforming to IS 1239 including welding, fittings like elbows, tees, flanges, tapers, nuts, bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required:					
		All hangers, clamps, brackets etc. shall be of galvanized iron unless specified other wire and then supply of the same shall also be included for rates under this head. Including two coats of synthetic enamel paint of approved shade over a coat of primer. Prior to application of primer the surface should be cleaned for any dirt, rusts, rough substance etc. Including painting of legends both direction arrow as per the approval of the Engineer in charge.					
1.6.6	18.8.6	80 mm dia	8	Metre	1335.00	10680.00	0.00
1.6.7	18.8.7	100 mm dia	75	Metre	1718.00	128850.00	0.00
	DSR Fire-18.7	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required :					
		All hangers, clamps, brackets etc. shall be of galvanized iron unless specified other wire and then supply of the same shall also be included for rates under this head. Including two coats of synthetic enamel paint of approved shade over a coat of primer. Prior to application of primer the surface should be cleaned for any dirt, rusts, rough substance etc. Including painting of legends both direction arrow as per the approval of the Engineer in charge.					
1.6.9	18.7.9	200 mm dia (wall thickness 6.3 mm)	8.00	Metre	5463.00	43704.00	0.00
1.6.10	18.7.10	250 mm dia (wall thickness 6.3 mm)	8.00	Metre	6659.00	53272.00	0.00
1.7	DSR Fire-8	Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to IS 1239 including welding, fittings like elbows, tees, flanges, tapers, nuts, bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required					

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		shade complete as required :					
	18.8.6	80 mm dia.	20	Metre	1335	26700	0
1.8	DSR Fire-18.9	Supplying and fixing single headed internal hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required :					

PROJECT :- TSECL- TRIPURA SUPER ECBC							
BILL OF QUANTITIES FOR FIRE FIGHTING WORKS							
Sl. No.	**CPWD DSR-2022/NSR**	**Description**	**Total Qty.**	**Unit**	**Rate**	**Amount**	
						DSR	**Non DSR**
1.8.1	18.9.2	Single headed Stainless steel	6	Each	6139	36834	0
1.9	DSR Fire-18.11	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required :					
1.9.1	18.11.2	50 mm dia	0	Each	3784.00	0.00	0.00
1.9.2	18.11.4	80 mm dia	2	Each	4982.00	9964.00	0.00
1.9.3	18.11.5	100 mm dia	4	Each	6667.00	26668.00	0.00
1.9.4	18.11.6	150 mm dia	4	Each	8960.00	35840.00	0.00
1.1	DSR Fire-18.13	Supplying and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm2 complete as required.	6	Each	1321.00	7926.00	0.00
1.11	DSR Fire-18.14	Providing, installation, testing and commissioning of non return valve of following sizes confirming to IS:5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required :					

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1.11.1	18.14.2	50 mm dia	1	Each	5790.00	5790.00	0.00
1.11.2	18.14.4	80 mm dia	1	Each	7691.00	7691.00	0.00
1.11.3	18.14.5	100 mm dia	1	Each	11050.00	11050.00	0.00
1.11.4	18.14.7	150 mm dia	2	Each	17786.00	35572.00	0.00
1.12	DSR Fire-18.15	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.					
1.12.1	18.15.3	150 mm dia	2	Each	11144.00	22288.00	0.00
1.13	DSR Fire-18.16	Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type A) as required					
1.13.1	18.16.2	Stainless Steel (Grade 304)	12	Each	4448	53376	0
1.14	DSR Fire-18.17	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required.					
		20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585					
		20 mm nominal internal dia gun metal globe valve & nozzle.					
		Drum and brackets for fixing the equipments on wall.					
		Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket.					
1.14.1	18.17.2	40 m	6	Each	12073	72438	0
1.15	DSR Fire-18.18	Supplying & fixing 63 mm dia gun metal short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required :					
	18.8.2	Stainless Steel (Grade 304)	6	Each	1662	9972	0
1.16	DSR Fire-18.19	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as					

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		required :					
1.16.1	18.19.2	4 way - 150 mm dia M.S. Pipe	1	Each	13974.00	13974.00	0.00
1.17	DSR Fire-18.20	Supplying and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	2	Each	18244.00	36488.00	0.00
1.18	DSR Fire-18.22	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required.	4	Each	1546.00	6184.00	0.00
1.19	NS-1	Providing & fixing GM fire brigade suction hose coupling (draw-out connection) with nut for female coupling as per IS standards complete with 100 mm dia GI suction pipe and 100 mm dia foot valve (to be connected to static tank). Provision of GI drop pipe and foot valve shall be made in all the fire water static storage tanks (2 No) (GI pipe to be paid separately through appropriate item while cost of foot valve to be included).	1	Each	37596.00	0.00	37596.00
1.20	NS-2	Providing and fixing **forged brass ball valve** suitable for test pressure of not less than 15 kg / sq.cm of the following size : **Cost shall be inclusive of providing necessary union / flange connection).**	2	Each	1820.00	0.00	3640.00
1.21	DSR E & M-16.8	Providing and fixing in position the industrial type pressure gauges with gun metal / brass valves complete as required	6	Each	1196	7176.00	0.00
1.22	NS-3	Providing and fixing of Weather proof hose cabinets fabricated from 16 g G.I. Sheet with full glass door and mortise locking arrangement , suitable to accommodate one Hydrant landing valve, 2 nos. 15 M long hose and 1 No branch pipe. The cabinet shall be painted with one coat of primer and finished stove enamelled "Fire Red", "Fire Hose" written on front including suitably mounted on a raised masonry platform as required. (Approx. 0.75mx0.6 m x 0.25 m).	2	Each	12020.00	0.00	24040.00

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BILL OF QUANTITIES FOR FIRE FIGHTING WORKS							
Sl. No.	CPWD DSR-2022/NSR	Description	Total Qty.	Unit	Rate	Amount	
						DSR	Non DSR
1.23	NS-4	Providing and fixing MS partly glazed single/double hung lockable shutter fabricated from MS section as required with 5 mm thick glass for fire station complete including stove enamelled painting of door and frame and words "Fire Hydrant" written on glass, suitable to accommodate 2 Hydrant landing valves, 1 fire hose reel, 2 nos.15m long 63 mm dia hose,1-branch pipe, 1no. fire man's axe, fire extinguishers 2 nos, including suitably mounted on a raised masonry platform as required. (Approx. Size 0.90 m x 2.1m)	6	Each	17579.00	0.00	105474.00
1.24		Providing and fixing resilient rubber neoprene lined single arch vibration eliminators suitable for raw water upto 45^0C temperature working pressure 12 kg and test pressure 20 kg/cm^2.					
1.24.1	NS-5	80 mm dia	4	Each	10942.00	0.00	43768.00
1.24.2	NS-6	100 mm dia	2	Each	12589.00	0.00	25178.00
1.24.3	NS-7	150 mm dia	4	Each	14760.00	0.00	59040.00
1.25		Supplying & laying of following 1100 volt grade XLPE insulated PVC sheathed copper conductor armoured cables as per specification in existing trenches, cable trays, ducts, clamped to wall with suitable clamps including providing and fixing of all fixing accessories, connecting, testing and commissioning.					
1.25.1	NS-8	Power cable 3.5 core 150 sq mm aluminium conductor armoured cable	30	Metre	2382.00	0.00	71460.00
1.25.2	NS-9	Power cable 3 core 16 sq mm aluminium conductor armoured cable.	40	Metre	391.00	0.00	15640.00
1.25.3	NS-10	Control cable copper 2 core	10	Metre	147.00	0.00	1470.00

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		1.5 sq.mm					
1.26	NS-11	Providing & fixing 150 mm diameter MS Class 'C' suitable as per manufacture of diesel engine exhaust pipe (including all fittings, clamps, steel support) of suitable dia for the diesel engine. The pipe shall be provided with 12 mm thick supercera ceramic fibre rope.	30	Metre	3283.00	0.00	98490.00
1.27	NS-12	Providing, fixing, testing and commissioning of precharged air vessel (size 450 mm dia & 2000 mm height) for pressurization of hydrant system complete with adequate pressure switches (as per design/requirement) with valves to operate as per operating sequences including 25 mm dia drain valve, air release valve with stop cock on the top, 100 mm dia inlet with isolating valve duly painted from inside and outside complete as required.	1	Each	88534.00	0.00	88534.00
						9,02,05,106.20	2,75,49,987.08
							11,77,55,093.28

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