

VOLUME - IA

Technical Conditions of Contract (TCC) for “Construction of office cabin for the project "Upgradation of SRGM repair facilities at Naval Dockyard (Mumbai) to cater for repair-cum-test facilities for upgraded SRGMs ”

For

Government of the Republic of India, Ministry of Defense

BHARAT HEAVY ELECTRICALS LIMITED

Technical Conditions of Contract (TCC) for construction of office cabin

 Maharashtra Company	Technical Conditions of Contract (TCC) HEAVEY POWER EQUIPMENT PLANT(HPEP) HYDERABAD			Ref No: HY/HPEP/Projects/TCC/2025-26/ND Mum-Office cabin/01
				Rev. No. 00
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company.	TECHNICAL CONDITIONS OF CONTRACT (TCC) FOR “Construction of office cabin for the project "Upgradation of SRGM repair facilities at Naval Dockyard (Mumbai) to cater for repair-cum-test facilities for upgraded SRGMs ”			
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TCC No: HY/HPEP/SC-PROJECTS/2025-26/TCC/ND Mumbai/ Office cabin/01, Rev.00
Bharat Heavy Electrical Limited, HPEP, RC Puram, Hyd-32.

Technical Conditions of Contract (TCC) for construction of office cabin

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**Volume IA
Part I
Contract specific details**

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Chapter I- Project Information

1.0 Project Details			
1	Customer	:	Government of the Republic of India, Ministry of Defense, Navy
2	Project Information	:	Upgradation of SRGM repair facilities at Naval Dock yard Mumbai to cater for repair cum test facility for Upgraded SRGMs
3	Location	:	Naval Dock yard, Mumbai
4	Address Detail	:	Naval dockyard, Mumbai, Muster Gate, Fort, Mumbai, Maharashtra-400001
5	Nearest Railway Station	:	Churchgate, 1.5 KM approximately
7	Nearest Air Port	:	CSM International Airport, Mumbai approximately 25 km
11	Ambient Air Temperature (Average)	:	a) Maximum : 39 ⁰ C b) Minimum : 16 ⁰ C
12	Average Relative Humidity	:	71 %
13	Climatic Condition	:	Tropical Climate

Bidder is advised to visit the project site and appraise himself about the local conditions and infrastructure available in the area for fulfilling their commitments under the contract. BHEL will not admit any claims whatsoever on account of Contractor's non-familiarization of local conditions.

Chapter II- Scope of Work

- 1) Contractor shall execute Civil and Electrical works complete in all respects for Construction of Office Cabins.
- 2) Supply, fabrication, assembly & installation of all associated materials & electrical items for the construction of Office Cabins
- 3) Installation of Illumination system and misc. items for all office cabins
- 4) Any incidental work required for completion shall be deemed included
- 5) The work has to be executed as per the approved drawings & bill of quantities for various items of the work as per the direction & instruction of engineer-in-charge.
- 6) Dismantling, utilization of usable items of existing office & Disposal: Removal and disposal of debris to approved dumping yard.

Detailed scope of works is provided in Part-II “Technical Specification” of TCC

All the construction materials, tools & tackles are in the scope of the contractor

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Chapter III- Facilities in the scope of BHEL/Contractor

S. No.	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.1	ESTABLISHMENT			
3.1.1	FOR CONSTRUCTION PURPOSE:			
a	Open space for office (as per availability)	Yes		
b	Open space for storage (as per availability)	Yes		
c	Construction of bidder's office, canteen and storage building including supply of materials and other services		Yes	
d	Bidder's all office equipment, office / store / canteen consumables		Yes	
e	Canteen facilities for the bidder's staff, supervisors and engineers etc.		Yes	
f	Firefighting equipment like buckets, extinguishers etc.		Yes	
g	Fencing of storage area, office, canteen etc. of the bidder		Yes	
3.1.2	FOR LIVING PURPOSES OF THE BIDDER			
a	Open space for labor colony (as per availability)		Yes	
b	Labor Colony with internal roads, sanitation, complying with statutory requirements		Yes	
3.2.0	ELECTRICITY			
3.2.1	Electricity For construction purposes		Yes	Electricity shall be provided by BHEL/ND Mumbai at one point free of cost. Further distribution shall be done by contractor at its own cost.
3.2.2	Electricity for the office, stores, canteen etc. of the bidder		Yes	

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S. No.	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.2.3	Electricity for living accommodation of the bidder's staff, engineers, supervisors etc.		Yes	
3.3.0	WATER SUPPLY			
3.3.1	For construction purposes		Yes	Water shall be provided by ND Mumbai at one point free of cost. Further distribution shall be done by contractor at its own cost.
3.3.2	<u>Water supply for bidder's office, stores, canteen etc.</u>		Yes	
3.3.3	<u>Water supply for Living Purpose</u>		Yes	
3.4.0	LIGHTING			
a	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
b	For construction work (execution of the lighting work/ arrangements) 1. At office/storage area 2. At the preassembly area At the construction site /area		Yes	
c	Providing the necessary consumables like bulbs, switches, etc. during the course of project work		Yes	
d	Lighting for the living purposes of the bidder at the colony / quarters		Yes	
3.5.0	COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER			
a	Téléphone, fax, internet, intranet, e-mail etc.		Yes	
3.6.0	COMPRESSED AIR wherever required for the work		Yes	
3.7.0	Demobilization of all the above facilities		Yes	
3.8.0	TRANSPORTATION			

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S. No.	Description PART I	Scope / to be taken care by		Remarks
		BHEL	Bidder	
a	For site personnel of the bidder		Yes	
b	For bidder's equipment and consumables (T&P, Consumables etc.)		Yes	

Sl. No	Description PART II 3.9.0 CONSTRUCTION FACILITIES	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.9.1	Engineering works for construction:			
a	Providing the construction drawings for all the works covered under this scope		Yes	In consultation with BHEL
b	Drawings for construction methods			NA
c	As-built drawings – where ever deviations observed and executed and also based on the decisions taken at site- example – routing of small bore pipes		Yes	In consultation with BHEL
d	Shipping lists etc. for reference and planning the activities		Yes	In consultation with BHEL
e	Preparation of construction (Concreting B/W, etc.) schedules and other input requirements		Yes	In consultation with BHEL
f	Review of performance and revision of site construction schedules in order to achieve the end dates and other commitments	Yes	Yes	In consultation with BHEL
g	Weekly construction schedules based on S. No. e. hard copy to Construction manager, by email to HO.		Yes	In consultation with BHEL

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Sl. No	Description PART II 3.9.0 CONSTRUCTION FACILITIES	Scope / to be taken care by		Remarks
		BHEL	Bidder	
h	Daily construction / work plan based on S. No. g. hard copy to Construction manager, by email to HO.		Yes	In consultation with BHEL
i	Periodic visit of senior official of the bidder to site to review the progress so that works are completed as per schedule. It is suggested this review by the senior official of the bidder should be done once in every two Weeks.		Yes	
j	Arranging the materials required for Work		Yes	
k	Coordination for inspection & checking and getting clearance from customer		Yes	
l	Preparation of formats for completion of activities		Yes	
3.10	Work Permits, gate pass etc. from customer for manpower, machinery and material		Yes	
3.11	Ambulance Services for contractor's site staff as required		Yes	

Chapter IV- Tools & plants to be deployed by Contractor

LIST OF TOOLS AND PLANT:

The contractor shall arrange and deploy all necessary tools, plants, machinery, and equipment required for the efficient execution of the construction of the office cabin. This shall include, but not be limited to, all construction equipment, handling tools, measuring instruments, scaffolding, and safety gear.

All consumables required for execution of the work, such as fasteners, welding rods, cutting tools, sealants, tapes, megger, electrical testing equipment and other incidental materials, shall be provided by the contractor at no additional cost.

The contractor shall ensure that all such tools, equipment, and consumables are mobilized at site in a timely manner to avoid any delay in commencement and progress of the work.

BHEL will not provide any tool, plants, facilities or any testing facility/apparatus for the work. It will be contractor's responsibility to arrange all required tools, plants and other testing apparatus, etc. at their own cost. The prices quoted & finalized are inclusive of the charges towards providing such T&P. No extra payment will be entertained because of this.

However, subject to availability, BHEL may provide few T&P to the contractor for expediting and in larger interest of the project. In case any such facility is provided to the contractor, BHEL will make necessary recovery in the running account/final bills towards the hire charges. A departmental charge @ 5% will also be affected such cases. The decision of BHEL on the hire charges will be final and binding on contractor.

Chapter V- Time Schedule

5.1 TIME SCHEDULE

5.1.1

The entire work as detailed elsewhere in the Tender Specification shall be completed within **One (01) Months** from the date of commencement of work at site.

5.1.2

During the total period of contract, the contractor has to carry out the activities in a phased manner as required by BHEL and the program of milestone events.

5.1.3

The work shall be commenced on the mutually agreed date between the bidder and BHEL engineer. The decision of BHEL in this regard shall be final and binding on the contractor. The scope of work under this contract is deemed to be completed only when so certified by the site Engineer.

5.2 COMMENCEMENT OF CONTRACT PERIOD

The date of commencement of contract period shall be the mutually agreed date between the bidder and BHEL engineer to start the work. In case of discrepancy, the decision of BHEL engineer will be final.

5.3 MOBILISATION

5.3.1

The activities shall be started as per directions of Construction manager of BHEL.

5.3.2

The contractor should mobilize manpower in order to complete the work in **one (01) Month**.

5.3.3

Requisite Material, men and machinery should be arranged in order to complete the project within stipulated time.

5.3.4

The contractor has to augment his resources in such a manner that following major milestones of the project are achieved on specified schedules:

In order to meet above schedule in general, and any other intermediate targets set, to meet project, contractor shall arrange & augment all necessary resources from time to time on the instructions of BHEL.

5.4 TENTATIVE SCHEDULE

S. No.	Milestone	Timeline in Days
1.	Date of issuance of work order	D
2.	Degutting of existing offices	D+5

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3.	Supply, Fabrication, Assembly & erection & commissioning of office Cabins as per SOQ	D+28
4.	Removal and disposal of debris	D+30

5.5 CONTRACT PERIOD

For the purpose of contract, the period shall be **One (01) Month**. Completion of the work shall be as per BHEL Bar Charts revised from time to time. In order to expedite the work, the contractor has to deploy manpower as per site requirement without any extra cost to BHEL.

5.6 GUARANTEE PERIOD

The guarantee period of twelve months shall commence from the date of completion of all works as certified by the BHEL site engineer.

5.7 PROTECTION OF WORK

The contractor shall have total responsibility for protecting his works until it is taken over by the Employer. No claim will be entertained by the Employer or the representative of the Employer for any damage or loss to the Contractor's works and the Contractor shall be responsible for complete restoration of the damaged works to original conditions to comply with the specification and drawings. Should any such damage to the Contractor's Works occur because of other party not being under his supervision or control, the Contractor shall make his claim directly with the party concerned.

If disagreement, conflict, or dispute develops between the Contractor and the other party or parties concerned regarding the responsibility for damage to the Contractor's Works the same shall be rectified. The Contractor shall not cause any delay in the repair of such damaged Works because of any delay in the resolution of such disputes. The Contractor shall proceed to repair the Work immediately and no cause thereof will be assigned pending resolution of such disputes.

Chapter VI- Statutory Regulation

6.1 GST: For All types of works excepting works covered under sl no 6.2

6.2 BUILDING & OTHER CONSTRUCTION WORKERS (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICE) ACT, 1996 (BOCW Act) AND RULES OF 1998 READ WITH BUILDING & OTHER CONSTRUCTION WORKERS CESS Act, 1996 & CESS RULES, 1998 and

INTER-STATE MIGRANT WORKMEN ACT, 1979 (IN CASE BIDDER ENGAGE MANPOWER FROM OTHER STATE)

In case any portion of work involves execution through building or construction workers and/or inter-state migrant workers, then compliance to the above titled Acts as applicable shall be ensured by the contractor and contractor shall obtain license and deposit the cess under the Act. In the circumstances, it may be ensured as under:-

It shall be the sole responsibility of the contractor in the capacity of employer to forthwith (within a period of 15 days from the award of work) apply for a license to the Competent Authority under the BOCW Act and/or ISMW Act as applicable and obtain proper certificate thereof by specifying the scope of its work. It shall also be responsibility of the contractor to furnish a copy of such certificate of license / permission to BHEL within a period of one month from the date of award of contract.

It shall be the sole responsibility of the contractor as employer to ensure compliance of all the statutory obligations under these acts and rules including that of payment / deposit of cess as per the applicability under above referred Acts within a period of one month from the receipt of payment.

It shall be the responsibility of the sub-contractor to furnish the receipts / challans towards deposit of the cess together with the number, name and other details of beneficiaries (building/Inter-state Migrant workmen) engaged by the sub-contractor during the preceding month.

It shall be the absolute responsibility of the sub-contractor to make payment of all statutory payments & compensations to its workers including that is provided under the Workmen's Compensation Act, 1923.

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Chapter VII- Field quality control plan

1. Work shall be executed as per approved field quality control plan (FQCP). Submitted FQCP shall be reviewed and approved by BHEL/Naval Dockyard Mumbai as applicable.

Chapter VIII- General

1.0 GENERAL

1.1 All the work shall be carried out as per the instructions of BHEL engineer. BHEL engineer's decision regarding the correctness of the work and method of working shall be final and binding on the Bidder.

1.2 The Bidder shall at his cost perform any services, tests etc, although not specified but nevertheless required for the completion of work.

1.3 If any portion of the work is found to be defective in workmanship or not conforming to BHEL requirements, the Contractor shall re-do the work at his cost failing which the work will be got done by BHEL at the cost and risk of the contractor. 1.3 The terminal points as decided by BHEL shall be final and binding on the Contractor.

1.4 All tools and tackles, fixtures, equipment, materials, manpower, supervisors/ engineers, consumables etc. required for this scope of work shall be provided by the Contractor. All expenditure including taxes and incidentals in this connection will have to be borne by him unless otherwise specified in the relevant clause.

1.5 The contractor shall make adequate security arrangements including employment of security personnel and ensure protection from theft, fire, pilferage, damage and loss of materials/equipment kept under bidder custody.

1.6 All equipment shall be handled very carefully to prevent any damage or loss. No bare wire ropes, slings etc, shall be used for handling of the equipment without the specific permission of the engineer.

1.7 Contractor shall ensure proper housekeeping and remove all scrap materials periodically from various work area covered in the scope and deposit the same at the place earmarked for this purpose. In case of contractor's failure to do the same, BHEL reserves the right to remove scrap at contractor's cost and risk.

1.8 Access to site for inspection by BHEL and customer engineers shall be made available by the contractor at all times.

1.9 Contractor shall mobilize sufficient quantity of sleepers for stacking of materials in his custody.

1.10 Site Inspection: The owner/employer / BHEL or his authorized agents may inspect various stages of work during the period of contract awarded to him. The contractor shall make necessary arrangements for such inspection and carryout the rectification pointed out by the owner/employer without any extra cost. No cost whatsoever for such duplication of inspection/work will be entertained.

1.11 Filed Quality Assurance Formats: It is the responsibility of the contractor to collect and fill up relevant FQA Log sheets and present the same to BHEL after carrying out the necessary checks as per

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the log sheets and obtaining the signature of BHEL/Customer in token of their acceptance. Monthly Running Bill Payment to the contractor will be linked with the submission of these log sheets.

1.12 The contractor agrees to indemnify the company against all claims and losses arising as a liability under the Payment of Wages Act, Employees Provident Fund & Miscellaneous Provisions Act, Industrial Disputes Act, Employees State Insurance Act, Contract Labour (Regulation and Abolition) Act, Workmen's Compensation Act, Arbitration Act, Minimum Wages Act, Inter State Migration Act, etc. or criminal law in force so far as they relate to security personnel employed by the contractor for the company.

1.13 Income Tax or any other statutory dues liable to be paid by the contractor shall be recovered from the bills of the contractor for which TDS certificate will be issued by BHEL.

1.14 With regard to the interpretation of the terms and conditions of this contract, the decision of the Head of the Region/BHEL HPEP shall be final.

1.15 Any dispute arising out of this contract shall be within the jurisdiction of the Court of Hyderabad only.

1.16 Any addition/ deletion on the scope of work and terms and conditions under this contract shall be implemented based on mutual discussions between the "company" and the "contractor".

1.17 Letter of Award No ----- issued by BHEL/HPEP, Hyderabad (including the enclosures) shall form the integral part of this agreement.

1.18 Contractor shall provide FIRST AID / emergency medical facilities and maintain these facilities throughout the contract period & extension period (if any) as scope of work.

For any items or class of work not specified herein but required for total completion of work, the same shall be carried out as per BHEL requirement. However, payment of these items/class of work shall be regulated on the basis of rate arrived by the following method:

1) Based on unit rate of items in the rate schedule.

2) Wherever any item rate for similar type of work or nearby item rate does not exist in the rate schedule, rate will be worked out on the basis of work element or from fundamentals of estimation

1.19 Work shall be executed as per approved drawings, specifications, and directions of Engineer-in-Charge

1.20 Contractor shall execute Civil and Electrical works complete in all respects, any incidental work required for completion shall be deemed included.

Chapter IX- Manpower Requirement

1 MANPOWER REQUIREMENT FOR EXECUTION SHALL AS FOLLOWS:

1.1 The Site in charge of contractor shall be provided good communication facilities. Lack of communication facilities shall not be an excuse for extension of completion date.

1.2 All instructions from BHEL/Customer shall be directed to the contractor through the Site in-charge and he shall be responsible for all the contractor's activities at site. The contractor shall name his authorized representative prior to or immediately on commencement of operations at site

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1.3 The Site In charge shall be present at site during all normal working hours and his contact address after normal working hours shall be made available to BHEL so that if any emergency arises, the presence of the contractor's site Representative at site can be called for.

1.4 The contractor shall not change the site Representative without the consent of BHEL. Should BHEL require the replacement of the contractor's site Representative for justifiable reasons (including inadequate progress of work) the contractor shall ensure that replacement is made as soon as possible and work is not allowed to suffer delay on this account.

1.5 The contractor shall provide to the satisfaction of BHEL sufficient and qualified staff for the execution of works. If and whenever any of the contractor's staff is found guilty of any misconduct or be incompetent or insufficiently qualified in the performance of his duties the contractor shall remove them from site as directed by Site Engineer.

1.6 The contractor shall ensure that all his supervisor's staff and workmen conduct themselves in a proper manner. They shall all be persons who are familiar with and skilled at the jobs allocated to them. Any misconduct / inefficiency noted on the part of the contractor's personnel shall be brought to the attention of the contractor's site representative who shall immediately take such action as necessary including the removal of such misconducting / inefficient persons, if so required by the Engineer-in-Charge.

1.7 The contractor shall ensure that replacement for such persons removed from site is provided immediately and the work is not allowed to suffer delay on that account

Chapter X- Documentation

1 DOCUMENTATION

1.1 The following information shall be furnished within two days of award of contract for purchaser's approval if required a) Mobilization Plan b) Detailed organization chart c) Details of T&P available with contractors with document proofs.

1.2 The following information shall be furnished after testing and inspection: d) Revalidation of Test certificates of various T&P's, if certificates are found to be invalid or any discrepancies/abnormalities observed in T&P's during execution

Chapter XI- Termination

TERMINATION: Notwithstanding anything contained herein the contract may be terminated with due notice of one month on either side.

WITNESS (with full address)

- 1.
- 2.

Signature of the Contractor (To be signed by a person holding valid Power of Attorney of the Company)

WITNESS

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- 1.
- 2.

For and on behalf of BHARAT HEAVY ELECTRICALS LIMITED

Chapter XII: Obligations of the Contractors

1.1 The contractor shall fully comply with the following enactments:

- (a) Contract Labour (R & A) Act, 1970 and rules formed therein under Central Rules.
- (b) Minimum Wages Act 1948 (Wage Rates not less than that notified by State Labour Department / Central Labour Dept., / BHEL whichever is higher from time to time).
- (c) Payment of Wages Act.
- (d) ESI Act, 1948 (
- e) EPF Act, 1952
- (f) Employees' Compensation Act, 1923.
- (g) Provisions of Factories Act 1948 & Rules thereof
- (h) The inter-state migrant workmen (regulation of employment and conditions of service) Act, 1979
- (i) Payment of Bonus Act, 1965
- (j) Payment of Gratuity Act, 1972

1.2 The contractor shall obtain License from the Assistant Labour Commissioner (Central), or appropriate government if he engages twenty or more workmen.

1.3 The Contractor shall produce the following Registers and forms before commencement of work, for verification by the Executing Officer.

- (a) Form XII - Register of contractors
- (b) Form XIII - Register of workmen employed by contractor (Rule 75)
- (c) Form XIV - Employment card issued by contractor (Rule 76)
- (d) Form XVI - Muster Roll (Rule 78(1)(a)(i))
- (e) Form XVII - Register of wages (Rule 78(1)(a)(i))
- (f) Form XVIII - Register of wages-cum Muster Roll (in case of weekly payment)
- (g) Form XIX - Wage Slip (Rule 78(b))
- (h) Form XX - Register of deduction for damages or loss (Rule 78(1)(a)(ii))
- (i) Form XXI - Register of files(Rule 78(1)(a)(ii))

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- (j) Form XXII - Register of advances(Rule 78(1)(a)(ii))
- (k) Form XXIII - Register of overtime(Rule 78(1)(a)(iii))
- (l) Form XXIV - Return to be sent by the contractor to licensing officer (Rule 82(1))

1.4 The contractor shall make himself or his representative (supervisor) available at the work spot every day during execution of work, for effective supervision.

1.5 The contractor shall attend to all inspections notified/conducted by the Human Resource department, Labour department, P.F. authorities, Inspector of Factories, ESI inspectors, or any other such authorities.

1.6 Non-compliance of any provisions under the act/rule/instructions/guidelines shall make the contractor liable for penal action including termination of contract.

1.7 Contractor shall furnish in a separate letter his place of residence and postal address. The delivery at the above-named place or posting in a Post Box regularly maintained by the Post and Telegraph Department or sending letters registered for acknowledgement of any notice, letter or other communication to the contractor shall be deemed sufficient service there upon he contractor. Change in address shall come into force at any time by an instrument executed by the contractor and delivered to the BHEL official who has signed the contract.

1.8 The contractor must satisfy himself by personal study thoroughly the scope of proposed work in detail and all conditions affecting the work before entering into the contract. There shall not be at any time, dispute/complaint of any nature regarding scope of work and interpretation of specifications or any misunderstanding with regard to nature or omission of the work to be done nor shall any application for compensation in terms of time and money shall be accepted by BHEL regarding the above.

1.9 Contractor shall in his absence keep competent agent constantly on the works and any directions or explanations given by the "Contract Executing Officer" or his representative to such agent shall be held to have been given to the contractor himself.

1.10 Contractor on the advice of BHEL officials shall immediately remove any person employed by him, who may in the opinion of the BHEL official, is incompetent or involves himself in misconduct. Such persons shall not be again employed on the works without written permission of the BHEL official.

1.11 The contractor shall give all notices required by the Acts, regulation, bye laws, Legal Acts and pay all fees in connection therewith unless and otherwise arranged and decided in writing with BHEL. He shall also ensure that no attachments are made against materials or work forming part of or for the use of the contractor. In all such cases, contractor shall protect and indemnify BHEL against any claim or liability arising from or based on the violation of any such laws, ordinances, regulations, orders, decrees or attachment either by himself or by his employees.

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1.12 It shall be contractor's sole responsibility to protect the public and his employees against accident from any cause and provide required safety equipment and shall indemnify BHEL against any claims for damages for injury to the person or property resulting from any such accidents and shall, where the provisions of the Employees Compensation Act and Public Liability Act as applicable, take steps to properly insure against any claims thereunder.

1.13 In the event of any accident in respect of which compensation may become payable under the Employees Compensation Act, VIII of 1923 whether by the contractor or by BHEL as Principal Employer, it shall be lawful for BHEL to retain out of monies due and payable to the contractor such sum or sums of money as may, in the opinion of BHEL shall be final in regard to all matter arising in this clause.

1.14 No work shall be done on Sundays or on other declared Holidays of BHEL without the written permission of BHEL officer in charge of the work. The contractor shall comply with the provisions of the Factories Act 1948 if the same are applicable. No contract labour shall be engaged on any National Holidays.

1.15 The contractor shall keep his work place clean and safe to avoid injuries to men and damage to finished products / equipment.

1.16 On the occurrence of an accident, which results in the death of any of the workmen employed by the contractor or which is so serious as to be likely to result in the death of any such workmen, the contractor shall within 24 hours of the happening of such an accident intimate in writing to the BHEL official in charge of the work.

1.17 The contractor shall indemnify BHEL against all losses or damages sustained by BHEL resulting directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties or dues if any and become payable by BHEL, as a consequence of failure, BHEL to give notice under the Employees Compensation Act 1923 or otherwise confirm to the provisions of the said Act in regard to such accident. 1.18 The contractor shall ensure adherence to all statutory requirements applicable to BHEL.

1.19 The contractor shall ensure abidance by all the labour laws especially including Contract labour (R&A) Act 1970, Payment of Wages Act 1936, Employees Compensation Act 1923, Minimum Wages Act 1948, ESI Act 1948, Payment of Bonus Act 1965, and Provident Fund Misc. Prov. Act 1952, as amended from time to time.

1.20 The contractor shall comply with provisions of Provident Fund Misc. Prov. Act 1952 through PF code allotted to him / her.

1.21 Notwithstanding the above clause, in case of any financial loss incurred by company on account of contravention of the Provident Fund regulations or any regulations of rule touching the same by the contractor, the contractor shall submit an undertaking to indemnify the company to the extent of the loss incurred by the company.

1.22 The contractor should engage only those laborers whose age is 18 (eighteen) years or more.

1.23 The contractor shall not resort to subcontracting under any circumstances without prior permission of BHEL. If found sub-contracting at a later date, BHEL reserves the right to take whatever action it deems fit, including cancellation of the Contract.

1.24 The contractor shall provide the required safety equipment to the labors engaged by him / her.

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1.25 Contractor shall issue "Employment Card" as per statute to all labour and supervisors covered under the job work contract.

1.26 The contractor shall be responsible to settle any grievances of the labour deployed by him / her within two weeks.

Chapter XIII: HSE (Health, Safety, Environment) and PPE (personal Protective Equipment) Guidelines

1. Contractor shall follow all the HSE guidelines as mentioned chapter IX off SCC and Naval dock yard Mumbai
2. Contractor shall deploy one (1) number of qualified and experienced safety officer for the entire period of contract if required.
3. Contractor shall submit the biodata of safety officer to BHEL/Customer (Naval dock yard), for approval.
4. In case of any dispute/ contradiction, Naval dockyard HSE rules and guidelines shall prevail.

**Volume IA
Part II
Technical Specification**

Chapter-I: SCOPE OF WORK

SCOPE OF WORK

1.0 Construction of four (4) office cabins, each having approximate dimensions of 5 m × 3 m × 2.5 m. The required space for construction shall be provided by ND Mumbai at C-57 shop floor.

1.1 Partition & Interior Works

Three sides of each cabin shall be constructed using 12 mm thick pre-laminated particle board (conforming to IS: 12823, Grade I, Type II) panels fixed in aluminum frame, The fourth side shall be supported by the existing wall.

1.2 Aluminium & Glazing Works:

Providing and fixing aluminum doors, windows, ventilators, and partitions, including glazing, complete as per architectural drawings and directions of the Engineer-in-Charge, with:

- EPDM rubber / neoprene gaskets
- Float glass panes of 4.0 mm thickness (minimum weight 10 kg/sqm)

1.3 Structural Steel Works

Providing and executing structural steel work in single sections, including:

- Cutting, hoisting, and fixing in position
- Fixing with connecting plates
- Application of one coat of approved steel primer
- Complete as per specifications

1.4 Roofing Works

1.5 Providing and fixing corrugated G.S. sheet roofing (0.63 mm thick) with zinc coating not less than 275 g/m² with false ceiling as specified in BOQ, including:

- Installation on horizontal, vertical, or curved surfaces (any pitch)
- Fixing with polymer-coated J or L hooks
- 8 mm diameter bolts and nuts
- Bitumen and G.I. limpet washers or washers filled with white lead
- One coat of approved steel primer

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- Two coats of approved paint on sheet overlaps
- False ceiling, Providing and installing false ceiling complete in all respects, including all labour, materials tools, equipment, transportation, handling, scaffolding, suspension systems, and all associated works at all levels, as per approved drawings, specifications, and instructions of the Engineer-in-Charge
- Complete in all respects

1.5 Electrical Works

Supply, installation, testing, and commissioning of complete electrical works for all four cabins, including:

- Power distribution system
- Internal wiring and conduiting
- Switchboard installation
- Lighting / illumination arrangements
- Proper earthing system

1.6 Dismantling & Reuse

1.7 The bidder shall carefully dismantle the existing office cabin available at the shop floor and reuse the materials to the maximum possible extent in the new construction.

1.7 Debris Disposal

1.8 Removal and disposal of dismantled materials and debris to an approved municipal dumping yard outside the dockyard, including:

- Obtaining all necessary approvals and permits
- Transportation and disposal
- All costs to be included in the quoted price

1.8 Execution & Supervision

The work shall be executed strictly in accordance with:

- Approved drawings

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- Bill of Quantities (BOQ)
- Instructions of the Engineer-in-Charge

In case of any dispute, the decision of the BHEL Site Engineer shall be final and binding on the contractor.

1.9 Statutory & Site Requirements

- The bidder shall be responsible for obtaining all gate passes, permits, and necessary clearances required for material delivery and execution at the project site.

1.10 Sub Vendor/Make List

Item	Vendor	Remark
LED Lamp fixtures for indoor		
	BAJAJ	
	CGL	
	Havells	
	Philips	
	Wipro	
Lighting panel	Havels India Limited	Equivalent other make also may be proposed by bidder and prior approval shall be obtained from purchaser before finalization of make.
	Indo Asian Fusegear	
	STANDARD ELECTRICALS LTD	
	C&S Electric Limited	
	ABB Limited	
Cable Lugs	Dowell, Mumbai	Equivalent other make also may be proposed by bidder and prior approval shall be obtained from purchaser before finalization of make.
	Electromac Industries	
	Chenta Engineering Co	
	Forward Engineering Industries	
MCB	Any make-Model shall have mark of CE/VDE/UL/CSA/BIS with CML no.	Equivalent other make also may be proposed by bidder and prior approval shall be obtained from purchaser before finalization of make.
Aluminium Sections	Hindalco or equivalent	Equivalent other make also may be proposed by bidder and prior approval shall be obtained from purchaser before finalization of make.
Prelaminated Particle Board	NOVOPAN or Equivalent	Equivalent other make also may be proposed by bidder and prior approval shall be obtained from purchaser before finalization of make.

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Glass	Saint Gobain, MODI or equivalent	Equivalent other make also may be proposed by bidder and prior approval shall be obtained from purchaser before finalization of make.
Axial flow Fans	Khaitan, Kolkata	Equivalent other make also may be proposed by bidder and prior approval shall be obtained from purchaser before finalization of make.
	Marathon Electric, Kolkata	
	CB-Doctor, Ahmedabad	
	Solyvent Flakt, Kolkata	
	Advance ventilation, Sonapat	
	Krugar, Singapore	
	TCH Nadi, Chennai	
	Almonard, Chennai	
Propeller Fan (Up to 2 HP)	Khaitan, Kolkata	Equivalent other make also may be proposed by bidder and prior approval shall be obtained from purchaser before finalization of make.
	Marathon Electric, Kolkata	
	CB-Doctor, Ahmedabad	
	Solyvent Flakt, Kolkata	

The bidder is required to Design, supply material, fabricate at site, installation & commissioning of **four no office cabin of size 5mx3mx2.5m (approximately)**. Bidder will submit the design for approval of BHEL.

1.11 Following are the tentative Quantity for the Supply & construction of office cabins:

Item No	Description of item	Unit	Qty
Part-A	Civil works office cabin (Providing & fixing)		
1.0	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq.meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge. With cement mortar 1:4 (1 cement : 4 fine sand)	Sqm	10.00
2.0	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm.	10.00
3.0	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	sqm	100.00
4.0	Distemping with 1st quality acrylic distemper (ready mixed) having VOC (Volatile Organic Compound) content less than 50 gram/ litre, of approved brand and manufacturer including applying additional coats wherever required to achieve even shade and colour Old work (one or more coats)	sqm.	100.00

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5.0	<p>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 the 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 drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately):</p>	0.00	0.00
5.1	<p>1) For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)</p>	kg	630.45
5.2	<p>2) For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)</p>	kg	88.00
6.0	<p>Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 4.0 mm thickness (weight not less than 10kg/sqm)</p>	sqm	48.00
7.0	<p>Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides</p>	Sqm	108
8.0	<p>Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete</p>	kgs.	2156.7

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9.0	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work	sqm.	2
10.0	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to 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. 0.63 mm thick with zinc coating not less than 275 gm/ m ²	sqm.	60
11.0	FALSE CEILING: False ceiling including all labour, material (unless otherwise specified in BOQ / contract specification), equipment, transportation, handling, suspension system etc at all level as per specification, drawings and as directed by engineer - in - charge Supplying light weigh mineral fiber tile false ceiling of minimum thickness 15 mm and exposed surface semi-perforated with depth of perforation as 4mm and humid resistance of 95% RH and fire performance of class 0/1 as per BS476 with metal suspension grid system with galvanized Tees of section 24X 38 mm for main runners of approved colour and make as per specification including 50mm thick mineral wool insulation (density 48 kg/cum) as per IS:8183 bound in polythene bags on top of panels. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures. A.C. ducts etc. suitable M.S. channel (minimum MC75@1.2m) grid shall also be provide dabove the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc. complete with cut-outs etc. The size of tiles shall be 600 X 600 mm or 600 X 1200 mm. (Required MS channel shall be measured & paid extra under respective item unit rate)	sqm	60
12.0	Providing and fixing aluminium tower 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 necessary screws etc. complete : 200x10 mm	Each	10
13.0	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete : 125 mm	Each	10

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14.0	Providing and fixing aluminium 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 : 250x16 mm	Each	10
15.0	Supplying, fabricating, erecting and installing following items in concrete/brickwall for all kind of works, including setting material in concrete, layout, scaffolding, cutting, forming, grinding, drilling, bolting, welding, jointing, testing etc. all complete. Expansion fasteners (mechanical galvanised) of HILTI make or equivalent of safe tensile capacity as specified below for concrete work with expansion sleeve of stainless steel:		
15.1	HST M16	Each	24
15.2	HST M20	Each	24
16.0	Dismantling Al/Gypsum partition, door window, fixed glazing, false ceiling including disposal of unserviceable material, stacking of serviceable material with 50mt lead and use as directed by Engineer	sqmtr	160
17.0	Disposal of building rubbish, malba, unserviceable, dismantled or waste material by mech means including loading transportation, unloading to approved municipal dumping ground or as approved by engineer beyond 50 meter initial lead for all lead including all lift involved	Cum	16
Part- B	Electrical works(Providing & fixing)		
1	Surface mounted modular switchboard with 6A socket (3PIN), 5 Nos. 6A switches	Nos	4
2	Surface mounted modular switchboard with 2Nos. 6A socket (3PIN), 2 Nos. 6A switches	Nos	16
3	Surface mounted modular switchboard with 16A socket (6PIN) with 16A switch	Nos	4
4	Surface mounted modular switchboard with 2 Nos. 6A switches	Nos	4
5	18W LED Tube light and Fitting hardware	Nos	16
6	16 /18 inch Industrial Wall mounted Fan along with mounting hardware	Nos	8
7	Surface mounted modular 6A socket (3PIN)-1No.	Nos	8
8	Ceiling Rose	No.	25
9	25MM PVC Conduit and Conduit accessories including bends & unions running on wall & ceiling.	Mtrs	420
10	Conduit bends & unions	Lot	1
11	Conduit Branching JB's	Nos.	35
12	Conduit Clamps	Nos.	600

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13	2.5 SQMM PVC Insulated Flexible copper wire	Mtrs	1400
14	4 SQMM PVC Insulated Flexible copper wire for 16A sockets	Mtrs	300
15	Surface mounted modular 8 -WAY Distribution Box with 63A TPN MCB & 30mA RCCB TPN in the Incomer (With outgoing SP MCB ratings 5 Nos. 6A & 3Nos. 20A)	No.	2
16	4C X 50sq.mm Aluminium Armoured LT Cable	Mtrs	200
17	Flexible conduit	Mtrs	25
18	Erection consumable (Like locking wire,insulation tap,sealing compound/plug,washewrs etc)	Lot	1

2.0 GENERAL

2.1 Drawings shall be prepared by the contractor after award of the contract, in consultation with the Site In-Charge and based on site feasibility, if any drawings enclosed with this tender are intended to give the tenderer a general idea of the type and extent of work involved. The drawings are as such only indicative and not to be considered as the exact construction drawings.

Further, this is to be noted that the drawings and the documents furnished along with this specification are the sole property of BHEL. It must not be used directly or indirectly in any way detrimental to the interest of the company.

- a) The scope of work will also include such other related works although they may not be specifically mentioned in the above paragraph and all such incidental items not specified but reasonably imply and necessary for completion of the job as a whole all as desired and as directed by the engineer.
- b) The detail scope of work covered above is not a comprehensive list of items of work involved. The detail scope of work may vary considerably depending on the actual construction requirements.

3.0 WORK BY OTHERS

No work under the specification will be provided by any agency other than the contractor unless specifically mentioned elsewhere in the contract.

Chapter-II: TECHNICAL SPECIFICATIONS & DRAWINGS FOR INFORMATION

TECHNICAL SPECIFICATIONS & DRAWINGS FOR INFORMATION.

NOTE: Contractor has to make himself well conversant with the Customer specification and drawings. In case of ambiguity between BHEL and customer specification, customer specification shall prevail.

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Chapter-III: PREAMBLE FOR THE SCHEDULE OF QUANTITIES.

PREAMBLE TO THE SCHEDULE OF QTS. (SOQ)

- 1) Details of the items in this Schedule shall be read in conjunction with the corresponding Naval Dockyard Mumbai/BHEL specifications, drawings and other documents and shall have precedence over any contrary statement mentioned anywhere in this document.
- 2) The work shall be carried out as per construction drawings, specifications, the description of the items in this schedule and/or Engineer's instructions., If any Drawings enclosed with these documents are only indicative giving some idea of the type of work involved. The layout, sizes and details of the building, structures and foundations shown in tender drawings may vary at a large extent during actual construction.
- 3) Items of work provided in this schedule but not covered in the specifications shall be executed strictly as per instructions of the Engineer.
- 4) Unless specifically mentioned otherwise in the contract, the bidder shall quote his rates for the finished items and shall provide for the complete cost towards fuel, tools, tackle, equipment, constructional plant, temporary works, labour materials, levies, taxes, transport, layout, repairs, rectification, maintenance till handing over, supervision, shops, establishments, services, temporary roads, revenue expenses, contingencies, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the works according to the contract.
- 5) The rate quoted shall be inclusive of cleaning the site of any vegetation's, dressing and leveling etc., required for commencement of site activities. No separate payment will be made towards the same.
- 6) The rate shall also be inclusive of carrying out topography survey of site to establish levels and coordinates at suitable intervals, from existing grid levels and coordinates furnished by the owner, establish bench marks, setting out the location and levels of the proposed structures, constructions and making references, pillars and other identification marks etc. No separate payment will be made towards the same.
- 7) Rates shall be quoted both in figures and in words in clear legible writing. No over writing is allowed. All scoring and cancellation should be counter signed by the bidder. In case of illegibility, the interpretation of the engineer shall be final. All entries shall be in English language.
- 8) Engineers decision shall be final and binding on the contractors regarding clarification of items in this schedule with respect to the other section of the contract.
- 9) In case of any discrepancy between item descriptions, relevant drawing and / or specification, clarification shall be sought at tender stage itself. Otherwise, it shall be assumed that the bidder has quoted for the more stringent requirement.

HIERARCHY

In case of any conflict/deviations amongst various documents, the order of precedence shall be as follows

- Statutory Regulations
- Naval dockyard specification
- Items in Schedule of quantities
- IS/BS standards
- BHEL's standard specification (with prior approval of Engineer-in-charge).