



**INDIAN MARITIME UNIVERSITY
CHENNAI CAMPUS
EAST COAST ROAD, UTHANDI,
CHENNAI – 600 119**

**Tender for Construction of Car Parking in between
Faculty Quarters F7 & F14 at Chennai Campus**

TENDER No : IMU/ T- 001 / 2013 / EC

Last Date for Submission : 13.02.2013, 15.00 Hours


Tender Opening : 13.02.2013, 15.30 Hours

**DIRECTOR
INDIAN MARITIME UNIVERSITY
CHENNAI CAMPUS**

NIT FOR PRESS

	<p>INDIAN MARITIME UNIVERSITY, (A Central University, Government of India) Chennai Campus, East Coast Road, CHENNAI – 600119.</p>
<p><u>Tender Notice No: IMU/ T- 001 / 2013</u> / EC Tenders invited for “Construction of Car Parking in between Faculty Quarters F7 & F14”. Est.Cost : Rs.3,14,989/- (Approx) Sale Period: 27.01.2013 to 13.02.2013. Submission / Opening of Tender 15:00 / 15:30 Hrs on 13.02.2013 Director</p>	
<p>For further details, visit our web site www.imu.tn.nic.in</p>	

Detailed NIT

	INDIAN MARITIME UNIVERSITY, CHENNAI CAMPUS, DEPARTMENT OF SHIPPING, GOVERNMENT OF INDIA, EAST COAST ROAD, UTHANDI CHENNAI – 600119.
Sealed tenders are invited under Single cover system for the work of “ Construction of Car Parking in between Faculty Quarters F7 & F14 ” as per details furnished hereunder.	
Estimated Cost : Rs.3,14,989/- (approx)	EMD: Rs.6,500 /-
Completion period: 3 months	
Eligibility : The contractors fulfilling the following eligibility criteria. (i) Should have successfully completed “similar works” during the last 5 years. (as on 31.01.2013). a) Three similar completed works each costing not less than 40% of the present estimated cost (or) b) Two similar completed works each costing not less than 50% of the present estimated cost (or) c) One similar completed work costing not less than 80% of the present estimated cost, and (ii) Annual turnover data for the last 3 years should be enclosed. Average annual turn over should be atleast 30% of the present estimate cost. iii) Latest Banker’s solvency certificate for an amount of Rs. 1.00 lakh Documentary proof such as Work order, Completion certificate for meeting all the above eligibility criteria shall be enclosed with the tender in original or notarized. The bids of those firms who do not meet the eligibility criteria and those firms who do not enclose required documents shall be treated as invalid and will be summarily rejected. No document will be accepted after opening the tender. Note: “Similar work” means Any Civil Engineering construction involving Fabrication of Structural Steel works.	
Tender documents can be obtained from the Executive Engineer (Maintenance) on payment of Rs 500/- by Demand Draft towards cost of the document drawn in favour of “ Indian Maritime University ” payable at Chennai	
Sale period : 27.01.2013 to 13.02.2013 (on all working days)	
Last date for Submission	1500 hrs on 13.02.2013
Date of opening of tender	1530 hrs on 13.02.2013
For further details, please see the tender document Tender No. IMU/ T- 001 / 2013 / EC	
Director	
Visit our web site www.imu.tn.nic.in	

Note: Tender documents downloaded from the web can also be submitted subject to the tenderer enclosing a separate DD towards the cost of the tender documents along with his offer.

INDIAN MARITIME UNIVERSITY

**Tender for “Construction of Car Parking in between Faculty
Quarters F7 & F14.”**

	Page No.
1. Section – I General Rules and Directions for the Guidance of the tenderers	1
2. Form of tender	14
3. Appendix to Form of tender	17
4. Memorandum	18
5. Section - II General description of work and other conditions	20
6. Section - III Specification of Material and workmanship	49
7. Section - IV General conditions of contract	63
8. Section - V Part I – Preamble to Bill of Quantities Part II – Bill of Quantities	94 95
9. Section - VI Schedule of Drawings	98
10. Form of Agreement	99

INDIAN MARITIME UNIVERSITY

Tender for “Construction of Car Parking in between Faculty Quarters F7 & F14.”

SECTION - I

GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF THE TENDERERS

1. Scope of Tender

1.1 The Indian Maritime University, Chennai Campus, Chennai - 600 119, (hereinafter referred to as the Employer), the ‘Employer’ a body established by an Act of Parliament (Indian Maritime University Act – 22 of 2008) acting through its Director or any other Officer nominated by the IMU(Chennai Campus) invites “**Tender for Construction of Car Parking in between Faculty Quarters F7 & F14**” as defined in the tender documents (hereinafter referred to as the ‘Works’).

1.2 The Contract period is **Three months** from the date of commencement of the work as detailed elsewhere in the contract.

2. Eligible Tenderers

2.1 The tender is invited from the contractors who fulfill the eligibility criteria furnished hereunder:

who have satisfactorily completed **similar work involving Any Civil Engineering construction involving Fabrication of Structural Steel works** of values listed below during the last 5 years at least: -

2.2 (i) Should have successfully completed “similar works” during the last 5 years.(As on 31.01.2013)

2.3 a) Three similar completed works each costing not less than 40% of the present estimated cost (or)

2.4 b) Two similar completed works each costing not less than 50% of the present estimated cost (or)

2.5 c) One similar completed work costing not less than 80% of the present estimated cost and

- 2.6 (ii) Annual turnover data for the last 3 years should be enclosed. Average annual turnover should be atleast 30% of the present estimate cost
- (iii) Latest Banker's solvency certificate for an amount of Rs. 1.00 lakh
- 2.7 Documentary proof such as work order, completion certificate and P&L account statement for meeting all the above eligibility criteria shall be enclosed with the tender in original or notarized. The bids of those firms who do not meet the eligibility criteria and those firms who do not enclose required documents shall be treated as invalid and will be summarily rejected. No document will be accepted after opening the tender.

3. **Qualification of the Tenderer**

To be qualified for award of contract, tenderers shall:

- a) Submit a written power of attorney authorizing the signatory of the tenderer to commit the tender.
- b) Furnish all details in the prescribed Proforma and as per the requirements set out in the tender documents

4. **One tender per Tenderer**

Each tenderer shall submit only one tender purchased in their name. The tenderer who submits more than one tender will be disqualified.

5. **Cost of Tendering**

The tenderer shall bear all costs associated with the preparation and submission of his tender and the University will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

6. **Site Visit**

- 6.1 The tenderer is advised to visit and inspect the site of the works and its surroundings and obtain for himself on his own responsibility all information that may be necessary for preparing the tender and entering into a contract for the execution of the works. The costs of visiting the site shall be borne by the tenderer. Permission, if

required, to visit the site will be given during the tender period on application to:

Executive Engineer, Indian Maritime University.

Any further information may be obtained on application in writing to:

**Director, Chennai Campus
Indian Maritime University,
Chennai – 600 119. INDIA.
Telephone : 044 – 24530343
Fax : 044 - 25360342**

6.2 The tenderer and any of his personnel or agents will be granted permission by the Engineer to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the tenderer, his personnel and agents, will release and indemnify the Engineer or his representatives from and against all liability in respect of such inspection and will also be responsible for death or personal injury, loss or damage to property and any other loss, damage, costs and expenses incurred as a result of the inspection.

6.3 It is the responsibility of tenderers to visit the site as set out in 6.1 above and obtain all information necessary for the purpose of preparing tenders. Tenderers must inspect and fully satisfy themselves as to:

- The requirements and extent of the works.
- The means of access to the site.

7. Content of Tender Documents

7.1 The tender documents contain the schedules stated below, and should be read in conjunction with any Addenda / Amendments issued in accordance with Clause 9:

- i) Section I - General Rules and Directions for the guidance of the tenderer.
Form of Tender
Appendix to Form of Tender
Memorandum
- ii) Section II - General Description of work and other conditions.
- iii) Section III
Part – I - Specification of materials and workmanship.

- Part – II - Specification of materials.
- Part – III - Specification of works.
- iv) Section IV - General Conditions of contract
- v) Section V
 - Part – I - Preamble to bill of quantities.
 - Part – II - Bill of quantities.
- vi) Section VI - Schedule of Drawings
- vii) Form of Agreement.

The tenderer shall examine carefully the contents of the tender documents. Failure to comply with the requirements of tender submission will render the tender liable for rejection. Pursuant to Clause 3 above, tenders, which are not responsive to the requirements of the tender conditions, will be rejected.

8. Clarification of Tender Documents

A tenderer requiring any clarification regarding the tender documents may notify the Engineer in writing or by cable (hereinafter, the term ‘cable’ is deemed to include telex and facsimile) at the Engineer’s address indicated in the Invitation of Tenders. The Engineer will respond to any request for clarification, which he receives 7 days prior to the deadline for submission of tenders. Copies of the Engineer’s response will be forwarded to all purchasers of the tender documents, including a description of the enquiry, but without mentioning the source of the enquiry. It is to be noted that no queries / requisition, clarifications will be received after the period stipulated above.

9. Amendment to Tender Documents

9.1 At any time prior to the deadline for submission of tenders, the Engineer may, for any reason, whether on his own initiative or in response to a clarification by a prospective tenderer, modify the tender documents by issuing addenda.

9.2 Any addendum thus issued shall form part of the tender documents pursuant to Sub-Clause 9.1 and shall be communicated in writing or by cable, to all purchasers of the tender documents. Prospective tenderers shall acknowledge receipt of each addendum by cable to the Engineer.

9.3 Any amendments thus issued will be hosted on the website up to two days prior to the dates specified for submission of the bids. All the bidders who have downloaded the Bid Document shall verify if any such amendment / modifications have been issued before submitting their bid and shall take cognizance of and include such amendment(s) in their submission. In any case, the amendment(s)/modification(s) if any shall be binding on the Bidder. No separate notice/intimation of amendments/modifications will be sent to those who have downloaded the document from the web.

9.4 If any addendum is issued, reasonable time will be given to tenderers to take addendum into account in preparing their tenders, and if required, the Engineer may extend the deadline for submission of tenders, in accordance with Clause 13.

10. **Preparations and Submission of Tenders**

10.1 **Language of Tender**

The tender, and all correspondence and documents, related to the tender, exchanged between the tenderer and the Engineer shall be written in the English language only. If any printed literature written in any other language is furnished by the tenderers along with their offer, such documents shall be supplemented with its English translation also. For the purpose of interpretation of the tender, the contents in the English translated version alone shall govern. The Law of India shall apply to the contract and the contract shall be construed according to the said Law. Any litigation arising out this agreement, shall only be adjudicated before the competent court of law within the jurisdiction of Hon'ble High Court of Madras

10.2 **Documents Comprising the Tender**

The tender submitted by the tenderer shall comprise the following:

- 10.2.1 a) Earnest Money Deposit.
- b) General Rules and Directions for the Guidance of the tenderers (Section I), General description of work and other conditions (Section II) Specification of materials and

works (Section III), General conditions of contract (Section IV), Schedule of Drawings (Section V), and the Form of Agreement, supplied by the University along with the tender documents, signed and stamped on all the pages of the documents by the tenderer in token of acceptance of all the conditions stipulated therein.

The tender documents shall be addressed to The Director, Indian Maritime University, duly indicating the name of work as **“Construction of Car Parking in between Faculty Quarters F7 & F14”** and sealed properly. Names and Addresses of the tenderers shall also be written on the cover.

Tender documents downloaded from the web can also be submitted subject condition that the tenderer should enclose a separate DD towards the cost of the tender documents along with his offer.

11. **Conditions stipulated by the tenderer**

The tender shall note that alternative or qualifying tender conditions will be not acceptable. Tenders containing any qualifying conditions or even tenderers clarifications in any form will be treated as non-responsive and will run the risk of rejection.

12. **Sealing, Marking and signing of Tender**

12.1 Tenders must be sent in suitable cover duly sealed super scribed **“Construction of Car Parking in between Faculty Quarters F7 & F14”** - addressed to the Director, Indian Maritime University, Chennai 600119 so as to reach the University not later than **1500 Hrs on 13.02.2013.**

12.2 The tenderer shall return all such documents required to be returned as per Clause 10 duly filled in along with their covering letters, data and other information so that the tender is complete.

12.3 The tender shall be filled and signed only by the firm/corporation in whose name the tender documents have been issued.

12.4 The bill of quantities and rates shall be filled in either typed or written in indelible ink and shall be signed and sealed by the person or persons signing the tender shall initial all pages of the tender, which are required to be submitted as per Clause 12.2.

12.5 Offers sent by Telex, Fax and Telegraph are not acceptable.

13. Deadline for submission of tender

13.1 Tenders must reach the **Executive Engineer (M), Indian Maritime University, Chennai – 600 119 at 1500 Hrs. on 13.02.2013.**

13.2 The Engineer may, at his discretion extend the deadline for submission of tenders by issuing an addendum in accordance with Clause (9) in which case all the rights and obligations of the Employer and the tenderers previously subject to the original deadline will thereafter be subject to the deadline as extended.

14. **Late Tenders**

Any tender received by the Engineer after the deadline for submission of tenders prescribed in Clause 13 will be rejected and returned unopened to the tenderer.

15. **Tender Prices**

15.1 Unless stated otherwise in the tender documents, the contract shall be for the whole works as described in Sub-clause 1.1, based on the unit rates and prices quoted by the tenderer in Bill of quantities.

15.2 Items against which no rate or price is entered by the tenderer will not be paid for and when executed, such items, shall be deemed to have been covered by the other rates and prices in the Bill of quantities. In case, the tenderer not accepted to carryout the items for which rates not-quoted within the quoted price, the offer submitted by the firm will be treated as rejected and the EMD amount paid by the tenderer will be forfeited.

15.3 The amount quoted by the tenderer in the Bill of quantities shall allow for all costs including labour, materials, equipment, transport charges, tests, etc. payable.

16. **Tender Validity**

16.1 Tenders shall remain valid for a period of 16 weeks from the date of tender opening specified in Clause 13.1.

16.2 In exceptional circumstances, prior to the expiry of the original tender validity period, the Engineer may request the tenderers to extend the period of validity for a specified additional period. The request and the response thereto shall be made in writing or by cable. A tenderer agreeing to the request will not be required or permitted to modify his tender, but will be required to extend the validity of his tender for the period of extension. In case a tenderer is not agreeing to the request of the Engineer for extension of validity of the tender, then his tender will not be processed further.

17. **Earnest Money** Deposit (EMD)

17.1 Each tender should be accompanied by an Earnest Money Deposit (EMD) amounting to **Rs.6,500/- (Rupees Six Thousand Five Hundred only)** which shall be in the form of Demand Draft from any Nationalised Bank / Scheduled Bank drawn in favour of Director, Indian Maritime University, Chennai 600 119.

17.2 In this case of Demand Draft the same should be enclosed with the Tender and should not be sent separately.

17.3 Under no circumstances should currency note be enclosed in the cover containing the Tender as Earnest Money.

17.4. No other form of deposit towards Earnest Money shall be accepted.

18. **TENDER OPENING AND EVALUATION**

18.1 **Tender Opening**

18.1.1 **Tenders will be opened at the office of the Executive Engineer(M) Indian Maritime University, Chennai – 600 119 at 1530 Hrs. on 13.02.2013** in the presence of the tenderer's

authorized representative who have paid the EMD and are present at that time. Eligible tenderers as above should send a letter of authorization containing the specimen signature(s) of their representative(s) who are deputed to be present at the time of opening of tenders. Representatives without the letter of authorization will not be permitted to witness the opening of the tender.

18.1.2 The maximum number of representatives that a tenderer can depute to witness the opening of the tender will be limited to two only.

18.2 The tenderers' authorized representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of tender opening being declared as a holiday for the University, the tenders shall be opened at the appointed time and location on the next working day.

18.3 on the day of opening, the tender will be opened and read in the presence of the tenderers or their authorized representative who are present during the time of opening .

The offer of each tenderer will be evaluated as per the eligibility criteria prescribed in Clause 2.1 of this Section. The tender shall satisfy both on experience and annual turn over criteria. If the tenderer fails to fulfill any one of the above criteria, their tender shall be rejected.

18.4 The information furnished by the tenderers in the prescribed format supplied by the University will form the basis for the evaluation. In exceptional cases Engineer or his representative reserves the right to obtain the clarifications from any of the tenderers without violating the tendering process. The tenderer's name, the tender prices, any discounts offered on the tender prices and such other details as the Engineer may consider appropriate will be read out at the time of opening.

18.5 After evaluating the offers received, the award of contract will be decided. The Engineer also reserves the right to negotiate with the

lowest priced eligible tenderer prior to the award of contract, if found necessary.

19. **Process to be confidential**

Information relating to the examination, clarification, evaluation and comparison of tenders and recommendations for the award of contract shall not be disclosed to tenderers or any other persons not officially concerned with such process, until the award to the successful tenderer has been announced. Any effort by a tenderer to influence the employer during processing of tenders or award decision will result in the rejection of his/their bid offered.

20. **Correction of Errors (Schedule of approximate quantities and rates.)**

If there are differences between the rates quoted by the contractor in words and figures or in amount worked out by him, the following procedures shall be followed: -

- (a) When there is a difference between the rate in figures and in words, the rates, which correspond to, the amount worked out by the tenderer, shall be taken as correct.
- (b) When the amount of an item is not worked out by the tenderer or it does not correspond with the rates written either in figures or in words, then the rate quoted by the tenderer in words shall be taken as correct.
- (c) When the rate quoted by the tenderer in figures and in words tallies but the amount is not worked out correctly, the rate quoted by the tenderer shall be taken as correct and not the amount.

21. **Engineer's right to accept any tender and to reject any or all tenders**

The Engineer reserves the right to accept or reject any tender/all tenders, and to annul the tendering process, at any time prior to the award of contract, without thereby incurring any liability to the affected tenderer or tenderers or any obligation to inform the affected tenderer or tenderers of the grounds for the University's action.

22. **SECURITY DEPOSIT FOR THE DUE PERFORMANCE OF THE CONTRACT.**

The person whose tender or any portion of whose tender is accepted must within 10 days of receipt of notice of such acceptance or within such extended time as may be allowed by the Engineer at his discretion deposit to the extent of 5% of the value of the accepted tender towards security for the due fulfillment of the conditions of the contract after which an agreement in the form hereto annexed will be executed.

The tenderer shall pay the Security Deposit upto Rs.5 lakhs in the form of Demand Draft payable at Chennai drawn on any Scheduled Bank and in the event the Security Deposit amount exceeds Rs.5 lakhs, the total amount or the amount in excess of Rs.5 lakhs may be deposited in the form of Bank Guarantee issued by any Scheduled Bank enforceable and encashable at Chennai. No interest will be allowed on cash deposit.

Further, the Bank Guarantee shall be submitted by the issuing Bank to Indian Maritime University directly under Registered Post (AD). In exceptional case, where the Bank Guarantee is received through the contractor, the issuing branch shall send an unstamped duplicate copy of the Bank Guarantee directly to Indian Maritime University. The contractor shall bring this procedure to the notice of issuing Bank.

The Security Deposit shall remain valid till the satisfactory completion of the warranty period pursuant to Clause 22 of Section II.

23. **Refund of EMD**

23.1 When the committee finalizes one of the tenderer for the said contract, EMD will be refunded to all other tenderers at the earliest.

23.2 The EMD of the successful tenderer will be refunded only after the remittance of security deposit in any manner as aforesaid. Alternatively, the successful tenderer shall when his tender is

accepted, furnish security as specified in the clause 22 of this Section after giving credit to the amount deposited by him as earnest money. The earnest money shall retain its character, as such, till the successful tenderer furnishes the security deposit.

24. Where a person whose tender has been received on behalf of the University intimates that they are withdrawing their tender before the validity period or makes any modification in the terms and conditions of the tender which are not acceptable to the University (or) fail to furnish the security deposit within the prescribed time, the University shall without prejudice to any other right or remedy, be at liberty to forfeit the Earnest Money deposited by such person absolutely.

24.1 The cost of stamping the agreement must be borne by the successful tenderer.

25. The Engineer does not bind himself to recommend the acceptance of the lowest or any tender or to assign any reason for non-acceptance and reserves to himself the right to divide the contract between two or more tenderers

26. **Contract Agreement**

The tenderer shall, if his tender is accepted enter into and execute an agreement in the form prescribed when called upon to do so with such modifications as agreed upon prior to the date of acceptance of the tender and until the formal agreement is prepared and executed, this tender together with the written acceptance shall form a binding contract between the Employer and the contractor. All costs, charges and expenses including stamp duty in connection with the contract as well as preparation and completion of agreement shall be borne by the contractor. Until such contract agreement is executed, this tender together with the written acceptance shall form a binding contract between the University and the Contractor and shall be the contract. The agreement shall be executed only after the remittance of security deposit.

27. The tenderer should submit along with his tender the latest Income Tax Clearance Certificate from the Income Tax Authorities concerned and also quote his Permanent Income Tax Account No in his tender.
28. Only such vehicles as are licensed by the University will be permitted to enter into the University premises.

FORM OF TENDER

NOTE: *This Memorandum forms part of the Tender and this should be duly filled in, signed & sealed and enclosed along with the Tender.*

To

The Director,
Inidan Maritime University ,
Chennai – 600 119.
Tamil Nadu, INDIA.

Sir,

Being duly authorized to represent and act on behalf of hereinafter called “the tenderer” and having visited the site and examined the Drawings, Conditions of Contract, Specifications, Schedules and Bill of Quantities for the above named work, we offer to execute the work **“Tender for Construction of Car Parking in between Faculty Quarters F7 & F14”**

1. In conformity with the said drawings and Conditions of Contract, Specifications, Schedules and Bill of Quantities for the sum of Rs..... (Rupees (Rate shall not be filled in).
2. We undertake, if our Tender is accepted, to achieve completion of the various sections of the Works within the periods specified in this Schedule.
3. If our Tender is accepted we will furnish a Security Deposit within 10 days of receipt of work order the Demand Draft/Bank Guarantee from a Nationalized Bank or a Scheduled Bank in India approved by Government to be bound in a sum equivalent to 5% of the above-named sum in the form annexed hereto. Security Deposit Bond in the format will be furnished as in the Schedule.
4. We agree to abide by this Tender for the period of **sixteen weeks** from the date fixed for receiving the same or such further period as may be mutually agreed upon and it shall remain binding upon us and may be accepted at any time before the expiration of that period should we fail to abide by our Tenders during the above said period of **sixteen**

- weeks** or such extended period as mutually agreed upon the University shall be at liberty to forfeit the Earnest Money deposited by us.
5. Unless and until a formal Agreement is prepared and executed this Tender, together with your written acceptance thereof, shall constitute a binding Contract between us.
 6. We understand that the Indian Maritime University reserves the right to,
 - a) Amend the scope of tender and value of contract under this work;
 - b) Reject or accept any tender including the lowest, cancel the tender process and reject all tender.
 - c) We agree that the University will not be liable for any such action and will be under no obligation to inform the tenderer of the grounds for such action.
 7. If our Tender is accepted we understand that we are held fully responsible for the due performance of the Contract.
 8. We have furnished Earnest Money in the form of Demand Draft issued by payable at Chennai in favour of the Director, Indian Maritime University, Chennai – 600 119 for the amount of **Rs.6,500/- (Rupees Six Thousand Five Hundred only)**. If our Tender is not accepted, the Earnest Money shall be returned to us on our application within period as specified in the tender for the return of such EMD amount. If our Tender is accepted the Earnest Money shall be adjusted against the Security Deposit at 5% of the Contract Value, or refunded on production of a Guarantee as contemplated in the relevant Clause for an amount equivalent to 5% of/ the Contract Value, with good and sufficient sureties as may be required for the faithful performance and proper fulfillment of the Contract and execute the Contract Agreement as required by the terms of this Tender.

9. We agree that in addition to the Security Deposit in any one of the forms described in **Clause – 22 of Section I** with good and sufficient sureties furnished by us for the faithful performance and proper fulfillment of the Contract, we shall permit the University at the time of making any payment to us for work done under the Contract to deduct at the rate of 5% of the total value of the Interim or running bill from each Interim or running bill towards Retention Money till the whole of the Retention Money at 3% of the Contract Sum is realized.

10. We agree to execute all the works referred to in the Tender Documents upon the Terms and Conditions contained or referred to therein and to carry out such deviations as may be ordered.

SIGNATURE.....

FOR AND ON BEHALF OF

DATE

Witnesses:

1. Signature :

2. Signature :

Name :

Name :

Address :

Address :

APPENDIX TO FORM OF TENDER

CLAUSE/Section			
1.	Amount of Security Deposit	22 /Section I	5% of the contract price
2.	Date of commencement the of work	25/Section II	Date on which the contractor takes over the site or the tenth day of intimation of the acceptance of the tender whichever is earlier.
3	Period of completion	25/Section II	3 (Three) months from the date of commencement of work.
4.	Retention Money	37/Section II	Retention Money at 5% will be deducted from each running bill subject to a maximum accumulation of 3% of the contract price.
5.	Liquidated damages	33/Section IV	½% (half percent) per week or part thereof of the total value of contract subject to a maximum of 5% of the total value of contract.
6.	Advances	34/Section II	No advance payable
7.	Escalation	38/Section II	The quoted rates shall be firm Throughout the tenure of the Contract. No escalation is payable
8.	Issue of Cement	30/ Section II	The Cement will be procured by the contractor at his own cost.
9.	Issue of Structural Steel	31 / Section II	The Structural steel will be procured by the contractor at his own cost.

Signature

For and on behalf of

Date

Indian Maritime University

MEMORANDUM

We hereby tender for the execution for Indian Maritime University of the work specified in the underwritten memorandum within the time specified in such memorandum at the rates specified therein and in accordance in all respects with the specifications, designs, drawings, levels and instructions in writing referred to in the Clauses of Conditions of the contract and with such materials as are provided for and in all respects in accordance with such conditions / instructions to tenderers so far as possible.

I. Memorandum

1. General Description: **“Tender for Construction of Car Parking in between Faculty Quarters F7 & F14”**
2. Estimated Cost: **Rs.3,14,989/-**
3. Earnest Money: **Rs.6,500/-**
4. Security Deposit: 5% of the accepted tender value in the form as specified in **Clause -22 of Section I.**
5. Retention Money: 5% recoverable in each interim bill subject to a maximum accumulation of 3% of the contract price as per **Clause 37 of Section II.**
6. Period of Completion: **3 (Three) months from the date of commencement of work.**
7. Delay in commencement of work and forfeiture of Earnest Money Deposit **a) Should this tender be accepted in whole or in Part, I / we hereby agree: (i) to abide by and fulfill all the terms and provisions of the said conditions annexed hereto and all the terms and provisions contained in notice inviting tenders so far as applicable and or in default thereof to forfeit and to pay the Director, Indian Maritime**

University or his successors in office, the sum of money mentioned in the conditions. A sum of **Rs.6,500/-** is hereby forwarded in Demand Draft from Nationalised Bank / Scheduled Bank as Earnest Money. If I / we fail to commence the work specified in the above memorandum, I / we agree that the said Director, Indian Maritime University or his successors in office shall, without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest Money absolutely, otherwise the said Earnest Money shall be retained by him towards security deposit mentioned against **Clause 4** of the above mentioned memorandum.

b) To execute all the works referred to therein the tender documents upon the terms and conditions contained or referred to therein and carryout such deviations as may be ordered.

SIGNATURE

FOR AND ON BEHALF OF

.....

DATE.....

INDIAN MARITIME UNIVERSITY
SECTION - II

**Part – I GENERAL DESCRIPTION OF WORK AND OTHER
CONDITIONS: -**

1.1 The works covered under this tender is for carrying out **“Tender for Construction of Car Parking in between Faculty Quarters F7 & F14 ”** The details regarding the location, etc are all shown in the drawing enclosed Schedule of Drawings. The main items of works covered in this tender are as follows:

1. Providing and fixing of MS pipes for Truss work.
2. Providing and fixing of coloured GI sheet for roofing.

Along with the offer, the tenderer should submit a bar chart indicating their programme of work. On award of contract, the contractor shall, within 15 days after the date of the Letter of Acceptance – Work order, submit to the Engineer for his consent a programme, in such form and detail as the Engineer shall reasonably prescribe, for the execution of the works. The contractor shall whenever required by the Engineer, also provide in writing for his information a detailed description of the arrangements and methods which the contractor proposes to adopt for the execution of the works.

If at any time it should appear to the Engineer’s representative that the actual progress of the works does not conform to the programme to which consent has been given the contractor shall produce, at the request of the Engineer’s representative, a revised programme showing the modifications to such programme necessary to ensure completion of the works within the time for completion.

The contractor shall submit to the Engineer within 15 days after the date of Letter of Acceptance and in any case prior to the commencement of the work, three copies of a detailed Critical Path Method (CPM) schedule and bar chart which shall be based on this preliminary programme submitted with the tender and as approved by the Engineer, showing the earliest and latest dates of commencement

and completion of various activities of the work and also anticipated dates for completion of different sections of the work. The detailed Critical path method (CPM) schedule and bar chart shall be updated by the contractor every month.

The contractor shall submit to the Engineer on the first day of each week or such longer period as the Engineer may from time to time direct, a progress report in an approved form shown up-to-date total progress, progress achieved against planned progress, during the previous week and progress forecast for the following week for all important items in each section or portion of the works, in relation with the approved CPM schedule and bar chart.

The contractor shall, within 15 days after the date of the Letter of Acceptance, provide to the Engineer for his information a detailed cash flow estimate, in quarterly periods, of all payments to which the contractor will be entitled under the contract and the contractor shall subsequently supply revised cash flow estimates at quarterly intervals, if required to do so by the Engineer.

The submission to and consent by the Engineer of such programme or the provision of such general descriptions or cash flow estimates shall not relieve the contractor of any of his duties or responsibilities under the contract.

Road access to the site is available. In addition a limited space without affecting the day to day activities of the near by area will be made available to the contractor

2. No rental charges will be levied for the working area spared to the contractor during the tenure of the contract including extended period, if any granted. The Engineer may at his discretion allot additional working area anywhere inside the University premises subject to availability, if required by the contractor, free of rental charges based on the requirements of work. During the construction period, necessary safety measures have to be taken for the men working at site. However the contractor shall at their cost arrange for the

transport of men and materials to the site of work. The area occupied by the contractor beyond the time limit specified shall be charged as per the scale of rates.

3. The tenderer shall inspect and examine the site and its surroundings and shall satisfy himself before submitting his tender as to the nature of the structure and substructure (so far as is practicable), the form and nature of the site, the stacking and movement of the traffic, the quantities and nature of work and materials necessary for the completion of the works and the means of access to the site, the accommodation he may require and in general, shall himself obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect his tender. No extra charges consequent to any wrong assumptions / assessment by the tenderer or otherwise shall be allowed. The tenderer shall take into account all these aspects before quoting their rates and shall not hold the University responsible for any details that might have been omitted to be mentioned in the tender schedule which may affect the pricing of the tender and any claim by the tenderer on this account will not be entertained by the University. In case any additional investigations are required to be done at site by the tenderer, he may do so at his own cost with the prior approval of the Engineer.
4. The contractor is deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for works and of the rates and prices quoted in the priced bill of Quantities and the schedule of rates and prices (if any) which rates and prices shall except insofar as they are otherwise provided in the contract, cover all his obligations under the contract apart from all matters and things necessary for the proper completion and maintenance of the work. The rate quoted shall be inclusive of all taxes, levies, duties, cost of insurance etc. apart from the cost of materials to be procured by the contractor and also labour, tools, plants, fuel, consumables, etc.

5. In case Service tax is payable by the contractor, the amount of Service tax will be reimbursed by the University only on production of documentary evidence
“Value added tax (VAT) will be applied to this contract as per provision of the act and will be recovered from the works bills as per the Tamil Nadu Govt. VAT provision. Necessary certificate towards such “Tax deduction at source” will be issued by the University’s accounts department.
- 6. This clause not relevant to single cover work.**
- 7 The description of the item of work given in the schedule of quantities should be read along with the specifications, drawings and the conditions of contract.
- 8 It is to be expressly understood that the measured work is to be taken net (notwithstanding any custom or practice otherwise) according to the drawing or as may be directed from time to time by the Engineer or his representative and that the value of the work done will be calculated by the measurement of various items at the respective rates without additional charges for any necessary incidental or contingent work connected therewith as detailed in specifications and conditions of contract.
9. The quantities given under the Bill of Quantities are those upon which the approximate estimated cost of work are based but they are subject to alterations, omissions, deduction and additions and not necessarily show the actual quantities of work to be done and can be increased or decreased at the discretion of the Engineer. However, the consequent variation in the total contract value will be limited to 20% under normal circumstances. The rates quoted shall be firm for such variation. In case the variation results in the total contract value exceeding the prescribed percentage, the revision of rates, if any, shall be applicable only for that portion of contract carried out in excess of the permissible percentage.

10. The work has to be carried out in the operational area. Hence the site shall be handed over only in stages depending on the progress of work. If there is a delay in handing over the site, the period of completion of work shall be suitably adjusted at the discretion of the Engineer. Depending upon the date of handing over the site to the contractor or delay due to University activities, the Engineer at his discretion may grant extension of time, as he considers reasonable for the proper completion of work. The tenderer has to taken into account all the delays due to this kind of University activities. The grant of such extension of time however will not bestow on the contractor any right to claim compensation / extra payment for idling of plant, labour and overhead loss etc., even at a future date for any reasons whatsoever. No claim towards idle time charges will be entertained by the University for any reasons whatsoever.
- 11.1 Drains, pipes, cables, overhead wires and similar services encountered in the course of the work shall be guarded from injury by the contractor at his own cost, so that they may continue in full and uninterrupted use to the satisfaction of the Engineer or his representative thereof and the contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.
- 11.2 Should any damage be done by the contractor to any mains, pipes, cables or lines (whether above or below structure) whether or not shown in the drawing, the contractor must make good or bear the cost of making good the same without delay, to the satisfaction of the Engineer or his representative.
- 12 The University shall not be held liable for any damages or compensation payable under the law in respect or in consequence of any accident or injury to any workmen or other persons in the employment of the contractor or any sub-contractor and the contractor shall indemnify and keep indemnified the University

against all such damages and compensation and against all claims, demands, proceedings, costs, charges, expenses whatsoever in respect thereof or in relation thereto.

13 **Care of works:**

From the commencement to the completion of the works the contractor shall take full responsibility for the care thereof and of all temporary works and in case any damage, loss or injury shall happen to the works or to any part thereof or to any temporary works from any cause whatsoever (save and except the excepted Risks as defined in Clause 14 thereof) shall at his own cost, repair and make good the same so that at completion, the works shall be in good order and condition and in conformity in every respect with the requirements of the contract and the Engineer's instructions. In the event of any such damage, loss or injury happening from any of the excepted Risks, the contractor shall if and of the extent required by the Engineer and subject always to the provisions of Clause 23 "Special Risks" hereof repair and make good the same as aforesaid at the cost of the Employer. The contractor shall also be liable for any damage to the works occasioned by him in the operation carried out by him for the purpose of complying with his obligations under Clause 21 & 22.

However, if

- a) If the Engineer issues a Taking-Over Certificate for any Section or part of the works the Contractor shall cease to be liable for the care of that section or part from the date of issue of the Taking-Over Certificate, when the responsibility for the care of that section or part shall pass to the Engineer, and
- b) The Contractor shall take full responsibility for the care of any outstanding Works and materials and Plant for incorporation therein which he undertakes to finish during the Defects Liability Period until such outstanding Works have been completed pursuant to Clause – 22.

14. **Excepted risks:**

These are risks due to riots (otherwise than among contractor's employees and civil commotion insofar as both these are uninsurable), war (whether declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any acts of Government, damage from aircraft, acts of God / Forces of nature such as earthquake, lightning and unprecedented floods and other causes over which the contractor has no control or the contractor could not foresee or could not reasonably provide against and accepted as such by the Accepting Authority or caused solely due to use or occupation by the Employer of the works in respect of which a certificate of completion has been issued or a cause solely due to Employer's faulty design of works.

15. **Insurance of works, etc.,**

Without limiting his obligation and responsibilities under Clause 13 - 'Care of works' and Clause 14 - 'Excepted Risks' hereof, the contractors shall insure in the joint names of the Employer and the contractor against all loss or damage from whatever cause arising (other than the Excepted Risks) for which he is responsible under the terms of the contract and in such manner that the Employer and contractor are covered during the period of construction or the works are also covered during the period of maintenance for loss or damage arising from a cause occurring prior to the commencement of the period of maintenance and for any loss or damage occasioned by the contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clauses 21 & 22.

- i. The works and the temporary works to the full value of such works executed from time to time.
- ii. The materials, constructional plant and other things brought on to the site by the contractor to the full values of such materials, constructional plant and other things.

iii. As in case of sinking of constructional plant and equipment for the cost of salvage of the same as assessed by the University.

Such insurance shall be effected with an insurer and in terms approved by the Engineer. The contractor shall whenever required, produce to the Engineer or Engineer's representative, the policy or policies of insurance and the receipts for payment of the current premium provided always that without limiting his obligations and responsibilities as aforesaid, nothing in the clause contained shall render the contractor liable to insure against the necessity for the repair or reconstruction of -any work with the materials or workmanship not in accordance with the requirements of the contract.

16. Urgent works and / or repairs:

If by reason of any accident or failure or other event occurring to or in connection with the works or any part thereof either during the execution of the works or during the period of maintenance and remedial or other work, repairs shall in the opinion of the Engineer or the Engineer's representative be urgently necessary for security and the contractor is unable or unwilling at once to do such work or repair, then the Employer may by his own or other workmen do such work or repair as the Engineer or the Engineer's Representative may consider necessary. If the work or repair so done by the Employer is work which in the opinion of the Engineer, the contractor was liable to do at his own expense under the contract, all costs and charges properly incurred by the Employer in so doing shall on demand be paid by the contractor to the Employer or may be deducted by the Employer from any moneys due or which may become due to the contractor. Provided always that Engineer's representative (as the case may be) shall as soon after the occurrence of any such emergency as may be reasonably practicable, notify the contractor thereof in writing.

17 Third Party Insurance:

Before commencing the execution of the works, the contractor but without limiting his obligation and responsibilities under Clause 19.2 hereof shall insure against any damage, loss or injury which may occur to any property (including that of the Employer or to any person including any employee) if the employer by or arising out of the execution of the works in the carrying out of the contract otherwise than due to the matter referred in the provision to Clause 19.1.

18. Minimum amount of the Third Party insurance

Such insurance shall be effected with an Insurer and in terms approved by the Employer and for at least the amount stated in the tender and the contractor shall whenever required produce to the Engineer or the Engineer's representative, the policy or policies of insurance and the receipts for payment of the current premiums.

19.1 Accident or injury to workmen:

The Employer shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person in the employment of the contractor and the contractor shall indemnify and keep indemnified, the Employer against all such damages and compensation and against all claims, demands, proceedings, costs, charges and expenses whatsoever in respect there of or in relation thereto.

19.2 Damage to persons and property:

The contractor shall (except if and so far as the specification provided otherwise) indemnify and keep indemnified the Employer against all losses and claims for injuries or damage to any person or any property whatsoever (other than surface or other damage to land being or crop being on the site suffered by tenants or occupiers) which may arise out or in consequence of the construction and maintenance of the works and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation

thereto. Provided always that nothing herein contained shall be deemed to render the contractor liable for or in respect of or to indemnify the Employer against any compensation or damages for or with respect to:

- i. The permanent use or occupation of the land by the works or any part thereof or (save as hereinafter provided) surface or other damages as aforesaid.
- ii. The right of the Employer to construct the works or any part thereof on over, under, in or through any land.
- iii. Interference whether temporary or permanent with any right of light, airway or water or other easement or quasi easement which is the unavoidable result of the construction of the works in accordance with the contract.
- iv. Injuries or damage to persons / property resulting from any act or neglect done or committed during the currency of the contract by the Employer his agents, servants or other contractors (not being employed by the contractor) or for in respect of any claims, demands, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto provided further that for the purposes of this clause, the expression "the site" shall be deemed to be limited to the area defined in the specification or shown in the drawings.

The contractor shall within 24 hours of the occurrence of any accident at or about the site or in connection with the execution of the work, report such accident to the Engineer's representative. The contractor shall also report such accidents within the prescribed time to the competent authorities to whom such report is required to be made by law

19.3 Insurance against accident etc., to workmen:

The contractor shall insure against such liability with an Insurer approved by the Employer and shall continue such insurance during the whole of the time that any person or employed by him on the

works and shall when required produce to the Engineer or the Engineer's representative such policy of insurance and the receipt for payment of the current premium provided always that in respect or any persons employed by any subcontractor, the contractor's obligation to insure as aforesaid under this sub clause, shall be satisfied if the sub contractor shall have insured against the liability in respect of such persons in such manner that Employer is indemnified under the policy, but the contractor shall require such sub contractor to produce to the Engineer or Engineer's representative when required, such policy of insurance and the receipt for payment of the current premium.

20 Remedy of Contractor's failure to insure:

If the contractor shall fail to effect and keep in force the insurance referred to the Clauses 17, 18, 19.1, 19.2, & 19.3 above hereof or any other insurance which he may be required to effect under the terms of the contract then, and in any such case, the employer may effect and keep in force any such insurance and pay such premium or premium as may be necessary for that purpose and from time to time deduct the amount so paid by the Employer with interest as stated below from any moneys due or which may become due to the contractor or recover the same as a debt due from the contractor. At the rate of 3% above the prevailing Bank rate of 11% or as announced by the Reserve Bank of India from time to time under section 49 of Reserve Bank of India Act, 1934.

21 Compliance with Rules and Regulations:

The contractor shall at all times during the currency of the contract conform to and comply with the regulations and by-laws of the State or Central Government or of the University and of all other local authorities, the provisions, contained in the various labour acts enacted by the State Legislature and Central Parliament in force and the rules made there under including those under Minimum Wages Act, Factories Acts, the Indian Electricity Act and Rules framed under

it, Workmen's Compensation Act, Provident Fund Regulation Act, Employees Provident Act, 1961 and Schemes made under the said act, Health and Sanitary arrangements for worker and safety code and the Contract (Regulation and Abolition) Central Rules 1971 etc. for welfare and protection of workers or for the safety of the public and other insurance provisions.

The University shall not be liable for the failure of the contractor in conforming to the provisions of the Acts, Rules and Regulations referred to in the above para and in case of any contravention of the provision of the Acts, Rules and Regulations etc. the contractor shall keep the University indemnified against any loss, cost and damages in the event of any action being taken for contravention.

22 Defects liability:

22.1 Defects Liability Period

The contractor shall be responsible to make good and remedy at his own expense within the period as may be stipulated by the Engineer-in-charge, any defects which may develop or may be noticed before the expiry of the period i.e. twelve months from the certified date of completion and intimation of which has been sent to the contractor within seven days of the expiry of the said period by a letter sent by a hand delivery or by registered post.

22.2 Default of the contractor in compliance:

In case of default on the part of the contractor in carrying out such order, the Employer shall be entitled to employ and pay other persons to carry out the same and all expenses consequent thereon or incidentals thereto shall be borne by the contractor and shall be recoverable from him by the Employer or may be deducted by the Employer from any moneys due or which may become due to the contractor.

22.3 Cost of Remedying Defects:

During the course of the execution of the contract, if the contractor causes any damage to the Employer's properties, the same shall be

rectified by the Contractor at his own cost to the satisfaction of the Engineer within a reasonable time as specified by the Engineer.

22.4 Contractor's failure to carry out the rectification of damages caused to the Employer's property

In case of default on the part of the Contractor in carrying out such rectification of damages to the Employer's properties within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same and if such Work is Work which, in the opinion of the Engineer, the Contractor was liable to do at his own cost under the Contract, then all costs consequent thereon or incidental thereto shall, after due consultation with the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Engineer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly.

23 Special Risks:

No Liability for war, Risks, etc., notwithstanding anything contained in the contract

23.1 The contractor shall be under no liability whatsoever whether by way of indemnity or otherwise for or in respect of destruction of or damage to the works (Save any work condemned under the provisions of clauses, "Removal of improper works and material" and default of contractor in compliance with that hereof prior to the occurrence of any special Risks hereinafter mentioned) or temporary works or to property whether of the Employer or third parties or for in respect of injury or loss of life which is the consequence whether direct or indirect of war, hostilities (whether war be declared or not) invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war or (otherwise than among the contractor's own employees) riot, commotion or disorder (hereinafter comprehensively referred to as "the said special risks").

23.2 Projectile, missile etc.:

Destruction, damage, injury or loss of life caused by the explosion or impact whenever and wherever occurring of any mine, bomb-shell, grenades or other projectile, Missile, ammunition or explosive of war shall be deemed to be a consequence of the said Special Risks.

23.3 Increased costs arising from special Risks:

The Employer shall reimburse to the contractor any increased cost of or incidental to the execution of the works (other than such as may be attributable to the cost of reconstructing work, condemned under the provisions of clauses "Removal of improper works and materials". Default of contractor in compliance to that thereof prior to the occurrence of any special risks) which is howsoever attributable to or consequent on or the result of or in any way whatsoever connected with Special Risks (subject however to the provisions of this clause hereinafter contained in regard to outbreak of war) but the contractor shall as soon as such increase of cost shall come to his knowledge forthwith notify the Engineer thereof in writing.

23.4 Outbreak of war:

If during the currency of the contract, there is an outbreak of war (whether war is declared or not) in any part of the world which whether financially or otherwise materially affects the execution of the works, the contractor shall unless and until the contract is terminated under the provisions contained in this clause, use his best endeavors to complete the execution of the works provided always that the Employer shall be entitled at any time after such outbreak of war to terminate this contract by giving notice in writing to the contractor and upon such notice being given, this contract shall terminate but without prejudice to the rights of either party in respect of any antecedent breach thereof.

23.5 Removal of plant on termination:

If the contract shall be terminated under the provisions of the preceding clause, the contractor shall with all reasonable despatch

remove from the site, all constructional plant and shall give similar facilities to his sub contractors to do so.

23.6 Payment if contract terminated:

If the contract shall be terminated as aforesaid, the contractor shall be paid by the Employer (insofar as such amounts or items shall not have already been covered by payments on account made to the contractor) for all works executed prior to the date of termination at the rates and prices provided in the contract and in addition.

- i. The amounts payable in respect of any preliminary items so far as the work or service comprised therein has been carried out or performed and a proper proportion as certified by the Engineer of any such items the work or service comprised in which has been partially carried out or performed.
- ii. The cost of materials or goods reasonably ordered for the works or temporary works which have been delivered to the contractor or of which the contractor is legally liable to accept delivery (such materials or goods becomes the property of the Employer upon such payment being made by him).
- iii. A sum to be certified by the Engineer being the amount of any expenditure reasonably incurred by the contractor in the expectation of completing the whole of the works insofar as such expenditure shall not have been covered by the payments in this clause before mentioned.
- iv. Any additional sum payable under the provisions of Clause 23.3.
- v. The reasonable cost of removal under this clause and (if required by the contractor) return thereof to the contractor's main plant yard in his country of registration or to any other destination at no greater cost.
- vi. The reasonable cost of repatriation of all contractors' staff and workmen employed on or in connection with the works at the time of such termination.

Provided always that against any payments due from the Employer under this sub-clause, the employer shall be entitled to be credited with any outstanding balance due from the contractor in respect of the execution of the works.

- 24 In case if any materials are rejected, rejected goods or materials shall be removed by and at the expense of the contractor after notice shall have been given of the rejection. If not so taken away within the time limit prescribed by the Engineer, the Engineer may cause the goods or materials to be removed and charge the contractor with all the expenses incurred in such removal.

25 Date of commencement and completion of work:

The work shall be taken to have been commenced from the date on which the contractor takes over the site or the tenth day of the intimation of the acceptance of the tender whichever is earlier and the contractor shall complete the works within **3 (Three) months** from this date.

26 Taking-Over Certificate:

- 26.1 When the whole of the Works have been fully completed and have satisfactorily passed any Tests on Completion prescribed by the Contract, the Contractor may give a notice to that effect to the Engineer. Such notice shall be deemed to be a request by the contractor for the Engineer to issue a Taking-Over Certificate in respect of works. The Engineer shall within 30 days from the date of delivery of such notice either issue to the Contractor a Taking Over Certificate or give instruction in writing to the Contractor specifying all the works, which in the Engineer's opinion is required to be done by the contractor before the issue of such certificate. The Contractor shall be entitled to receive such Taking-Over Certificate within 30 days of completion, to the satisfaction of the Engineer, of the works so specified and remedying any defect so notified.

26.2 Taking-Over of Sections or parts

Similarly, in accordance with the procedure set out in Sub-Clause 26.1, the Contractor may request and the Engineer can consider taking-over in respect of any part of the work, which has been completed to the satisfaction of the Engineer.

The period of warranty / maintenance shall commence from the date of such taking over certificate.

27 Release of Security Deposit:

The amount deposited by the Contractor, as Security Deposit under this Agreement will be refunded to the Contractor only after satisfactory completion of the Defects liability period specified in Clause 22. If during this Warranty / Maintenance period any defects are noticed, which in the opinion of the Engineer are due to bad materials used and/or defective workmanship, the Contractor shall be required to carry out at his cost, such repairs, as the Engineer considers necessary or in the event of the Contractor failing to do this within the notice period, the Engineer may arrange for such repairs to be carried out and deduct the cost of such rectification of the defects from the amount retained, without prejudice to the recovery of any amount that may have been spent in excess of the deposit.

28 Free supply of materials:

No materials will be supplied free by the University and it is the responsibility of the contractor to procure and supply all the materials required for the work at their cost.

29 SERVICE AVAILABLE AT COST:

29.1 Supply of water for the works:

The contractor will be provided with one point subject to availability for the supply of water near the site of work. He should make his own arrangements for tapping, storing and lifting, if any, including laying pipeline from the point so provided. The contractor shall make his own arrangements to get usable water at his own cost from out side.

29.2 **Electricity Supply for Works:**

Electrical power required for the work by the contractor shall be arranged by the contractor on his own by providing generators. However, subject to the availability, the Electrical power required for the work will be provided by the University to the extent that can be conveniently spared by the University from time to time at 250 volts single phase 50 cycles or 440 volts 3 phase 50 cycles at two points one for power and the other for lighting at the nearby distribution board only with the metering facility and not at the site. Any extension of wiring from the above points for lighting and power at the distribution points to the site and its removal after the completion of contract will have to be arranged by the contractor through licensed contractors at his own expense in such a manner as approved by the Chief Electrical Inspector to the Government of Tamilnadu and also by of the Engineer of the Indian Maritime University or his representative. The safety of the cabling (ie. Extension of wiring) and transmission will be the responsibility of the contractor. If any extra point of supply is required the same will be arranged by the University at its discretion subject to the availability of power or other facilities and the cost of the same, as detailed below will be recovered from contractor's bill or any other amount due to him by the University. The cost of such work based on the labour charges with materials cost including overheads, storage and profit as fixed by the University from time to time shall be recovered from the contractor. Any materials used for such extra work shall be deemed to be the property of the University and will not be returned to the contractor.

The contractor should make a Security deposit equivalent to three months consumption charges as per TNEB Norms for the temporary connection. The contractor should pay every month electricity consumption as per the bill. The security deposit for electrical consumption will be refunded after the completion of the works.

The cost of energy consumed by the contractor plus meter hire charges shall be recovered at the rates prevailing from time to time. The power supply shall be subject to cuts or other restrictions that may become necessary from time to time. The power supply shall also be subject to departmental rules and regulations as regards shutdown for repairs and overhauls. The contractor shall not claim damages for stoppage or cuts in electrical power supply for any reason whatsoever. Whenever the contractor utilizes electricity for welding purposes from the power supply point provided by the University, he shall use capacitors in the circuits to maintain the minimum power factor 0.85. If any contractor is found to violate this requirement, the entire consumption recorded on the energy meter provided for power supply point shall be charged at the revised rates (i.e.) the rate for power unit with an addition of 20% of rate per unit in addition to Central Excise surcharge of 3 paise per unit or as applicable.

30. **Cement :**

The contractor at his own cost shall bring the cement required for the work. For further details clause 2 of part II of the Section III shall be referred.

31. **Steel:**

The contractor at his own cost shall bring the structural steel required for the work. For further details clause 3 of part II of the Section III shall be referred.

32 **Supply of Drinking Water:**

The contractor has to make his own arrangements and no drinking water will be supplied by the University either free or at cost.

33. **Water and Fuel for plants and Machinery:**

The contractor shall make his own arrangements for the supply of water, fuel, etc., at his own cost for the plants and machinery etc.,

34. Advances:

No advance is envisaged in the contract.

35. Financial Background:

The work covered under this contract is a time bound work and the work will have to be completed within the stipulated period. The contractor shall be financially sound so as to ensure sufficient cash flow for the monthly work.

36 Mode of measurement and payment:

i. Payment shall be made on the recorded measurements and the contractor will have to prepare and submit by himself the bills in the prescribed form once in a month, Payment will be made ordinarily once in a month. The University shall pay 75% of the net amount of the bill submitted within 10 days from the date of receipt of the bill and the balance within 30 days from the date of receipt of the bill. On completion of the work or on the prior termination of the contract final measurement will be taken and account adjusted accordingly. The net amount payable means gross amount less all statutory levies such as Income tax, Sales tax on works contract and any other amount due to the University.

ii. Payment for RCC items: 75 % of the payment will be released only after the concrete is laid and cured . The balance payment will be released after satisfactory test results for 28 days cube strength as specified in clause 6(ii) of Part II of Section III. If 28 days cube strength is not satisfactory, the amount paid for that will be recovered from any outstanding balance due from the employer in respect of the execution of the works.

Payment for PCC items: 90 % of the payment will be released only after the concrete is laid and cured. The balance 10% will be released only after the satisfactory completion of finishing works.

37. Retention Money:

Retention Money at 5% will be deducted from each running bill subject to a maximum accumulation of 3% of the contract price. Half of the above sum will be refunded to the Contractor, if he so desires on issuance of the taking over certificate for whole of the work and the balance being held in deposit as security for satisfactorily maintaining the works free from defects for a period of 12 months, pursuant to clause 22 of this section. Notwithstanding the provisions contained in clause 22 and 27 of this section, if during this period of 12 months, any defects are notified which in the opinion of the Engineer are due to bad materials used and / or defective workmanship, the contractor shall be required to carry out at the contractor's cost, such repairs as the Engineer considers necessary or in the event of contractor failing to do this within the notified time, the Engineer may arrange for such repairs to be carried out and deduct the cost of such rectification of the defects from the amount retained, without prejudice to the recovery of any amount that may have been spent in excess of the deposit.

38. ESCALATION

The quoted rates shall be firm throughout the tenure of the contract. No escalation is payable over and above the rates quoted by the contractor for any reasons whatsoever.

39. GENERAL CONDITIONS RELATING TO THE WORKS:

39.1 ASSISTANCE FOR ENGINEER

The contractor shall provide the Engineer at all times during the contract period sufficient and qualified personnel to assist the Engineer in his duties to carry out or check any work and / or measurement of works. The contractor is also to provide with necessary survey instruments, computers and any gadgets, ladders,

gangways survey launch etc., as directed for inspection or measurement of the works by the Engineer.

40. SAFETY OF ADJACENT STRUCTURES OF WORKS

In pursuance of the conditions of contract the contractor or his representative shall provide and erect to the approval of the Engineer such supUniversitys as may be required to protect efficiently all structures or works in the vicinity of working area or otherwise take such permanent measures to protect the structures or works. Any damage to the structures, shall be made good by the contractor without delay as directed by the Engineer at his cost.

41.1 UNAUTHORIZED PERSONS

No unauthorized persons are being allowed on the site. The contractor shall take steps to prevent trespass and prevent unauthorized persons from entering and / or being on the site. All the personnel will be required to wear their security passes as per requirements of local / University authorities. Access shall be limited to the area they are working in and allowed by local / University authorities. Such passes shall be arranged sufficiently in advance both for men as well as vehicles and shall be renewed as and when required. Non-availability of passes or personnel to carry out the job within the stipulated time period shall not be considered as a plea for extension of time or extra cost.

41.2 FIRST AID FACILITIES

The contractor shall provide and maintain upon the work sufficient proper and efficient life saving appliances and first aid equipment to the approval of the Engineer and in accordance with the requirements of International Labour Organisation (I.L.O.) Convention No.62. The appliances and equipment shall be available for use at all times. For work carried out within the dock area or in the vicinity of any wharf or quay, the contractor shall abide by all the provisions of the Dock

Workers (Safety, Health and Welfare) Scheme, 1961. The contractor's particular attention is drawn to Clause-43 of the above said Regulation in respect of erection and maintenance of staging. Contractor shall indemnify the University from the cases booked by the Labour Enforcement Officer (L.E.O.) for his negligence.

41.3 SITE REGISTER.

For the purpose of quick communication between the Engineer and the contractor, site register shall be maintained at site in the manner as described below:

Any communication, relating to the works may be conveyed through records in the Site Books, such as communication from one party to the other shall be deemed to have been adequately served in terms of Clause – 52 of, Section IV - General Conditions of Contract. Each Site register shall have machine numbered pages in triplicate and shall be carefully maintained and preserved by the contractor and shall be kept in the office of the Engineer. Any instruction or order which the Engineer may like to issue to the contractor may be recorded by him in the Site Book and two copies thereof taken by him for his record.

41.4 CONSTRUCTION RECORDS

The contractor shall keep and supply to Engineer full and accurate records of the dimensions and positions of all new work and any other information necessary for the Engineer to be able to prepare completion drawings, recording details of the work as constructed.

41.5 TEMPORARY FENCING

The contractor shall provide and maintain temporary fencing both fixed and movable type and gates to adequately enclose all boundaries of the site office, site stores etc., including all costs incurred for the security and in accordance with the requirements of the Engineer and regulations of local authorities. These shall be altered, relocated and

adopted from time to time as necessary and removed on completion, all expenses in this connection shall be borne by the contractor.

41.6 TEMPORARY ACCESS

Access shall be provided to the site by the contractor from the main road at no extra cost as directed by the Engineer. The contractor shall be responsible for proper maintenance of this access road and take all care to see that the existing services if any, are maintained in working order.

The contractor shall provide temporary access / approach if necessary, otherwise shall maintain the existing roads being used by him.

41.7 LICENSE, PERMITS, ETC.,

The contractor shall make his own arrangements for obtaining all necessary licenses, permits etc., for the procurement of any spares that he may require during the progress of the works. The contractor shall have adequate supply of necessary spares from the very beginning to ensure that no serious delay or holdup occurs in the execution of works.

41.8 EXISTING SERVICES

The contractor's attention is drawn to the possibility that there might be existing underground or overhead services & service line inside and around the University areas i.e., within the site of the proposed works. It is the contractor's responsibility to work cautiously and carefully so that these are not damaged. Any damage to the services shall be repaired and restored immediately as directed by the Engineer without any extra cost. The contractor is required to ascertain and allow in his cost for any rerouting of the services that may be necessary for the due execution of the contract and any claim resulting from his failure to do so will not be admitted.

41.9 STANDARDS AND SPECIFICATIONS

In this and in any other contract document and / or drawings, the letters “IS” followed by a number will refer to the edition of the Indian Standard current at the time of tendering.

The contractor shall keep the following at site office, Standard and codes mentioned in the specifications or as required by the Engineer.

41.10 SAFETY AND SECURITY MEASURES

- a) The method of work for successful completion of work shall be at the sole discretion of the contractor. The contractor shall take all preventive and precautionary measures to ensure complete safety of all site personnel, inhabitants of the buildings including any third party, together with all buildings on or around the site. Temporary and permanent including adjacent building and buildings completed or partly completed by any third party, till satisfactory completion of work in respect to each existing building.
- b) The contractor shall comply with all applicable Laws, Regulations and Standards. The contractor shall be responsible for the co-ordination of all safety matters and shall promptly comply with any specific safety instructions given by the Engineer or by the respective authorities.
- c) When any work is performed at night or where day light is shut off or obscured, the contractor shall, at his cost provide appropriate lighting facilities to continue execution and permit inspection. During such periods the access to the place of work shall also be clearly illuminated. All wiring for electric lights and power shall be installed and maintained, securely fastened in a place at the points and shall be kept away as far as possible from telephone and signal wires. All wiring shall be subject to approval by the Engineer.
- d) The contractor shall adequately safeguard the site, products, materials, plant and the works from damage and theft.
The contractor shall provide his and his sub-contractor’s staff and work people with permits required for admittance to restricted areas.

In relation with this contract the following shall be observed.

- i) Any security procedures as demanded by local authorities / University such as passes, badges interruptions to work, etc., shall be strictly adhered to.
- ii) The cost for security measures under this Clause shall be borne by the contractor.

41.11 MAINTAINING UTILITY AND SERVICES

The contractor shall not damage, close or obstruct any utility areas, roads, University traffic or other property until permits thereof have been obtained. If facilities are closed, obstructed, damaged or rendered unsafe by contractor's operation, the contractor shall, at his own cost, make such repairs and provide such temporary guards, lights and other signals or as necessary or required for safety and as will be acceptable to the Engineer and / or the Employer of the utility, highway, road or other property.

41.12 FACILITIES, ATTENDANCE ETC., ON NOMINATED SUB-CONTRACTORS

The contractor shall allow for the provision of facilities, attendance etc., for the nominated sub-contractors.

These facilities, attendance etc., include:

- a) Storage facilities for plant and equipment and products and materials.
- b) The use of sanitary accommodation, medical and welfare facilities.
- c) Watching and lighting and protection of their work as necessary.

41.13 LIMITATION OF OPERATIONS

The contractor shall refrain entering area of the site not allocated to him unless he obtains the written approval of the Engineer and appropriate authorities.

Should the contractor wish to make use of any adjoining or property of offices or halls, he shall first obtain the written "No Objection" of the Engineer and then shall apply to the appropriate authority for

permission to use the area. If such permission is granted, the contractor may make use of the area thus permitted to use, but on completion shall clear away and make good any damage at his own expense and pay all costs and charges in connection therewith.

The contractor shall be solely responsible to obtain required permits / authorization from other agencies Departments for the due performance of the contract and delay if any arising thereof shall not be quoted as reason for extension of time and consequent additional cost.

Contractor has to comply with all University operational procedures set forth by University Authorities as and when required at his own cost.

41.14 WORK PROGRAMME FOR AREAS WITH RESTRICTED ACCESS

Work to be carried out inside the restricted area shall be so programmed to ensure, that the time period required to carry out the entire activities is minimum. All advance preparations with regard to approvals, procurement of all materials, plant, personnel etc., shall be made to achieve the targets, this may call for working continuously or at unscheduled hours as directed and approved by the Engineer.

41.15 STOPPAGE OF WORKS

Contractor may be instructed to stop the works from time to time due to security reason, or any other reasons as per the instruction of University Authorities.

41.16 NOISES AND DUST CONTROL

The contractor shall take all necessary precautions in reducing noise and dust caused by Plant and minimum acceptable level by means of mufflers, silencers, screens and the like.

41.17 WORKING CONDITION

41.17.1 Access to the Site

The access of men and materials to the site has to be through any one of the designated Gates of the University. The contractor has to

comply with all necessary formalities as per University rules for movement of men material and equipments on to the site and also to communicate with University Control when any movement is required.

41.17.2 University Requirement

The normal University operations will be continued throughout the progress of the works and the contractor shall carryout his work without hindrance to University operations.

The contractor shall obey orders and directions given by the Engineer or his authorized representative in the course of the discharge of his duties. The contractor shall cease work whenever and for as long as the Engineer may consider it essential to do so. The contractor shall obey orders and directions given by the Engineer or his authorized representative in the course of the discharges of his duties. The Contractor shall cease work whenever and for as long as the Engineer may consider it essential to do so.

41.18 Provision of materials, stores and equipments

The contractor shall be responsible for the provision of all materials, stores, and equipment necessary for satisfactory execution and completion of the work.

41.19 Interruptions of work and idle time charges

The contractor shall allow in his rates for any loss of working hours due to weather etc. Any claim for idling of the contractor's plant and machinery or any other inputs shall not be entertained by the University for reasons whatsoever including non-availability of working area and therefore the contractor may consider all such events including the normal University operations and submit their offer accordingly.

For all the reasons stated or for any other reasons, no claim on idle time charges shall be entertained by the University.

41.20 Clearance of site on completion

After the completion of the contract the contractor shall remove at his own cost all wires and any other equipment, plant or materials introduced by him.

41.21 Environmental Considerations

The contractor shall refrain from using plant, which makes excessive noise, particularly during the hours of darkness, which shall be limited to 45db (A) at a distance of 100 m from the working area and other plants.

The information furnished hereinafter and provided elsewhere is given in good faith, but the Tenderer shall satisfy himself and no claim will be entertained due to any error in the information supplied.



INDIAN MARITIME UNIVERSITY

SECTION - III

Part I – Material and workmanship.

I. GENERAL PROVISION

1.1 STANDARDS

Unless otherwise specified in the Contract, the relevant provisions of the appropriate Bureau of Indian Standards shall apply for all materials and workmanship. Where relevant BIS standards do not exist, the latest aversion of the relevant British Standard Specification or Standard of the American Society for Testing Materials shall apply. Equivalent standards from other countries may be used provided they are demonstrated to be equal to or more onerous than the standard quoted. In such a case, the standard shall be provided with an acceptable translation.

IS / BIS : Indian Standards.

BSS : British Standard Specification.

Cp : British Standard Code of Practice.

ASTM : standard of the American Society for Testing Materials.

2 STANDARD PRODUCTS

If mention is made in the Contract of named products of individual manufacturers, this indication of the standard or type and workmanship of goods, which are satisfactory to the Engineer.

The Contractor may substitute similar Products of atleast equal quality and suitability, subject to the approval of the Engineer provided that the Contractor has submitted with his Tender proposals for such substitution with full particulars of the proposed alternative products; otherwise, the Contractor's proposals may not be considered.

Proposals by the Contractor for the supply of manufactured products shall be accompanied by certification that the manufacture's products are approved by the relevant standards authority.

3 TEST CERTIFICATES

Where specified, each consignment of materials or products intended for use in the Permanent works shall be accompanied by a manufacturer's test certificate showing that it conforms in all respects to the appropriate standards and specifications.

If no such certificates are enclosed, the Engineer shall have the materials or products tested by a nominated testing authority. The costs of such tests shall be borne by the Contractor.

4 AS-BUILT DRAWING

During performance of work under this contract, the Contractor shall keep at the site of the works, a records as a set of transparencies which shall be kept marked up in detail to indicate such changes or additions as may be requested by the Engineer or required to suit field or other conditions. Whenever, requested by the Engineer during the execution of the works, the contractor shall submit copies of these up-to-date drawings. After completion of the project in all respects, the contractor shall submit as executed drawings incorporating all changes made by the Engineer during execution, in the form of CDs along with one set of hard copies.

5. MATERIALS AND WORKMANSHIP

5.1 QUALITY OF MATERIALS, WORKMANSHIP AND TESTING FACILITIES

All materials intended to form or forming part of the works. All workmanship and all work under the Contract shall be in accordance with the Contract and with the instructions of the Engineer. Those materials, which shall conform to the relevant standards, shall be subject to the approval of the Engineer and shall be subjected from time to time to such tests as the Engineer may direct. Tests shall be carried out either at the contractor's laboratory or at any other place as directed by the Engineer. The Contractor shall provide without delay, all such attendance, assistance, facilities and equipment as are required for examining, measuring, sampling and testing of work and

the quality, weight and quantity of materials and things intended to form or forming part of the works as and where required by the Engineer.

The Contractor shall redo/replace such work, materials and things rejected by the Engineer.

5.2 **SAMPLING**

Samples shall be taken in accordance with the relevant standards and in such a way and number that they can be considered to be representative of the full quantity of materials from which they are taken.

Samples submitted for approval of materials to be supplied, or of the standard of workmanship and subsequently approved will be kept by the Engineer's Representative who may reject all materials or workmanship not corresponding in quality and character with the approved samples.

Suitable labeled boxes or containers for the transport and storage of samples shall be provided by the Contractor.

5.3 **TESTING**

All materials intended to form part of the Works shall, unless otherwise directed by the Engineer, be tested in accordance with relevant standards and with the requirements of this specification.

The contractor shall carry out such tests of his own as is necessary to ensure compliance with the Specifications.

The Contractor shall be entitled to be represented at all tests carried out by or on behalf of the Engineer in order to determine whether workmanship and materials meet the requirements of the Specifications. Sufficient notice shall be given to the Contractor to enable him should he so wish to be present during any control test. Should the Contractor not wish to witness or be present at any control test, it shall be assumed that the Contractor accepts the validity of the results of that test.

5.4 **PREVENTION OF DAMAGE TO MATERIALS**

The Contractor shall take adequate measures to prevent damage, contamination and the like at any stage and by any cause to all materials intended to form part of the works.

5.5 **COMPLIANCE - NO REASON FOR EXTENSION OF TIME**

Compliance by the Contractor with the provisions of this Clause shall not give the Contractor any right to extension of time for the completion of the works.

5.6 **INSPECTION BEFORE CONCEALMENT**

Whenever work requiring inspection or testing is subsequently to be concealed, due notice shall be given to the Engineer so that inspection may be made or tests witnessed before concealment. Failure to give such notice may necessitate the Contractor's uncovering the work for inspection purposes and reinstating it all at his own expense.

6. **LEVELS AND DIMENSIONS:**

The contractor shall carryout his own surveys and measurements to verify existing levels and dimensions of existing features shown on the drawings, as and when deemed necessary by him.

Wherever dimensions or levels are shown on the drawings such dimensions or levels shall take precedence over dimensions scaled from the drawings and scaled dimensions shall be used only in the absence from the drawings and / or elsewhere of other more precise information. Large scale drawings shall be used in preference drawings of a smaller scale.

In the event of discrepancies between the Drawings and the specifications, the specifications shall have precedence over the drawings. Whenever there is any doubt or in – consistency regarding the levels / datum's etc., indicated in the drawings, the same shall be got from the engineer before proceeding with the works. The Engineer's decision will be final and binding on the contract.

7. SETTING OUT

7.1 SETTING OUT THE WORK

Setting out the works shall be done by the contractor by such dates as to permit timely commencement of the work. The Contractors shall furnish, install and maintain all markers and other items necessary to define the works.

The setting out of the works under contract shall be executed by the Contractor with the Engineer's Representative may direct.

7.2 CHECKING OF SETTING OUT

The Contractor shall provide the Engineer's Representative with sufficient equipment, duly calibrated in the field, labour and materials to enable the Engineer's Representative to check the Contractor's setting out, at any time the Engineers' Representative may direct.

8. CONDITIONS OF SITE

Before carrying out any work, the Contractor shall inspect the Site in conjunction with the Engineer's Representative to establish its general condition which shall be agreed and recorded in writing, and where, in the opinion of the Engineer or his Representative it is deemed necessary, by means of photographs.

The boundary of the area provided for the execution of the works will be defined by the Engineer's Representative and the Contractor shall provide erect and maintain from commencement to final completion, approved markers indicating the boundary of the working area at regular intervals as the Engineer's Representative may require.

Part II - Specification of materials

1. The goods or materials to be supplied by the contractor shall be of the quality or sort specified and in every respect equal and answerable to the pattern or samples submitted by him for approval of the Engineer or his representatives.

2. Cement:

CEMENT REQUIRED FOR THE WORK TO BE PROCURED BY THE CONTRACTOR AT THEIR OWN COST

2.1 The contractor shall procure 43 Grade (conforming to IS 8112) or 53 grade (conforming to IS 12269) Ordinary Portland cement or any other special grade/quality of cement as required for the work, from reputed manufacturers of cement such as Ultra tech, Birla, ACC, India Cements, Madras Cements, Chettinadu Cements, Dalmia Cements, Zuari Cements, Penna Cements or any other equivalent brands as approved by the Engineer.

In case of non-availability of Ordinary portland cement, portland pozzolana cement conforming to IS 1489 shall be used with suitable admixtures to attain the required strength.

2.2 Supply of cement shall be made in 50-Kg bags bearing manufacturer's name and BIS marking. Every consignment of cement shall be accompanied with the manufacturer's test certificate with the following specific information / details:

i. The complete test results conducted for the specifications mentioned in the contract.

ii. Reference to the supplies made on the strength of the test certificate sent to the University.

iii. The competent officer of the supplier should authenticate all the entries made in the test certificate.

The test certificate can be either original or Xerox copy duly authenticated by a responsible official of the supplier will be the basis for acceptance of the materials in addition ,if directed by the Engineer

or his representative , the contractor shall submit the original bill / invoices for verification .

- 2.3 If so desired or if the cement so supplied are not accompanied with such test certificates, samples of cement procured by the contractor shall be taken by the Engineer's representative and got tested in accordance with provisions of relevant BIS codes. In case, test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time from the date of written order from the Engineer or his representative to do so.
- 2.4.1 The cement shall be brought to site in bulk supply of approximately 10 tonnes or as decided by the Engineer or his representative.
- 2.4.2 The cement shed with a capacity to store a minimum of 200 bags of cement or as decided by the Engineer or his representative shall be constructed by the contractor at the site of work for which no extra payment shall be made. Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with Engineer's representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch & ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer or his representative at any time. Thatched shed shall not be permitted.
- 2.5 If the consignment is not accompanied by the manufacturer's test certificate or any additional test is ordered by the Engineer's representative at random, the contractor shall supply free of charge the cement required for testing. The cost of tests shall be borne by the contractor/department in the manner such indicated below:

- i. By the contractor, if the results show that the cement does not conform to relevant BIS codes or the cement supplied by them is not accompanied with manufacturer test certificate leading to testing of cement at site.*
 - ii. By the Department, if the retest results carried out at site show that the cement conforms to relevant BIS codes.*
- 2.6. The requirements of cement shall be calculated on the basis of the standard formula for consumption of cement as laid down by the Engineer or his representative and over this theoretical quantity, the variation allowed shall be plus or minus 2% only.
- 2.7. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained. The theoretical consumption of cement shall be worked out on the standard formula as laid down by the Engineer or his representative. Over this theoretical quantity shall be allowed a variation of minus 2%. In the event of it being discovered that the quantity of cement used is less than the quantity ascertained as hereinbefore provided (allowing variation on the minus side as stipulated above), the cost of quantity of cement not so used shall be recovered from the contractor at the local market rate prevailed during that time.
- 2.8 Cement brought to site and cement remaining unused after completion of work shall not be removed from the site without the written permission of the Engineer or his representative.
- 2.9 A Copy of the manufacturer's test certificate showing conformity of the particular consignment to BIS Specifications in addition to the invoice and bills shall be submitted by the contractor for the supply of Cement.
- 2.10 The contractor should maintain a register showing the receipt and daily usage of cement and other materials and get the register checked by the departmental officer daily.

3. Steel:

STRUCTURAL STEEL REQUIRED FOR THE WORK TO BE PROCURED BY THE CONTRACTOR AT THEIR OWN COST.

4. Grading of Aggregates

i. Fine Aggregate:

Aggregate most of which passes through 4.75mm IS sieve is known as fine aggregate. Fine aggregate shall consist of natural river sand conforming to IS:383. It shall be hard, durable, chemically inert, clean and free from adherent coatings, organic matter etc. and shall not contain any appreciable amount of clay balls or pellets and harmful impurities e.g. iron pyrites, alkalies, salts, coal, mica, shale or similar laminated materials in such form or in such quantities as to cause corrosion of metal or affect adversely the hardening, the strength, the durability or the appearance of mortar, plaster or concrete

The grading of fine aggregate for concrete 1:1.5:3 shall be within the limits of either zone I or zone II of the IS 383, table 4.

ii. Coarse Aggregate:

It shall consist of naturally occurring granite (broken stone) stones. It shall be hard, strong, dense, durable and clean. It shall be free from veins, adherent coatings, and injurious amounts of disintegrated pieces, alkali, vegetable matter and other deleterious substances. It shall be roughly cubical in shape. Flaky and elongated pieces shall be avoided. The overall grading of the coarse aggregate, viz., graded aggregate of nominal size 20 mm shall conform to the requirements specified in IS 383. The contractor shall, if required by the Engineer, obtain the specified grading by combining single aggregates in proportions to give the specified grading.

iii. Storage of Aggregates:

Each size of fine and coarse aggregates shall be stored in separate areas covered with metal sheets, concrete or other hard and clean surface, which shall be self-draining and protected from contamination by earth or other deleterious matter. All roads from source to storage areas and between and around storage areas shall be metalled in such a way, that no mud or other contamination for aggregates can stick on the tyres of the transporting equipment for aggregates.

Fine and coarse aggregates shall be stored in such a way so as to avoid intermixing of different aggregate sizes.

5. Works Tests on Aggregates:

During the course of the Contract, fine and coarse aggregates shall be tested at site as often as required by the Engineer and at the Contractor's expense. Tests shall be carried out in accordance with the methods specified in Table: 1 below, unless otherwise ordered by the Engineer.

TABLE 1	WORKS TEST ON AGGREGATES
Test	Method of Test
Particle size	IS 2386 Part I
Silt content by field settling test	IS 2386 Part I
Moisture content	IS 2386 Part III
Organic impurities content	IS 2386 Part II

6. Concrete:

i. **Slump Tests:**

Frequent slump tests shall be carried out in accordance with IS:1199 on samples of concrete taken immediately before placing to determine the consistency of concrete.

ii. **Work cube Tests:**

Sampling & Strength concrete mix and acceptance criteria shall be **as per IS 456 – 2000 (its latest version)**

7. Water:

The water used for all purposes throughout the Works shall be clean and free from injurious quantities of silt, organic matters, alkalis, acids, oils, salts, sugar or other impurities, vegetable growth or other substances that may be deleterious to bricks, stone, concrete or steel. Potable water is generally considered satisfactory for mixing. The pH value of water shall be not less than 6.

The water used for mixing concrete and mortar, washing of aggregates and for curing the concrete, shall be from an approved source and

shall contain no deleterious matter which significantly affects the setting time or strength or durability of the concrete or which has any effect on the appearance of the hardened concrete by discoloration or efflorescence.

The following concentrations represent the maximum permissible values. (of deleterious materials in water).

LIMITS OF ACIDITY:

To neutralize 100 ml sample of water, using phenolphthalein as an indicator, it should not require more than 5 ml of 0.02 normal NaOH. The details of test shall be as given in IS: 3025 (part 22).

LIMITS OF ALKALINITY:

To neutralize 100ml sample of water, using mixed indicator, it should not require more than 25ml of 0.02 normal H₂SO₄. The details of tests shall be as given in IS: 3025 (part 23).

Percentage of Solids:

Maximum permissible limits of solids when tested in accordance with IS: 3025 shall be as under:

Organic	200mg/litre
Inorganic	3000 mg/litre
Sulphates	400mg/litre
Chlorides	500 mg/litre for RCC work and 2000 mg/litre for concrete not containing embedded steel.
Suspended matter	2000 mg/litre

Sea water shall not be used for mixing or curing.

8. Aluminium Sections:

Aluminium sections are not involved in this tender.

9. Removal of improper works & materials:

The Engineer shall during the progress of the works have power to order in writing from time to time the following:

i The removal from the site within such time or times as may be specified in the order of any materials, which in the opinion of the Engineer are not in accordance with the contract.

ii The substitution of materials not in accordance with the contract by proper and suitable materials and

iii The removal and proper re-execution (not withstanding any previous test thereof or interim payment thereof) of any work which in respect of materials or workmanship is not in the opinion of the Engineer in accordance with the contract.

10. Default of the contract in compliance:

In case of the default on the part of the contractor in carrying out such order, the employer shall be entitled to employ and pay other persons to carryout the same and all expenses consequent thereon or incidental thereto shall be borne by the contractor and recoverable from him by the employer from any moneys due or which may become due to the contractor.

11. All materials used shall be new and no material shall be used on the work without the prior approval of the Engineer or his representative.
12. The decision of the Engineer or his representative regarding the quality of any materials used on the work will be final and binding on the contractor. He shall remove from the site of work any material rejected as unfit for use on the work at his own cost as soon as he is ordered to do so, failing which the Engineer or his representatives shall remove such materials from the site of work and shall deduct the cost incurred by such removal by the University from the site of work from any moneys due to the contractor.
13. All the work shall be carried out as per relevant specifications and to the satisfaction of the Engineer.
14. The specification of all other materials shall be as per the Civil Engineering Works Manual of Indian Maritime University with latest amendments unless otherwise specified and/or relevant Indian Standard specifications as applicable. All BIS specification referred to in this schedule shall be the latest version.

Part III - Specification of works

1. The term **Demolition** implies breaking up. This shall consist of demolishing whole or part of work including all relevant items as specified or shown in the drawing.
2. The term **Dismantling** implies carefully removing without damage (up or down). This shall consist of dismantling one or more parts of the structure and other structures specified or shown in the drawing.
3. The tenderer is deemed to have inspected the structures for dismantling / demolition and acquainted himself with their condition. The dismantling /demolition shall be done carefully, without causing any damage to the property of the University and / or other agencies.
4. The demolished materials shall not be used by the tenderer for any other works.
5. The working area should be cordoned off from the rest of the operational area and there should be no obstruction/hindrance to the handling operations in the vicinity. The newly constructed structure shall be protected against all traffic usage including that during construction by providing necessary barricading, danger lights and flags etc., wherever necessary. Any part of the structure damaged by traffic or other causes occurring prior to its final acceptance shall be repaired or replaced in a manner satisfactory to the Engineer or his representative. Traffic shall be excluded from the newly constructed structure for a period of 14 days. Before the area is opened to traffic, it shall be cleaned.
6. All the works shall be carried out as per the CPWD Manual with latest amendments and/or relevant Indian Standard Specification as applicable. All BIS specification referred to in this schedule shall be the latest version.
7. All works embracing more than one process shall be subject to examination and approval at each stage thereof and the contractor shall give due notice to the Engineer's representative when each

stage is ready. In default of such notice, the Engineer's representative shall be entitled to appraise the quality and extent thereof.

8. No work shall be covered up or put out of view without the approval of the Engineer's representative and the contractor shall afford full opportunity for examination and measurement of any work which is about to be covered up or put out of view and for examinations of foundations before permanent work is placed thereon. The contractor shall give due notice to the Engineer's representative whenever any such work or foundation is ready for examination and the Engineer's representative shall without unreasonable delay, unless he considers it necessary and advises the contractor accordingly, attend for the purpose of examining and measuring such work or of examining such foundations. In the event of the failure of the contractor to give such notice, he shall if required, by the Engineer's representative uncover such work. The entire cost of such uncovering of work and making good the same thereafter to the satisfaction of the Engineer's representative shall be born by the contractor.
9. Departmental office concerned with the contract shall have powers to inspect and examine any part of the works any time and the contractor shall give such facilities as may be required for such inspection and examination.
10. As soon as in the opinion of the Engineer, the work has been completed and satisfactorily passed in the final test that may be prescribed by the contract, the Engineer shall on receiving a written undertaking by the contractor, issue a certificate of completion in respect of the works and the period of maintenance shall commence from the date of such certificate.

INDIAN MARITIME UNIVERSITY
SECTION-IV
GENERAL CONDITIONS OF CONTRACT

1. **Definitions and Interpretations:**

In the contract (as hereinafter defined) the following words and expressions shall have the meaning hereby respectively assigned to them except where the context otherwise required:

- 1.1 “IMU(Chennai Campus)” means Indian Maritime University(Chennai Campus)
- 1.2 “EC” means the Executive Council of IMU(Chennai Campus).
- 1.3 “Employer” means the Director, IMU(Chennai Campus) or any other officer nominated by the IMU(Chennai Campus) and legal successors in title to such person but not (except with the consent of the contractor) any assignee of such person.
- 1.4 “Director” means the Director of IMU (Chennai Campus) and his successors.
- 1.5 “Engineer” means Executive Engineer appointed by the Director who shall direct and supervise and to perform the duties set forth in sub clause 3.2 hereof and be in-charge of the works.
- 1.6 “Engineer’s representative” means a person appointed by the Engineer to assist the Engineer in carrying out his duty under sub-clause 1.5.
- 1.7 **“Constructional Plant”** means all appliances or things of whatsoever nature required in or about the execution, completion or maintenance of the “works” or “temporary works” (as hereinafter defined) but do not include materials or other things intended to form or forming part of the Permanent work.
- 1.8 **“Tender”** means the contractor’s priced offer to the Employer for the execution and completion of the works and the remedying of any defects therein in all accordance with the provisions of the contract, as accepted by the Letter of Acceptance – Work order.
- 1.9 **“Letter of Acceptance”, “Work Order”** means the formal acceptance by the Employer.
- 1.10 **“Contract”** means the documents forming the tender and acceptance thereof and the formal agreement executed between the University and contractor together with the documents referred to therein including the General conditions, Special conditions of contract, specifications, designs, Drawings, Priced Bill of quantities 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.

- 1.11 **“Contractor”** means the persons or firm or company whose tender has been accepted by the University and the legal personnel, representatives or the successors of such firm or company and the permitted assigns of such persons or firm company.
- 1.12 **“Sub-Contractor”** means any person named in the contract as a sub-contractor for a part of the works or any person to whom a part of the works has been sub-contracted with the consent of the Engineer and the legal successors in title to such person, but not any assignee of any such person.
- 1.13 **“Contract price”** means the sum named in the tender subject to such additions, thereto or deductions there from as may be made under the provisions hereinafter contained.
- 1.14 **“Specification”** means the specification of the works included in the contract and any modification thereof or addition thereto made or submitted by the contractor and approved by the Engineer.
- 1.14 **“Drawings”** means the drawings referred to in the contract agreement and any modifications of such drawings approved in writing by the Chief Engineer and such other drawings as may from time to time be furnished or approved in writing by the Chief Engineer.
- 1.15 **“Bill of Quantities”** means the priced and completed Bill of Quantities forming part of the tender.
- 1.16 **“Site”** means the lands and other places on / under / in / or through which the “works” are to be executed or carried out and any other lands or places provided by the University for the purposes of the contract.
- 1.17 **“Works”** or **“Work”** means the work by virtue of the contract to be executed in accordance with the contract under the relevant schedule whether temporary or permanent and whether original, altered, substituted or additional.
- 1.18 **“Temporary works,”** means temporary works of every kind required in the execution, completion or maintenance of the works and which do not form an item of the work or works.
- 1.19 **“University’s Stores”** means the storage yards for materials of the anywhere in the university premises.
- 1.20 **“Schedule(s)”** referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers issued by Employer.
- 1.21 **“Approved”** means approved in writing including subsequent written confirmation of previous verbal approval and “Approval” means approval in writing including as aforesaid.
- 1.22 **“Market Price”** means the rate as decided by the Engineer on the basis of the cost of materials and labour to the contractor at the site where the works are to be executed plus the percentage mentioned in Schedule to cover all overheads and profit.
- 1.23 **“Nominated sub Contractor”** means all specialists, merchants, tradesmen and others executing any special work or supplying any materials for which provisional or prime cost sums are included in the

contract, who may have been or be nominated or selected or approved by the Employer / Engineer and shall be deemed to be employed by the contractor.

- 1.24 **“Prime costs”** and **“Prime cost sum”** means the amount actually paid by the contractor for any article, commodity or special work and shall include all proper charges for packing, carriage and delivery to site, after deduction of all trade discounts, rebates and allowances and the discount obtainable for cash insofar as such discount for cash exceeds 2 ½%.
- 1.25 **“Provisional sum”** or **“Provisional Lump sum”** means a lump sum included by the Employer in the tender documents and shall represent the estimated value of work for which details are not available at the time of issue of tender.
- 1.26 **“A day”** means a day 24 hours from midnight to the next midnight irrespective of the number of hours worked in that day.
- 1.27 **“A week”** means seven days without regard to the number of hours worked in any day in that week.
- 1.28 **“A month”** means a month according to Gregorian calendar.
- 1.29 **“Commencement Date”** means the deemed date of commencement of the work pursuant to **Clause – 25 of Section II.**
- 1.30 **“Time for Completion”** means the time for completing the execution and complying with and fulfilling the requirements on completion of the works or any section or part thereof as stated in the contract (or as extended under **Clause – 25 of Section II**) calculated from the commencement date.
- 1.31 **“Requirements on completion”** means the requirements specified in the contract or otherwise agreed by the Engineer and the contractor which are to be done and complied by the contractor before the works or any section or part thereof are taken over by the Engineer.
- 1.32 **“Taking-over Certificate”** means a certificate issued pursuant to **Clause – 26 of Section II.**
- 1.33 **“Retention Money”** means the aggregate of all monies retained by the Employer pursuant to **Clause – 37 of Section II.**
- 1.34 **“Provisional Items”** shall mean items for which approximate quantities have been included in the tender documents.
- 1.35 **“Urgent works”** shall mean any urgent measures which in the opinion of the Engineer-in-charge become necessary during the progress of the works to obviate any risk of accident or failure or which become necessary for security.
- 2.1 **Singular & Plural:**
Words importing the singular only also include the plural and vice versa where the context so requires.
- 2.2 **Interpretation:**
Words importing persons or parties shall include firms and corporations and any organization having legal capacity.

2.3 **Marginal headings or Notes:**

The marginal headings or notes in these General conditions shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof of the contract.

3.1 **Engineer's Authority to Delegate:**

The Engineer may from time to time delegate to the Engineer's representative any of the duties and authorities vested in the Engineer and he may at any time revoke such delegation. Any such delegation or revocation shall be in writing and shall not take effect until a copy thereof has been delivered to the contractor.

3.2 **Duties & powers of Engineer's representative:**

The duties of the Engineer's Representative are to watch and supervise the works and to test and examine any materials to be used or workmanship employed in connection with the works. He shall have no authority to relieve the contractor of any of his duties or obligations under the contract nor except as expressly provided hereunder or elsewhere in the contract to order any work involving delay or any extra payment by the employer nor to make any variation of or in the works. The Engineer may from time to time in writing delegate to the Engineer's representative any of the powers and authorities vested in the Engineer and shall furnish to the contractor, a copy of all such written delegations of powers and authorities. Any written instruction or approvals given by the Engineer's representative to the contractor within the terms of such delegation (but not otherwise) shall bind the contractor and the employer as though it had been given by the Engineer, provided as follows.

- i. Failure of the Engineer's Representative to disapprove any work or materials shall not prejudice the power of the Engineer thereafter to disapprove such work or materials and to order the pulling down or removal or breaking up thereof;
- ii. If the contractor shall be dissatisfied by reason of any decision of the Engineer's Representative he shall be entitled to refer the matter to the Engineer who shall thereupon confirm / reverse or vary the contents of such decisions.

3.3 **Appointment of Assistants**

The Engineer or the Engineer's Representative may appoint any number of persons to assist the Engineer's Representative in carrying out his duties under **Sub-Clause 1.4**. He shall notify to the contractor the names, duties and scope of authority of such persons. Such assistants shall have no authority to issue any instructions to the contractor save in so far as such instructions may be necessary to enable them to carry out their duties and to secure their acceptance of materials, plant or workmanship as being in accordance with the contract, and any instructions given by any of them for those purposes shall be deemed to have been given by the Engineer's Representative.

3.4 **Instructions in Writing**

Instructions given by the Engineer shall be in writing, provided that if for any reason the Engineer considers it necessary to give any such instruction orally, the contractor shall comply with such instruction. Confirmation in writing of such oral instruction given by the Engineer, whether before or after carryout of the instruction, shall be deemed to be an instruction within the meaning of this Clause. Provided further that if the contractor, within 7 days, confirms in writing to the Engineer any oral instruction of the Engineer and such confirmation is not contradicted in writing within 7 days by the Engineer, it shall be deemed to be an instruction of the Engineer.

The provisions of this Clause shall equally apply to instructions given by the Engineer's Representative and any assistants of the Engineer or the Engineer's representative appointed pursuant to **Sub-Clause 3.3**.

3.5 **Engineer to Act Impartially**

Wherever, under the contract, the Engineer is required to exercise his discretion by:

- a) giving his decision, opinion or consent, or
- b) expressing his satisfaction or approval, or
- c) determining value, or
- d) otherwise taking action which may affect the rights and obligations of the Employer or the contractor.

He shall exercise such discretion impartially within the terms of the contract and having regard to all the circumstances. Any such decisions, opinion, consent, expressing of satisfaction, or approval, determination of value or action may be opened up and reviewed.

4 **Assignment and subletting:**

4.1 **Assignment:**

The contractor shall not assign the contract or any part thereof or any benefits or interest there in or there under without the prior written consent of the Employer.

4.2 **Subletting:**

The Contractor shall not sublet the whole of the works, except where otherwise provided by the contract. The contractor shall not sublet any part of the works without the prior written consent of the Engineer (which shall not be unreasonably withheld) and such consent, if given shall not relieve the contractor of any liability or obligation under the contract and he shall be responsible for the acts, defaults and neglects of any subcontractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the contractor, his agents, servants or workmen, Provided always that the provision of labour on piece work basis shall not be deemed to be subletting or assignment of benefit or interest under this clause.

5. **Extent of contract:**

The contract comprises the manufacture, supply, construction, completion and maintenance of the works and excepting so far as the contract otherwise the provisions of all labour, materials, constructional plant, temporary or permanent nature required in and

for such construction, completion and maintenance so far as the necessity for providing the same is specified in or reasonably to be inferred from the contract.

The entire site over which the works are to be executed will be given possession immediately after the work order. In such cases where it is possible to give possession in piece meal or in parts in a phased manner, the period of completion of work shall vary depending upon the date of handing over the site to the contractor.

6 Contract documents:

6.1 Language(s) and Law

The Language, in which the contract documents shall be drawn up, shall be in English.

The Law of India shall apply to the contract and the contract shall be construed according to the said Law.. Any litigation arising out this agreement, shall only be adjudicated before the competent court of law within the jurisdiction of the Hon'ble High Court of Madras

6.2 Priority of Contract Documents

The several documents forming the contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies the same shall be explained and adjusted by the Engineer who shall thereupon issue to the contractor instructions thereon and in such event, unless otherwise provided in the contract, the priority of the documents forming the contract shall as follows:

- a) The Contract Agreement (if completed);
- b) The Letter of Acceptance – Work Order;
- c) The tender form with Appendices
- d) General Conditions
- e) General information and Particular specifications
- f) The Drawings
- g) The Priced Bill of Quantities

6.3 Documents mutually Explanatory:

Except if and to the extent otherwise provided by the contract, the provisions of the General conditions and conditions of particular application shall prevail over those of any other document forming part of the contract. Subject to the foregoing, the several documents forming part of the contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies, the same shall be explained and adjusted by the Engineer who shall thereupon issue to the contractor, instructions directing in what manner the work is to be carried out.

If there are varying or conflicting provisions made in any one document forming part of the contract, the Engineer shall be the deciding authority with regard to the intention of the document.

Any error in description and quantity or rates in schedule or rates in schedule of works / items or bill of quantities or any omission there from shall not vitiate the contract or release the contractor from the execution of the whole or any part of the works comprised therein

according to drawings and specifications or from any of the obligations under the contract.

6.4 **Custody of Drawings:**

The Drawings shall remain in the sole custody of the Engineer but two copies of these shall be furnished to the Contractor free of cost. The contractor shall provide and make at his own expense any further copies required by him. At the completion of the contract the contractor, shall return to the Engineer all drawings provided under the contract, if so desired by the Engineer.

The contractor shall give adequate notice in writing to the Engineer or Engineer's Representative of any further drawing or specification that may be required for the execution of the works or otherwise under the contract.

In case alternative design submitted by the contractor is accepted by the Engineer and works executed as per alternative design, the original tracing and copies of drawings which may be with the Contractor, shall be handed over to the Engineer on completion of the work and such tracings and drawings shall become the property of the Engineer. One copy of the Drawings furnished to the contractor or prepared by the Contractor and approved by the Engineer in case of contractor's alternative designs as aforesaid shall be kept by the Contractor at the site and the same shall at all the reasonable times be available for inspection and use by the Engineer and the Engineer's Representative and by any person authorized by the Engineer in writing.

The Engineer shall have full power and authority to supply to the contractor, from time to time during the progress of the works such further Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and maintenance of the works. Such supplementary drawings, issued / approved during the currency of contract will also form part of the contract and the Contractor shall carry out and be bound by the same.

6.5 **One copy of Drawings to be kept on Site**

One copy of the drawings, provided to or supplied by the contractor as aforesaid, shall be kept by the contractor on the site and the same shall at all reasonable times be available for inspection and use by the Engineer and by any other person authorized by the Engineer in writing.

6.6 **Disruption of Progress**

The contractor shall give notice to the Engineer whenever planning or execution of the works is likely to be delayed or disrupted unless any further drawing or instruction is issued by the Engineer within a reasonable time. The notice shall include details of the drawing or instruction required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late.

6.7 **Delays and Cost of Delay of Drawings**

If, by reason of any failure or inability of the Engineer to issue, within a time reasonable in all the circumstances, any drawing or instruction

for which notice has been given by the contractor in accordance with **Sub-Clause 6.6**, the contractor suffers delay then the Engineer shall, after due consultation with the contractor, determine any extension of time to which the contractor is entitled under **Clause 29**, and shall notify the contractor accordingly.

6.8 Failure by contractor to submit Drawings

If the failure or inability of the Engineer to issue any drawings or instructions is caused in whole or in part by the failure of the contractor to submit drawings, specification of other documents, which he is required to submit under the contract, the Engineer shall take such failure by the contractor into account when making his determination pursuant to **Sub-Clause 6.7**.

6.9 Supplementary Drawings and Instructions

The Engineer shall have authority to issue to the contractor, from time to time, such supplementary drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the works and the remedying of any defects therein. The contractor shall carryout and be bound by the same.

6.10 Works Designed by Contractor

Where the contract expressly provides that part of the Works shall be designed by the contractor, he shall submit to the Engineer, for approval:

- a) such drawings, specifications, calculations and other information as shall be necessary to satisfy the Engineer as to the suitability and adequacy of that design, and
- b) operation and maintenance manuals together with drawings of the works as completed, in sufficient detail to enable the Engineer to operate, maintain and adjust the works incorporating that design.

6.11 Responsibility Unaffected by Approval

Approval by the Engineer, in accordance with **Sub-Clause 6.10**, shall not relieve the contractor of any of his responsibilities under the contract.

7.1 Work to be to the satisfaction of the Engineer:

The contractor shall with the due care and diligent, designs (to the extend provided for by the contract), execute, complete and maintain the works in strict accordance with the contract to the satisfaction of the Engineer and shall comply with and adhere strictly to the Engineer's instructions and directions on any matter (whether mentioned in the contract or not) touching or concerning the works. The contractor shall take instructions and directions only from the Engineer and from the Engineer's representative (subject to the limitations referred to in **clause 3.1** hereof).

7.2 Work to be in accordance with Contract

- 7.2.1** Unless it is legally impossible, the contractor shall execute and complete the works and remedy any defects therein in strict accordance with the contract to the satisfaction of the Engineer. The contractor shall comply with and adhere strictly to the Engineer's

instructions on any matter, whether mentioned in the contract or not, touching or concerning the works.

7.2.2 The contractor shall take instructions only from the Engineer, or subject to the provisions of **Clause - 3.1**, from the Engineer's representative / Engineer's assistants.

8. **Contractor's Superintendence:**

The contractor shall give or provide all necessary superintendence to the complete satisfaction of the Engineer during the execution of the works, and as long thereafter as the Engineer may consider necessary. The contractor or a competent and authorized agent or representative approved in Writing by the Engineer (which approval may at any time be withdrawn) is to be constantly on the work and shall give his whole time to the superintendence of the same. Such authorized agent or representative shall receive on behalf of the contractor, directions and instructions from the Engineer or the Engineer's representative (Subject to the limitations of **Clause 3.1** hereof).

The contractor's Agent and Senior site staff shall be capable of receiving and giving instructions, understanding specifications, drawings and other instructions and carrying out all their business in English language.

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.

9.1 **Contractor's Labour:**

The contractor shall employ labour in sufficient numbers either directly or through sub contractors to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the contract and to the satisfaction of the Engineer-in-charge. The contractor shall not employ in connection with the works any person who has not completed fifteen-years of age. The contractor shall obtain a valid license under the Central 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. Any failure to fulfill this requirement shall attract the penal provisions of the contract arising out of the resultant non-execution of the work.

The contractor / Firm shall submit antecedent verification certificate for contract labourers & workers employed for the work" and produce the same for verification of the Engineer's representative.

9.2 **Housing for Labour**

Save in so far as the Contract otherwise provides, the Contractor shall provide and maintain such accommodation and amenities as he may consider necessary for all his staff and labour, employed for the purposes of or in connection with the Contract, including all fencing, water supply (both for drinking and other purposes), electricity supply, sanitation, cook houses, fire prevention and fire-fighting equipment, furniture other requirements in connection with such accommodation or amenities at their cost outside the University

premise. No labour camps shall be allowed inside the University premises.

9.3 **Entry in University premises:**

9.3.1 Only vehicles licensed by the University will be allowed inside the University premises.

9.4 **Security arrangements:**

The contractor shall comply with all the regulations imposed by the University Security Authorities in respect of the passage of plant, vehicles, materials and personal through customs barriers.

9.5 **Fair Wages:**

The contractor shall pay the labour engaged by him on the work not less than fair wages which expression shall mean whether for the time of piece work, the labour rates of wages as fixed by the Central Public Works Department as fair wages of the state payable to the different categories of labourers of those as notified under the Minimum Wages Act for the district for corresponding employees of the Employer whichever may be higher.

“The Engineer in charge of the works or his authorized representative will make necessary arrangements for witnessing the payment by the contractor to his labourers. The contractor should arrange for that and get the certificate from the department as required in terms of the CPWD contract labour regulations”.

9.6 **Festival and Religious Customs:**

The contractor shall allow his labourers to avail the Government notified national and local festival holiday and also such closed holidays for the University declared by the Employer and also have due regard to local religious and social customs in respect of labour employed by him.

9.7 **Wage Records:**

The contractor shall, maintain records of wages and other remuneration paid to his employees in such forms as may be convenient and to the requirement of the Engineer and Conciliation Officer, Central Ministry of Labour, Government of India or such other authorized persons appointed by the State Government. The Contractor shall also exhibit the different notices as required under the Minimum Wages Act, 1949, Payment of Wages Act, 1936 and other Act / Rules and Regulation made there under from time to time.

9.8 **Returns of Labour:**

The contractor shall, if required by the Engineer, deliver to the Engineer's Representative or at his office, a return in detail in such form and at such intervals as the Engineer may prescribe showing the supervisory staff and the numbers of the various classes of labour from time to time employed by the contractor on the site and such information respecting constructional plant as the Engineer's representative may require.

9.9 **Removal of workmen:**

The contractor shall employ in and about the execution of the work only such persons as are careful, skilled and experienced in their

several trades and calling to the approval of the Engineer. The Engineer shall be at liberty to object to and to require the contractor to remove from the above works any person employed by the contractor in or about the execution of the works who in the opinion of the Engineer misconducts himself or is incompetent or is negligent in the proper performance of his duties and such persons shall not be again employed in the works without permission of the Engineer.

9.10 Contractor's temporary structures:

The contractor may at his own expenses and subject to the approval of the Engineer, construct temporary offices, stores, workshops in the area allotted to him and remove the same as per the order of the Engineer on completion of the contract. No hire charges are payable for the area allotted during the contract period or such extended time as granted by the Engineer. However, the hire charges for the land area utilized by the contractor after completion of the contract period or such extended time shall be recovered from the contractor at the rate fixed by the University from time to time.

9.11 Employment of the Government Retired persons:

No Engineer of gazetted rank or other class I & II officers employed in Engineering or administrative duties in an Engineering department of the Government of India / University is allowed to work as a contractor for a period of 2 years of his retirement from Government / University service without the previous permission of Government of India or by the University as the case may be. The contract is liable to be cancelled if either the contractor or any of his employee is found at any time to be such a person who had not obtained the permission of Government of India / University as the case may be as aforesaid before submission of the tender or engagement in the contractor's service as the case may be.

9.12 Regarding employment of the foreigner:

9.12.1 If any foreigner is employed by the contractor to work within the University premises, the contractor shall ensure that such a foreigner possess the necessary special permit issued by the Civil Authorities in writing and also comply with the instructions issued there for from time to time. In the event of any lapse in this regard on the part of such foreigner, the contractor shall be personally held responsible for the lapse and the University shall not be liable in any event.

The contractor shall employ labour in sufficient numbers either directly or through sub contractors to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the contract and to the satisfaction of the Engineer-in-charge. The contractor shall not employ in connection with the works any person who has not completed fifteen-years of age. The contractor shall obtain a valid license under the Central 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.

Any failure to fulfill this requirement shall attract the penal provisions of the contract arising out of the resultant non-execution of the work.

10. **Setting out the works:**

The Engineer in-charge shall supply basic data such as dimensional drawings, levels and alignment for the work and other information necessary to enable the contractor to set out the work. The benchmark and a base line of specified relationship with reference to the alignment of the works shall also be supplied by the Engineer-in-charge in writing and the contractors shall provide all setting out apparatus required and setting out of the works. The contractor shall be fully responsible for the true and proper setting out of the works and for the correctness of the position levels, dimensions and alignment of all parts of the works and for the provision of all necessary instruments, appliances and labour in connection therewith. If at any time during the progress of the works any error shall apply or arise in the position levels, dimensions or alignment of any part of the works, the contractor on being required to do so by the Engineer shall at his own expense rectify such error to the satisfaction of the Engineer unless such error is based on incorrect data supplied in writing by the Engineer or by the Engineer's representative, in which case the expenses of rectifying the same shall be borne by the University. The checking of any setting out and or of and line or level by the Engineer's representative shall not in any way relieve the contractor of his responsibility for the correctness thereof and the contractor shall carefully protect and preserve all benchmarks, site rails, pegs and other things used in setting out the works.

11. **Watching and lighting:**

The contractor shall in connection with the works provide and maintain at his own cost all lights, guards, fencing and watching when and where necessary as required by the Engineer or by any competent statutory or other authority for the protection of the works, materials, etc., or for the safety and convenience of the public or others.

All lights provided by the contractor shall be placed or screened so as not to interfere with any signal lights on the Employer's Railway or with any navigational lights or with any traffic or signal lights of any local or other authority.

12.1 **Dismantled Materials:**

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

12.2 **Contractor to keep site clean:**

During the execution of the works the Contractor shall keep the Site reasonably free from all unnecessary obstruction and shall store or dispose of any Contractor's Equipment and surplus materials and

clear away and remove from the Site any wreckage, rubbish or Temporary Works no longer required.

13.1 **Extraordinary Traffic:**

The contractor shall use every reasonable means to prevent any of the access road communicating with or on routes to the site from being damaged or injured by any traffic of the contractor or any of his sub contractors and in particular shall select routes, choose and use vehicles and also restrict and distribute loads so that any such extraordinary traffic as will inevitable access from the moving of plant and materials from and to the site shall be limited as far as reasonably and so that no unnecessary damage or injury may be occasioned to such approach.

The contractor's attention is drawn to the fact that the other contractors employed by the Employer will be working in the vicinity of the construction of structures. Hence, the contractors shall allow other agencies for work if any and shall allow such agencies the use of scaffolding the similar conveniences which any building contractor might have put up and shall further give such agencies facilities to carry out their trades. Works like punching the walls, floors and making them good, required during the electrification shall be done by the building contractors for which they may not be made any special payment by the University. The contractor's working arrangements should be in such a manner as to cause no hindrance to the other contractors working nearby or to the functions of the University and to enable other contractors / department / other agencies to work contemporaneously on separate contracts.

13.2 **Interference with Traffic and adjoining properties:**

All operations necessary for the execution and completion of the Works and the remedying of any defects therein shall, so far as compliance with the requirements of the Contract permits, be carried on so as not to interfere unnecessarily or improperly with:

- a) the convenience of the public, or
- b) the access to, use and occupation of public or private roads and footpaths to or of properties whether in the possession of the Employer or of any other person.

The Contractor shall save harmless and indemnify the Employer in respect of all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of, or in relation to any such matters in so far as the Contractor is responsible there for.

14.1 **Opportunities for Other Contractor**

The Contractor shall, in accordance with the requirements of the Engineer, afford all reasonable opportunities for carrying out their work to:

- a) any other Contractors employed by the Engineer and their workmen.
- b) the workmen of the Employer, and
- c) the workmen of any duly constituted authorities who may be employed in the execution on or near the Site of any work not

included in the Contract or of any Contract which the Engineer may enter into in connection with or ancillary to the Works.

14.2 Facilities for Other Contractors

If, however, pursuant to **Sub-Clause - 14.1** the Contractor shall, on the written request of the Engineer:

- a) permit the use, by any such, of Temporary works or Contractor's Equipment on the Site, or
- b) provide any other service of whatsoever nature for any such, the Engineer shall determine an addition to the Contract Price.

15. Supply of plant, materials and labour:

15.1 Except where otherwise specified in the contract, the contractor shall at his own expenses supply and provide all the constructional plant, temporary works, materials both for temporary and permanent works under the contract, labour (including the supervision thereof) transport to or from site and in and about the works and other things of every kind required for the construction, completion and maintenance of the works.

15.2 The contractor shall not hire out any item of plant or equipment brought by him, in connection with the execution of the work under the contract to any other party in connection with any work of the latter in the University without the written permission of the Engineer and such permission may or may not be granted by the Engineer.

15.3 The contractor shall at his own costs make due arrangements for the proper watch and safety of all materials and plant supplied to him by the University / or brought by him for use on this work. He shall not remove such constructional plant or materials from the site without the permission of the Engineer.

If any of the materials supplied or constructional plant hired out by the department are lost or damaged in any way due to negligence or carelessness on the part of the contractor or his employees, the cost thereof determined by the Engineer shall be recovered from the contractor from any moneys due to him or to become due to him.

15.4 Avoidance of Damage to Roads

The Contractor shall use every reasonable means to prevent any of the roads or bridges communicating with or on the routes to the Site from being damaged or injured by any traffic of the Contractor or any of his Sub-Contractor and, in particular, shall select routes, choose and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will inevitably arise from the moving of materials, Plant, Contractor's Equipment or Temporary works from and to the Site shall be limited, as far as reasonable possible, and so that no unnecessary damage or injury may be occasioned to such road and bridges.

15.5 Transport of Contractor's Equipment or Temporary Works

Save in so far as the Contract otherwise provides, the Contractor shall be responsible for and shall pay the cost of strengthening any bridges or altering or improving any road communicating with or on the routes to the Site to facilitate the movement of Contractor's equipment

or Temporary Works and the Contractor shall indemnify and keep indemnified the Employer against all claims for damage to any such road or bridge caused by such movement, including such claims as may be made directly against the Employer and shall negotiate and pay all claims arising solely out of such damage.

15.6 **Transport of Materials or Plant**

If, notwithstanding **Sub-Clause - 15.4**, any damage occurs to any bridge or road communicating with or on the routes to the Site arising from the transport of materials or Plant, the Contractor shall notify the Engineer, as soon as he becomes aware of such damage or as soon as receives any claim from the authority entitled to make such claim. Where under any Law or Regulation the haulier of such materials or Plant is required to indemnify the road authority against damage, the Employer shall not be liable for any costs, charges or expenses in respect thereof or in relation thereto.

16. **Clearance of site on completion:**

Upon completion of works, the contractor shall clear away and remove from the site all the constructional plant, temporary works remaining thereon, any unused materials provided by the contractor, and surplus materials and rubbish of every kind and leave the site and works clean and in a workman-like condition to the satisfaction of the Engineer-in-charge.

If the contractor fails to remove any such constructional plant, temporary works or unused materials within such reasonable time after completion of works as may be allowed by the Engineer, then the Employer may sell the same and shall after deduction from the proceeds, cost, charges and expenses of and in connection with such sale, pay the balance if any, to the contractor.

The Employer shall not at any time be liable for the loss or injury to any of the said constructional plant, temporary works or materials.

17. **Bribes, Commission and Corrupt Gifts:**

Any bribe, commission, gift or advantage given, promised or offered by or on behalf of the contractor or his partner, agent or servant or any one of his or their behalf to any officer, servant, representative or agent of the Engineer or to any person on his behalf in relation to the obtaining or to the execution of this or any other contract with the Employer shall in addition to any criminal liability which he may incur subject the contractor to the cancellation of this and all other contracts with Employer and also to the payment of any loss or amounts resulting from any such cancellation. Further, the employer shall be entitled to deduct the amounts so payable from any money otherwise due to the contractor during this or any other contract. Any question or dispute as to the commission of any offence under the present clause shall be settled by the Engineer, in such manner and on such evidence or information as he shall think fit and consider sufficient and his decision shall be final and binding on the contractor.

The tender involves an obligation of secrecy and the commission by the contractor, his agents, servants of sub-contractors or their agents or servants of any offence under the Indian Official Secrets Act, 1923, or any statutory modification or re-enactment thereof will apart from any criminal liability constitute a breach of the contract.

18. **Use of explosives:**
Except as may be provided in the specification or approved by the Engineer, the contractor shall not use explosives. The contractor shall only permit handling and use of explosives to be carried by men fully qualified and experienced in the storage, handling and issues of the types of explosives to be used. He shall comply with the provisions of Indian Explosives Act.
19. **Levels:**
The contractor shall provide all assistance, instruments, labour and materials as are normally required for taking levels for the work. The contractor shall provide at his own expense experienced attendants for the Engineer or his representative to assist him in taking levels and checking of alignments.
20. **Inflammable stores:**
The contractor shall comply with all Central and Local regulations in respect of storage of all inflammable stores or other materials safe involving risk to third parties and shall take all special precautions required in the transport and use of such materials. The contractors shall submit to the Engineer for approval, all drawings and documents required for the construction of storage sheds to the proper requirements.
21. **Nuisance, disorderly conduct etc.:**
The contractor shall at all times take all reasonable precautions or prevent any unlawful, riotous or disorderly conduct by or amongst his employees and for the preservation of peace and protection of persons and property in the neighborhood of the works against the same.
22. **Accidents - Reporting of:**
The contractor shall within 24 hours of the occurrence of any accident at or about the site or in connection with the execution of the work, report such accident to the Engineer's representative. The contractor shall also report such accidents to the competent authorities to whom such report is required by laws.
23. **Materials brought to site:**
Materials required for the works, whether brought by the Contractor or supplied by the Employer shall be stored by the contractor only at a place approved by the Engineer. The storage and safe custody of materials shall be the responsibility of the contractor. All materials brought to the site shall become and remains the property of the Employer and shall not be removed off the site without the prior written approval of the Engineer. But whenever the works are finally completed and advance, if any, in respect of any such materials is fully recovered, the contractor shall at his own expense forthwith remove from the site all surplus materials originally supplied by him

and upon such removal, the same shall revert to and become the property of the contractor.

24.1 **Cost of the Tests:**

The cost of making any test shall be borne by the contractor if such test is clearly intended or provided for in the specifications or Bill of Quantities and in the cases only of a test under load or of a test to ascertain whether the design of any finished or partially finished work is appropriate for the purpose which was intended to fulfill is particularized in the specification or bill of quantities in sufficient detail to enable the contractor to price or allow for the same in his tender. In case specification for a particular item is not in the tender document, relevant I.S. specification and in their absence, other international standards will apply.

24.2 **Cost of Tests not provided for:**

If any test is ordered by the Engineer which is either not so intended by or provided for or (in the cases above mentioned) is not particularized or though so intended or provided for is ordered by the Engineer to be carried out by an Independent person at any place other than the site or the place of manufacture or fabrication of the materials tested, then the cost of such test shall be borne by the contractor, if the test shows the workmanship or materials not to be in accordance with the provisions of the contract or the Engineer's instructions but otherwise by the Employer.

25. **Access to site:**

The Engineer and any person authorised by him shall at all times have access to the works and to the site and to all workshops and places where work is being prepared or when materials, manufactured articles, or machinery are being obtained for the works and the Contractor shall afford every facility for every assistance in or in obtaining the right to such access.

26. **Inspection register:**

An inspection register is required to be maintained at the site of work, duly issued by the Engineer's representative and docketed by from the Engineer's assistant's office. Which must be produced whenever called upon to do so by the Engineer or his representative during their inspection of the work. It will be the responsibility of the Engineer's assistant to ensure that the observations of the inspection officers for each and every visit are available in the inspection register either through recorded notes or through pasting the inspection notes. The Engineer's assistant shall carry over such observation and defects, on which action is to be taken by the contractor, to the site order book with cross-reference in the inspection register. The observations recorded in the inspection register by Engineer or his representative is reviewed during subsequent inspections to ensure their compliance.

27.1 **Removal of improper works & material:**

The Engineer shall during the progress of the works have power to order in writing from time to time the following:

- i. The removal from the site within such time or times as may be specified in the order of any materials, which in the opinion of the Engineer are not in accordance with the contract.
- ii. The substitution of materials not in accordance with the contract by proper and suitable materials and
- iii. The removal and proper re-execution (notwithstanding any previous test thereof or interim payment thereof) of any work, which in respect of materials or workmanship, is not in the opinion of the Engineer in accordance with the contract.

27.2 Default of the contractor in compliance:

In case of the default on the part of the contractor in carrying out such order, the employer shall be entitled to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental thereto shall be borne by the contractor and recoverable from him by the Employer from any moneys due or which may become due to the contractor.

28.1 In the event of unsatisfactory progress:

The progress of the work at each stage shall be subject to the approval of the Engineer, whose decision as to the rate of progress at each stage shall be final and binding on the contractor. In case of delay in the progress of work, the Engineer shall issue to the contractor, a memo in writing pointing out the delay in the progress and calling upon the contractor to explain the causes for the delay within 3 days of the receipt of the memo. If the Engineer is not satisfied with the explanation offered, the Engineer may take further action against the contractor including withholding payment of pending bills in whole or in part and also reserves to himself the right to cancel the contract for unsatisfactory progress in the work at any stage.

In the event of the contract being terminated at any stage due to unsatisfactory progress of work, as per clause aforementioned, the Engineer shall have right to execute the portion of works left incomplete using the University's labour or any other agency. The contractor will be liable to make good any loss incurred by the University on this account. Such amounts will be recovered from any moneys due to or to become due to the contractor.

28.2 Suspension of work:

The contractor shall on the written order of the Engineer suspend the progress of the work or any part thereof for such time or times and in such manner as the Engineer may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer. The extra cost including all running wages to be paid on the site, salaries, depreciation and maintenance of plant on site at cost and general overhead cost of the contract incurred by the contractor in giving effect to the Engineer's instructions under this clause shall be borne and paid by the employer unless such suspension is:

- i. otherwise provided for in the contract

or

ii. necessary for the proper execution of the work or by reason or weather conditions affecting the safety or quality of the work or by some default on the part of the contractor

or

iii. necessary for the safety of the works or any part thereof

Provided that the contractor shall not be entitled to recover any such extra cost unless he gives notice in writing of his intention to claim to the Engineer within 28 days of the Engineer's order. The Engineer shall settle and determine such extra payment to be made to the contractor in respect of such claim as shall in the opinion of the Engineer be fair and reasonable.

29 **Extension of time:**

29.1 The contractor shall commence the works on site within the period named in the tender after the receipt by him of an order in writing to this effect from the Engineer and shall proceed with the same with due expedition and without delay except as may be expressly sanctioned or ordered by the Engineer or be wholly beyond the control of the contractor.

29.2 The contractor shall maintain the rate of progress required as per schedule. If the progress of work is held up owing to circumstances, which in the opinion of the Engineer are beyond the control of the contractor, such as war, stormy weather and for other reasonable causes in the opinion of the Engineer, the Engineer may at his discretion grant to the Contractor such extension of time as he considers reasonable for the completion of the work. In such circumstances, the contractor shall apply for extension of time within fifteen days of the hindrance on account of which he desires such extension as aforesaid.

29.3 The execution of the work during the extended period also, shall be only under the conditions and at the rate specified in the contract.

29.4 The grant of such extension of time will not bestow on them any right to claim compensation or extra payment at a future date whatsoever. No claim shall be made by the Contractor on the grounds of executing the work beyond the completion period stipulated in the contract.

30 **Way leaves etc.,**

The contractor shall bear all expenses and charges for special or temporary way leaves required by him in connection with access to the site. The contractor shall also provide at his own cost any additional accommodation outside the site required by him for purpose of the works.

31. **Work during Night or on Sundays and authorised Holidays:**

Subject to any provisions to the contrary contained in the contract, none of the permanent works shall be carried out during night or authorised holidays without prior permission in writing of the Engineer-in-charge. Except when the work is unavoidable or absolutely necessary for the safety of life, property or works in which case the contractor shall immediately advise the Engineer-in-charge accordingly.

32.1 Execution of works of Repair etc.:

To the extent that the works shall at or as soon as practicable after the expiration of the period of maintenance to be delivered up to the Employer in as good and perfect a condition (normal, wear & tear excepted) to the satisfaction of the Engineer as that in which they were at the commencement of the period of maintenance, the contractor shall execute all such work of other repair, amendment, reconstruction, rectification and making good of defects, imperfections, shrinkages or other faults as may be required of the contractor in writing by the Engineer during the period of maintenance or within fourteen days after its expiration as a result of an inspection made by or on behalf of the Engineer prior to its expiration.

32.2 Cost of execution of works, Repair etc.:

All such work shall be carried out by contractor at his own expense if the necessity thereof shall in the opinion of the Engineer be due to the use of materials or workmanship not in accordance with the contract or to neglect or failure on the part of the contractor to comply with any obligation expressed or implied on the contractor's part under the contract. If in the opinion of the Engineer such necessity shall be due to any other cause, the value of such work shall be ascertained and paid for as if it were additional work.

32.3 Remedy on contractor's failure to carry out work required:

If the contractor shall fail to do any such work as aforesaid required by the Engineer, the Employer shall be entitled to carry out such work by his own workmen or by any other contractor. If such work is a work which the contractor should have carried out at the contractor's own costs the Employer shall be entitled to recover from the contractor the cost thereon and may deduct the same from any moneys due or that may become due to the contractor.

33. Compensation for delay:

If the contractor fails to complete the work in all respects within the time specified or within the extended time that may be allowed by the Engineer as per clause 29, the contractor shall pay or allow to the University a sum of contract as liquidated and ascertained damages and not by way of penalty, for every day/week or part thereof beyond the said period or extended period as the case may be during which the work shall remain unfinished. Such damages will be deducted from any Amount payable to or to be payable to the contractor including encashment of Bank Guarantee or any Securities/ Guarantees, if any available with the University. The maximum Amount of Liquidated Damages will be worked out based on the Total Contract value inclusive of all Taxes and Duties thereon.

In case of part / portions of the contract work/ Supply order completed and taken possession by the University and the University operates/ can be made for operation of the part portion/ supply order, the calculation of Liquidated damages will be restricted to the

uncompleted/ undelivered value of the work/ supply order subject to the amount of the maximum percentage prescribed for the Liquidated Damages/ Late Delivery charges of the total value of the contract/supply.

The Liquidated Damages/ Late Delivery charges will be worked out as follows;

i). The Liquidated Damages/ Late Delivery charges whose period of contract / delivery is less than four weeks, Liquidated Damages/ Late Delivery charges will be 1% per day on the contract value subject to maximum of 10% of the contract value.

ii). The Liquidated Damages/ Late Delivery charges whose period of contract / delivery is above four weeks, Liquidated Damages/ Late Delivery charges will be ½% (half percent) per week or part thereof of the total value of the contract subject to a maximum of 5% of the total value of contract.

The payment of such damages does not relieve the contractor of his obligations to complete the works or from any other of his obligations or liabilities under this contract..

34. **Remedy on contractor's failure to carryout the work required**

The progress of the work at each stage will be subject to the approval of the Engineer whose decision as to the rate of progress at each stage shall be final and binding on the contractor. The Engineer reserves to himself the right to cancel the contract for unsatisfactory progress in the work at any stage.

In such an event the Engineer also has the right to execute the portion of works left incomplete using the Universitys own labour or with any other agency and the contractor will be liable to make good an loss incurred by the University on this account. Such amounts will be recovered from any moneys due to or to become due to the contractor.

35. Employment of Technical Staff:

35.1 The contractor shall employ following technical staff during the execution of this work:

- i. *One Graduate Engineer or a retired Assistant Engineer possessing atleast a recognised diploma, when the cost of works to be executed is more than Rs 10 lakhs (Rupees ten lakhs).*
- ii. *One qualified Diploma Holder and having experience of not less than 3 years, when the cost of works to be executed is more than Rs 5 lakhs (Rupees Five lakhs) but less than Rs 10 lakhs (Rupees Ten lakhs).*
- iii. *One qualified Diploma Holder when the cost of works to be executed is more than Rs 2 lakhs (Rupees two lakhs) but less than Rs 5 lakhs (Rupees Five lakhs).*

- iv. *One qualified Supervisory Staff (ITI Certificate Holder) when the cost of the works to be executed is more than Rs 1 lakh (Rupees one lakh) but less than Rs. 2 lakhs (Rupees Two lakhs).*

However, if the cost of work is above one lakh and less than Rs 5.00 lakhs and the contractor himself is qualified, no supervisory staff need be insisted upon.

35.2 The technical staff should be available at site, at all times during the course of execution of work. He will take instructions from the Engineer-in-charge as and when required by him.

35.3 The decision of the Engineer-in-charge as to the period for which the required technical staff was not employed by the contractor and as to the reasonableness of the amount to be deducted on this account shall be final and binding on the contractor as to the amount and the contractor's liability to pay the said amount.

36. **Change in constitution:**

Where the contractor is a partnership firm, prior approval in writing of the Engineer-in-charge shall be obtained before any change is made in the constitution of 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, the firm would have the right to carry out the work hereby undertaken by the contractor.

37. **Termination of contract in the event of death, insanity etc.:**

In the event of death insanity or insolvency of the contractor or in the case of contractor being a partnership on dissolution of the firm of the contractor or in case of the contractor being a company governed by the Companies Act, 1956, the winding up of the company, the contract shall be terminated on the happening of the event above said and all acceptable work shall be measured and paid for to the person or person legally entitled to receive payment for the work done and on his or their executing a bond indemnifying the University against any claims that may be made in respect of payments made by University by persons claiming from the contractor or others in respect of work done by the contractor prior to the termination of the contract.

38. i) If in the opinion of Engineer the contractor
- a. has abandoned the contract (or)
 - b. without reasonable excuse has failed to commence the works or proceed with the works with due diligence or has suspended the progress of work for 20 days after receiving from the Engineer written notice to proceed (or)
 - c. has failed to remove materials from the site or to pull down and replace work for 28 days after receiving from the Engineer written notice that the said materials or work has been condemned and rejected by the Engineer under these conditions.

- d. is not executing the works in accordance with the contract or persistently or flagrantly neglecting to carry out his obligations under the contract (or)
- e. has to the detriment of good workmanship or in defiance of the Chief Engineer's instructions to the contrary sublet any part of the contract. Then, the University may after giving 14 days' notice in writing to the Contractor enter upon the site and the works and expel the contractor there from without thereby avoiding the contract of releasing the contractor from any of his obligations or liabilities under the contract or effecting the rights and powers conferred on the University or the Engineer by the contract and may himself complete the works or may employ any other contractor to complete the works and the University or other contractor may use for such completion so much of the constructional plant, temporary works or may employ any other contractor to complete the work and materials which have been deemed to be reserved exclusively for the construction and completion of the works under the provisions of the contract as he or they may think proper and the University may at any time sell any of the said constructional plant, temporary works and unused materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to the University from the contractor under the contract.
- ii) The Engineer shall as soon as may be practicable after any such entry and expulsion by the University fix and determine exparte or by or after reference to the parties or after such investigations or enquiries as he may think fit to make or institute and shall certify the amount (if any) had at the time of such entry and expulsion been reasonable earned by or would reasonably accrue to the contractor in respect of work then actually done by him under the contract and what was the value of any of the said unused or partially used materials any constructional plant and any temporary works.
- iii) If the University shall enter and expel the contractor under this clause, they shall not be liable to pay to the contractor any money on account of the contract until the expiration of the period of maintenance and thereafter until the costs of completion and maintenance damages for delay, in completion (if any) and all other expenses incurred by the University have been ascertained and amount there for certified by the Chief Engineer. The contractor shall then be entitled to receive only such sum or sums (if any) as the Engineer may certify would have been due to him upon the completion by him after deducting the said amount. But, if such amount shall exceed the sum, which would have been payable to the contractor on due completion by him then the contractor shall upon demand pay to the University the amount of such excess and it shall be

deemed a debt due by the contractor to the University and shall be recoverable accordingly.

39 **Alterations in specifications and designs, Additions and Omissions:**

39.1. The Engineer shall have the power to make any alterations in, omissions from, additions to or substitutions for the original specification, drawings, designs and instructions that may appear to him to be necessary during the progress of the work and the contractor shall carry out the work in accordance with any instruction which may be given to him in writing signed by the Engineer and such alteration, omissions, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work. The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work and the certificate of the Engineer shall be conclusive as to such proportion. The rates for such additional, altered or substituted work under this clause shall be worked out in accordance with the following provisions in their respective order:

- i. If the rates for the additional, altered or substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the contract for the work.
- ii. If the rates for the additional altered or substituted work are not specifically provided in the contract for the work, the rates will be derived from the rates for a similar class of work as are specified in the contract for the work.
- iii. If the altered, additional or substituted work includes any work for which no rate is specified in the contract for the work and which cannot be derived from the similar class of work in the contract, then such work shall, be carried out at the rates entered by the department taking into account the University's own schedule of rates on which the estimated value of work put to Tender was worked out, with minus / plus percentage which the total tendered amount bears to the estimated cost of the entire work put to tender.
- iv. If the rates for altered, additional or substituted work cannot be determined in the manner specified in the **sub-clauses 39.1(i) to 39.1(iii)** above, then the rates / for such work shall be worked out on the basis of the Schedule of rates of the University specified above, minus/ plus the percentage which the total tendered amounts bears to the estimated cost of the entire work put to tender provided always that if the rate for a particular part or parts of the item is not in the Schedule of rate, the rate for such part or parts will be determined by the

Engineer in-charge on the basis of the prevailing market rates when the work was done.

- v. If the rates for the altered, additional of substituted work cannot be determined in the manner specified in the **sub-clause 39.1(i) to 39.1(iv)** above, then the contractor shall within 7 days of the date of receipt of order to carry out the work, inform the Engineer of the rate which is his intention to charge for such class of work, supported by the analysis of the rate or rates claimed and the Engineer shall determine the rate or rates, on the basis of the prevailing market rates and pay the contractor accordingly. However, the Engineer by notice in writing, will be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable, but under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates of items falling under the clause. In the event of any disagreement, the Engineer shall fix such rate or price as shall in his opinion be reasonable and proper having regard to the circumstances and such decision of the Engineer shall be final.

39.2 Except in case of items related to foundations, provisions contained in **sub-clause 39.1(i) to 39.1(v)** above shall not apply to contract or substituted items as individually exceed the percentage set out in the tender document (referred to herein below as “Deviation limit” subject to the following restrictions:

- i. The deviation limit referred to above be the net effect (algebraically sum) of all additions and deductions ordered.
- ii. In no case shall the additions/deductions (arithmetical sum) exceed twice the deviation limit.
- iii. The deviations ordered on items of any individual trade included in the contract shall not exceed +/- 50% of the value of the trade in the contract as a whole or half the deviation limit whichever is less.
- iv. The value of additions of items of any individual trade not already included in the contract shall not exceed 10% of the deviation limit.

Note: *Individual trade means the trade section to which scheduled of quantities annexed to the agreement has been divided or, in the absence of any such division the individual section of the schedule of rates specified above, such as, excavation and earthwork, concrete, wood work and joinery, etc.*

39.3 For the purpose of operation of **clause 39.2**, the following works shall be treated as works relating to foundation:

- i. For buildings, compound walls, plinth level or 1.2 metres (4 feet) above ground level whichever is lower excluding items of flooring and D.P.C. but including base concrete below the floors.
- ii. For abutments, piers, retaining walls of culverts and bridges, walls of water reservoirs, the bed or floor level.

- iii. For retaining walls where floor level is not determinate, 1.2 metres above the average ground level or bed level.
- iv. For roads, all items of excavation and filling including treatment of sub-base and soling work.
- v. For water supply lines, sewer lines, underground storm water drains and similar works. All items of work below ground level except items of pipe work, proper masonry work.
- vi. For open storm water drains, all items of work except lining of drains.

40. **Claims:**

The contractor shall send to the Engineer's representative once in every month an account giving particulars (as full and detailed as possible) of all claims for any additional expenses to which the contractor may consider himself entitled and of all extra or additional work ordered by the Engineer, which he has executed the preceding month and no claim for payment for any such work will be considered which has not been included in such particulars.

41. **Action where no specification of work is available:**

In the case of any class of work for which there is no specification, such work shall be carried out in accordance with the relevant Indian Standards and in the absence of Indian Standards, any equivalent international standards and in the event of there being no standard specifications then in such case, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer in-charge.

42. **No compensation for alteration in or restriction of work to be carried out:**

If at any time after the commencement of work, the Engineer shall for any reason whatsoever not require the whole work as specified in the tender to be carried out, the Engineer shall give notice in writing of the fact to the contractor who shall have no claim to any payment of compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of the work not having been carried out; neither shall he have any claim for compensation by reason of any alterations having been made in the original specifications, drawings, designs and instructions, which shall involve any curtailment of the work as originally contemplated; Provided that the contractor shall be paid the charges on the cartage only of materials actually and bona fide brought to the site of the work by the contractor and rendered surplus as a result of the abandonment or curtailment of the work or any portion thereof and then taken back by the contractor provided however, that the Engineer shall have in all such situations, the option of taking over all or any such materials at their purchase price or at local current rates whichever may be less. In the case of such stores having been issued from the department stores, supervision charges and storage charges shall be refunded in addition to the issue rates of materials.

43. **Method of Measurement:**

43.1. Except where any general or detailed description of the work in bills of quantities or schedule of works / items / quantities expressly shows to the contrary, the Bill of quantities or schedule of works / items / quantities shall be deemed to have been prepared and measurements shall be taken in accordance with the procedure set forth in the schedule of rates / specification 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 the schedule of Rates / specifications, measurements shall be taken in accordance with the relevant standard method of measurements issued by the Bureau of Indian Standards.

43.2 **Records & measurements:**

The Engineer-in-charge shall except as otherwise stated ascertain and determine by measurement the value in accordance with the contract of work done in accordance therewith.

43.2.1 All items having a financial value shall be entered in measurement books level books etc. prescribed by the employer so that a complete record is obtained of all work performed under the contract.

43.2.2 Measurements shall be taken jointly by the Engineer-in-charge or his authorised representative on the one hand and by the contractor or their representative on the other. Before taking measurements of any work, the Engineer-in-charge or the person deputed by him for the purpose shall give a reasonable notice to the contractor. If the contractor fails to attend or send an authorised representative for measurement after such a notice or fails to countersign or to record the objection within a week from the date of measurements, then in any such event, measurements taken by the Engineer-in-charge or by the person deputed by him shall be taken to be the correct measurement of the work.

43.2.3 The contractor shall, without extra charge, provide assistance with every appliance and other things necessary for measurement. Measurements shall be signed and dated by both parties each day on the site on completion of measurement. If the contractor objects to any of the measurements recorded on behalf of the Employer, a note to that effect shall be made in the measurement book against the item objected to and such note shall be signed and dated by both parties engaged in taking the measurements.

If as a result of such objection, it becomes necessary to remeasure the work wholly or in part, the expense of such measurement shall be borne by the party requiring the measurement to be retaken provided that net errors are found by this measurement to amount to less than 5% of the value as recorded by the first measurement. Where however the net errors amount to 5% or over of the said value the cost of re-measurement shall be borne by the other party. In any case, if the net value of errors found exceeds Rs 500/- the expense of re-measurement shall be borne by the other party.

43.3 Production of vouchers:

The contractor shall when required by the Engineer-in-charge produce all quotations, invoices, vouchers and accounts or receipts in connection with expenditure in respect of provisional or prime cost items. He shall produce vouchers etc. if required to prove to the Engineer-in-charge that materials supplied by him are in conformity with the specifications laid down in the contract.

44. Certificate and payments:

44.1 Monthly payments:

The contractor shall submit to the Engineer on or before the 10th of each month, a statement on the standard printed form to be had on application, showing the estimated contract value of the permanent work executed up to the end of the month (if such) value shall justify the issue of an interim certificate and the contractor will be paid monthly on the certificate of the Engineer, the amount due to him on account of the estimated contract value of the permanent work executed up to the end of the previous month together with such amount (if any) as the Engineer may consider proper on account of materials for permanent works delivered by the contractor, on the site subject to a retention of the percentage named in the tender until the amount retained shall reach the Limit of Retention money / Security Deposit named in the tender. All amount due to the University by the contractor if outstanding on account of supply of any materials, electricity, water, services rendered in connection with the contract, repairs or rectifications to work etc., shall be adjusted from the bills or any amount due to the contractor by the University by way of outstanding deposits etc.

44.2 75 % of the net amount of interim or running bill shall be paid by the employer within ten days from the date of submission of interim or running bill certificate and the balance within thirty days from the date of submission of interim certificate or running bill.

44.3 The date on which a Cheque of payment is handed over to the contractor by the Employer will be considered as the date of payment for all purposes. Delay in making such payments by the Employer due to exceptional circumstances shall not nullify or vitiate in any way or other, the conditions of the contract and the contractor shall have no claim on this account.

44.4 The Engineer may by any certificate make any correction or modification in any previous certificate, which shall have been issued by him and shall have the power to withhold any certificate if the work or any part thereof is not being carried out to his satisfaction.

44.5 Statement at Completion

Not later than 90 days after the issue of the Taking-Over Certificate in respect of the whole of the Works, the Contractor shall submit to the Engineer a Statement at completion with supporting documents showing in detail, in the form approved by the Engineer.

a) the final value of all Work done in accordance with the Contract up to the date stated in such Taking-Over Certificate.

- b) an estimate of amounts which the contractor considers will become due to him under the Contract.

The estimated amounts shall be shown separately in such Statement at Completion. The Engineer shall certify payment in accordance with **Sub-Clause - 44.1.**

44.6 **Final Statement**

Not later than 60 days after the issue of the 'Taking Over Certificate' pursuant to **Clause - 26 of Section II**, the Contractor shall submit to the Engineer for consideration a draft final statement with supporting documents showing in detail, in the form approved by the Engineer.

- a) the value of all Work done in accordance with the Contract and
- b) any further sums which the Contractor considers to be due to him under the Contract.

If the Engineer disagrees with or cannot verify any part of the draft final statement, Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed (for the purposes of these conditions referred to as the "Final Statement")

44.7 **Discharge**

Upon submission of the Final Statement, the Contractor shall give to the Engineer, a written discharge confirming that the total of the Final Statement represents full and final settlement of all monies due to the Contractor arising out of or in respect of the Contract. Provided that such discharge shall become effective only after payment due under the Final Certificate issued pursuant to **Sub-Clause - 44.8**, has been made and the performance security referred to in **Sub-Clause - 22 of Section I**, if any has been returned to the Contractor.

44.8 Within 30 days after receipt of the Final Statement, and the written discharge, the Engineer shall issue to the Contractor a Final Certificate stating:

- a) the amount which, in the opinion of the Engineer, is finally due under the Contract, and
- b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled under the Contract, other than **Clause -33**, the balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer as the case may be.

45. **Time limit for payment of final bill:**

The contractor's final bill shall be passed for payment within three months after the issue of Taking over certificate by the Engineer provided the contractor has fully complied with the requirements under the contract. If the amount payable under any running bill is not sufficient to cover deductions to be made under the contract, the balance outstanding shall be paid by the contractor in cash within fifteen working days from the date of receipt of the written notice issued in this regard by the Engineer. After the payment of the amount of the final bill payable as aforesaid has been made, the

contractor may, if he so desires, reconsider his position in respect of the disputed portion of the final bill and if he fails to do so within 90 days, his disputed claim shall be dealt with as provided in the contract.

46. **Set off clause:**

Any sum of money due and payable to the contractor (including security deposit returnable to him) under this contract may be appropriated by the University and set off against any claim of the University for the payment of a sum of money arising out of or under any other contract made by the contractor with the University.

47. **Cessation of Employer's liability:**

The Employer shall not be liable to the contractor for any matter or thing arising out of or in connection with the contract or the execution of the works unless the contractor shall have made a claim in writing in respect thereof before the issue of the maintenance certificate under this clause.

48. **SAFETY CODE**

The Contractor shall scrupulously adhere to and observe the following safety codes:

- i. Hoisting machines and tackles used in the Works including their attachments, anchorage and supports shall be in perfect condition as per stipulations of the relevant Rules. The ropes used in hoisting or lowering materials or as means or suspension shall be of durable quality and adequate strength and free from defects.
- ii. Workers employed shall be provided with protective footwear and rubber hand gloves and other gears. Those engaged in welding Work shall be provided with welder's protective eye shield and gloves.
- iii. No paint containing lead or lead products shall be used except in the form of paste or ready-made paint. Suitable facemasks should be supplied for use by the Workers when the paint is applied in the form of spray or surface having lead paint dry rubbed and scrapped. Necessary and adequate facilities shall be provided by the Contractor to enable the Working painters to wash during the period of cessation of Work.

All Safety Rules shall be strictly followed while Working on live electrical systems or installations as stipulated in the relevant Rules.

49. **LIFE SAVING APPLIANCES AND FIRST AID**

The Contractor shall provide and maintain upon the Works, sufficient, proper and efficient life saving appliances and first aid equipment to the approval of the Engineer. The appliances and equipment shall be available for use at all times.

50. **UNIVERSITY RULES**

The Contractor shall always observe and comply with the Working Rules and Regulations of the University in force or as issued from time to time.

51. DETAILS TO BE CONFIDENTIAL, DRAWINGS AND PHOTOGRAPHS

51.1 The Contractor shall treat the details of the Contract as private and confidential, save in so far as may be necessary for the purpose thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the previous consent in writing of the Engineer.

51.2 No photograph of the Works or any part thereof or plant employed thereon shall be taken or permitted by the Contractor to be taken by any of his employees or any employees of his Sub-Contractors unless otherwise specifically mentioned in the Contract without the approval of the Engineer.

52. NOTICE:

52.1 Notice to Contractor:

All certificates, notices or instructions to be given to the contractor by the Engineer under the terms of the contract shall be sent by post, cable, telex or facsimile transmission to or left at the contractor's principal place of business or such other address as the contractor shall nominate for that purpose and or the local office at site of work.

52.2 Notice to Employer and Engineer:

Any notice to be given to the employer or to the Engineer under terms of the contract shall be sent by post or left at their following address :

**DIRECTOR
INDIAN MARITIME UNIVERSITY,
CHENNAI – 600001.**

52.3 Change of Address:

Either party may change a nominated address to another address in the country where the works are being executed by prior notice to the other party, with a copy to the Engineer, and the Engineer may do so by prior notice to both parties.

INDIAN MARITIME UNIVERSITY

SECTION - V - Part I - Preamble to Bill of Quantities

Schedule of approximate quantities and rates “Tender for Tender for Construction of Car Parking in between Faculty Quarters F7 & F14 ”

PREAMBLE TO: BILL OF QUANTITIES

(1) The prices quoted by the tenderer shall cover all the incidental works involved in completing the items of work without entitlement for any extra payment.

(2) The price quoted by the tenderer shall be firm till the completion of the contract. No increase in price over and above the original rates quoted by him in the tender will be considered.

(3) The contractor shall not be entitled to any payment for works carried out by him for his constructional convenience.

(4) The contractor shall take precautions to see the electrical cables / water line / drainage line / fire fighting line are not damaged during execution of work.

INDIAN MARITIME UNIVERSITY

SECTION - V - Bill of Quantities

Schedule of approximate quantities and rates “Tender for Construction of Car Parking in between Faculty Quarters F7 & F14 ”

(1)	(2)	(3)	(4)	(5)	(6)
Sl. No.	Probable Quantity	Description of work	Rate in Figures and in Words Rs. P.	Unit in Figures and in Words	Total Amount Rs. P.
1	3.00 M ³	Earth work excavation in ordinary soil, sand, clay mixed with roots, boulders, debris, rubbish etc. for foundation for fixing vertical post , including dressing of sides, ramming of bottom etc., and depositing the excavated earth within a lead of 50 metres for disposal, all as per drawings and as directed at site of work, including all labour, tools, equipment, etc. complete		1 M³ (One Cubic Metre)	
2	0.75 M ³	Providing and laying plain cement concrete of mix 1:1.5:3 (1 cement : 1.5 coarse river sand: 3 hard granite graded stone aggregate of 20mm nominal size) for foundation for fixing vertical post, and finishing the exposed surfaces with CM 1:3 (1 Cement : 3 Fine river sand) all as per relevant specifications, drawings and as directed at site , including mixing, transporting , placing, vibrating, curing, all labour, materials (including cement), tools, equipments, etc. complete.		1 M³ (One Cubic Metre)	

(1)	(2)	(3)	(4)	(5)	(6)
3	2800.00 Kg	Supplying, fabricating and fixing the Vertical Post, Roof Trusses made up of Mild Steel Tubular section (Heavy) of size 65mm dia bottom frames , 50mm dia mm for purlins, 32mm dia for bracing members in the truss available in the market and fixing in proper position , including welding the joints , providing bolts and nuts for joint plates of Trusses , providing scaffolding, all as per drawing and as directed at site of work, including all materials, labour, tools , transport , fuel , etc., complete.		1 M³ One Cubic Metre)	
4	100.00 M ²	Supplying, and fixing Colour coated Galvalume metal sheet 0.50 mm thickness ,150GSM, 300 MPA to the required size and fixing in proper position for roof portion with necessary screws and accessories , including providing scaffolding, all as per drawing and as directed at site of work, including all materials, labour, tools , transport , fuel , etc., complete.		1 M² One Square Metre)	
5	18.00 M	Supplying, and fixing Colour coated Galvalume metal Ridge sheets of 0.50 mm thickness , 300 mm at either side of roof top and fixing in proper position for roof portion with necessary screws and accessories , including providing scaffolding,all as per drawing and as directed at site of work, including all materials, labour, tools , transport , fuel , etc., complete.		1 M (One Running Metre)	

(1)	(2)	(3)	(4)	(5)	(6)
6	15.00 M ²	Preparing the surfaces of new steel surfaces of roof trusses purlins, tie bars, etc and applying two Coats of epoxy painting over one coat of epoxy primer of approved quality to give an even shade , all as directed at site, including all labour, scaffolding, materials, tools, equipments, etc., complete.		1 M² (One Square Metre)	
		TOTAL		Rs.	

(Rupees

.....

.....**only)**

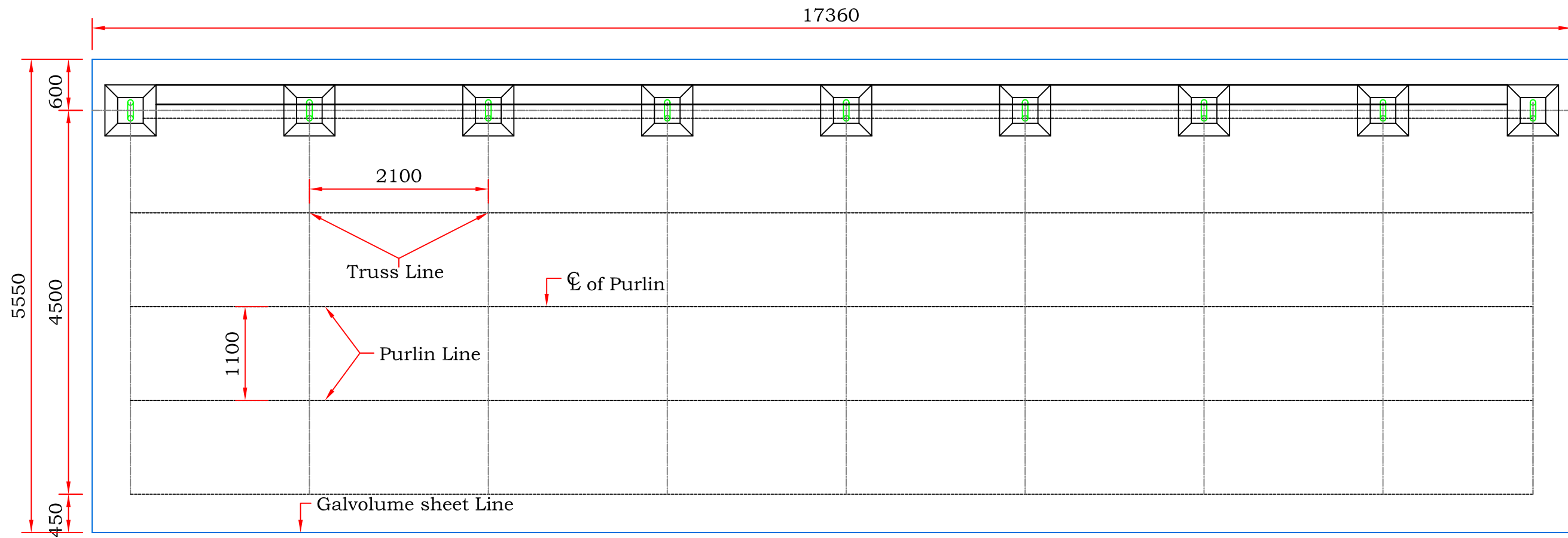
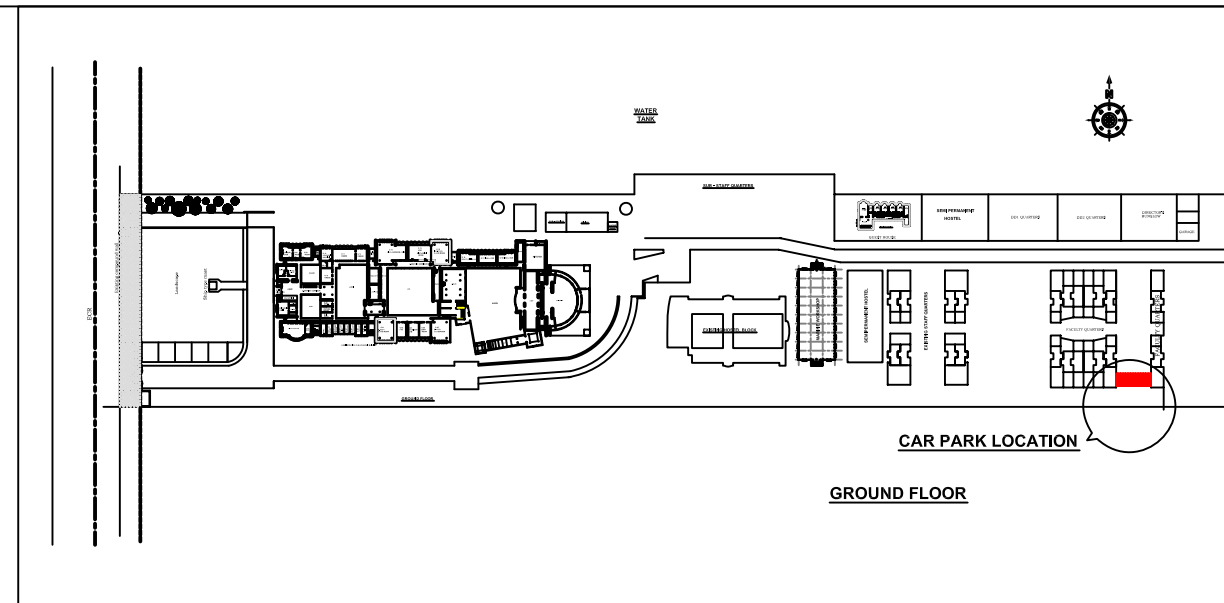
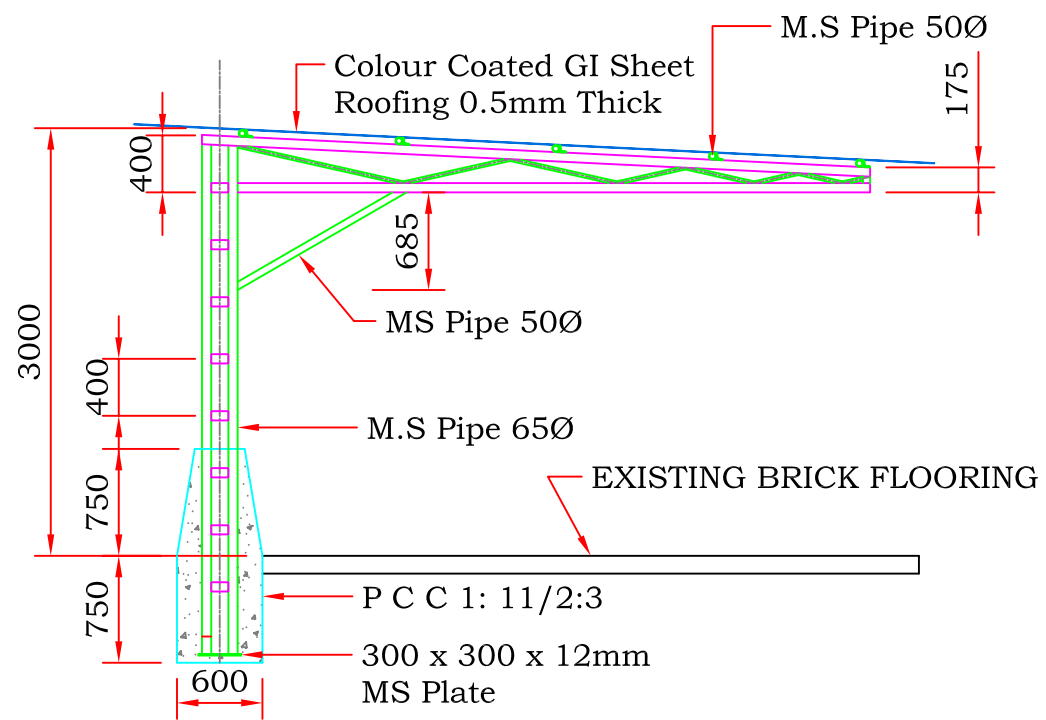
INDIAN MARITIME UNIVERSITY

“Tender for Tender for Construction of Car Parking in between Faculty Quarters F7 & F14 ”

Schedule of Drawings

IMU/T-001/2013/EC - Plan Showing the Details of Tender for Construction of Car Parking in between Faculty Quarters F7 & F14

Supplementary drawings if any, which the Engineer may issue from, time to time or approve during the currency of contract, will also form part of the contract.



Note: -

1. All dimensions are in mm unless otherwise specified.
2. Earth work excavation for foundation.
3. PCC 1:1 ½ : 3 for pedestal concrete.
4. Providing and fixing Heavy grade MS Tubular Column and Roof Truss
5. Providing and fixing Heavy Grade MS tubular Purlins.
6. Applying Two coats of Synthetic enamel Paint.
7. Providing Glavolume sheet for roof



INDIAN MARITIME UNIVERSITY

CONSTRUCTION OF CAR PARKING
IN BETWEEN FACULTY QUARTERS
F7 AND F14

IMU/T-001/2013/EC -001

INDIAN MARITIME UNIVERSITY

FORM OF AGREEMENT

This AGREEMENT made this day of (Two thousand) between “The Director, Indian Maritime University(Chennai Campus), Chennai –119” (hereinafter called the ‘IMU(CHENNAI CAMPUS)’ which expression shall unless excluded by or repugnant to the context, be deemed to include the successors in office) on the one Part and
.....
..... (here in after called the ‘CONTRACTOR’ which expression shall unless excluded by or repugnant to the context be deemed to include his heirs, executors, administrators, representatives and assigns or successors in office) on the other part.

WHEREAS the IMU(CHENNAI CAMPUS) of Chennai–119 is desirous of constructing the work comprising
.....
.....
.....
.....

WHEREAS the contractor has offered to execute, complete and maintain such works and whereas the IMU(CHENNAI CAMPUS) has accepted the tender of the contractor and WHEREAS the contractor has furnished a sum of Rs..... (Rupees only) as Earnest Money Deposit at the time of tendering, which will be adjusted against Security Deposit as per Clause 4 of the memorandum and the Retention Money as per Clause 5 of the memorandum will be collected by deductions from the running bills at the rates mentioned therein for due fulfilment of all the conditions of this contract.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the conditions of contract hereinafter referred to.
2. The following documents shall deem to form and be read and construed as part of this agreement viz. General condition, Form of tender with Appendix, General Information, Particular Specification, Preamble & Bill of Quantities, & Form of Agreement.
3. The contractor hereby covenant with Indian Maritime University to carry out the work in conformity in all respects with the provisions of the agreement.
4. The IMU(CHENNAI CAMPUS) hereby covenants to pay the contractor in consideration of such works, completion and maintenance of the works, the “contract price” at the time and in the manner prescribed by the contract.

IN WITNESS WHEREOF the parties hereunto have set their hands and seals the day and year first written.

The common Seal of the IMU(CHENNAI CAMPUS) is hereunto affixed and

The Director, thereof, has set his hand in the presence of

The signature is made on behalf of and by authority from the Director of the of IMU(CHENNAICAMPUS).

Signed and sealed by the contractor in the presence of

Witnesses

CONTRACTOR

1.

2.