

**ERODE CITY MUNICIPAL CORPORATION**

**TENDER DOCUMENT for**

**Construction of New Bus Stand at Solar in Erode Municipal Corporation**

**VOLUME - I**

## **I. NOTICE INVITING TENDERS (NIT)**

**(Two Cover System)**

**CONTRACT No. Item -E1-1251-2022**

**Name of Work : Construction of New Bus Stand at Solar in Erode Municipal Corporation**

Type of Contract	:	Item Rate
Period of bid document available	:	From 20.05.2022 to 23.06 .2022
Time and Date of Pre-bid meeting	:	31.05.2022, Time 11.00 Hours
Last date and Time for Receipt of bids	:	23.06 .2022, Time 15.00 Hours
Time and Date of opening of bids (first cover)	:	24.06.2022, Time 15.30 Hours
Place of Bid Opening	:	Office of the Commissioner Erode City Municipal Corporation 246/894, Meenachi sundaranar salai, Erode Fort, Erode, Tamil Nadu 638001
Address for Communication	:	The Commissioner Erode City Municipal Corporation 246/894, Meenachi sundaranar salai, Erode Fort, Erode, Tamil Nadu 638001
Officer Inviting Bids	:	The Commissioner Erode City Municipal Corporation 246/894, Meenachi sundaranar salai, Erode Fort, Erode, Tamil Nadu 638001

## II. INVITATION FOR BIDS (IFB)

### NATIONAL COMPETITIVE BIDDING

#### Construction of New Bus Stand at Solar in Erode Municipal Corporation

1. The Commissioner, Erode City Municipal Corporation, hereinafter called 'the Employer' invites sealed bids from eligible bidders for the following works.

TABLE -1

Sl.No	Name of Work	Estimate Cost (Rs.)	Approximate Value of work Put to Tender (Rs.)	Bid Security (Rs.)	Period of Completion Including Period for testing & Commissioning
1	2	3	4	5	6
1	Construction of New Bus Stand at Solar in Erode Municipal Corporation	6350 Lakhs	Lakhs	63.50 Lakhs	<b>24 Months</b>

2. The bidder should satisfy the following criteria and have the financial status within the last 5 years (i.e.) from the financial year 2017 – 2018, 2018 – 2019, 2019 – 2020, 2020 – 2021, 2021 – 2022.

TABLE – 2

#### ELIGIBILITY / QUALIFICATION CRITERIA

S.N.	Description	Qualification Criteria
1.	The Bidder should be at least a CLASS 1 contractor, currently registered with any state government department / Board / Government undertaking	
2.	The applicants should have been in the civil construction works field at least for the past Five years. (2017 – 2018, 2018 – 2019, 2019 – 2020, 2020 – 2021, 2021 – 2022) he should submit the audited balance sheet for last five years.	
3.	Should have achieved an annual financial turn over Rs 6109.88.00 Lakhs (100 % of the value of work put to tender) from the financial year 2017 – 2018, 2018 – 2019, 2019 – 2020, 2020 – 2021, 2021 – 2022	Rs. 6109.88 Lakhs.
4.	Should have satisfactory completed a civil works of similar nature in his own name in a single agreement for a value of not less than Rs.3054.94Lakhs (50% of the Value of work put to tender) in the last five years from 2017 – 2018, 2018 – 2019, 2019 – 2020, 2020 – 2021, 2021 – 2022 for Government Department/ Board/ Government undertaking.	Rs .3054.94 Lakhs
5.	The applicant should have working capital sufficient to finance at least 15% of value put to tender. [working capital will be calculated by adding the amount available in the bank account of the applicant on the date of submission of application and the unutilized amount of overdraft / credit facility extended to the applicant by the Nationalized / scheduled banks]	Rs. 916.00 Lakhs.

3. Bids from Joint Ventures will be accepted.
4. The bidding document can also be down loaded from the websites, [www.tn.tenders.gov.in](http://www.tn.tenders.gov.in), on free of cost. The bidding documents will be made available from **20.05.2022 to 23.06.2022.**
5. A two cover bidding procedure will be adopted. First cover will be opened in the presence of bidder's authorized representatives who choose to attend at the address given below at **15.30** hours on **24.06.2022.** Bids containing separately sealed (1) Technical Bid envelope and (2) Price Bid envelope must be delivered to the address below on or before at **15.00** hours office time on **23.06 .2022.**
6. All bids must be accompanied by a bid Security as **stated in the Table-1** above, in a separate cover kept in the technical bid envelope. The mode of payment of bid security and bid submission are detailed in the bid document. The bid should be addressed to The Commissioner, Erode City Municipal Corporation at the address below. Late Bids will be summarily rejected.
7. Validity of Tender: To be valid up to 180 days after the deadline date for bid submission.
8. A Pre-bid meeting for the above tender will be held on 31.05.2022 **at 11.00** hours in the Conference Hall, Erode City Municipal Corporation at the address mentioned below.
9. Interested bidders may obtain further information and inspect the bidding documents at the office of The Commissioner, Erode City Municipal Corporation, Erode at the address given below on all working days from 10.00 hours to 17.45 hours.
10. **Other details can be had from the Bidding Document**  
**Address:** (for Information, Purchase and Delivery & Opening of Bids)

The Commissioner,  
Erode City Municipal Corporation.

## **SECTION - 2: INSTRUCTIONS TO BIDDERS (ITB)**

### **A. GENERAL**

#### **1. Scope of Bid**

- 1.1 **The Commissioner, Erode City Municipal Corporation** (referred to as Employer in these documents) invites bids for **Construction of New Bus Stand at Solar in Erode Municipal Corporation** (as defined in these documents and referred to as 'the works'). The bidders may submit bids for any or all of the works detailed in the table given in instruction to bidders.
- 1.2 The successful Bidder will be expected to complete the works by the intended completion date specified in the Contract data.
- 1.3 Throughout these Bidding documents, the terms bid and Tender and their derivatives (bidder/Tenderer, bid/tendered/Tendering, etc.) are synonymous and day means calendar day. Singular also means plural.

#### **2. Source of Funds**

- 2.1 I&A, TUFIDCO, ULB, CMA, etc.

#### **3. Eligible Bidders**

- 3.1 This Invitation of Bids is open to all eligible bidders. Payments will be made only in Indian Rupees.
- 3.2 All bidders shall provide in Section 3, Form of Bid and all Qualification Information required under this contract.
- 3.3 Deleted.
- 3.4 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Bank in accordance with sub-clause 37.1

#### **4 Qualification of the bidder**

- 4.1 All bidders shall provide in section 3, Forms of Bid and Qualification information a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.
- 4.2 Pre-qualification was not undertaken for this contract.
- 4.3 All bidders shall include the following information and documents with their bids in Section 3:
- a) Copies of original documents defining the constitution or legal status, place of registration and principal place of business, written power of attorney of the signatory of the Bid to commit the Bidder.
  - b) Total monetary value of construction work performed for each of the qualifying period.
  - c) Experience in works of a similar nature and size for each of the qualifying period, and details of works under way or contractually committed, and clients who may be contacted for further information on those contracts.
  - d) Major items of construction equipment proposed to carry out the Contract.

- e) Qualifications and experience of key site management and technical personnel proposed for the Contract.
- f) Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years.
- g) Evidence of adequacy of working capital for this contract (access to line(s) of credit and availability of other financial resources)
- h) Authority to seek references from the Bidder's bankers.
- i) Information regarding any litigation or arbitration resulting from contracts executed by the Bidder in the last five years or currently under execution. The information shall include the names of the parties concerned, the disputed amount, cause of litigation, and matter in dispute.
- j) Proposals for sub-contracting components of the Works which in aggregate add to more than 20 percent of the Bid price (for each, the qualification and experience of the identified sub-contractor in the relevant field should be annexed). No vertical splitting of works for sub-contracting is acceptable and
- k) The proposed methodology and program of construction including Environmental Management Plan, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones.
- l) All the credentials furnished by the bidder towards satisfying the qualification criteria shall be duly certified by a "Notary Public".
- m) The credentials to meet the qualification criteria for S. Nos. b to d shall be from the client/Employer. No self-certification will be accepted.
- n) GST Certificate should be enclosed.

4.4 Bids submitted by a consortium of two or more firms as partners shall comply with the following requirements:

- [a] The bid shall include all the information listed in Sub-clause 4.3 above.
- [b] The bid and in case of a successful bid, the Agreement, shall be signed so as to be legally binding on all partners.
- [c] One of the partners shall be nominated as being in charge, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners;
- [d] The partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the consortium and the entire execution of the contract, including payment, shall be done exclusively with the partner in charge.
- [e] All partners of the consortium shall be liable jointly and severally for the execution of the contract in accordance with the contract terms and a statement to this effect shall be included in the authorization mentioned under [c] above, as well as in the bid and in the Agreement [in case of a successful bid].

- [f] The consortium agreement should indicate precisely the role of all members of JV in respect of planning, design, construction equipment, key personnel, work execution and financing of the project. All members of JV should have active participation in execution during the currency of the contract. This should not be varied/modified subsequently without prior approval of the employer.
- [g] The consortium agreement should be registered in Chennai before execution of the agreement so as to be legally valid and binding on partners; and
- [h] A copy of the Consortium Agreement entered into by the partners shall be submitted with the bid. Alternatively, a Letter of Intent to execute a consortium Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed Agreement.

**4.5 A. To qualify for award of the contract, each bidder in his Own name should have in the last five years ie, from 2017 – 2018, 2018 – 2019, 2019 – 2020, 2020 – 2021, 2021 – 2022**

S.N.	Description	Qualification Criteria
1.	Should have achieved an annual financial turn over Rs.6109.00.Lakhs (equivalent to 100% of the value of work put to tender)	Rs.6109.00 Lakhs.
2.	Should have satisfactory completed a civil works of similar nature in his own name in a single agreement for a value of not less than Rs.3054.94.Lakhs (50% of the Value of work) in the last five years from 2017 – 2018, 2018 – 2019, 2019 – 2020, 2020 – 2021, 2021 – 2022	Rs.3054.94 Lakhs.
3.	Should have the minimum cash flow required for 3 months period of the Contract period	Rs. 916.00 Lakhs
4.	The bidder in his own name should have satisfactorily the following quantities of work in the past three financial years ie, from 2017 – 2018, 2018 – 2019, 2019 – 2020, 2020 – 2021, 2021 – 2022	
	Earth work	10324 m3
	Plain Cement Concrete	1400 m3
	R.C.C.	6498 m3
	Centering for R.C.C. Works	26345 m2
	Steel Fabrication for Reinforcement of RCC Works	67350 Qtl
	Brick masonry works	1390 m3

The bids of the

contractors, whose previous performance and financial turnover is found to be poor / not meeting the requirements as specified above in 4.5A will be summarily rejected and will not be taken up for evaluation.

Financial turnover and cost of completed works of previous years shall be given weight age of 5% per year based on rupee value to bring them to 2013-2014 price level and that will be considered for the qualifying criteria.

**4.5 B. Each bidder should further demonstrate:**

(a) Availability (either owned or leased or by procurement against mobilization advances) of the following key and critical equipment for this work:

S.No.	Equipments	Capacity	No.
1.	Excavator (Earth movers) - - - - -	200 - - - - -	2 nos.
2.	Concrete Pumps - - - - -	30 Cu.m Per Hour	2 Nos.
3.	Hydra Crane - - - - -	12 MT- - - - -	1 No.
4.	Shuttering Materials - - - - -	3000 Sq.m	
5.	Shutter Props 4m Length - - - - -		3000 nos.
6.	Tower Crane - - - - -	30 m Boom - - - - -	1 no.
7.	Tipper / Lorries - - - - -	10 Cum - - - - -	10 nos.
8.	Ajax self-loaders - - - - -	4 cum - - - - -	4 Nos.
9.	Total Station 2" accuracy - - - - -		2 Nos.
10.	Concrete Vibrator - - - - -		10 Nos.
11.	JCB mini Excavator - - - - -		2 Nos.

**NOTE :**

Based on the studies, carried out by the Engineer the minimum suggested major equipment to attain the completion of works in accordance with the prescribed construction schedule are shown in the above list. The bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with layout and necessary drawings and calculations (detailed) as stated in clause 4.3 (k) above to allow the employer to review their proposals. The numbers, types and capacities of each plant / equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

- (b) availability for this work of a Project Manager (civil) with not less than 15 years' experience in construction of similar civil engineering works and other key personnel with adequate experience as required and

**Key Personal required for the Project**

- 1) 1 Project Manager BE (Civil) with not less than 15 years Experience in Construction of Civil Engineering works with similar project experience.
- 2) 1 Project Engineer BE (Civil) with not less than 15 years Experience in Construction of Civil Engineering works with similar project experience.
- 3) 2 Site Engineers BE (Civil) with not less than 10 years Experience in Construction of Civil works with similar project experience.
- 4) 4 Site Supervisors Diploma (Civil) with not less than 5 years Experience in Civil Construction works with similar project experience.

- (c) liquid assets and / or availability of credit facilities of not less than Rs.9.16 Crores (Credit lines / letter of credit / certificates from Banks for meeting the funds requirements etc.,) should be enclosed duly certified by a chartered accountant (or) notary Public.

**4.5 C Deleted**

- 4.6 Consortium is permitted in this tender. Only a maximum of 3 partners are allowed in a consortium.

1. In respect of Turnover as per clause 4.4 of 1TB, volume I of the bid document, the lead partner should meet not less than 50% of the qualifying criteria and other partners should meet individually not less than 25% of qualifying criteria and all the partners should collectively meet 100% of the qualification criteria.



2. In respect of qualification criteria towards single work the bidder on his own or any of the partners of the consortium should have completed successfully the works specified, as stipulated in the bid document for which necessary documentary evidence should have produced.
3. In respect of qualification criteria related to Civil works, the bidder on his own or the consortium partners together should satisfy the criteria as stipulated in the bid document for which necessary documentary evidence should be produced.

Sub-contractor's experience and resources will not be taken into account in determining the Bidder's compliance with the qualifying criteria. The experience of the bidder to the extent of work done as a Sub-contractor in past and duly certified by the owner of the project will be considered.

- 4.7 Bidders who meet the minimum eligibility criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under.

$$\text{Assessed Available Bid Capacity} = (A * N * 1.5 - B)$$

Where

A = Maximum value of civil engineering works executed in anyone year during the last five years (updated to 2021-2022 price level) taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the works for which bids are invited i.e 1 year

B = Value of works of existing commitments and on-going works to be completed during the next 2 years.

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

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

- made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and / or record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and / or participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

## **5. One Bid per Bidder**

- 5.1 Each bidder shall submit only one bid for one contract. A bidder who submits or participates in more than one Bid (other than as a sub-contractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Bidder's participation to be disqualified.

## **6 Cost of Bidding**

- 6.1 The bidder shall bear all cost associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

## **7. Site Visit**

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

## **B. BID DOCUMENT**

### **8. Content of Bid Documents**

- 8.1 The bid document contains the following:

1. Invitation for Bids
2. Instructions to Bidders.
3. Forms of Bid and Qualification Information.
4. Conditions of Contract.
5. Contract Data
6. Forms of Securities
7. Specifications
8. Drawings
9. Bill of quantities

In case the intending bidder wishes to buy the bid document from the Corporation he can obtain from the Executive Engineer in charge after remitting necessary fees for the same in to the Corporation treasury

- 8.2 Of the three sets of the bidding documents supplied, two sets should be completed and returned with the bid and the third copy can be retained with the bidder.

### **9. Clarification of bid documents**

- 9.1 A prospective bidder requiring any clarifications on the bid documents in respect of provisions / clauses incorporated or not incorporated in the bid documents, may notify the employer in writing. The Employer will respond to any request for clarification, which he received earlier than 7 days prior to the deadline for submission of bids. Copies of the Employer's response will be forwarded to all purchasers of the bidding documents, including a description of the enquiry but without identifying its source.

#### **9.2 Pre-bid meeting**

- 9.2.1 The bidder or his official representative is invited to attend a pre-bid meeting which will take place at office of the **The Commissioner, Erode City Municipal Corporation, 246/894, Meenachi sundaranar salai , Erode Fort, Erode, Tamil Nadu 638001 on dt. 31.05 .2022 at 11.00 hours.**
- 9.2.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 9.2.3 The bidder is requested to submit any questions in writing or by cable (hereinafter 'cable' includes telex and facsimile) to reach the Employer not later than one week before the meeting.
- 9.2.4 Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all purchasers of the bidding documents. Any modification of the bidding documents listed in Sub-clause 8.1 which may become

necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting.

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

## **10 Amendment of bidding documents.**

- 10.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing suitable addendum.
- 10.2 Any addendum thus issued shall be part of the bidding documents and shall be communicated in writing / e-mail / facsimile to all the purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum by cable to the Employer.
- 10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend as necessary the deadline for submission of bids, in accordance with Sub-clause 20.2 below.

## C. PREPARATION OF BIDS

### 11. Language of the Bid

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

### 12. Documents Comprising the Bid

12.1 The Bid submitted by the bidder shall comprise the following documents

#### First Cover – Technical Bid

- (a) Bid Security
- (b) Technical bid
- (c) Qualification information Form and Documents;
- (d) The Bid (in the format indicated in Section 3)

#### Second Cover – Financial Bid

- (e) Priced Bill of quantities

And any other material required to be completed and submitted by bidders in accordance with these instructions. The documents listed under Sections 3, 4 and 7 of Sub Clause 8.1 shall be filled in without exception.

The Bids must be accompanied with the prescribed Bid security amount in a separate envelope kept in the Technical bid envelope. The first cover with Bid security cover and Technical bid cover shall be written on the cover as "Technical Bid" and "Bid Security". The second cover with the Financial Bid shall be written on the cover as "Financial Bid".

12.2 Bidders bidding for this contract together with other contracts stated in the IFB / NIT to form a package will so indicate in the bid together with any discounts offered for the award of more than one contract.

### 13. Bid Prices and Rates for items.

13.1 The contract shall be for the whole works as directed in Sub-clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.

13.2 The bidder shall fill in rates and prices and line item total (both in figures and words) for all items of the Works described in the Bill of Quantities along with total bid price (both in figures and words). ***Items for which no rate or price is entered by the bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates and prices quoted for other items in the Bill of Quantities.*** Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.

13.3 All duties, taxes and other levies payable by the contractor under the contract or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder.

13.4 The rates and prices quoted by the bidder are subject to adjustment during the performance of the contract in accordance with the provisions of Clause 47 of the conditions of contract.

### 14. Currencies of Bid and Payment:

14.1 All prices shall be quoted in Indian Rupees only and payment will be made in Indian Rupees.

## 15. Bid Validity:

- 15.1 The bid shall remain valid for a period of 180 (One Hundred and Eighty) days after the latest date of submission of bid. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.
- 15.2 In exceptional circumstances, prior to expiry of original bid validity period, Employer may request that the Bidder extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing or by cable. A Bidder may refuse the request without forfeiting its bid security. A Bidder agreeing to the request will not be required or permitted to modify its bid security for the period of the extension.
- 15.3 The contract is not subject to price adjustments and fixed during the period of contract and the contractor shall not be eligible for any additional payment for any extension of Bid Validity if so required by the Corporation.

## 16. Earnest Money Deposit:

- 16.1 The bidder shall deposit a Bid Security (E.M.D) for an amount of **Rs. 63.50 Lakhs (Sixty three lakh and fifty thousand only) along with the technical proposal.** The EMD shall be in the form of a Demand Draft / Bank Guarantee valid for six months from the date of bid, issued by any Nationalised/Scheduled Bank, approved by RBI, located in India in favor of **The Commissioner, Erode City Municipal Corporation** payable at Erode.
- 16.2 Deleted
- 16.3 Any bid not accompanied by an acceptable Earnest Money Deposit and not secured as indicated in sub-clause 16.1 above shall be rejected by the Employer as non-responsive.
- 16.4 The bid securities (EMD) of unsuccessful Bidders will be returned as promptly as possible upon the award of contract and on written request from the unsuccessful bidder. The bid security of the bidder who has refused to extend the bid validity as provided in 15.2 shall be refunded after the initial bid validity based on written request from the bidder. Employer shall pay no interest on the bid security.
- 16.5 The bid security of the successful bidder will be discharged when the bidder has signed the Agreement and furnished the required Performance Security.
- 16.6 The Earnest Money Deposit may be forfeited
  - (a) if the Bidder withdraws its bid after opening of technical bid during the period of bid validity;
  - (b) if the Bidder does not accept the correction of its Bid Price, or
  - (c) in the case of a successful Bidder, if he fails within the specified time limit to
    - (i) sign the Agreement, or
    - (ii) furnish the required performance security.

## 17. Alternative Proposals by Bidder

- 17.1 Alternative proposal will not be considered.

## 18. Format and Signing of Bid:

- 18.1 The Bidder shall prepare one original of the documents comprising the bid as described in the Instructions to Bidders, and clearly marked "ORIGINAL". In addition, the Bidder shall submit copies of the bid, in the number specified in the Bid Data Sheet and clearly marked "COPIES". In the event of discrepancy between them, the original shall prevail.
- 18.2 The original and all copies of the bid shall be typed or written in indelible ink (in the case of copies, photocopies are also acceptable) and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder, as the case may be. All pages of the bid where entries or amendments have been made shall be initialed by the person or persons signing the bid.
- 18.3 The bid shall contain no alterations or additions, except those to comply with the instructions issued by the Employer, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person the person or persons signing the bid.

#### **D. SUBMISSION OF BIDS:**

#### **19. Sealing and Marking Bids:**

- 19.1 The bid shall be submitted in two (2) parts viz. PART – A and PART – B. Each part shall be placed in an independent sealed envelope. Each part shall be labeled as below.

#### **PART – A : TECHNICAL BID ENVELOPE**

Contract No. : **E1-1251-2022**

Name of Work : Construction of New Bus Stand at Solar in Erode Municipal Corporation

Due Date / time : 23.06.2022 @ 15.00 Hrs

#### **PART – B : PRICE BID ENVELOPE**

- 19.2 The contents of each of the two (2) envelopes shall be as described in the subsequent clauses. For all further references, these envelopes will be referred to briefly as:

- Technical bid Envelope
- Price Bid Envelope
- The envelope containing Part A and the envelope containing Part B shall be placed inside and outer envelope and shall be labeled as follows:

Bid for: **Construction of New Bus Stand at Solar in Erode Municipal Corporation.**

PART A : Technical Bid Envelope

PART B : Price Bid Envelope

Contract No. : **E1-1251-2022** Due Date / time : 23.06.2022 @ 15.00 Hrs

- 19.3 The Envelope shall be addressed to

The Commissioner  
Erode City Municipal Corporation  
246/894, Meenachi sundaranar salai, Erode Fort,  
Erode, Tamil Nadu 638001

Each envelope shall carry the name and address of the Bidder prominently.

19.4 The Technical Bid Envelope shall contain the following in the sequence indicated below. The technical bid shall be submitted in two copies.

- i. Covering Letter
- ii. Performance Certificate obtained from the clients as per Qualification Information.
- iii. The Bid Security.
- iv. Letter of Tender / Contractor's Bid with full signature of the Authorized signatory and Seal.
- v. Declaration by the Bidder that his Bid is without any technical and commercial deviations in the format of the letter enclosed with the Bid.
- vi. Certified Power of Attorney authorizing a representative or representatives of the Firm to sign the Bid and all subsequent communication.
- vii. Documentary evidence of unambiguous fulfillment of eligibility criteria for Bidding.
- viii. Latest Income Tax Clearance Certificate and Sales Tax Clearance Certificate.
- ix. Bid document signed by the authorized signatory.
- x. Full technical description of the items and services proposed by the Bidder including makes.
- xi. Details of Construction Equipment proposed for the execution of the works and makes.
- xii. Details of manpower / Key Personnel proposed for the Project Management and Site Management including qualification and experience of the personnel.
- xiii. Work methodology and plan.
- xiv. Bar Chart and PERT charts for the execution of the works.
- xv. Confirmation of Performance guarantee and Defects Liability Period in accordance with clause 35 of the Conditions of Contract.
- xvi. Confirmation of the commercial terms and conditions. **There shall be no reference to the price.**
- xvii. List of concurrent commitments including a schedule of contracts under execution including values, percentage of works completed and the schedule date of completion of the work.
- xviii. Any other technical details.

19.5 The "Technical Bid Envelope" shall **NOT** contain the following:

- i. Schedule of Prices of the Bid Document constituting the Lumpsum Bid Price.
  - ii. Any indication either direct or indirect or implicit or explicit or implied regarding the Bid Price or its break up details or any other related price indication etc., shall be a cause for outright disqualification of the entire Bid.
- 19.6 The envelope labeled as "Price Bid Envelope" shall contain the following in the sequence indicated below. This shall be submitted as two copies – 1 original and 1 copy.
- i. Covering letter
  - ii. The Bid Price for the work with each page signed, dated and stamped with the seal of the Firm.
  - iii. Bill of Quantities duly filled and signed by the bidder in each page.
  - iv. Apart from the Schedule of Prices and Annexure duly filled in, Bidders shall not enclose any other documents or statements that influence the price. In such an event the Board shall summarily disqualify the Bidder and reject the Bid.
- 19.7 The Bidder shall seal the original and copy of the Bid in separate envelopes, duly marking the envelopes as "**ORIGINAL**" and "**COPY**". These envelopes (called as inner envelopes) shall then be put inside one outer envelope.
- 19.8 The **inner** and **outer** envelopes shall
- (a) be addressed to the Employer at the following address:  
The Commissioner  
Erode City Municipal Corporation  
246/894, Meenachi sundaranar salai, Erode Fort,  
Erode, Tamil Nadu 638001



(b) bear the following identifications:

Bid for **Construction of New Bus Stand at Solar in Erode Municipal Corporation**

[name of contract]

- **Bid reference Contract No Item No. E1-1251-2022**
- **Do not open before 15.3000 Hrs @ 24.06 .2022 [time & date for bid opening]**

- 19.9 In addition to the identification required in Sub-clause 19.2 the inner envelopes shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared late, pursuant to clause 21.
- 19.10 If the outer envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

**20. Deadline of Submission of Bids:**

- 20.1 Bids must be received by the Employer at the address as specified above not later than **15.00 Hrs on 23.06 .2022**. In the event of the specified date for the submission of bids declared a holiday for the Employer, the Bids will be received upto the appointed time on the next working day.
- 20.2 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with clause 10, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

**21. Late Bids:**

- 21.1 Any bid received by the Employer after the deadline for submission of Bids prescribed in Clause 20 will not be accepted and will be returned unopened to the Bidder
- Any bid submitted in person after 3.00 PM on the due date will not be accepted. Similarly any bid received by post after 3.00 PM on the due date will not be accepted and will be returned unopened to the bidder. Hence the bidders are requested to submit their bid well in advance i.e., before 3.00 PM as per the office clock on the dead line / extended dead line date and time of bid submission. The bidders can submit their bids on any day during the bid submission period.

**22. Modification and the Withdrawal of Bids:**

- 22.1 Bidders may modify or withdraw their bids by giving notice in writing before the deadline prescribed in Clause 20
- 22.2 Each bidder's modification or withdrawal notice shall be prepared, sealed, marked and delivered in accordance with Clause 18 & 19, with the outer and inner envelopes additionally marked "**MODIFICATION**" OR "**WITHDRAWAL**", as appropriate.
- 22.3 No bid may be modified after the deadline for submission of Bids.
- 22.4 Withdrawal or modification of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in Clause 15.1 above or as extended pursuant to Clause 15.2 may result in the forfeiture of the Bid security pursuant to Clause 16.
- 22.5 Bidders may only offer discounts to or otherwise modify the prices of their Bids by submitting Bid modifications in accordance with this clause, or included in the original Bid submission.

## **E. BID OPENING AND EVALUATION:**

### **23. Bid Opening:**

- 23.1 The Employer will open all the technical proposals submitted by the Bidders in the presence of the bidders or bidders designated representatives who are present and who shall sign a register evidencing their attendance. In the event of the specified date of Bid opening being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day.
- 23.2 Envelopes marked "WITHDRAWAL" shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause 22 shall not be opened. Subsequently all envelopes marked "Modification" shall be opened and the submissions therein read out in appropriate detail.
- 23.3 The Bidders' names, the bid prices, the total amount of each bid and of any alternative Bid (if alternatives have been requested or permitted), any discounts, Bid modifications and withdrawals, the presence or absence of Bid Security and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening. No bid shall be rejected at bid opening except for the late bids pursuant to Clause 21. Bids [and modifications] sent pursuant to Clause 22 that are not opened and read out at bid opening will not be considered for further evaluation regardless of the circumstances. Late and withdrawn bids will be returned unopened to bidders. The Price bid envelope will not be opened on the same day but on another day in the presence of the qualified Bidders or their authorized representatives. The date and time of opening the Price Bid envelope will be advised to the qualified Bidder in writing.
- 23.4 The Employer shall prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Sub-clause 23.3.
- 23.5 Two cover bidding procedure will be adopted and will be processed as detailed below:

Bids (in two covers) must be delivered to the address below at or before 15.00 Hrs office time on **23.06.2022**. The first cover with Bid Security cover and Technical Bid cover shall be written on the cover as "Technical Bid" and "Bid Security" without any reference to the price. The second cover with Financial Bid shall be written on the cover, as "Financial Bid" will consist of Price Bid only.

Late Bids and Bids without Bid Security will be summarily rejected.

First cover will be opened in the presence of bidders' representatives who choose to attend at the address given below at 15.30 Hrs office time on **24.06 .2022**. After technical evaluation of the Bids, the employer will satisfactorily open the second cover (Price Bid) of the bidders who meet the minimum acceptable qualification criteria and who has submitted a technically responsive bid. Only the price bids of those bidders whose bids are found technically responsive and acceptable will be opened on the date and time to be intimated later and the price bids will be evaluated.

### **24. Process to be Confidential:**

- 24.1 Information relating to the examination, clarification, evaluation and comparison of bids, and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced.

Any effort by a Bidder to influence the Employer's processing of bids or award decisions may result in the rejection of the Bidder's bid.

## **25. Clarification of Bids:**

- 25.1 During bid evaluation, the employer may, at his discretion, ask the Bidder for clarification of its Bid. The request for clarification and the response shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted.
- 25.2 Subject to sub-clause 25.1 no Bidder shall contact the Employer on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.
- 25.3 Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder's bid.

## **26. Examination of Bids and Determination of Responsiveness:**

- 26.1 Prior to detailed technical evaluation of Bids, the Employer will determine whether each Bid (a) meets the eligibility criteria defined in Clause 3; (b) has been properly signed; (c) is accompanied by the required securities and; (d) is substantially responsive to the requirement of the Bidding documents.
- 26.2 A substantially responsive Bid is one that conforms to the requirements of the Bid documents without material deviations, objection, conditions or reservations. A material deviation, objection, condition or reservation is one (i) that affects in any substantial way the scope, quality or performance of the contract; (ii) that limits in any substantial way inconsistent with the Bid documents, the Employer's rights or the successful Bidders obligations under the contract; or (iii) whose rectification would unfairly affect the competitive position of other Bidders who presented substantially responsive Bids.
- 26.3 If a bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by the Bidder by correction of the nonconformity,

## **27 Correction of Errors:**

- 27.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:
  - (a) where there is a discrepancy between the rates in figures and in words, the lower of the two will govern; and
  - (b) Where there is a discrepancy between the unit and the line-item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.
- 27.2 The amount stated in Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount the Bid will be rejected, and the Bid security may be forfeited in accordance with sub-clause 16.6 (b).

## **28 Deleted**

## **29. Evaluation and Comparison of Bids:**

- 29.1 The employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause 26 and as per Tamilnadu Transparency in Tenders Act 1998 and Rules 2000.
- 29.2 In evaluating the bids, the Employer will determine for each Bid the evaluation Bid Price by adjusting the Bid Price as follows:
- (a) making any correction for errors pursuant to clause 27; or
  - (b) making an appropriate adjustments for any other acceptable variations, deviations; and
  - (c) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with Sub-clause 22.5
- 29.3 The Employer reserves the right to accept or reject any variation, deviation, or alternative offer. Variations, deviations, and alternative offers and other factors, which are in excess of the requirements of the Bidding documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in Bid evaluation.
- 29.4 This is a fixed price contract and price escalation is not provided in this contract and the evaluation will be based on the fixed price quoted by bid.
- 29.5 If the bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require that the amount of the performance security set forth in clause 34 be increased at the expense of the Successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful bidder under the contract.

### **30. Negotiations**

- 30.1 The Bids determined to be substantially responsive in accordance with Clause 28 will be taken into consideration and the rates of all the items and the total Bid value quoted by the Bidder will be compared with the estimate rates and the total estimate value put to Bid. Where considered necessary the employer may invite the lowest Bidder for negotiations as outlined below:
- 30.2 The Employer may seek break up detail from the lowest responsive Bidder for the rates quoted for the unbalanced items and total Bid amount offered by the Bidder within 10 days time. The Bidder may also be requested to examine the possibility of reducing the rates of high-pitched items quoted and the Bid amount to the extent possible.
- 30.3 Then the lowest Bidder has to furnish the breakdown details as required by the Employer within the time limit fixed by the Employer. The Bidder may also reduce the rates of the high-pitched items quoted / high percentages quoted if possible or express his inability to reduce the quoted rates/ percentage rate stating the reasons. A reply shall be furnished within the time limit fixed by the Employer.
- 30.4 If the Employer is satisfied that the details furnished, and the reasons stated by the Bidder for his inability to reduce the rates /percentage by the Bidder are reasonable then he may take a decision suitably.
- 30.5 If the Employer feels that the reduced offer is reasonable, suitable action shall be taken to award the work and if the reduced rates offered / percentage rate even after negotiation is considered still

to be on the higher side and if the Bidder refuses to reduce further then the Employer may record the reasons and take suitable action to reject the Bids received and to go in for re-Bid

- 30.6 In the event of deciding the award of the lowest evaluated Bidder with unbalanced rates for certain items / percentage which has resulted in the Bid amount being very much less than the estimated value put to Bid, to safeguard the interest of the Employer and to ensure the completion of the work by the Bidder additional security deposit will be collected from the selected Bidder as specified in clause 34.5 of the ITB.

## **F. AWARD OF CONTRACT:**

### **31. Award Criteria:**

- 31.1 Subject to clause 32, the employer may award the contract to the successful Bidder whose bid has been determined to be technically acceptable and is the lowest in terms of evaluated bid price.
- 31.2 The employer may request the Bidder to withdraw any of the deviations included in the Bidder's offer at the price shown in the bid price offer.

### **32. Employer's Right to accept any Bid and to reject any or all Bids:**

- 32.1 The employer reserves the right to accept or to reject any bid and to annul the bid process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidders or any obligation to inform the affected Bidders of the grounds for the employer's action.

### **33. Notification of Award and Signing of Agreement:**

- 33.1 The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the Conditions of contract called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion and maintenance of the Works by the contractor as prescribed by the contract (hereinafter and in the contract called the "Contract Price").
- 33.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of a Performance Security in accordance with the provisions of clause 34.
- 33.3 The Agreement will incorporate all agreements between the Employer and the successful Bidder. On payment of performance security ( as per clause 34.1) by the successful bidder, The Employer will then prepare complete set of document (agreement) in which the Employer and successful bidder will sign. This exercise of signing the agreement should be completed within 15 days from the date of receipt of the performance security from the successful bidder. The above agreement shall be prepared on a stamp paper of value not less than Rs.20 /-
- 33.4 Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.

### **34. Performance Security:**

- 34.1 Within 15 days of receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security in any of the forms given below for an amount to be calculated as per clause 34.5 plus additional security for unbalanced Bids in accordance with clause 29.5 of ITB and clause 52 of CC.
- 34.2 An irrevocable bank guarantee in the form given in the Forms of Securities.

- 34.3 The performance security of a consortium shall be in the name of consortium. If the performance security is provided by the successful Bidder in the form of a Bank Guarantee, it shall be issued by a Nationalized / Scheduled Banks
- 34.4 Failure of the successful Bidder to comply with the requirements of sub-clause 34.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.
- 34.5 The value of performance security to be remitted for construction activity will be calculated by adopting the following

a)	For contracts within any plus percentage and upto minus 5% of the contract value for construction compared to the departmental estimated value for construction	2% of contract value
b)	For contracts above minus 5% and upto minus 15% compared to the departmental estimated value for construction	4% of contract value
c)	For contracts which are more than minus 15% compared to the departmental estimated value for construction	5% of contract value

### **35. Advance Payment and Security**

- 35.1 The Employer will provide and Advance Payment on the Contract Price as stipulated in the Conditions of Contract, subject to maximum amount, as stated in the Contract Data.

### **36. Adjudicator**

- 36.1 The Employer proposes that S.A.Rajagopalan (Retired Superintending Engineer) [name of proposed Adjudicator] be appointed as Adjudicator under the contract, at a daily fee of Rs. 2000.00 .plus boarding, lodging, traveling expenses at actual. If the Bidder disagrees with this proposal, the Bidder should so state in the Bid.

### **37. Corrupt or Fraudulent Practices:**

- 35.1 Bidders/contractors are to observe the highest of ethics during tendering, procurement and execution of contract.
- (a) In pursuance of this policy, the employer defines for the purpose of this provision, the terms set forth below as follows:
    - (i) Corrupt Practice means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
    - (ii) Fraudulent Practice means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the employer, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the employer of the benefits of free and open competition.
  - (b) A proposal/or award will be rejected if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract.
- 35.2 Furthermore, Bidders shall be -aware of the provisions stated in conditions of contract.

### **SECTION 3 :**

#### **FORMS OF BID, QUALIFICATION INFORMATION**

##### **Table of Forms:**

- **CONTRACTOR'S BID**
- **QUALIFICATION INFORMATION**
- **NOTICE TO PROCEED WITH THE WORK**
- **AGREEMENT FORM**

##### **CONTRACTOR'S BID**

#### **Description of Work: Construction of New Bus Stand at Solar in Erode Municipal Corporation**

To  
The Commissioner  
Erode City Municipal Corporation  
246/894, Meenachi sundaranar,  
Erode Fort, Erode, Tamil Nadu 638001

Gentlemen,

Having examined the bidding documents including addendum, we offer to execute the Works described above in accordance with the Conditions of Contract, Specifications, Drawings and Bill of Quantities accompanying this Bid for the Contract Price of .....*[in figures]*.....*[in words]*<sup>1</sup>.

The advance Payment required is : Rupees.....

We accept the appointment of .....as the Adjudicator.

(OR)

We do not accept the appointment of .....as the Adjudicator and propose instead that .....be appointed as Adjudicator whose daily fees and biographical data are attached.

The bid and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any Bid you receive.

We hereby certify that we have taken steps to ensure that no person acting for as or on our behalf will engage in bribery.

We also undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption force in India namely "Prevention of Corruption Act 1988".

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid and to contract execution if we are awarded the contract, are listed below:



<u>Name and address of agent</u>	<u>Amount</u>	<u>Purpose of Commission or Gratuity</u>
.....	.....	.....
.....	.....	.....
.....	.....	.....

(if none, state "none")

We hereby confirm that this Bid complies with the Eligibility, Bid Validity and Bid Security required by the Bidding documents.

Yours faithfully,

Authorized Signature

---

*1. To be filled by the bidder together with his particulars and date of submission at the bottom of the form of bid*

Name of title of Signatory : .....

Name of Bidder : .....

Address : .....

## QUALIFICATION INFORMATION

The information to be filled in by the Bidder in the following pages will be used for purposes of post qualification as provided for in Clause 4 of the Instructions to Bidders. This information will not be incorporated in the Contract

1. For Individual Bidders

Constitution or legal status of Bidder

**[Attach copy]**

Place of registration :

Principal place of business :

Power of Attorney of signatory of Bid:

**[Attach copy]**

Total value of Civil Engineering construction work

Executed and payments received in the last five years

2017 – 2018 : .....

2018 – 2019 : .....

2019 – 2020 : .....

2020 – 2021 : .....

2021 – 2022 : .....

1.3 Work performed as prime contractor (in the same name) on works of a similar nature over the last five years.

Project Name	Name of the Employer	Description of work	Contract No.	Value of contract	Date of issue of work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay and work completed

1.3.1 Quantities of work executed as prime contractor (in the same name and style) in the last five years:

Year	Name of the work	Name of the Employer	Quantity of work * performed	Remarks * (indicate contract Ref.)
2017 – 2018				
2018 – 2019				
2019 – 2020				
2020 – 2021				
2021 – 2022				

\*Attach certificate(s) from the Engineer(s)-in-Charge not below the rank of Executive Engineer B Attach certificate from Chartered Accountant

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

(A) Existing commitments and on-going works:

Description of work	Place & State	Contract No. & Date	Name and Address of Employer	Value of Contract	Stipulated period of completion	Value of * works remaining to be completed	Anticipated date of completion
1	2	3	4	5	6	7	8

(B) Works for which bids already submitted:

Description of work	Place & State	Name and Address of Employer	Estimated value of works	Stipulated period of completion	Date when decision is expected	Remarks if any
1	2	3	4	5	6	7

*\*Attach certificate(s) from the Engineer(s)-in-Charge*

The following items of Contractor's Equipment are essential for carrying out the Works. The Bidder should list all the information requested below. Refer also to Sub Clause 4.3 (d) of the Instructions to Bidders.

Item of equipment	Requirement Nos. (capacity)	Owned/leased/to be procured	Availability proposals		Remarks (From whom to be purchased)
			Nos / capacity	Age / condition	
Excavator200 Concrete Pumps30 Cu.m Per Hour Hydra Crane 12 MT Shuttering Materials Shutter Props 4m Length Tower Crane30 m Boom Tippers10 Cum Ajax self-loaders4 cum Total Station 2" accuracy Concrete Vibrator JCB mini Excavator	2 nos. 2 Nos  1 No. 3000 Sq.m 3000 nos. 1 no. 10 nos. 4 Nos.  2 Nos. 10 Nos. 2 Nos.				

Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data. Refer also to Sub clause 4.3 (e) and 4.5 (B) (b) of instructions to Bidders and Sub Clause 9.1 of the Conditions of Contract.

Sl.No	Position	Name	Qualifications	Years of experience (General)	Years of experience in the proposed position

Proposed sub-contracts and firms involved. [Refer ITB Clause 4.3 (j)]

Sections of the works	Value of Sub-contract	Sub-contractor (name and address)	Experience in similar work

Financial reports for the last five years: balance sheets, profit and loss statements, auditor's reports (in case of companies/corporation) etc. List them below and attach copies.

Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List them below and attach copies of support documents *[sample format attached]*.

Name, address and telephone, telex and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.

Information on litigation history in which the Bidder is involved.

Other party(ies)	Employer	Cause of dispute	Amount involved	Remarks showing present status

Deleted.

Proposed work method and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of the Bidding documents. [Refer ITB Clause 4.1 and 4.3 (k)].

## 2 CONSORTIUMS

The information listed in 1.1 to 1.11 above shall be provided for each partner of the Consortium.

The information in 1.13 above shall be provided for Consortium.

Attach the power of Attorney of the signatory (ies) of the bid authorizing signature of the bid on behalf of the consortium.

Attach the agreement among all partners of the consortium (and which is legally binding on all partners) which shows the requirements as indicated in sub-clause 4.4 of the instruction to bidders.

Furnish details of participation in the consortium as below.

**DETAILS OF PARTICIPATION IN THE CONSORTIUM**

<b>PARTICIPATION DETAILS</b>	<b>FIRM 'A' (Lead Partner)</b>	<b>Firm 'B'</b>	<b>Firm 'C'</b>
Financial			
Names of the Banker(s)			
Planning			
Construction Equipment			
Key Personnel			

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CREDIT FACILITIES**  
**- \* CLAUSE 4.5 [B] [c] OF ITB**

**BANK CERTIFICATE**

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

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

Bank Seal

Name of Bank

Senior Bank Manager

Address of the Bank

---

*\*the Bidders should ensure that there is no change in the words of the above format.*

**Issue of Notice to proceed with the work**  
**Letter head of the Employer)**

.....[date]

To

.....[name and address of the contractor]

.....

.....

Dear Sirs,

Pursuant to your furnishing the requisite security as stipulated in ITB clause 34.1 and signing of the contract for the construction of .....@ a Bid Price of Rs....., you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

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

## Agreement Form

**This agreement, made the .....day of .....2021, between The Commissioner, Erode City Municipal Corporation, Erode [name & address of Employer]** (hereinafter called "the Employer") and

.....[name and address of contractor] (hereinafter called "the Contractor" of the other part).

**Whereas the Employer is desirous that the Contractor execute the work Construction of New Bus Stand at Solar in Erode Municipal Corporation in Erode City Municipal Corporation. Contract No. ....** [name and identification number of Contract] (Hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a cost of Rs.....

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.;
  - i) Letter of Acceptance;
  - ii) Notice to proceed with the Works;
  - iii) Contractor's Bid;
  - iv) Contract Data;
  - v) Conditions of Contract (General & Special);
  - vi) Specifications (General & Special);
  - vii) Drawings;
  - viii) Bill of Quantities; and
  - ix) Any other document listed in the Contract Data and replies to queries clarifications issued by the Employer, such confirmations given by the bidder which are accepted by the employer and all the Addendum issued as forming part of the contract with the most recent documents taking precedence.
  - x) Instructions to Bidders
  - xi) Safety and preventive measures and digest of labour laws
  - xii) Consortium agreement



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

The Common Seal of

.....

was hereunto affixed in the presence of :

Signed, Sealed and Delivered by the said

.....  
.....

in the presence of :

Binding Signature of Employer.....

Binding Signature of Contractor.....

## SECTION 4 : CONDITIONS OF CONTRACT

### A. GENERAL

#### 1. Definitions

Terms which are defined in the Contract Data are not also defined in the conditions of contract but keep their defined meanings. Capital initials are used to identify defined terms.

The **Adjudicator** is the person appointed jointly by the Employer and the contractor to resolve disputes in the first instance, as provided for in Clauses 24 and 25. The name of the Adjudicator is defined in the Contract Data.

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

**Compensation Events** are those defined in Clause 44 hereunder.

The **Completion date** is the date of completion of the Works as certified by the Engineer in accordance with Sub Clause 55.1

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

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

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

The **Contractor's Bid** is the completed Bidding document submitted by the Contractor to the Employer.

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

**Days** are calendar days; **months** are calendar months.

A **Defect** is any part of the Works not completed in accordance with the **Contract**. BOQ Specifications.

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

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

The **Engineer** is the person named in the Contract Data ( or any other competent

person appointed and notified to the Contractor to act in replacement of the Engineer) who is responsible for supervising the execution of the works and administering the Contract.

**Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

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

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

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

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

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

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

**Specification** means the included in the Contract and any modification or addition made or approved by the Engineer.

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

A **Sub-contractor** is a person or corporate body who has a Contract with the contractor to carry out a part of the work in the Contract which includes work on the site.

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

A **Variation** is an instruction given by the Engineer which varies the Works.

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

## 2. Interpretation

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

If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date and the Intended Completion Date apply to any section of the Works (other than references to the Completion Date and Intended Completed date for the whole of the works).

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

- (1) Agreement
- (2) Letter of Acceptance, notice to proceed with the works.
- (3) Contractor's Bid
- (4) Contract Data
- (5) Conditions of Contract including Special Conditions of Contract
- (6) Specifications
- (7) Drawings
- (8) Bill of Quantities and

(9) Any other document listed in the Contract Data as forming part of the Contract

### **3. Language and Law**

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

### **4. Engineer's Decisions**

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

### **5. Delegation**

The Engineer may delegate any of his duties and responsibilities to other people except to the Adjudicator after notifying the Contractor and may cancel any delegation after notifying the Contractor.

### **6. Communications**

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

### **7. Sub-contracting**

The Contractor may sub-contract with the approval of the Engineer but may not assign the Contract without the approval of the Employer in writing. Sub-contracting does not alter the Contractor's obligations.

### **8. Other Contractors**

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

### **9. Personnel**

The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

Non-employment of Project Manager and other Key Personnel shall be liable for a fine as specified in Contract Data.

### **10. Employer's and Contractor's Risks**

The Employer carries the risks which this Contract states are Employer's risks and the Contractor carries the risks which this Contract states are Contractor's risks.

### **11. Employer's Risks**

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

## **12. Contractor's Risks**

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

## **13. Insurance**

The Contractor shall provide in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant and Materials;
- (b) loss of or damage to Equipment;
- (c) loss of or damage of property (except the Works, Plant, Material and Equipment) in connection with the Contract; and
- (d) personal injury or death.

Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred. If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or if no payment is due, the payment of the premiums shall be a debt due.

Alterations to the terms of insurance shall not be made without the approval of the Engineer. Both parties shall comply with any conditions of the insurance policies.

## **14. Site Investigation Reports**

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

## **15. Queries about the Contract Data**

The Engineer will clarify queries on the Contract Data.

## **16. Contractor to Construct the Works**

The Contractor shall design, construct and install the Works in accordance with the Specification and Drawings and as per instructions of Executive Engineer in charge of the work. The basic centerlines, reference points and bench marks will be fixed by Employer.

The Contractor shall establish at his cost, at suitable points, additional reference lines, benchmarks as

## **17. The Works to be Completed by the Intended Completion Date**

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

## **18.Approval by the Engineer**

The Contractor shall submit Specifications and Drawings showing the proposed temporary Works to the Engineer, who is to approve them if they comply with the Specifications and Drawings.

The Contractor shall be responsible for design of Temporary Works.

The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

The Contractor shall obtain approval of third parties to the design of the Temporary Works where required

All Drawings prepared by the Contractor for the execution of the temporary or permanent Works are subject to prior approval by the Engineer before their use.

## **19.Safety**

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

## **20.Discoveries**

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

## **21.Possession of the Site**

The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the Contract Data the Employer is deemed to have delayed the start of the relevant activities and this will be Compensation Event.

## **22.Access to the Site**

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

## **23.Instructions**

The Contractor shall carry out all instructions of the Executive Engineer incharge which comply with the applicable laws where the Site is located.

The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer, if so required by the Employer.

## **24. Disputes**

If the Contractor believes that a decision taken by the Engineer was either outside the authority given to the Engineer by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator with 14 days of the notification of the Engineer's decision.

## **25. Procedure for Disputes**

The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

The Adjudicator shall be paid daily at the rate specified in the Contract Data together with reimbursable expenses of the types specified in the Contract Data and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision will be final and binding.

The arbitration shall be conducted in accordance with the arbitration procedure stated in the Special Conditions of Contract.

## **26. Replacement of Adjudicator**

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

## **B. TIME CONTROL**

### **27. Program**

Within the time stated in the Contract Data the Contractor shall submit to the Engineer for approval a Program including Environmental Management Plan showing the general methods, arrangements, orders and timing for all the activities in the Works along with monthly cash flow forecast.

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

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

The Engineer's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Engineer again at any time. A revised Program is to show the effect of Variations and Compensations Events.

### **28. Extension of the Intended Completion Date**

The Executive Engineer incharge shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor

taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.

The Executive Engineer incharge shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Executive Engineer incharge for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to co-operate in dealing with a delay, the delay by this failure shall not be considered in assessing the new intended completion date.

## **29.Deleted**

## **30.Delays Ordered by the Executive Engineer in-charge**

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

## **31.Contract Management Meetings**

Contract management should be conducted at least once in a month at the office of the employer. The main aim and purpose of the management meetings shall be to review the mile stones, causes of delay if any and action plan to complete the remaining works and to deal with matters raised in accordance with the early warning procedures.

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

## **32.Early Warning**

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

The Contractor shall co-operate with the Executive Engineer incharge in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer.



## **C. QUALITY CONTROL**

### **33. Identifying Defects**

The Executive Engineer incharge shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.

The contractor shall permit the employer's Technical auditor to check the contractor's work and notify the Executive Engineer incharge and contractor of any defects that are found such a check shall not effect the contractor's or the Engineer's responsibility as defined in the contract Agreement.

### **34. Tests**

If the Executive Engineer incharge instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

All pipes, specials, electrical and mechanical items shall be subject to third party inspection at the cost of Employer. The contractor shall provide all necessary details such as manufacturer's/supplier's address and location of the manufacturing site well in advance to the Employer for such purpose.

### **35. Correction of Defects**

The Executive Engineer in-charge shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

### **36. Uncorrected Defects**

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

NOTE: Where in certain cases, the technical specifications provide for acceptance of works within specified tolerance limits at reduced rates, Executive Engineer will certify payments to contractor accordingly.

## **D. COST CONTROL**

### **37. Bill of Quantities**

The Bill of Quantities shall contain items for the construction, installation, testing and commissioning work to be done by the contractor.

The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate quoted in the Bill of Quantities for each item.

### **38. Change in the Quantities**

If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item the payment will be made as per actual quantity executed.

The Executive Engineer shall not adjust rates from changes in quantities if thereby the initial Contract Price is exceeded by more than 10 percent, except with the Prior approval of the Employer.

If requested by the Executive Engineer, the Contractor shall provide the Executive Engineer with a detailed cost breakdown of any rate in the Bill of Quantities.

### **39. Variations**

All variations shall be included in updated Programs produced by the Contractor.

### **40. Payment for Variations**

The Contractor shall provide the Executive Engineer with a quotation (with breakdown of unit rates) for carrying out the Variation when requested to do so by the Engineer. The Engineer shall assess the quotation, which shall be given within seven days of the request or within any longer period stated by the Executive Engineer and before the Variation is ordered.

Deleted.  
Deleted.  
Deleted.

The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

### **41. Cash flow forecasts**

When the Program is uploaded, the contractor is to provide the Executive Engineer with an updated cash flow forecast.

### **42. Payment Certificates**

The Contractor shall submit to the Executive Engineer monthly statements of the estimated value of the work completed less the cumulative amount certified previously along with details of measurement of the quantity of works executed in a tabulated form as approved by the Engineer.

The Executive Engineer shall check the details given in the Contractor's monthly statement and within 14 days certify the amounts to be paid to the Contractor after taking into account any credit or debit for the month in question in respect of material for the works in the relevant amounts and under conditions set forth in Clause 51

The value of work executed shall be determined by the Executive Engineer after due check, measurement of the quantities claimed as executed by the Contractor.

The value of work executed shall comprise the value of the quantities of items in the Bill of Quantities completed.

The value of work executed shall include the valuation of Variations and Compensation Events.

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

If for any reason, the Contractor or his authorized agent is not available and/ or the work is suspended by Employer, recording of measurements will be done by Employer without the presence of the Contractor or his authorized representatives and the Employer shall not entertain any claim from the Contractor for any loss on this account. If the Contractor or his authorized agent or representative does not remain present at the time of such measurements, after the Contractor has been given a three day notice in writing, such measurements may be taken in his absence and shall be deemed to be accepted by the Contractor.

Payment for the work done by the Contractor will be based on measurements recorded at various stages of the Work. The Contractor or his authorized agent, or representative shall be present at the time of recording of each set of measurements and sign the measurement book or level / field book in token of their acceptance.

#### **43. Payments**

Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of the contract and deduction at source of taxes as applicable under the law. The Employer shall pay the Contractor the amounts certified by the Executive Engineer within 28 days of the date of each certificate.

Deleted.

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

Payment will be made by the Employer as indicated in the Contract Data.

#### **44. Deleted**

#### **45. Tax**

The rates quoted by the Contractor shall be deemed to be basic rates only, Central and state taxes will be followed appropriately.

If any refund is received by the Contractor in respect of duties or taxes with regard to this work (for material and services) such refund should be passed on fully to The Commissioner, Erode City Municipal Corporation. To this effect, the Contractor shall furnish a certificate along with each bill.

#### **46.Currencies**

46.1 All payments shall be made in Indian Rupees.

#### **47.Price Adjustment**

47.1 Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants in accordance with the following principles and procedures and as per formula given in the contract data for the works where the period of execution is more than 12 months:

- (a) The price adjustment shall apply for the work due to be executed as per milestone quantity of work done from the date of agreement up to end of the initial intended completion date or extensions granted by the Engineer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor.
- (b) The price adjustment shall be determined during each quarter from the formula given in the contract data.
- (c) Following expressions and meanings are assigned to the work done during each quarter :

R =Total value of work done during the quarter. It will exclude value for work executed under variations for which price adjustment will be worked separately based on the terms mutually agreed.

#### **48.Retention**

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

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

On completion of the whole of the Works, the Contractor may substitute retention money (balance half) with an "on demand" Bank Guarantee.

#### **49. Liquidated Damages**

The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the intended Completion Date (for the whole of the works or the milestone as stated in the Contract Data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Time in the essence of the contract and payment or deduction of liquidated damages shall not relieve the contractor from his obligation to complete the work as per agreed construction program and milestones or from any other of the contractor's obligation and liabilities under the contract.

If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

## **50.Deleted**

### **51.Advance Payment**

The Employer shall make advance payment to the Contractor of the amounts stated in the Contract Data by the date stated in the Contract Data, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will be charged at the rate fixed by the Government of Tamilnadu from time to time on the advance payment.

The Contractor is to use the advance payment only to pay for Equipment, Plant and Mobilization expenses required specifically for execution of the Works. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Engineer.

The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance (mobilization and equipment only) payment or its repayment in assessing valuations of work done, Variations, Price adjustments, Compensation Events or Liquidated Damages.

## **52.Securities**

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

## **53. Deleted**

### **54.Cost of Repairs**

Loss or damage to the Works or Material to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions. Contractor shall attend to the defect in the work noticed during defects correction period within 3 days from the date of issue of notice to attend to the defects, failing which the defect will be remedied by engaging other Contractors at any cost and that cost will be recovered from the Contractor's money available with the Employer and balance alone will be paid when it is due.

## **E. FINISHING THE CONTRACT**

### **55.Completion**

The Contractor shall request the Engineer to issue a Certificate of Completion of the Works and the Engineer will do so upon deciding that the Work is completed.

### **56.Taking Over**

The Employer shall take over the Site and the Works within seven days of the Engineer issuing a Certificate of Completion.

## **57.Final Account**

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

## **58. 'As Built' Drawings / Operating and Maintenance Manuals**

If "As Built" drawings and / or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

If the Contractor does not supply the Drawings and / or manuals by the dates stated in the Contract Data or they do not receive the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

## **59.Termination**

The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

Fundamental breaches of Contract include but shall not be limited to the following:

- a) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- b) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- c) the Contractor does not maintain a security which is required;
- d) Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the Contract data; and
- e) if the Contractor, in the judgment of the Purchaser has engaged in fraud and corruption in competing for or in the executing the Contract.
- f) The contractor (in case of Consortium) has modified the composition of the Consortium and / other responsibility of each member of the Consortium from what is stated in Consortium agreement without prior approval of the Employer.
- g) Failure of the contractor to achieve two successive milestones.

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

When either party to the Contract gives notice of a breach of contract to the Engineer for a cause other than those listed under Sub-clause 59.2 above, the Engineer shall decide whether the breach is fundamental or not.

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

If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site as soon as reasonably possible.

## **60.Payment upon Termination**

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

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

## **61.Property**

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

## **62.Release from Performance**

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

## **63. Recovery of Dues.**

- 63.1 Whenever any amount has to be paid by the contractor in view of termination of contract and by virtue of clause 56.1 above any amount that may be due or may become due from the contractor after recovering from the bills for this work is liable to recover from any other contracts awarded to the contractor and also through the provision of revenue recovery act after issue of notice.

## **64 Fraud and Corruption**

- 64.1 The Employer requires that Bidders observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Employer.

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

- (i) "Corrupt practice" means the offering, giving, receiving or soliciting directly or indirectly of any thing of value to influence the action of a public official in the procurement process or in contract execution;
- (ii) "Fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract.
- (iii) "Collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Employer, designed to establish at artificial, non-competitive levels to deprive the employer of the benefit of free and open competition and
- (iv) "Coercive practice" means harming or threatening to harm directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of the contract.
- (b) Will reject a proposal for award if it determines that the Bidder recommended for award has directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question;
- (c) Will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded any contract if he at any time determines that the firm directly or through an agent engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing any contract.

## **F. SPECIAL CONDITIONS OF CONTRACT**

### **Part I**

#### **1. LABOUR:**

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

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

#### **2. COMPLIANCE WITH LABOUR REGULATIONS:**

During continuance of the contract, the Contractor and his sub contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law -- (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the



Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

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

a) Workmen Compensation Act 1923: The Act provides for compensation in case of injury by accident arising out of and during the course of employment.

b) Payment of Gratuity Act 1972: Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.

c) Employees P.F. and Miscellaneous Provision Act 1952: The Act Provides for monthly contributions by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are :

- (i) Pension or family pension on retirement or death, as the case may be.
- (ii) Deposit linked insurance on the death in harness of the worker.
- (iii) payment of P.F. accumulation on retirement/death etc.

d) Maternity Benefit Act 1951: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

e) Contract Labour (Regulation & Abolition) Act 1970: The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.

f) Minimum Wages Act 1948: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.

g) Payment of Wages Act 1936: It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.

h) Equal Remuneration Act 1979: The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.

i) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/-per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above up to Rs.3500/- per month shall be worked out by taking wages as Rs.2500/-per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain

circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.

j) Industrial Disputes Act 1947: The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.

k) Industrial Employment (Standing Orders) Act 1946: It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

l) Trade Unions Act 1926: The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.

m) Child Labour (Prohibition & Regulation) Act 1986: The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.

n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979: The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home up to the establishment and back, etc.

o) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996: All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

p) Factories Act 1948: The Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

### **3. COMPLIANCE WITH LABOUR REGULATIONS:**

The procedure for arbitration will be as follows:

(a) In case of Dispute or difference arising between the Employer and Contractor relating to any matter arising out of or connected with this agreement, such disputes or differences shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 arbitrators one each to be appointed by the Employer and the Contractor. The third arbitrator shall be chosen by the two arbitrators so appointed by the parties, shall act as presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a

consensus within a period of 30 days from the appointment, this shall be done in accordance with the Arbitration and Conciliation act, 1996.

(b) Deleted

(c) If one of the parties fails to appoint its arbitrator in pursuance of sub-clause (a) above within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the appointment of the Arbitrator shall be made as per the Arbitration and Conciliation act, 1996.

(d) Arbitration proceedings shall be held at Erode, (India) and the languages of the arbitration proceedings and that of all documents and communications between the parties shall be English.

(d) The decision of the majority of arbitrators shall be final and binding upon both parties. The cost and expense of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparations, presentation, etc., of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be born by each party itself.

(f) Deleted

(g) Performance under the contract shall continue during the arbitration proceedings and payments due to the Contractor by the Employer shall not be withheld, unless they are the subject matter of the arbitration proceedings.

#### **4. PROTECTION OF ENVIRONMENT:**

The contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made thereunder, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

#### **Salient features of some of the major laws that are applicable are given below:**

**The Water (Prevention and Control of Pollution) Act, 1974:** This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.

**The Air (Prevention and Control of Pollution) Act, 1981:** This provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

**The Environment (Protection) Act, 1986:** This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

**The Public Liability Insurance Act, 1991:** This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.

## **5. Third Party Inspection**

The Employer will have the option to arrange for Third party Inspection of following Procurement to be made by the successful Bidder under this contract. The cost of the Third party Inspection will be met by the Employer and the Bidder is required to render full assistance for arranging the Third party Inspection.

## **SECTION 5 : CONTRACT DATA**

### **CONTRACT DATA**

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

**The following documents are also part of the Contract:**

**Clause Reference**

"As Built" drawings and / or O&M Manuals [58]  
(Within 28 days from the date of completion)

The Schedule of Other contractors [8]

The Schedule of Key Personnel [9]

1. Project Manager B.E (Civil) with not less than 15 years experience in Construction of Civil Engineering. – 1 No.

2. Key Personnel

(i) project Engineer B.E (Civil) with not less than 15 years experience in construction of civil works like multi storeyed buildings – 1 Nos.

(ii) Site Engineers B.E (Civil) with not less than 10 years experience in construction of Civil works like multi storeyed buildings – 2 Nos.

(ii) Site Supervisors Diploma (civil) with not less than 5 years experience in civil construction works - 4 Nos.

Penalty for not employing Project manager and other Key Personnel till the date of employment of the Personnel [9.3]

The Employer is

Name : The Commissioner, Erode City Municipal Corporation [1.1]

Address: Erode City Municipal Corporation  
246/894, Meenachi sundaranar salai, Erode Fort,  
Erode, Tamil Nadu 638001

The Engineer is : The City Engineer

Name of Authorized Representative: The Commissioner

The **Adjudicator** appointed jointly by the Employer and Contractor is:

Name S.A.Rajagopalam [1.1]

Address Paramakudi

The name and identification number of the Contract is : **Construction of New Bus Stand at Solar in Erode Municipal Corporation.**

**Contract No. E1-1251-2022-**

The work consists of

1. The Building will be of R.C.C. framed Structure
2. Brick work will be constructed by II Class bricks
3. Other amenities are as per specifications.

1. The start shall be within 7 days from the date of issue of Notice to proceed with the work. [1.1]

2. The Intended Completion Date for the whole of the Construction Works is 12 Months [17,28]

3. Description of Milestones

**Milestone dates:**

S.No.	Description of works	Period from start date			
		Milestone I (6 months )	Milestone II ( 6 months )	Milestone III (6months )	Milestone IV (6 months )
1	Construction works	20%	50%	85%	100%

4. The contractor shall submit a revised program for the works within 7 days of delivery of Letter of Acceptance. [27]

5. The site possession date shall be within 7 days from the issue of notice to proceed with the works.

6. The site is as defined in the Index Plan (Volume-II) [1]

7. The defects Liability Period is 1 year for the Construction works and machineries.

8. The minimum insurance cover for loss of or damage to the works, plants, material, equipments, physical property in connection with contract, personal injury or death is Rs.30 lakhs for occurrence with the no. of occurrences limited to four.

After each occurrence, contractor will pay additional premium necessary to make

- insurance valid for four occurrences always [13]
9. The following events shall also be Compensation Events [44]
10. The period between Program updates shall be 30 days [27]
11. The amount to be withheld for late submission of an updated Program shall be Rs.1,00,000/- for each occurrence. [27]
12. The language of the Contract documents is English [3]
13. The law, which applies to the Contract, is the law of Union of India, applicable to Tamilnadu and the law of Tamilnadu. [3]
14. The currency of the Contract is Indian Rupees [46]
15. Institution whose arbitration procedures shall be used  
INDINA ARBITRATION AND CONCILIATION ACT 1996 [25]
16. Fees and types of reimbursable expenses to be paid to the Adjudicator is Rs.2000/- per day plus boarding, lodging, traveling, and other charges as per actuals [25]

**The formulas (e) for adjustment of prices are: [47]**

**R = Value of work as defined in Clause 46.1 of Conditions of Contract.**

**Adjustment for labour component**

- (i) Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula :

$$V_L = 0.85 \times P_L / 100 \times R \times (L_i - L_o) / L_o$$

$V_L$  = increase or decrease in the cost of work during the quarter under consideration due to changes in rates for local labour.

$L_o$  = the average consumer price index for industrial workers for Erode centre for the last quarter from the date of agreement as published by the Reserve Bank of India.

$L_i$  = The average consumer price index for industrial workers for Erode centre for this quarter under consideration as published by the Reserve Bank of India.

$P_L$  = Percentage of labour component of the work.

**Adjustment for cement component**

- (ii) Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula.

$$V_C = 0.85 \times P_C / 100 \times R \times (C_i - C_o) / C_o$$

$V_C$  = Increase or decrease in the cost of work during the quarter under consideration due to changes in the rates for cement

$C_o$  = The all India average wholesale price index for cement for the last quarter from the date of agreement as published by the Reserve Bank of India.

$C_i$  = The all India average wholesale price index for cement for this quarter, under consideration as published by the Reserve Bank of India.

$P_c$  = Percentage of cement component of the work

### **Adjustment for steel component**

- (iii) Price adjustment for increase or decrease in the cost of steel procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_s / 100 \times R \times (S_i - S_o) / S_o$$

$V_s$  = increase or decrease in the cost of work during the quarter under consideration due to changes in the rates for steel

$S_o$  = The all India average wholesale price index for steel (Bars and Rods) for the last quarter from the date of agreement as published by the Reserve Bank of India.

$S_i$  = The all India average wholesale price index for steel (Bars and Road) for this quarter, under consideration as published by the Reserve Bank of India

$P_s$  = Percentage of steel component of the work

### **Adjustment of Local materials**

- (vii) Price adjustment for increase or decrease in cost of local materials other than cement, steel, bitumen and POL procured by the contractor shall be paid in accordance with the following formula:

$$V_m = 0.85 \times P_m / 100 \times R \times (M_i - M_o) / M_o$$

$V_m$  = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates for local materials other than cement, steel, bitumen and POL.

$M_o$  = The all India average wholesale price index (all commodities) for the last quarter from the date to agreement, as published by the Reserve Bank of India.

$M_i$  = The all India average wholesale price index (all commodities) for this quarter, under consideration as published by the Reserve Bank of India.

$P_m$  = Percentage of local material component (other than cement, steel, bitumen and POL) of the work.

The following percentages will govern the price adjustment for the entire contract:

1.	Labour-P1	25 %
2.	Cement-Pc	35 %
3.	Steel-Ps	02 %
4.	Brick work, Tiles, Granite, Fabric, etc.	38 %
	Total	100 %

17. The proportion of payments retained (retention money) shall be 5% from each bill subject to a maximum of 5% of contract value and 2.5% of retention amount will be returned along with the final bill. The balance amount of 2.5% of the total value of the Works will be retained for a period of 2 years reckoned from the date of completion without interest and this amount will be paid to the Contractor after obtaining an irrevocable Bank Guarantee for the further period upto the completion of defect liability period.

18. The liquidated damages for the whole of the works for the each of the milestones are as under:

0.01% of the remaining work value per day [49]

The maximum amount of liquidated damages for the whole of the works is 10% percent of final contract price. [49]

19. The amounts of the advancement payment are: [51]

**The amounts of Advance payment are**

Mobilization : 10% of the Contract Price : On submission of un-conditional Bank Guarantee ( to be drawn before end of 20% of Contract Period)

( \* Split into Two 5 % each. Initially 5 % will be paid. After satisfactorily mobilizing the materials, equipments etc. another 5% would be released on certification by the Engineer. )

(The advance payment will be paid to the contractor no later than 15 days after fulfillment of the above conditions)

Repayment of advance payment for mobilization [51]

The advance shall be repaid with percentage deductions from the interim payments certified by the Engineer under the Contract. Deductions shall commence in the next interim payment certificate following that in which the total of all such payments to the contractor has reached not less than 15 percent of the contract price or 2 months from the date of payment of first installment of advance, whichever period concludes earlier, and shall be made at the rate of 12% of the amounts of al interim payment certificates until such time as the advance has been repaid, always provided that the advance shall be completely repaid prior to the expiry of the original time for completion.

The Securities shall be for the following minimum amounts equivalent as a percentage of [52]  
the Contract Price:

Performance Security for 2 per cent of contract price plus Rs. .... Lakhs as additional security for unbalanced bids [in terms of ITB Clause 29.5].

The standard form of Performance Security acceptable to the Employer shall be an unconditional Bank Guarantee of the type as presented in Section 8 of the Bidding Documents.

The date by which "As Built" drawings (in appropriate scale)in 5 sets in digitized form are required is within 28 days of issue of certificate of completion of whole or section of the work, as the case may be. Failing which Rs.10,00,000 /- can be retained by the employer from the contractor's bill.



The following events shall also be fundamental breach of contract: [59.2]

1. The Contractor has contravened Sub-clause 7 of GCC read with SCC and Clause 9.0 of GCC

The percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the Works shall be 20 percent. [60]

## **21. The payment terms shall be as follows:**

### **21.1 PAYMENT TOWARDS CIVIL WORKS**

Payments will be made for civil works to the extent of 95% of the value of the finished work done by the Contractor. 5% will be released after satisfactory completion. However, the payments are subjected to deduction of the retention money.

**Note: All payments will be subjected to deduction of retention money as stated in clause 48 of GCC**

## **SECTION 6 : FORMS OF SECURITIES**

Acceptable forms of securities are annexed. Bidders should not complete the Performance and Advance payment security forms at this time. Only the successful Bidder will be required to provide Performance and Advance payment Securities in accordance with one of the forms, or in a similar form acceptable to the Employer.

Annex A	:	Bank Guarantee for Bid Security
Annex B	:	Performance Bank Guarantee
Annex C	:	Deleted
Annex D	:	Bank Guarantee for Advance Payment

### **Annexure - A**

#### **BANK GUARANTEE FOR BID SECURITY**

WHEREAS, \_\_\_\_\_ [name of Bidder] (hereinafter called "the Bidder") has submitted his Bid dated \_\_\_\_\_ [date] for Construction of new busstand at solar in Erode City Municipal Corporation. \_\_\_\_\_ [name of Contract] (hereinafter called "the Bid").KNOW ALL PEOPLE by these presents that We affirm and bind itself, its successors and assigns by these presents, \_\_\_\_\_ [name of bank] of \_\_\_\_\_ having our registered office at \_\_\_\_\_ (hereinafter called "the Bank") are bound unto \_\_\_\_\_ [name of Employer] (hereinafter called "the Employer") in the sum of \_\_\_\_\_1 for which payment well and truly to be made to the said Employer the Bank binds itself, its successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

THE CONDITIONS of this obligation are:

If the Bidder withdraws the bid after Bid opening during the period of validity of the bid.

- a. if the Bidder does not accept the correction of the bid price, pursuant to clause 26 ; or
- b. if the Bidder withdraws the Bid after the issue of letter of acceptance of his Bid
- c. in the case of a successful Bidder, if the Bidder fails within the specified time limit to:
  - i. furnish the required Security Deposit or
  - ii. sign the Agreement
- e if the Bidder has furnished incorrect information on qualification and experience

we undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This unconditional and irrevocable Bank Guarantee will remain in force up to and including the date \_\_\_\_\_ 2 days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

It is also hereby declared that the \_\_\_\_\_ Bank is empowered under article / bye law \_\_\_\_\_ to issue this Bank Guarantee and undersigned \_\_\_\_\_ (name) and \_\_\_\_\_ designation is authorized by the Bank to sign this Bank Guarantee.

This Guarantee will not be discharged due to change in the constitution of the Bank or the Bidder.

DATE \_\_\_\_\_ SIGNATURE OF THE BANK \_\_\_\_\_

WITNESS \_\_\_\_\_ SEAL \_\_\_\_\_

\_\_\_\_\_  
[signature, name, and address]

1 The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 15.1 of the Instructions to Bidders.

2 45 days after the end of the validity period of the Bid.

### **Annex - B PERFORMANCE BANK GUARANTEE**

To:

.....[*name of Employer*]  
.....[*address of Employer*]

WHEREAS .....[*name & address of Contractor*] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No.....dated..... to execute .....[*name of Contract and brief description of Works*] (hereinafter called "the Contract");

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of .....[*amount of guarantee*] .....[*in words*], such sum being payable in the types and proportions of demand and without cavil or argument, any sum or sums within the limits of .....[*amount of guarantee*]<sup>1</sup> as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

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

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

This guarantee shall be valid until.....(i.e) 28 days from the date of expiry of the Defects Liability period.

Signature and seal of the guarantor.....

Name of Bank.....

Address.....

Date.....

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<sup>1</sup> An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract and denominated in Indian Rupees.

## ANNEX - D

### BANK GUARANTEE FOR ADVANCE PAYMENT

To:

.....[*name of Employer*]  
.....[*address of Employer*]  
.....[*name of Contract*]

Gentlemen

In accordance with the provisions of the Conditions of Contract, sub clause 51.1 ("Advance Payment") of the above mentioned Contract, .....[*name and address of Contract*] (hereinafter called "the Contractor") shall deposit with .....[*name of Employer*] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of .....[*amount of guarantee*]<sup>1</sup> ..... [*in words*].

We, the .....[*bank or financial institution*], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to .....[*name of Employer*] on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding .....[*amount of guarantee*]<sup>1</sup> .....[*in words*].

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between .....[*name of Employer*] and the Contractor shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until.....[*name of Employer*] receives full repayment of the same amount from the Contractor.

Yours truly

Signature and seal of the guarantor.....

Name of Bank / Financial Institution.....

Address.....

Date.....

---

<sup>1</sup> *An amount shall be inserted by the Bank representing the amount of the Advance Payment and denominated in Indian Rupees.*

## Letter of Acceptance

From

To

The Commissioner  
Erode City Municipal Corporation  
246/894, Meenachi sundaranar salai, Erode  
Fort, Erode, Tamil Nadu 638001

Name and Address of the Successful  
Bidder

Roc. No.

\_\_\_\_\_ (date)

Sub:- Erode City Municipal Corporation – Construction of New Bus  
Stand at Solar in Erode Municipal Corporation – issue of Letter  
of Acceptance – Regarding.

Ref:-

1. Your Tender dated on
2. Corporation Council Resolution No. -----dated-----

\*\*\*\*\*

This is to notify you that your Bid dated ----- for execution of the Construction of New Bus Stand at Solar in Erode Municipal Corporation [File No.----] for the Contract Price of Rupees. \_\_\_\_\_ (\_\_\_\_\_) [amount in words and figures], as corrected and modified in accordance with the Instructions to Bidders' is hereby accepted.

2) You are hereby requested to furnish Security Deposit for an amount equivalent to 2% of the contract value (which includes Earnest Money Deposit already paid) within 15 days from the receipt of this Letter of Acceptance. In terms of clause 30 of the tender document, the Security Deposit should be valid up to 30 days from the date of expiry of Defects Liability Period. You are also required to execute an agreement for fulfillment of the contract in a Rs. 20/- Judicial Stamp Paper. If you fail to remit the required Security deposit and execute the agreement within 15 days, your tender is liable for cancellation and EMD forfeited without notice.

3. You are informed that this is only the letter of acceptance of your bid. Formal work order for the work will be issued on remitting the 2% Security Deposit and execution of agreement.

The Commissioner,  
Erode City Municipal Corporation.

# **ERODE CITY MUNICIPAL CORPORATION**

## **TENDER DOCUMENT for Construction of New Bus Stand at Solar in Erode Municipal Corporation**

### **VOLUME II**

## **GENERAL SPECIFICATION FOR MATERIAL**

All material required for the works shall be procured and supplied by the contractor himself. The material shall be of good quality and conforming to relevant BIS. The material which are classified for ISI marking should be supplied with ISI marking only.

### **1. Cement**

- 1.1 The entire quantity of cement and steel required for the work will be procured by the contractor. The contractor is responsible for all transport and storage of the material and shall bear all related cost. The employer shall be entitled at any reasonable time to examine the cement and steel supplied by the contractor.
- 1.2 The cement procured by the contractor shall comply with the requirements of IS 269/1976 with the latest revision thereof for ordinary Portland cement and IS 3112/1989 with the latest revision thereof for 43 grade ordinary Portland cement. It shall be of the best normal setting quality unless specially rapid hardening or quick setting quality if expressly instructed by the Engineer to be supplied. Each bag shall bear ISI certification mark and as per specification no.10. of TNBP volume I.
- 1.3 The steel bars shall comply with the requirements set forth in the IS 432 part I, IS 1139, IS 1786 as the case may be with the latest revision thereof and the test as described for ultimate tensile strength bond test and elongation test.

All reinforcing steel shall be clean and free from oil, grease, loose scales or rust or other coatings of any character which would reduce or destroy the bond. Each bundle containing the bars shall bear the ISI certification mark.

- 1.4 All cement / steel shall be tested in nearby laboratories of Government Polytechnic, or Government engineering college or Regional Testing Laboratory by the Employer. Two samples should be taken by the Engineer in charge in the presence of the contractor or his authorized representatives or the technical personnel employed by the contractor as in the agreement. The contractor shall without extra cost provide samples and cooperate in the testing of the cement/steel. One sample shall be got tested and the other sample shall be retained by making clear identification in the sample by the Engineer in charge so as to identify at a later date. The cost of such test shall be borne by the contractor.
- 1.5 All cement shall be procured in bags and shall be stored in a dry place for which the contractor shall be responsible. Consignment of bagged cement shall be properly stacked in a manner which will permit easy access for inspection and definite identification. Cement shall be used in approximately in the chronological order in which it is received, but cement that has been stored for a period longer than 4 months from the date of initial sampling shall not be used unless it has been retested at the expenses of the contractor and passed by the Engineer in charge as good quality on the retest. Cement aged more than 180 days from the date of initial sampling shall be rejected.
- 1.6 Cement which has become caked or perished shall on no account be used on the works and shall be rejected. Although the engineer may have passed any consignment, he shall however have the power at the subsequent time to reject such consignment if he finds that any deterioration in the quality thereon has taken place.
- 1.7 A record of the quantity of cement/steel procured with the name of dealer till number and date shall be maintained by the contractor. This should be produced for examination by the Engineer in charge at any time. The age of the cement shall be reckoned from the date of manufacture and it shall be verified by the Engineer in charge.

- 1.8 The rejected consignment of cement and steel should be removed from the site within two days.

***The water used in making and curing of concrete, mortar and grout shall be free from objectionable quantities of silt, organic matter, injurious amounts of oils, acids, salts, and other impurities etc., as per I.S. specification No.456-1978.***

***The Engineer-in-Charge will determine whether or not such quantities of impurities are objectionable.***

***Such determination will usually be made by comparison of compressive strength, water requirement, time of set and other properties of concrete made with distilled or very clean water and concrete made with the water proposed for use. Permissible limits for solids when tested in accordance with I.S. 3025-1964 shall be as tabulated below.***

*Permissible limit for Solids:*

		Maximum permissible limit
1.	Organic	200 mg/litre
2.	Inorganic	3000 mg/litre
3.	Sulphates (as SO <sub>4</sub> )	500 mg/litre
4.	Chlorides (as CL)	2000 mg/litre for plain concrete work and 1000 mg/litre for R.C.C. work
5.	Suspended matter	2000 mg/litre

***If any water to be used in concrete, mortar or grout is suspected by the Engineer-in-Charge of exceeding the permissible limits of solids, samples of water will be obtained and tested by the Engineer-in-Charge in accordance with I.S. 3025-1964.***

**BRICKS:**

***a) Manufacture :***

***Common burnt clay building bricks shall conform to the requirements of IS 1077 and shall be of quality not less than class 50 with moisture absorption rate not exceeding 15% as defined in IS : 1077. The bricks shall be chamber burnt and shall not be damaged in any manner and sizes shall conform to the works sizes specified with tolerates as given in 6.2 of IS : 1077.***

***b) Samples :***

***The Contractor shall deliver samples of each type of brick to the Engineer, and no orders shall be placed without the written approval of the Engineer. All the bricks used in the works shall be of the same standard as the approved samples. The samples shall be preserved on site, and subsequent deliveries shall be checked for uniformity of shape, colour and texture against the samples. If in the opinion of the Engineer any deliveries vary from the standard of the samples, such bricks shall be rejected and removed from the site.***

***c) Uniformity :***

***The bricks selected for exposed pointed brickwork walls shall be of uniform colour, deep cherry red or copper colour and uniform texture. Only such bricks as are permitted by the Engineer shall be used.***

***d) Testing :***

***Samples of the bricks shall be tested in accordance with IS : 3495 by the contractor for compliance with the aforesaid, before any order is placed and soon after receipt of a consignment. Tests shall be carried out as and when required by the Executive Engineer on samples selected by the Executive Engineer's representative.***

***e) Laying :***

***Brickwork shall be uniformly bedded, bricks being laid upwards. Each brick shall be floated and rubbed in upon such sufficient quantity of mortar that the mortar is squeezed up into the joints, but if such joints are not filled with mortar by this process they shall be flushed up with the mortar from the next succeeding bed. The courses shall be laid truly and strictly to line and horizontal level.***

***f) Bond :***

***Brickwork courses shall be alternatively laid in stretcher bond and header bond. Damaged bricks shall not be used. The greatest care shall be taken to prevent mortar dropping on to or in any other way disfiguring or discolouring the bricks and all edges and sides shall be kept strictly plumb and square, in-line and flush with the required finished face. As the work proceeds, it shall be continuously checked with a 2m long straight edge and spirit level.***

***g) Construction :***

***Walls shall be carried up in uniform manner and no one portion raised more than 1m above another at any one time, the open end being racked out. Over-hang work shall in no case be permitted. Brickwork shall be cleaned down after each day's work and newly laid brickwork shall be protected by suitable means.***

***h) Dry weather :***

***In dry weather the suction rate of clay bricks shall be adjusted by wetting as necessary before use. Bricks shall be stored in a free draining area and protected from rain.***

***i) Lintels :***

***Where brickwork rests upon lintels or supporting ribs of concrete, the bricks shall be cut as necessary and carefully bedded so that proper support to the outer leaf of brickwork is obtained.***

***j) Pointing :***

***At the time of laying, all joint of exposed brickwork shall normally be raked out neatly and pointed to 15mm depth.***

***k) Approval :***

***All workmanship shall be strictly in accordance with the foregoing. The Engineer or the Engineer's representative reserves the right to reject any of the work on grounds of shabby workmanship. Such rejected work shall be removed and rebuilt to the Engineer's satisfaction.***

***MORTAR***

***The cement mortar to be used on the work should be generally conform to specification No.13 of TNBP. Only sufficient mortar shall be mixed as required for immediate use. Partly set mortar shall not be used.***

***Preparation of Mortar:***



***Unless otherwise specified, the cement mortar used in Masonry works shall be cement mortar mix MM5 (1:5) grade using minimum 288 Kgs. of cement per cubic meter of mortar.***

***Mixing shall be done thoroughly preferably in a mechanical mixer. In such cases, the cement and sand in the specified proportions shall be mixed dry thoroughly in the mixer operated manually or by power.***

***Water shall be added gradually and wet mixing continued atleast for 3 minutes. Water should not be more than that required for bringing the mortar to the required working consistency of 90 to 130 milli meteres as required in clause 9.11 of I.S. 2250-1981. The mix shall be clean and free from injurious kind of soil, acid, alkali, organic matter or deleterious substances.***

*Time of use of Cement Mortar:*

***Cement mortar shall be used as soon as possible after mixing and before it has begun to set, within 30 minutes after the water is added to the dry mixture.***

***Mortar unused for more than 30 minutes should not be used and shall be removed from the site of work. The cost of such wasted mortar shall be borne by the bidder. The use of retempered mortar will not be permitted to be used for the masonry.***

*Tests of Mortar:*

***Mortar Test cubes shall be cast for the mortar used on the work and shall be tested in accordance with Appendix-A of I.S.2250-1965 code of practice for preparation and use of Masonry Mortars. Such cubes shall develop a compressive strength of atleast 50 Kgs/squre centimeter for MM5 (1:5) Grade cement mortar mix, 75 Kgs/square centimeter for MM 7.5 (1:4) grade cement mortar mix and 30 Kgs/ square centimeter for MM-3 grade cement mortar mix.***

***Mortar not conforming to the specifications will be rejected, and the cost of such wasted mortar shall be borne by the bidder.***

## **2. Aggregates**

***2.1 Sand shall generally conform to the grading of sand given in clause 4 of I.S.2116-1189 as detailed below in Table 4(b).***

**Table 4(b):** Grading of Sand for use in Masonry Mortars:

I.S. Sieve Designation	Percentage passing by Mass
4.75 mm	100
2.36 mm	90 to 100
1.18 mm	70 to 100
600 Micron	40 to 100
300 Micron	5 to 70
150 Micron	0 to 15

***2.2 A sand whose grading falls out-side the specified limits due to excess or deficiency of coarse or fine particles may be processed to comply with the standard by screening through a suitably sized sieve and/or blending with required quantities of suitable size and particles.***

**2.3** The cost of sand for masonry will not be measured and paid separately and the cost of sand including the cost of stripping, transporting and storing and royalty charges shall be included in the unit price per cubic meter bid therefore in the relevant item of work in the bill of quantities for which this and is required.

**2.4** The maximum quantities of deleterious material in the aggregates, as determined in accordance with IS 2386 (part II)/1963 shall not exceed the limits given in table I of IS 383.

Unless otherwise specified all coarse aggregate in RCC shall be graded aggregate of 20mm nominal size. All aggregates shall be stored in hard impervious surface to ensure exclusion of all foreign material and as per IS 4082/1977 and specification no.5 of TNBP volume I.

2.5 Aggregates having a specific gravity below 2.6 (saturated surface dry basis) shall not be used without the special permission of the Engineer.

### **3      Admixtures**

Only where a beneficial effect is produced shall any admixture be used and that too after test has been carried out to convince the Engineer that no harmful effect will be produced by the use of such admixture and after approval by the Engineer. The admixture shall conform to IS 9103/1972.

### **4      Form work and centering**

Steel/wooden form centering shall be used. If wooden form work is used, it shall consist of planks not less than 40mm thick and strong props. This shall be provided complying with clause 10 of IS 456/2000 and specification no.30.8 of TNBP. The timber for form works shall be best hard wood and got approved by the Engineer in charge. This shall be deemed to be included in the items of contract even otherwise specified.

### **5      Separator (cover block)**

For bottom cover of beams, slabs etc., separators of pre-cast cement mortar blocks of suitable size with wire embedment as directed shall be used and tied to the reinforcement. Between layers of reinforcements, separators consisting of pieces of bars of suitable diameters shall be used. The required cover shall be provided as per clause 24-4 of IS 456/2000.

## **CIVIL WORKS**

### **1. General :**

- 1.1 Tamilnadu Building Practice (TNBP) shall be strictly followed for carrying out different items of work for which no standard specifications are available and no alternate specification have been given under the description of works.
- 1.2 Where any provision of the TNBP is repugnant or at variance with any provision under BIS or description of work, technical specifications and conditions of contract, the provisions of the latter shall be deemed to supercede the provision of the TNBP.

### **2. Earthwork :**

#### **2.1 Specification**

Tamilnadu Detailed Building Practice (specification no.23 to the extent applicable) shall be followed for earthwork excavation.

#### **2.2 Conveyance :**

The excavated earth, blasted rubble etc., shall be conveyed and deposited in suitable places as directed by Engineer in charge within 150m of plant site on one side of the trench only.

#### **2.3 Disposal of surplus earth :**

The excavated soil which is surplus to that required for refilling and after allowing for settlement will have to be removed, spread and sectioned at places shown on the site during execution for purpose of widening or leveling the road. Sectioning is to be done as detailed in TNBP. The cost of removal of surplus earth after spreading/leveling/sectioning at site approved by the Engineer in charge to the disposal site will be measured under the relevant item of work in BOQ.

#### **2.4 Shoring, Strutting and Bailing out water**

The rate for excavation of trench work shall include charges of bailing out water wherever necessary and no extra payment will be made for any of these contingent works. While bailing out water, care should be taken to see that the bailed out water is properly channelised to flow away without stagnation or inundating the adjoining road surfaces and properties.

For shoring and strutting, the rate for excavation for the first 2m depth from GL shall include. Shoring and strutting beyond 2m depth from GL, payment will be made as per respective item in BOQ.

### **3. Concrete :**

#### **3.1 Specification**

Concrete for use in the works shall generally comply with TNBP (specification no.30) and the relevant BIS. The concrete mix shall be in specified proportions satisfying the maximum aggregate size, water cement ratio and required cube strength and workability as per IS 456-2000. Such concrete must be adequately vibrated to form

solid mass without voids. The entire concreting works should be done only with the prior approval and the presence of Engineer in charge.

### **3.2 Mixing of concrete**

The concrete shall be proportioned as far as cement and aggregate are considered by volume. The amount of water required being measured either by weight or volume the adjustments must be made to frequent intervals at the discretion of the Engineer or his assistant to account for the moisture content of the aggregates. The mixing operation shall be performed only in a mechanical concrete mixer and shall continue until the whole batch of uniform consistency and colour. The mixing of concrete shall be done in accordance with clause 8 and 9 of IS 456-2000.

### **3.3 Transporting, Placing and Compacting Concrete**

3.3.1 Transportation, placing and compaction of concrete mix by mechanical vibrators shall be done in accordance with clause 12 or IS 456-2000. It is imperative that all concreting operations be done rapidly and efficiently with minimum re-handling and adequate manpower shall therefore be employed to ensure this.

#### **3.3.2 The forms shall be first cleaned and moistened before placing concrete.**

3.3.3 The mix should not be dropped from such a height as it may cause segregations and air entrainment. When the mix is placed in position, no further water shall be added to provide easier workability.

3.3.4 No concrete mix shall be used for the work if it has been left for a period exceeding its initial setting time before being deposited and vibrated into its final position in the member.

3.3.5 While one concrete is being placed in position it shall be provided generally complying with clause 12.4 of IS 456-2000 and as directed by the Engineer in charge. The efficiency of tempering and consolidation will be judged by complete absence of air pockets, voids and honey combing after removal of form works.

### **3.4 Curing**

3.4.1 Curing shall be done to avoid excess shrinkage or harmful effect to the members generally complying with clause 12.5 of IS 456-2000.

3.4.2 The method adopted shall be effective and any special method used must be approved by the Engineer and be subject to complete supervision.

3.4.3 Any deficiency in concreting such as cracking, excessive honey combing, exposure of reinforcement or other fault which entail replacement of the defective part by fresh concrete and whatsoever remedy reasonable required without hampering the structural safety and architectural concept, all at the cost of contractor.

### **3.5 Removal of Form Work.**

3.5.1 Removal of form work shall be done as per TNDSS and as per IS 456-2000 and as directed by the Engineer in such a manner that no damage is caused to the concrete work.

### **3.6 Testing of concrete**

- 3.6.1 During the course of construction works, preparation of test specimens, curing and casting of concrete shall be done in accordance with IS 1199 and IS 516 to ascertain the strength requirements and acceptance criteria indicated in IS 456-2000. The contractor shall provide all apparatus, labour and arrange to test the cubes at his own cost at the test laboratory decided by the Employer.
- 3.6.2 In addition to the above test, any other test which may if desired by the Engineer in charge be carried out from time to time as per relevant specifications at the cost of contractor. In case the concrete does not meet the strength required, all corrective measures shall be taken at once at the contractor's cost.
- 3.6.3 The inspection and testing of structures shall be done in accordance with clause 16 of IS 456-2000.

#### **4. Masonry**

- 4.1 All masonry works such as Random Rubble / Coarse Rubble / Brick work must be done as per TNBP specification and Bid schedule specification.

#### **5. Plastering**

- 5.1 Plastering would be 12mm, 20mm and 25mm thick cement plaster either plain or with water proof cement as may be specified.
- 5.2 The plastering items shall be executed in thickness and cement mortar of proportion as detailed in respective item in the BOQ. Similarly the plastering shall be either ordinary or with water proof for components as specified in respective item in the BOQ.
- 5.3 In case of water proof plaster standard and approved water proofing compound shall be mixed in cement mortar in required percentage as directed and then the plaster is applied.
- 5.4 The finishing shall be either smooth or rough as may be directed by the Engineer unless otherwise specifically mentioned in the BOQ.
- 5.5 Neat finishing wherever directed by the Engineer shall be done at no extra cost.
- 5.6 Curing and watering shall be done as directed and plaster shall be in alignment and level. Any substandard work is liable to be rejected and shall have to be redone at contractors cost. Sand to be used shall be of approved quality only. Cost of all scaffolding shall be included in the rates quoted in the BOQ.

### **GENERAL CONDITIONS OF CONTRACT**

## **A PREFACE**

Intent and reference to Tamil Nadu Building Practice

1. It is intended by this Tamil Nadu Practice to describe.

(a) the character of the materials to be used;

(b) the method of execution of work and

(c) the contractor's responsibilities to the Public, Government and his workmen and general contract conditions which are to be accepted by every contractor who executes work entrusted to him by the Department.

1.2. Wherever the term "Standard Specifications" or "Specifications" or to the abbreviation T.N.B.P. No: or TNBP is used in the specifications or in estimates or contract documents, it shall refer to the relevant, specification in the Tamil Nadu Building Practice.

3. The. Abbreviation "I.S." shall mean "Indian Standard-".

2. Applicability of the Tamil Nadu Building Practice.

2.1. It shall be unnecessary to include in any contract documents a specification for any item of work which is defined in the tender notice or in the contract schedule of work to be done by a Tamil Nadu Building Practice number (TNBP No.) The fact that the item is defined as specification, shall mean that the contractor is to execute the work according at such specification modified as may be necessary by an addendum specification for that particular item of work. In the absence of specification for any work or material in the T.N.B.P. such. work should carried out in accordance with the instruction given by the Corporation Engineer.

2.2. THESE GENERAL CONDITIONS OF CONTRACT SHALL APPLY TO ALL AGREEMENTS ENTERED INTO BY CONTRACTORS WITH THE Commissioner Erode etc and shall form an inseparable condition of contract, and it shall not be necessary to append a copy of the same to the agreement.

3. Contractor to sign in the Division (or the sub-Divisional) copy of the T.N.B.P.

3.1. Every contractor who executes work for the Public Works Department or the Highways Board and Rural Works Department shall carefully study the schedule for work to be done and his drawings, obligation under the "General Conditions of Contract" which apply to all agreements, and he shall sign in the Municipality copy of the T.N.B.P. (or the Sub-Divisional copy if so arranged by the Corporation Engineer) as evidence that he understands clearly the conditions of contract governing his agreement and accepts the same.

3.2. It shall not be necessary for the contractors to sign the Municipality copy of the T.N.B.P. for every contract awarded to him, but his signature therein will be evidence that he accepts the conditions of contract (which include the standard specifications) as detailed in the T.N.B.P. for every contract into which he enters. It shall also be the contractor's responsibility by frequent perusal of the Municipality copy to become conversant with sanctioned alterations or additions made to the T.N.B.P. as soon as they are made. A separate volume of addenda to the T.N.B.P. will be maintained in the Municipality as the case may be in which will be entered all sanctioned corrections and additions. This must also be studied and signed by every contractor before executing an agreement. Interleaving correction slips will not be made for his purpose. The contractor should purchase copy of, the T.N.B.P. for his reference while executing work.

4. Sub-specifications:

4.1 Works of similar nature having many common clauses in their specification are grouped under one specification number with a "General" preface thereto, and the sub-specification are therefore given an alphabetical affix.

5. Additions and alterations to the T.N.B.P.

5.1 Additions and alterations to the T.N.B.P. will be incorporated in the addenda volume as authorised by the Chief Engineer.

6. Powers of Corporation Engineers to supplement or alter the T.N.B.P.

6.1 Corporation Engineer may alter the specification for any particular which is within their respective powers of sanction, when such alteration is found necessary by attachment of a correction sheet to the contract form, bearing the T.N.B.P. Number, the corrections and the signature of the Corporation Engineer as the case may be, together with the signature of the contractor. Similarly additional specifications, for items for which there are no standard specifications will be made by attachment to the contract documents of addendum specifications sheet bearing the signature of the Corporation Engineer as the case may be and the signature of the contractor.

## **A.I. DEFINITIONS AND INTERPRRETATIONS.**

### **7. Definition of terms:**

7.1. Wherever the words and expression defined in this clause or pronouns used in their status occur in contract documents which includes the T.N.B.P, they shall hays the meanings hereby assigned to them except where the context otherwise requires:

(a) "Corporation Engineer" means the Corporation Engineer for the time being in charge of the concerned work under execution or such other departmental assistants or subordinates to whom the Corporation Engineer may have delegated certain duties, acting severally within the scope of the particular duty entrusted to them.

(b) No delegation by Corporation Engineer which affects agreements. It is however, to be distinctly understood that the Corporation Engineer or the higher authority who is vested with the powers of acceptance of the particular agreement under reference will make no delegation of powers to such assistants or subordinates which in any affects the agreement and its contract condition when such agreement is to be or has been accepted by the "Corporation Engineer" or by the other higher authority respectively- The duties of such assistants or subordinates will be solely duties of supervision to ensure compliance with contract conditions.

(c) "Contractor" means the particulars persons, firm or corporation with whom an agreement has been made by the Corporation Engineer or higher authority as the case be, for executing work defined in the concerned agreement, and for purposes of instructions regarding compliance with contract conditions, it shall include the contractor's authorized agent, who is maintained on the work by the contractor.

(d) Works or work means the works by or by virtue of-the contractor contracted to the executed whether temporary or permanent and whether original, altered substituted or carriage or additional or connected, with the supply repairs or carriage of tools and plant and supply or manufacture of other stores.'

7.2. Words importing the singular only also include the plural and vice-versa where the context requires.

**8. Evidence of experience** -Tenderer shall, if required, present satisfactory evidence to the Corporation Engineer that they have been regularly engaged in constructing such works, as the proposed to execute and that they are fully prepared with the necessary capital, machinery and materials to begin the work promptly and to conduct it as required by the T.N.B.P. and the other specifications for the particular work If tendered for, in the event of their tender being accepted,

**9. Legal address Notices:**

9.1 Tenderers should give in their tender their place of residence and postal address. The delivering at the above named place or posting in a post box regularly maintained by the Post Office Department or sending by loiter registered for acknowledgement of any notice, letter or other communication to the contractor shall be deemed sufficient service thereof upon the contractor is writing as maybe changed at any time by an instrument executed by the contractor, and delivered to the Corporation Engineer.

9.2. Nothing contained in the agreement and his contract conditions shall be deemed 10 prejudice render inoperative the service of any notice, letter or other communications upon the contractor personally.

**B. STATEMENT OF APPROXIMATE QUANTITIES IN SCHEDULE - A**

10.1 The quantities mentioned in tender notices and in agreement schedule A are worked out from the relevant drawings in office and may or may not be the actual required for execution. The Corporation Engineer does not expressly or by implication agrees that the actual amount of work to be done will correspond therewith but reserves the right to increase or decrease the quantity of any class or portion of the work as he deems necessary.

10.2 Tenderer must satisfy themselves by a personal examination of the site of the proposed work by examination of the plans and specifications and by other means as they prefer as to the accuracy and sufficiency of the statement of quantities and all conditions affecting the work and shall not any time after the submission of their tender, dispute or complain o1 such statement of quantities or assert, that there was any misunderstanding in regard to the nature or amount of the work to be done nor in consequences apply for extension of time for completion beyond the agreement date.

**11. Approximate not to mean deviation from drawings and specifications:**

11.1. This declaration of the approximate nature of the statement of quantities in Schedule. A does not, however, in any way imply that the quantities will be increased for departure by the contractor from strict compliance with sanctioned drawings and specifications to suit his own convenience or reduce his costs.

**12. To compare tenders:**

12.1. The quantities in Schedule A are given for a uniform comparison of lump-sum tenders.

**C. DRAWINGS AND SPECIFICATIONS**

**13. Purpose:**

13.1. The contract drawings if any, read together with the contract specifications are intended to show and explain the manner of executing the work and to indicate the type and class of materials to be used.



#### **14. Conformance:**

14.1. The works shall be carried out in accordance with the drawings and specifications which form part of the contract and in accordance with the details and instructions, supplementing or explaining the same as may from time to time be given by the Corporation Engineer.

14.2. If the work shown on any such further drawings or details, or other work necessary to comply with any such instructions, directions or explanations be in the opinion of the contractor, of a nature which the schedule rate in the contract does not legitimately cover he shall before proceeding with such work, give notice in writing to this effect to the Corporation Engineer. In the event of the Corporation Engineer and contractor failing to agree as to whether or not there is any excess rate to be fixed and the Corporation Engineer deciding that the contractor is to carry out the said work, the contractor shall accordingly do so, and the question whether or not there is any excess and if so the amount there of, shall failing agreement, be settled by an arbitrator as provided in the arbitration clause, unless the subject is one which is left to the sole discretion of the Corporation Engineer under the clauses of these conditions of contract and the contractor shall be paid accordingly.

14.3. It shall be the responsibility of the contractor to give timely notice to the Corporation Engineer regarding anything shown on the drawings and not mentioned in the specification, or mentioned in the specifications and not shown in the drawings or any error or discrepancy" drawings or specifications and obtain his orders thereon. Figure dimensions are to be taken and not those obtained from scaling the drawings. In any discrepancy between drawings and specifications, the latter shall prevail. In any such cases or in case any feature of the work is not fully described and set forth with the drawings and specifications the contractor shall forthwith apply to the Corporation Engineer for such further instructions, drawings or specifications as he requires it, being understood that the subject to be dealt with under the building procedure of best modern practice. The Corporation Engineer will furnish the further instructions, drawings or specifications if in his opinion; they are required by competent workmen, for the proper execution of the work.

#### **15. Variations by way of modifications omission or additions.**

15.1. For all modifications, omissions from or additions to the drawings and specifications, the Corporation Engineer will issue revised plans, or written instructions or both, and no modifications, omissions or additions shall be made unless or authorized and directed by the Corporation Engineer in writing.

15.2. The Corporation Engineer shall have the privilege of ordering modifications, omissions or additions at any time before the completion of the work and such orders shall not operate to annul these portions of the specifications with which said changes do not conflict.

15.3. The contractor shall submit to the Corporation Engineer a statement giving details of the claims for any additional work with 30 days of the order of the work and no claim for any such work will be considered which has not been included in the statement.

#### **16. Copies of drawings and specifications:**

16.1. One copy of the available drawings and specifications (apart from the T.N.B.P. a copy of reference) shall be furnished free of cost to the contractor for his own use. Such copies and copies of supplementary details furnished by the Corporation Engineer shall be kept by the contractor on the

work until the completion thereof, and the Corporation Engineer shall at all times have access to them.

**17. Signed drawings -No authority to the contractor.**

17.1. No signed drawing shall be taken as in itself and order for variation, unless either is it entered in the agreement schedule of drawings under proper attestation of the contractor and the Corporation Engineer, or unless it has been sent to the contractor by the Corporation Engineer, with a covering letter confirming that the drawing is an authority for variation of the contract under reference.

**D. MATERIALS AND WORKMANSHIP**

**18. To be the best quality:**

18.1. All materials, articles and workmanship shall be the best of their respective kind for the class of work described in the contract specification and schedule, materials being obtained from sources approved by the Corporation Engineer. The word "best" as used in these specifications shall mean, that in the opinion of the Corporation Engineer there is no other superior quality of materials or finish of articles on the market and that there is no better class of workmanship available for the nature of the particular item described in the contract schedule. The contractor shall, upon the request of the Corporation Engineer, furnish him with the vouchers to prove that the materials are such as are specified.

18.2. Samples of materials shall be furnished at the contractor's expenses to the Corporation Engineer when called for in the tender notice or ordered to be furnished by the Corporation Engineer prior to execution of any work.

**19. Conventions for proportions:**

19.1. Wherever the proportions are written by figures without further description and where the meaning is otherwise clear as to which figure is intended to apply to each material, then the usual conventions will be understood to apply to each material then the usual conventions will be understood to apply.

**For example:**

1.2. Means 1 lime (or cement in accordance with the context) and 2 sand;

1.2.4. Means 1 lime (or cement in accordance with the context) 2 sand and 4 broken stone (or other aggregate in accordance with the context).

**20. Measurement and mixing:**

20.1. In the case of loose materials such as lime sand, cement, broken stone, surki, mortar, etc the proportions demanded by the specifications must be measured in properly constructed measuring boxes or weighed or in such other manner as shall be instructed by the Corporation Engineer. Measurement is not to be done in loose heaps when intimate mixtures such as mortar, concrete, etc., are to be formed. The mixing must always be done on closely constructed platforms. So that there will be no leakage of any of the materials through the floor of the platform and also that no foreign materials can be incorporated during the mixing. These platforms must be approved by the Corporation Engineer. The cost of such measuring boxes and platforms and all the work referred to herein shall be borne by the contractor.

**21. Data:**

21.1. The materials and labour utilized in the execution of work by the contractor shall not be less than that given in the Tamil Nadu P.W.D. Standard Data for the relevant item.

**NOTE:** In case the contractor considers that the materials and labour provided in the T.N.P.W.D. standard data for the execution of particular items of work are in excess, the contractor may furnish detailed data for such items along with tender with reason for variations from P.W.D. Standard Data.

**22. Layout of materials stocks:**

22.1. The contractor shall deposit materials for the purpose of the work on such parts only on the ground as may be approved by the Corporation Engineer. He shall submit for the approval of the Corporation Engineer before starting work, a detailed site survey clearly indicating positions and areas where materials shall be stacked and sheds built.

**23. Source of purchase of materials and stores**

23.1 The Corporation Engineer shall, during the progress of the work, have power to cause the contractor to purchase and use such materials or supplies from Government brick fields, stores or other sources as may be specified in the contract for the purposes therein specified.

**2.4 Contractor liable for materials supplied by Government.**

24.1. The contractor shall be responsible for all materials and other articles and things which may be supplied by Government from the time he takes delivery thereof, and shall use them only for the purposes of this contract and shall make good any loss, damage, wastage or undue wear and tear that may take place from whatever cause and pay to Government for such loss, damage, wastage or undue wear and tear such sum as the Corporation Engineer may determine.

24.2. If at any time subsequent to the execution of the agreement Government materials other than those specified in the Agreement are to be supplied to the contractor for use on the work they will be charged at the market value prevailing at the time of supply or stock issue rate whichever is greater. The contractor will be informed in writing the rate which he demands for finished work in view of the fact that he is to use Government materials.

**24.4. Storage charges:**

24.4. Govt. do not undertake to take over from contractors whether before or after the completion or determination of contract surplus materials which were originally procured by the contractors themselves or were issued to them and charged to their accounts. Such materials are the property of the contractor and can be taken over by Govt. if required for use on the works in progress only by special arrangement at the prevailing market rates viz., the rate at which the article or articles of a similar description can be procured at a given time at the stores Godown from public market suitable to the division for obtaining a supply therefore of the materials were originally supplied by the Govt. Price allowed to the contractors on requisition should not exceed the amount charged to the contractors excluding the element of storage charges if any. Contractors are however not at liberty to remove from the site of work, without the written permission of the Managing Director, materials, which have been issued to them for use on works.

**25. Test inspection and rejection of defective materials and works:-**

25.1. The contractor shall provide proper facilities at all for the testing of materials and inspection of the work by the Corporation Engineer, and the Corporation Engineer shall accordingly also have

access at all times to the places of storage or manufacture where materials are being made for use under the contract to determine that manufacture is proceeding in accordance with the drawings and specifications.

25.2. The contractor shall, upon demand, also forward for the Corporation Engineer's inspection, test certificate supplied by the vendors, when he is purchasing consignments of cement, steel and other materials in respect of which such certificates are usually available.

25.3. The Corporation Engineer shall have power to reject at any stage, any work which he considers to be defective in quality of material or workmanship and he shall not be debarred from rejecting rough materials by reasons of his having previously passed them in an unworked condition. Any portion of the work or materials rejected or pronounced to be inferior or not in accordance with the drawings and specifications, shall be taken down and removed from the work site at the contractor's expense, within 24 hours after written instructions to that effect have been given by the Corporation Engineer. Replacement shall at once be made in accordance with the specifications and drawings at the contractor's expense.

25.4. In case of default on the part of the contractor to carry out such orders the Corporation Engineer shall have power to employ and pay. Other persons to carry out the orders at the contractor's risk and all expenses consequent thereon and incidental thereto shall be borne by the contractor.

25.5. In lieu of rejecting work not done in accordance with the contract, the Corporation Engineer may allow such work to remain and in that case shall make such allowance for the difference in value, as in his opinion may be reasonable.

25.6. Works opened for inspection The Contractor shall at the request of the Corporation Engineer within such time as the Corporation Engineer shall name open for inspection any work covered up; and should the contractor refuse or neglect to comply with such a request, the Corporation Engineer may employ other workmen to open up the same. If the said work has been covered up in contravention of the Corporation Engineer's instructions or if on being opened up, it be found not in accordance with drawing and specifications of the written instructions of the Corporation Engineer the expenses of opening it and covering it up again, whether done by the contractor or such other workmen, shall be borne by or recovered from the contractors. If the work has not been covered up in contravention of such instructions or if on being opened up it be found i.e. he in accordance with the drawings and specifications or the written instructions of the Corporation Engineer, the expenses aforesaid shall be borne by Government and shall be added to the contract sum. provided always that in the case of foundations, or any other urgent works so opened up and requiring immediate attention the Corporation Engineer shall, within reasonable time after the receipt of a notice from the contractor that the work has been opened, make or cause the inspection thereof to be made, and at the expiration of such time if such inspection shall not have been made, the contractor may cover up the same, and shall not be required to open it up again inspection except at the expense of Government.

## **26. Defects, shrinkages, etc., after completion.**

26.1. Any defects, shrinkage or which may appear within from the corn pie works arising in the opinion of the Corporation Engineer from faulty materials or workmanship not in accordance with the drawings and specification instructions of the Corporation Engineer shall open the directions in writing of the Corporation Engineer and within such reasonable time as shall be specified therein, be amended and made good by the contractor at his own cost unless the Corporation Engineer shall decide that the contractor ought to be paid for the same at the rates agreed on such reduced or other rates as the Corporation Engineer may fix and in case of default, the Corporation Engineer may employ (and pay other persons to amend and make good such defects, shrinkage or other faults or damage. and all expenses consequent thereon and incidental thereto shall be borne by the contractor.

26.1. (A) The shrinkage period of six months referred to in main clause 26.1 above will be five years in respect of all contracts for construction of original buildings either semi-permanent or permanent to ensure structural stability of the building.

(G.O.Ms. NO.1 81 PWU 28.1.86)

26.2. Provided that in the event of Government taking over portions of the works as and when they are completed the liability of the contractor under this clause shall extend to a period of years from the date of final taking over of the work irrespective of the actual dates on which portions the works were taken over,

#### **27. Corporation Engineer's decision:**

27.1. To prevent disputes and litigation, it shall be accepted as an inseparable part of the contract that in matters regarding materials workmanship, removal of improper work, interpretation of the contract drawings and contract specifications, mode of procedure and the carrying out of the work, the decision of the Corporation Engineer shall be final and binding on the contractor and in any technical question which they arise touching the contract the Corporation Engineer's decision shall be final and conclusive.

#### **28. Dismissal of Workmen:**

28.1. The contractor shall employ in and about execution of the works only such persons as are careful, skilled and experience in their several trades and callings and the Corporation Engineer shall be at liberty to object to and request the contractor to remove from the works any person employed by the contractor in or about the execution of the workshops in the opinion of the Corporation Engineer misconducts himself or incompetent or negligent in the proper performance of his duties and such persons shall not be again employed upon the works without the permission of the Corporation Engineer.

#### **D.1. GENERAL OBLIBATIONS**

#### **29. Contractor's maistri or agent and contractor's staff:**

29. 1. The contractor shall in his own absence keep constantly on the works a competent mastery or agent and any directions or explanations given by the Corporation Engineer or his representatives to suet" mastery or agent shall be held to have been given to the contractor.

29.2. The contractor shall further provide all staff which necessary for the proper supervision, execution and measurement of the work to ensure full compliance with the term of the contract.

#### **30. Government masteries or agents:**

30.1. The Government may be represented on the work by an agent clerk of the works, or mastery who

is not borne on the Official or officers and subordinates of the Regional Executiveity. He (if appointed) shall, in the absence of the Corporation Engineer, furnish the contractor with the Corporation Engineer's or his representative's instructions of the works and the contractor shall duly comply with such instructions and directions and shall on the written requisition of the mastery Clerk of works or agent, stay the-further progress of any portion of the works which in his judgment is being constructed with unsound or improper mastery or workmanship, until the opinion and determination of the Corporation Engineer shall be obtained thereon, but such mastery, clerk of works or agent is to have no power whether to order any extra works or deviation from the specification and drawings.

## **E. INCLUDED IN CONTRACT RATES**

### **31. Defining contract schedule rates:**

31.1. The rate entered in a contract schedule for any class of work shall be for finished work in site and shall include all contingent expenses whether direct construction expense involved in the building in place in accordance with the drawings and specifications or whether they be expenses imposed by an outside authority such as a local body. Such contingent expenses shall not entitle the contractor to claim an extra in respect thereof.

### **32. CARRIAGE.**

32.1. Rate's for finished work shall always include the cost of conveyance and all leads, lifts, loading, unloading and stacking in the manner and at the place ordered by the officer in immediate charge of the work, unless circumstances necessitate provisions for a separate schedule item, in which class such will be specified in the tender notice or schedule.

32.2. Wherever the term "Carriage" or "Conveyance" is used in a schedule item, it shall in the absence of other schedule provisions or modifying description, in the specification, be taken to include all leads, lifts, loading, unloading and stacking in uniform stocks to the satisfaction of the Corporation Engineer with careful attention to close packing in case of materials which are to be measured in stacks as a basis of payment for finished work.

**NOTE- 1.** In the case of important leads and lifts as may occur in river conservancy and other such works, where lifts over flood banks and long leads may be involved, it is usual to make separate schedule item provision with a specification defining the exact work to be done for each tendered rate.

**NOTE - 2.** Payment for carriage will originally be by bulk or weight at a rate between specified places and on the basis of the method adopted in the standard schedule of rates for carriage of materials. The distances will be measured by the nearest practicable and cheapest routes, whether metalled or unmetalled road or cart track.

32.3 when carts or vehicles of any sort are engaged by the day, the quantity of materials to be conveyed, the distance to be travelled and the number of trips to be made shall, if he considers necessary be fixed by the Corporation Engineer.

32.4. The contractor is responsible for making good all loss in transporting materials entrusted to him or his agents, whether caused by wastage, breakage, theft or any other cause.

32.5. No payment shall in any case be made for the return trips with carts. Where there are loads also for the return trips the agreement rates should allow for the reduced cost thereby on each set of materials so conveyed,

### **33. Construction plant.**

33.1. The contractor shall include in his tendered price and shall provide and install all necessary construction plant and shall use such methods and appliances for the performances the operations connected with the work embraced under the contract as will secure a satisfactory quality of work and rate of progress which, in the opinion of the Corporation Engineer will ensure the completion of the work within the time specified. If at any time before the commencement, during the progress of the work or any part of it such methods or appliances appear to the Corporation Engineer to be insufficient or inappropriate for securing the quality of the work required or the said rates of progress, he may order the contractors to increase their efficiency or to improve their character, and the contractor shall comply with such orders, but the failure of the Corporation Engineer to demand such increase of efficiency or improvement shall not relieve the contractor from his obligation to secure the quality of work and the rate of progress required by the contract and the contractor alone shall be responsible for the efficiency and safety of his plant, appliances and methods.

33.2. It is however open to the Corporation Engineer to lend or supply to the contractor any tools, implement materials and machinery that the Corporation Engineer may consider desirable but for any such tools, implements materials and machinery that may be lent or supplied to contractor by Government the contractor shall may be so lent or hired to the contractor shall be the Regional Executive Engineer before the final bill or work is paid and any shortage or damage shall be such rate as may be determined by the Regional Executive Engineer after making such allowance as he may consider suitable for fair wear and tear.

### **34. Scaffolding instructions:**

34.1. All requisite scaffolding shall be provided at the contractor's expense and shall be double, i.e. it must have two sets of upright supports care must be taken to ensure the safety of the work people and the contractor must comply with such instructions as the Corporation Engineer may issue to ensure safety. The contractor will be entirely responsible for any damage or injuries to persons or property resulting from ill erected scaffolding, defective ladders, or otherwise arising out of his default in this respect. The contractor's attention is also invited to the "safety code".

### **35. Temporary structure:**

35.1. The contractor shall erect and maintain at his own cost temporary weather proof sheds at such places and in a manner approved by the Corporation Engineer for keeping materials under cover. The contractor shall also provide and maintain at his own expenses such temporary fences, guards, bridges and roads as may be necessary for the execution of his contract work or for safeguarding or accommodating the public if the Corporation Engineer shall order any departure he shall comply with such orders as the Corporation Engineer may issue to safeguard or accommodate the public, sheds for housing workmen shall be provided at the contractor's expenses if, in the opinion of the Corporation Engineer, such are necessary or desirable.

### **36. Water and lighting**

36.1. The contractor shall pay all teas and provide water and light as required from Regional Executive mains or other sources and shall pay all charges therefore (including storage tanks, meters, etc.) for the use of the work and workmen unless otherwise arranged and decided on, in writing with the

Corporation Engineer. The water for the works shall be, so far as practicable, free from earthy vegetable, or organic matter and from salts or other substances likely to interfere with the setting mortar otherwise prove harmful to the work

### **37. Sun protection keeping dry and pumping**

37.1. The contractor shall at his own expense arrange all requisite protection of the work and materials against sun or rain effects and shall keep all portion of the work free from water to the satisfaction of the Corporation Engineer and shall use his own plant for the purpose unless otherwise specifically provided in the contract specification.

### **38 Tools and Seigniorage:**

38.1 The contractor shall, unless otherwise specifically stated in the tender notice and subsequently on this basis in the contract be responsible for the payment wherever payable of all import duties, tools octopi duties, seignior ages, quarry fees, etc., on all materials and articles that he may use.

38.2. The contractor shall be solely responsible for the payment of sales tax under the provision of the payment of sales tax under provision of the payment Sales Tax Act, 1939 (Madras Act IX of I 1939 as in force for time being and the rates for the various items of the work shall remain unaffected by any change that may be made from time to time in the rate at such tax is payable.

38.3. Notwithstanding anything contained in section 10 of the Indian Traffic Act of 1894. the rates for items involving, the use or supply of articles obtained by the contractor from outside India shall remain unaffected by any changes that may be introduced in Customs duties.

**NOTE:** For works carried out on behalf of the Government of India, Seigniorage fees. etc., referred to in this clause will have to be levied in every case

38.4. No Seigniorage shall be charged where due for materials quarried, from the P.W.D. or other Government quarries. Assistance as necessary will be given to the contractor by the department to obtain access to quarries approved by the Corporation Engineer. No plot rent shall be charged for materials stacked on the Government land during the course of construction provided all such materials are removed within one month after the work is completed.

38.5. Seigniorage charges due for use of private quarries and private land shall be paid by the contractor.

38.6. The contractor shall from his own approach road to the work site for which no extra will be due to him. On completion the contractor shall not be permitted to remove the materials laid for formation of road. If the contractor is allowed to use the existing roads he shall maintain them in good condition at his own cost throughout the period of the contract.

### **39. Setting out works:**

39.1 The contractor shall be responsible for the true and proper setting out of works and for the correctness of the position, levels, dimension and alignment of all parts of the works and for the provision of all materials, staff and labour in connection therewith.

### **40. Cleaning up during progress and delivery:**

40.1. All rubbish shall be burnt or removed from the site, as it accumulates. All floors, stairs, landing windows, surface and soil drains shall be cleaned down and put in a thoroughly complete clean, sound and workman like state to the satisfaction of the Corporation Engineer having first been



removed by the contractor. The contractor shall give notice in writing to the Corporation Engineer before the work is finally handed over all rubbish and surplus materials not required by the Corporation Engineer having first been removed by the contractor. The contractor shall give notice in writing to the Corporation Engineer when the work is so ready to be handed over and shall be responsible for its maintenance until it is taken over by the Corporation Engineer.

## **F. RESPONSIBILITIES AND LIABILITIES OF THE CONTRACTORS.**

### **41. Observance of laws, focal regulations and notices. Attachments:**

41.1. The contractors shall conform to the regulations and by-laws of any local authority and of any water or lighting companies with those systems the structure is proposed to be connected and shall, before making any variations from the drawings or specification that may be necessitated by so conforming, give to the Corporation Engineer written notice, specifying the variations proposed to be made and the reasons for making them, and apply for instructions thereon. In case the contractor shall not receive such instruction within seven days, he shall proceed with the work conforming to the provisions regulating or by-law in question and any variations in the drawings or specification so necessitated shall be dealt with under clause.

41.2. The contractor shall give all notices required by the said Act, regulation or by-laws and pay all fees in connection therewith unless otherwise arranged and decided on in writing with the Corporation Engineer. He shall also ensure that no attachments are made against materials of work forming part of or for the use of the contract. In every case referred to in this clause the contractor shall protect and indemnify Government against any claim or liability arising from or based on the violation, of any such law ordinance, regulations order, degree, or attachment whether by himself or by his employees.

### **42. Accidents - Hoarding - Lighting observation - Watchmen:**

42.1. When excavation have been made or obstacles have been put in public thorough fare or in places where there is any likelihood of accidents, the contractor shall comply with any requirement of law or the subject and shall provide suitable hoarding and watchmen necessary.

42.2. It shall be the contractor's sole responsibility to protect the public and his employees against accident from any cause and he shall indemnify Government against and claims for 'damages for injury to person or property, resulting from any such a claim and shall where the provisions of the Workmen's Compensation Act apply, take step to properly insure against any claims there under.

42.3. On the occurrence of accident which results in the death of any of the workmen employed by the contractor or which is so seriousness as to be likely to result in the death of any such workmen, the contractor shall, within 24 hours of the happening of such accident, intimate in writing to the concerned section officer of the Department the fact of such accident. The contractor shall indemnify Government against all loss or damage sustained by Government resulting, directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties or fines if any payable by Government as a consequence of Government's failure to give notice under the Workmen's Compensation Act or otherwise conform to the provisions of the said Act in regard to such accident.

42.4. In the event of an accident in respect of which compensation may become payable under the Workmen's Compensation Act VIII of 1923 whether by the contractor or by the Government as principal it shall be lawful for the Corporation Engineer to retain out of money due and payable to the

Contractor such sum or sums of money as may, in the opinion of The Corporation Engineer shall be final in regard to all matters arising under, this clause.

42.5. The contractor shall indemnify Government from and against all claims and proceedings for or on account of infringement of any patent rights, design, trade mark, or name of other protected rights in respect of any constructional plant, machine work or material used for or in connection with the works or temporary works, or any of them and from and against all claims, demands, proceedings, damages, cost, charges and expenses whatsoever in respect thereof in relation thereto.

42.6. In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with or cause to be complied with all the rules framed by the Government from time to time for the provision of health and sanitary arrangements to workers employed by P.W.D. and Highways and Rural Works Department and their contractors Vide Appendix. In case the contractor fails to make arrangements and provide necessary facilities as aforesaid the Corporation Engineer shall be at liberty to make arrangements and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

42.7. In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor at his own expense shall arrange for the safety provisions as per "Safety Code" framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangements and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

42.8. In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this agreement the contractor shall arrange to furnish in triplicate particulars to each working the Performa Vide Appendix XXXVIII b) the end of every month to the Corporation Engineer charge of the work.

#### **43. Blasting:**

43.1 Blasting executed by contractors in connection with Government works shall be carried out in the manner described under "Blasting operations Instructions to Contractor of the TNBP.

44. The contractor is to protect the whole of the adjoining and where necessary, the existing premises and all works land and fittings to all buildings or an adjoining the site against the structural and decorative damages caused by the execution of these works and make good in all respects all such damage done or occurring to the same, and leave such reinstatement in perfect order. He is also to make good any damage done to private footways or roadways.

#### **45. Permit other Workmen Co-operation Afford facilities:**

45.1. The Corporation Engineer shall have full power to send workmen upon the premises to execute fittings and other works not included in the contract for whose operations the contractor is to afford every reasonable facility during ordinary working hours, provided that such operations shall be carried on in such a manner as not to impede the progress of the work included in the contract, but the contractor is not to be responsible for any damage which may happen to or be occasioned by any such fittings or other works, provided he complies with the Corporation Engineer's instructions in connection therewith, and provided that the damage is not caused by himself or his workmen.

45.2. The contractor shall, at all times, cooperate, assist, attend, and afford facilities for such specialists as may be employed by the Corporation Engineer on other works in connection with the

building, allowing them free of charge the use of all plant, light and water installed in the works. The contractor shall cause such special work or protect it as instructed to avoid injury during progress of the works. For failure so to protect, the contractor must make good any damage caused.

45.3. When two or more contractors are engaged on installation or construction work in the same vicinity, the Corporation Engineer shall have authority to direct the manner in which each shall conduct the work so far as it affects other contractors. :

#### **46. Holes for water services, gas, electrical and sanitary fittings:**

46.1. The contractor shall leave all holes in masonry and floors for the insertion of water services, gas and electrical connections and sanitary fittings in the exact positions indicated by the Corporation Engineer during the progress of the work. These holes must be properly built up in a workmanlike manner at the contractor's cost, as soon as the fittings have been installed in cases, where the installations are made during the construction of the buildings and where in the opinion of the Corporation Engineer, delays in settlement of accounts will not thereby occur.

#### **47. Contractor's risk and insurance:**

47.1. The work executed by the contractor under the contract shall be maintained at the contractor's risk until the work is taken over by the Corporation Engineer. The Govt. should not be liable to pay for any loss or damages occasioned by (or) arising out of fire, flood, volcanic eruptions, earthquake or other convulsion of nature and all other natural calamities, risks arising out of acts of God during such period and that the option whether to take Insurance coverage or not to cover risks, is left to the contractor.

47.2. Provided however, that the contractor, shall not be liable for all or any loss or damages occasioned by or arising out of acts of foreign enemies, invasions, hostilities or warlike operations (before or after declaration of war) rebellion, military or usurped power.

#### **48. Holidays:**

48.1, Subject to any provision to the contrary contained in the contract, none of the permanent work shall save as herein after provided be carried on during the night or on Sundays and other holidays without the permission in writing of the Corporation Engineer or of the officer in charge of the work: save when the work is unavoidable or absolutely necessary for the save of life or property or for the safety of the works in which case the contractor shall immediately advise the Corporation Engineer.

### **G. MISCELLANEOUS**

#### **49. Sand and gravel:**

49.1. The contractor shall not make any excavations upon the site for the purpose of obtaining gravel, sand or soil other than that shown or implied by the drawings, except with the previous permission of the Corporation Engineer.

#### **50. Old curiosities:**

50.1. All old curiosities, relics, coins, minerals, etc., found in excavating or pulling down, shall be the property of the Government and be handed over to the Corporation Engineer. Should any ancient masonry, or other old work of interest be opened up, the Corporation Engineer's attention shall be called to the same before demolition or removal.

#### **51. Assignment or sub - lettings:**

51.1. The contractor shall not without the written consent of the Corporation Engineer, assign the contract nor sub-let any portion of the same. Ordinarily no subletting will be permitted, but in case such should be permitted by the Corporation Engineer, it shall in no way free the contractor from any of his responsibilities under any clause of these "Conditions of Contract" or of the "Articles of agreement".

**52. Specialties:**

52.1. The Corporation Engineer, shall, during the progress of the work have powers to select, -nominate or recommend tradesmen or specialists to supply material or execute such portion of the work as he may consider desirable in the interests of the Government.

53. Ratification of the orders of the Corporation Engineer

53.1. Should the acceptance of the tenders be beyond the authorized powers of the Corporation Engineer as laid down in the P.W.D. code, the orders and decisions of such Corporation Engineer with regard to the employment of specialists for certain portion of the work as described in the previous clause will be subject to the ratification of the higher authority who accept the tender.

**Powers for sanction of Extension of time:**

53.1 .A. Should the acceptance of tender beyond the authorized powers of the Corporation Engineer as laid down in TN P.W.D. code, the orders or decisions of such Corporation Engineers with regard to the extension of time for completing the contract will be subject to the ratification of Chief Engineer for all works for which tenders were accepted by the Chief Engineer.

**Powers for termination of LS contract.**

53.1 .B. Should the acceptance of tender beyond the authorized powers of the Corporation Engineers laid down in TN P.W.D. code, the orders and decision of such Corporation Engineers with regard to the termination of contract will be subject to ratification of the Chief Engineer for all works for which tenders were accepted by Chief Engineer.

**54. Order Book.**

54.1. An order book shall be kept at the Regional Executive office on the site of the work. As far as possible, all orders regarding the work are to be entered in this book. All entries shall be signed and dated by the Regional Executive officer in direct charge of the work and by the contractor or by his representative. In important cases, the Corporation Engineer will countersign the entries, which have been made. The order book shall not be removed from the work except with the written permission of the Corporation Engineer.

54.2. No photographs' of the site or of the work of any part thereof shall be taken except with the permission in writing of the Corporation Engineer and no such photographs shall be published or otherwise circulated without the permission, of the Chief Engineer.

**H. DATE OF COMMENCEMENT, COMPLETION, DELAYS, EXTENSION, SUSPENSION OF WORK AND FORFEITURE.**

**55. Date of Commencement and completion:**

55.1. On notification of possession of the site (or premises) being given to the contractor by letter registered for acknowledgement as provided in clause

9.1. supra, he shall forthwith begin the work, shall regularly and continuously proceed with them, and shall complete the same (except for painting or other work which in the opinion of the Corporation Engineer, it may be desirable to delay) by the date of completion, as defined in the "Articles of Agreement subject nevertheless to the provisions of extension of time mentioned in the next clause. The contractor shall under no circumstances be entitled to claim any damages from Government if he incurs any expenses or liabilities to payment under the contract before the date of commencement defined above. The contractor shall have the right to withdraw from the contract and obtain refund of his security deposit if such intimation of handing over the site is delayed by more than two months from the date of acceptance of the agreement by competent authority.

#### **56. Delays and extension oft/me:**

56.1. No claim for compensation on account of delays or hindrances to the work from any cause whatever shall lie except as hereinafter defined.

Reasonable extension of time will be allowed by the Corporation Engineer or by the officer competent to sanction the extension for unavoidable delays, such as may result from causes which in the opinion of the Corporation Engineer are undoubtedly beyond the control of the contractor. The Corporation Engineer shall assess the period of delay of hindrance caused by any written instruction issued by him at twenty five percent in excess of the actual working period so lost. If at any time the Corporation Engineer is of the opinion that there has been avoidable delays and the contractor fails to maintain the "rate" of progress specified in the article of agreement, it shall be lawful for the Corporation Engineer to impose penalty or order forfeiture from the Deposit sanction the extension of time for such delays, provided however, the penalty and forfeiture shall be governed as per clause 51.2 and 51.3.

56.2. ]n the event of the Corporation Engineer to failing to issue necessary instructions and thereby causing delay and hindrance) the contractor the latter shall have the right to claim an assessment of such delay by the Corporation Engineer of the Office. The contractor shall lodge in writing to the Corporation Engineer a statement of claim for any delayer hindrance referred to above within fourteen days from its commencement, otherwise no extension of time will be allowed.

56.3. Whenever, authorized alterations or additions made during the progress of the- work are of such nature in the opinion of the Corporation Engineer as to justify 8" extension of time in consequence thereof, such extension of time will be granted in writing by the Corporation Engineer or other competent authority when ordering such alteration or additions.

57. Delays in commencement or progress or neglect of work or suspension of works by the contractor and forfeiture of Earnest Money, Security Deposit and withheld amount.

57.1. Time shall be considered as the essence of the contract. If at any time the Corporation Engineer, shall be of the opinion that the contractor is delaying commencement of the work, neglecting or delaying the progress of work as defined in the tabular statement... Rate of Progress in the Article of Agreement or the contractor fails to maintain the Rate of Progress in the Articles of Agreement plus any CA tension of time or the contractor shall suspend the works.. or sublet the work or d portion thereof without the sanction of the Corporation Engineer or violates any of the provisions of the

contract the Corporation Engineer shall so advise the contractor and at the same time demand compliance. If the contractor neglects to comply with such demand within seven days after receipts of such notice, it shall then or at any time be lawful for the Corporation Engineer to impose a penalty or forfeiture on this contractor from the deposit or to determine the contract.

57.2. The penalty or forfeiture referred to in Clause

57.1. shall not exceed 10% of the work executed and is imposed in cases where the contractor is allowed to proceed with the whole or part and complete the whole or such part of the works. The penalty or forfeiture imposed by the Corporation Engineer under this clause is however subject to modification or waiver at the absolute discretion of any authority higher in rank than the Corporation Engineer.

57.3. It shall be a further right of the Corporation Engineer to give any part of the work to any other contractor at his discretion or have it done departmentally in order to maintain the rate progress and the contract shall then be determined for only that portion of the work given to the contractor or done departmentally. The for feature under clause

57.2. will in these circumstance be applied any excess expenditure incurred on this account shall be recovered from the original contractor.

57.4. Determination of the contract referred to in Clause 47." shall carry with it the forfeiture at the Security [deposit. After determining the contract, the Corporation Engineer shall have the right to give any part of the work to any other contractor in the unexecuted portion of contract, in which case any expenses which may be incurred in excess of such amount which would have been paid to the original contractor if the whole work had been executed deducted from any money due to him by Government it under this contract or any other account what so ever. Provided, also that if the expenses incurred by the Government are less than the amount payable to the contractor at his agreement rates the difference will not be paid to the contractor.

57.5. In the event of anyone of the above clauses being adopted by the Corporation Engineer, the contractor shall have no compensation for any loss sustained by him reason of his having purchased or processed any materials or entered into any engagements or made any advances on account or with a view to the execution of the work at the performance of contract, and in case action is taken under any of the provisions aforesaid, the contractor shall not be entitled to be paid any sum for any work actually performed under the contract unless and until the Corporation Engineer has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

57.6. In the event of the Corporation Engineer putting in force all or any of the powers vested in him under the clause 57.4. he may if he so desires after giving a notice in writing to the contractor take possession of the works, and site and such plants and materials thereon (or any ground contiguous thereof) and all such plant and materials as above mentioned shall thereupon be at the disposal of Government absolutely for the purpose of completing the work. After such notices shall have been given, the contractor shall not be at liberty to remove from the site or works or from the ground contiguous thereto any plant or materials belonging to him which shall have been placed thereon for the purpose of the above work. Government shall not be liable to make any payment to the contractor

on account of use such plant for the completion of the works, under the provisions herein before contained. On taking possession of the materials and stores belonging to the contractor or procured by the contractor and intended to be used for the execution of the work or any part thereof the contractor rates to be certified there of shall be final.

Otherwise, the Government may give notice in writing to the contractor to remove any of his plant or materials from the site and not required or any completion of the works, if such plant and or materials are not removed within fourteen days after notice, shall have been so given, Government may remove and sell the same, holding the proceeds less the cost of removal and sale, to the credit of the contractor. The expense, of any such removal and the amount of the proceeds and expense of any such sale. shall be final and binding on the contractor.

## **I. PARTICULARS OF PAYMENT**

### **58. Payment of lump sum basis or by final measurement lit unit prices:**

58.1. Final measurements need not be taken unless either the contractor or the Corporation Engineer claims extras to or deductions from, the quantities of Schedule A,

58.2. In case final measurements are claimed, they shall be taken only for those items for which either the contractor or the Corporation Engineer claims final measurements and the quantities of the remaining items in Schedule. A shall be accepted as correct. The lump sum amount mentioned in the agreement will then be varied by adding thereto or deducting there from as the case may be, the difference if any between the amounts mentioned in Schedule A for such items and the amounts arrived at by calculation at contract rates based on the revised quantities for the same, obtained by the final measurements aforesaid.

58.3. It shall be accepted as a condition of the contract that the payment of the final bill to the contractor less the withheld amounts and his acceptance thereof shall constitute a full and absolute release of Government from all further claims by the contractor under the contract.

59. Payment for additions and deductions for omissions.

59.1. No authorized variation shall vitiate the contract, but additions and omissions shall be measured up and dealt with in accordance with clause

59.2. If there is no rate in Schedule 'A' for additional work ordered to be carried out by the Corporation Engineer, when prior to execution of the additional work, shall be worked out in accordance with the methods indicated in 59.3 and with the rate agreed upon a supplemental agreement shall be entered in the proper department's form signed and dated by the contractor and the Corporation Engineer and or any other officer for the time being authorised to accept such agreement and supplemental agreement shall on such acceptance form part of the original agreement. A copy of the supplemental slip shall be given to the contractor.

59.3.1. The rate for additional works shall be derived from the rate for similar items of work in the accepted agreement,

59.3.2. In the case of works for which supplemental agreement is to be entered into during the period when the schedule of rates has not changed from the date of execution of the original agreement, then the rates for supplemental agreements may be the prevailing schedule of rates plus or minus

tender premium in case the rates cannot be derived from the items in the original agreement, in other case where the schedule of rates has change in the intervening period, the rates prevailing as per the schedule of rates at the time of execution of supplemental items will be adopted with no tender premium over this rate.

59.3.3. If the rate for a particular item of work is not in the schedule of rates, the prevailing market rates when the work was done shall be adopted.

59.3.4. If the rates cannot be determined as above, the rates shall be fixed on the cost of labour and materials plus 10 percent thereon, provided the vouchers shall have been delivered to the Corporation Engineer within 7 days after such work is completed. If the Corporation Engineer considers that the vouchers are unduly high, the Corporation Engineer can evaluate work as reasonable and fair and make payment if the value of payment is less than Rs.1,000. If the value of additional payment exceeds Rs.1,000 the contractor shall have the right to submit the matter to arbitration.

59.A. In cases where the Government under the terms of the contract with the contractor are liable to supply materials, articles or things to the contractor for the performance of his part of the contract, the Corporation Engineer, may at his absolute discretion extend the time which such materials, articles or things may be supplied by the Government and the Government may supply to the contractor such materials, articles or things within the time so extended without any liability on their part to compensate the contractor by reason of the extension of time for the supply of the materials, articles or things.

59.B. In cases where the Government under the terms of the Contract are liable to supply any materials, articles or things to the contractor for the performance by him of his part of the contract and the Government for any reason are unable to supply such materials, articles or things either within the time specified in the contract or within the time extended under clause 59.A. the Corporation Engineer may at his discretion or at the request of the contractor determine the whole or any part of the contract which cannot be performed by reason of the failure to supply such materials, articles or things and the contractor shall not be entitled to claim any damages or compensations in respect of such determination. The contractor shall, however, be paid the value of the work already done by him and the cost of the materials, articles or things if any collected by him up to the date of such determination and left unused on the work- on shall be taken over by the Corporation Engineer either at the contract rates or at values deduced from the through rates deduced in the contract. When the contract is determined at the discretion of the Corporation Engineer, he shall give notice in writing to the contractor and the decision of the Corporation Engineer to determine the contract shall be final and bind on the contractor.

**EXPLANATION:**

The expression "Through rates" means the rate for the finished items of work or the all in rates, that is to say, the rates for finished items of work inclusive of the cost of materials and labour.

59.C. If, at any time after the acceptance of the tender the Government shall, for any reason whatsoever not required the whole or any part of the work to be carried out, the Corporation Engineer shall give notice in writing of the fact to the contractor. Who shall have no claim to any compensation or other payments whatsoever, who shall on account of any profit or advantage he



might have derived from the execution of the work in full but which he did not derive in consequence of the termination of the works. He shall be paid at contract rates, for the work executed by him including any additional works such as clearing of site etc. that may be rendered necessary by such termination. He shall also be allowed a reasonable payment as decided by the authority next higher in rank to the authority which accepted the tender, for any expense incurred by him on account of labour and materials, articles or things collected, but which could not be utilized on the works as verified by the Corporation Engineer. Such decision shall be final and binding on both the parties and shall not be subject to arbitration under clause 73.

**60. No payment for unsanctioned extras:**

60.1. It shall be distinctly understood that no payment whatever will be made to the contractor for variations by way of extras, in cases where such variations have been made without the written sanction of the Corporation Engineer.

**61. Accounts Receipts and Vouchers;**

61. The contractors shall at any time upon the request of the Corporation Engineer furnish him with all invoices; account, receipts and other vouchers that he may require in connection with the contract.

**62. Fraud, willful neglect or default:**

62.1. No final or other certificate of payment or of completion, acceptance or settlement of account shall, in any circumstances, relieve the contractor from his liability for any fraud, or willful neglect or default in the execution of the contract or any willful or unauthorized deviations from drawings, specification, instructions and directions for the time being binding upon him.

**63. Unfixed materials:**

63.1. No payment or advance will be made for unfixed materials when the rates are for finished work in site.

**64. Payments and certificates:**

64.1 Payments will be made to the contractor under the certificates to be issued at reasonably frequent intervals by the Corporation Engineer, within 14 days of the date of each certificate an intermediate payment will be made by the Corporation Engineer of a sum equal to 95 percent of the value of work as so certified and the balance of 5% will be withheld and retained as security for the due fulfillment of the contract.

Under the certificate to be issued by the Corporation Engineer on the completion of the entire works, the contractor will receive the final payment of all the moneys due or payable to him under or by virtue of the contract except security deposit and the withheld amount equal to 2 1/2 percent of the total value of the work done provided there is no recovery from or forfeiture by the contractor to be made under clause 57. The amount withheld from the final bill will be retained under "Deposits" and paid to the contractor together with the Security Deposit after six months reckoned from the date of completion of work or as soon after the expiration of such period of six months as all defects shall have been made good according to the true intent and meaning thereof whichever shall last happen, in the event the final bill remains unpaid even after the period of six months before said, the Corporation Engineer shall refund the security deposit which includes the E.M.D. and also the withheld amount on a separate bill if requested or by the contractor in writing. No certificate of Corporation

Engineer shall be considered conclusive evidence as to the sufficiency of any work or materials or correctness of measurements to which is not related nor shall it relieve the contractor from his liability to make good defects as provided by the contract. The contractor when applying for a certificate shall prepare a sufficiently detailed bill based on the original figures of quantities and rates in the contract scheduled to the satisfaction of the Corporation Engineer, to enable the Corporation Engineer to check the claims and issue the certificate. The certificate as to such of the claim mentioned in the application as are allowed by the Corporation Engineer shall be issued within fourteen days of the application. No application for a certificate shall be made within fourteen days of a previous application.

64.1 .A. Notwithstanding the above clause, the withheld amount of 2 ½ % from the final bill in respect of contract for construction of original building, will be retained by the Govt. for a total period of one year in lieu of six months period referred to in clause.

64.1 .B. and will be released after the expiry of one year period on execution an indemnity bond by the contractor to the satisfaction of the Corporation Engineer for a further period of four years to ensure structural stability of the building under clause 26.1.A.

(G. O. MS. No. 181 PWD 28.1 .86)

64.2. When there are complaint from the Labour Department about non-payment of wages to the Labourers employee by the Contractors for the execution of work under agreement, the Corporation Engineer, shall have full powers to withheld the bills claimed by the contractor pending clearance certificate from the Labour Department and to act as per the direction given by the Labour Department.

#### **65. Interest and money due to the contractors:**

65.1. No omission by the Corporation Engineer to pay the amount due upon certificate. shall vitiate or make void the contract nor shall the contractor be entitled to interest upon any guarantee fund or payments in arrears, not upon any balance which may, on the final settlement of his accounts, be found to be due to him.

#### **66. Acceptance of final measurements:**

66.1. The contractor agrees that before payment of the final bill shall be made on the contract, he will sign and deliver to the Corporation Engineer either in the measurement book or otherwise as demanded? valid release and discharge from any and all claims and demands whatsoever for all matters arising out of or connected with the contract and also produce a certificate from the Incomes tax Authorities that all income tax payable by him upto-date has been duly paid provided that nothing in this clause shall discharge or release the contractor from his liabilities under The contract. It is further expressly agreed That Corporation Engineer in supplying the final measurement certificate need not be bound by the proceeding measurements and payments. The final measurements, if any of the Corporation Engineer shall be final conclusive and binding on the contractor.

#### **67. Recovery of money from contractor in certain case.**

67.1. In every case in which provision is made for recovery of money from the contractor. Government shall be entitled to retain or deduct the amount thereof from any money that may be due or may become due to the contractor under these presents and or under any other contract or contracts or

any other account what so ever.

#### **67. A. Recovery under Revenue Recovery Act:**

Whenever any amount has to be paid by the contractor in view of determination of the contract by virtue of clause 57 (4) or any amount that may be due or may become due from the contractor under these presents and the contractor not responding to the demands for the payment of the said amount, then the Govt., shall be entitled to recover the said amount under the provisions of the Revenue Recovery Act. (G. O. Ms. No.3659 PWD 23.12.70)

#### **68. Contractor dying becoming insolvent, insane or imprisoned:**

68.1. In the event of the death or insanity or insolvency or imprisonment of the contractor or where the contractor being a partnership or firm 'becomes dissolved or being a corporation goes in to liquidation, voluntary or otherwise, the contract may at the option of the Corporation Engineer, be terminated by notice in writing posted at the site of the works and advertised in one issue of the local district Gazette and all accepted and acceptable works shall forthwith be measured up and paid for at the rates provided in the contract schedule where such apply, or otherwise, by most recent schedule of rates of the division approved by competent authority '0 the person or persons entitled to receive and give a discharge for the payment.

### **J. SETTLEMENT OF DISPUTES**

#### **69. Arbitrations:**

69.1 In case of any dispute or difference between the parties to the contract either during the progress or after the completion of the works or after the determination, abandonment or breach of the contract, or as to any matter or thing arising there under except as to the matters left to the sole discretion of the Corporation Engineer under clauses 18,20.25.3, 27, 34, 35 and 37 of "General conditions of contract" or as to the withholding by the Corporation Engineer of payment of any bill to which the contractor may claim to be entitled, the either party shall forthwith give to the other notice of such dispute difference and such dispute or difference shall or be and is hereby referred to the Director of Regional Executive Administration of the nominated Regional Executive mentioned in "Articles of Agreement" therein after called the "Arbitrator" in cases when the value of claim is less than & upto Rs.50000. In cases when the value of claim is more than Rs.50000 the parties will seek remedies to the competent civil courts. (G.O.Ms.No.253 pass 24.9.81) The Arbitrators shall give detailed reasons in their findings and conclusion (G.O.Ms.No.1 844 pass off 18.7.86)

69.2. Subject as aforesaid to the provisions of the arbitration Act, 1940, or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the Arbitration proceeding under this clause.

69.3. Upon every and such reference, the costs of and incidental to the reference and award respectively shall be discretion of the arbitrator. Subject to the condition that the amount of such costs to be awarded to either party shall not, in respect of a monetary claim exceed the percentage set out below of any such award irrespective of the actual fees, costs and expense incurred by either party provided that where a monetary claims disallowed in full they said percentage shall be calculated on the amount of the claim. The arbitrator may determine the amount of the costs be awarded or direct the same to be taxed as between solicitor and client or as party and shall direct by whom and to whom and in what manner the same shall be borne and paid.

- 69.4. The fees for arbitrators shall be levied based on the value of claims referred to for arbitrations. The fees shall be calculated at 5 percent of the first Rs.10000/- and 3 percent of the next Rs. 40000/- (G.O.Ms.No. 1844 pms dt 18.7.86)
- 69.5. Provided that the Government shall not be liable to any claim in respect of any such dispute or differences until the liability and the amount thereof shall have been referred to and decided by the Arbitrator

## **APPENDIX -1**

### **PUBLIC WORK DEPARTMENT SAFETY CODE**

#### **General Rules as to Scaffolds.**

- 1 . Suitable scaffolds shall be provided for workman for all works that cannot be safely done from a ladder or by other means. When a ladder is used an extra Mazdoor shall be engaged for holding the ladder and the ladder shall be given an inclination not steeper than 0.25 to 1 (0.25 horizontal to 1 vertical) when the ladder is used for carrying materials as well, suitable foot holds and hand holds shall be provided on the ladder.
2. A scaffold shall not be constructed, taken down or substantially altered except (a) under the supervision of a competent and responsible person: and (b) as far as possible by competent workers possessing adequate experience in such work.

All scaffolds and appliances connected therewith and all ladders shall

- a) be of sound materials
  - b) be of adequate strength having regard to the load strain to which they will be subjected and
  - c) be maintained in proper condition
4. scaffolding or staging more than 3.5 meters above the ground or floor shall have a guard rail properly attached bol-braced and otherwise secured atleast 0 meters above the floor or platform of such scaffolding or staging extending along the entire length of the outside and ends thereof with only such opening as may be necessary for delivery of materials. Such scaffolding or staging shall be so fast ends as to prevent it from swaying from the building or structure.
  - 5.Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use
  - 6.Scaffoldis shall not be overloaded and so far as practicable the load shall be evenly distributed.
  - 7.Before installing lifting gear of scaffolds specials precautions shall be taken to ensure the strength and stability of the scaffolds.
  - 8.Working platform, gangways and stairways should be so constructed that no part there can save unduly or unequally. If the height or the platform or the stairways is more than 3.5 meters above ground level or floor level they should be closely boarded, should have adequate width and should be suitably fenced as described in (4 above)
  9. Every opening in the floor of a building or in a working platform shall be provided with suitable fencing or railing for a minimum height of 0.9 meter to prevent the fall off persons or material.
  10. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed No portable single ladder shall be over 9 meters in length while the

width between side rails in rung ladder shall in no case be less than 30cm for ladder upto and including 3 meters in length. For longer ladders this width should be increased at least 20mm for each additional meter of length uniform step spacing should not exceed 30cm. Adequate precautions should be taken to prevent danger from electrical equipment. No materials on the site of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the Public from accidents and shall be bound to bear the expenses of defense of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any damage and cost which may be awarded in any such suit, action or proceedings to any cost which may with the consent of the contractor be paid to compromise any claim by any such person.

### **Excavation and trenching:**

11. Trenches-1.2 meters or more in depth, shall at all times be supplied with atleast one ladder for each 20 meters in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 0.6 meter above the ground. The sides of the trenches which are 1.5 meters or more in depth shall be stepped back to give suitable slope or hold securely by timber bracing, so as to avoid the danger of sides to collapse.
12. Demolition-Before any demolition is commenced and also during the process of the work.
  - a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
  - b) No electric cable or apparatus used by the operator shall remain electrically charged.
  - c) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
13. All necessary personal safety equipment as considered adequate by the Corporation Engineers shall be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned.
  - a) Workers employed on mixing asphalted materials cement and lime mortars- shall be provided with protective footwear and protective goggles.
  - b) Those engaged in wheel-washing and mining or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective goggles.
  - c) Those engaged in welding works shall be provided with welder's protective 513-'195.
  - d) Those engaged in welding works shall be provided with welder's protective 513-'195.
  - e) When workers are employed in sewers and man holes, which are in use, the contractor shall ensure that the manholes covers are opened and are ventilated atleast for an hour before the workers are allowed to get into them and holes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.
  - f) The contractor shall not employ men below the age of 18 years and women on the work of painting, with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precautions shall be taken.
    - i) No paint containing lead products shall be used except in the form of paste or ready - made paint,
    - ii) Suitable face masks should be supplied for use by the workers when paint is applied in the form of

spray or a surface having lead paint dry rubbed and scrapped.

ii) Overalls shall be supplied by the contractors to workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.

iv) When workers are employed in dangerous occupations like work with hot bitumen, drilling operations etc., which are likely to prove dangerous resulting in physical damage and casualty, adequate protection of the workers should be provided.

14. When the work is done near any place. Where there is risk of drawing all necessary equipments should be provided and kept ready for use and all necessary equipments steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatments of all injuries likely to be sustained during the course of the works

15.a) Hoisting machines and tackle including their attachments anchorages and supports shall be good mechanical construction, sound materials and adequate strength and free from patent defect and shall be kept in good repair and in good working order. Every rope used in hoisting or lowering materials or any means of suspension shall be of suitable quality and adequate strength and free from patent defect.

b) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in control of any hoisting machine, including the scaffold which or give signals of the operator,

c) In the case of every hoisting machine and of every chain ring hook shackle level and pulley block used in hoisting lowering or as a means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all cars referred to above shall be plainly marked with the safe working load, in the case of a hoisting machine Slaving variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any hoisting machine or of any gear referred to above in this-paragraph shall be loaded beyond the safe working load except for the purpose of testing.

16. Motors, gearing, transmissions, electricity wiring and other dangerous parts of hoisting appliance shall be provided with efficient safeguards, Hoisting appliance shall be provided with such means as will request to a minimum the risk of the accidental descent of the load. Adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

When workers are employed on electrical installations which are already energized, insulation mats, wearing apparel such as gloves, sleeve, and boots as may be necessary should be provided. The workers and carry keys or other materials which are good conductors of electricity.

17. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at workshop. The person responsible for the compliance of the safety code shall be named by the contractor.

18. To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the Labour Officer, Corporation Engineer of the Department or other representative.

19. Notwithstanding the above clauses (1) to (18) there is nothing in these to exempt the contractor from the operations of any other Act of rules in force in the Republic of India.

Model rules for provision of Health and Sanitary arrangements for workers employed by the P.W.D. and Highways and Rural Works Department and their contractors.

The contractor's special attention is invited to relevant clauses of the "General conditions of control" in the Tamil Nadu Building Practice and he is requested to provide at his own expense the following amenities to the satisfaction of the Corporation Engineer.

1. Application - These rules shall apply to all building and construction works in charge of Managing Director.

2. Definitions-

(i) "Workplace" means a place at which an average fifty or more workers are employed in connection with construction work.

(ii) "Large work place" at which, at an averaged 500 or more workers are employed in connection with construction work.

3. First-Aid –

(a) At the work site there shall be maintained in a readily accessible place, first aid appliance and medicines including an adequate supply of sterilized dressing and sterilized cotton wool. The appliances shall be kept in good order. They shall be placed under the charge of a responsible person who shall be readily available during working hours

b) At large work places, where hospital facilities are not available within easy distance of the works, first aid posts shall be established and be run by a trained compounder.

c) Where large work place are remote from regular hospitals an in-door ward shall be provided with one bed for every 250 employees.

d) Where large work places are situated in cities, towns or in their suburbs and no beds are considered necessary owing to the proximity of city or town hospitals, suitable transport shall be provided to facilitate removal of urgent cases to these hospitals. At other work places some conveyance facilities, such as a car shall be kept readily available to take injured persons or persons suddenly taken seriously ill to the nearest hospital.

4. Drinking water-

(a) Water of good quality fit for drinking purposes shall be provided for the work people on a scale of not less than 15 litres per head per day

b) Where drinking water is obtained from an intermittent public water supply each work place shall be provided with storage tank where such drinking water shall be stored.

c) Every water supply storage shall be at a distance of not less than 15 meters from any latrine, drain or other source of pollutions.- Where water has to be drawn from an existing well, which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and water proof.

d) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5. Washing and bathing places-Adequate washing and bathing places should be provided, separately for men and women such places shall be kept in clean and drained condition. Bathing or washing should not be allowed in or near any drinking water well.

6. Latrine sand Urinals-There shall be provided within the precincts of every work place, latrines and urinals in an accessible place and the accommodation separately for each of them, shall be on the following scale or on the scale so directed by the Corporation Engineer in any particular cases.

- i) Where the number of persons employed does not exceed 50.
- ii) Where the number of persons employed exceed 50 - 3 but does not exceed 100.
- iii) For every additional 100 -3

If women are employed separate latrines and urinals, screened from those for men shall be provided on the same scale.

Except in work places provided with water flushed latrines connected with a water borne sewage system, all latrines shall be provided with receptacle on dry earth system which shall be cleaned atleast four times daily and at least twice during the working hours and kept in strictly sanitary conditions. The receptacles shall be tarred inside and outside atleast once a year.

The excreta from the latrines shall be disposed off at the contractor's expense, in any way pits approved by the local Public Health Authority. The Contractor shall also employ adequate number of scavengers and conservancy staff to keep the latrines and urinals in a clean condition.

7. Shelters during rest: At every work site there shall be provided, free of cost, two suitable sheds one for meals and the other for rest separately for men and women for the use of labourer.

8. Creches: (a) At every work place at which 50 or more women workers are ordinarily employed there shall be provided two huts of suitable size for the use of children under the age of 6 years, belonging to such women, one hut shall be used of infants, games and play and the other as their bed room. The huts shall not be constructed on a lower standard than the following:

- i) thatched roofs
- ii) mud floors and walls.
- iii) Planks spread over the mud floor and covered with matting.

The huts shall be provided with Suitable and sufficient opening for light and ventilation. There shall be adequate provision of sweepers to keep the places clean. There shall be two attendance Sanitary utensils shall be provided Health Officer of the area concerned. The use of the huts shall be restricted to children, their attendants and mothers of the children.

- b) Where the number of women workers is more than 25 but less than 50, the contractor shall provide atleast one hut and one Dai to look after the children of women workers.
- c) The size of creche or creches shall vary according to number of women workers.
- d) The creche or creches shall be properly maintained and necessary equipment like toys, etc. shall be provided.

9. Canteens-A cooked food canteen on a moderate scale shall be provided for the benefits of workers if it is considered expedient.

10. Sheds for Workmen - The contractor should provide at his own expense sheds for housing his workmen. These sheds shall be on a standard not less than the cheap shelter type, to live in which the work people in the locality are accustomed to.

A floor area of about 1.8 meters x 1.5 meters for two persons shall be provided. The sheds to be in rows with 1.3 meters clear space between sheds and 9 meters clear space between rows if conditions permit. The work people's camp shall be laid out in units of 400 persons, each, each unit to have a



clear space of 1 2 meters all-round.

## APPENDIX IX. XXXVIII

### MONTHLY REPORT OF CONSTRUCTION EMPLOYEES UNDER CONTRACTORS

#### Return for the Month Ending

- 1 Name location and type of work
- 2 Name of contractor
- 3 Works engaged in

ii) Government work other than  
Managing Director

iii) Other works

4. Name and address of  
Manager(s) of works

5. Value of Contract

6. Employment earnings

#### Employees

Category	Men	Women	Girls
Boys			
(1)	(2)	(3)	(5)
( 4)			

i) Total number of employees  
during the month

ii) Number of employees in the  
work on the last working  
day of the month

iii) Total wages paid for the

iv) Total number of working  
days during the month

v) Length of normal wage  
period.

1. The Employment officer  
District Employment Office
2. The Corporation Engineer  
Division

#### Instruction to complete the Performa

1. Contractor means the person who has  
contracted execute the works

2. Manager means any person who manages,  
supervises the works on behalf of the contractor

3. Item (i) the cumulative total of daily  
employment on all days in a calendar month if the  
last day of the calendar month is a holiday, the  
working day immediately precious to the holiday.

#### Item 6. (ii) wages means basic wage, dearness allowance, project allowances etc., including work benefits paid in cash or kind

Item 6. (iii) Columns 2 and 3 refer to adults who  
are 18 year of age or over

Item 6 - Column 4 and 5 refer to others not covered  
by columns 2 and 3

4. Returns should cover a calendar month

5. Completed returns to reach the employment  
exchanges concerned on or before the 5th of the  
month  
succeeding the month to which he return relates.

## **ADDITIONAL CONDITIONS**

1. Departmental supply of the Materials : Nil

### **2. Centering works**

Payments for centering works for all RCC items shall be made only after concrete is laid, even though separate rate is called for centering work in the schedule.

### **3. Concrete for RCC works**

All cement concrete for RCC works shall be machine mixed and vibrated.

### **4. Special conditions for earthwork excavation in hard rock requiring blasting:**

In the case of earth work excavation in hard rock requiring blasting the tender should observe the following conditions.

The blasted rock shall be compactly stacked for measurement. The net quantity of blasted rock shall be arrived at by allowing a deduction of 40% for voids and compared with the premeasured quantity and only the lesser of the two shall be paid.

Where the rock other than hard rock and hard rock are mixed upon ground the two kinds (if rocks shall be separately for measurement. The total of the net measurement of the two kinds of rock shall be arrived by applying 40% deduction for voids. The total of the net measurement of two kinds of rock shall be compared with the premeasured quantity and only the lesser of the two shall be paid for. If the total of net measurements of the two kinds of rock exceeds (or) falls short of the measurements of mixture, the volume of mixture proposed to be paid shall be apportioned in the proportion of the net actual measurements or stacks of the two kinds of rocks.

Payment for 'earthwork for embankment will be made excluding the quantity of pebbles and boulders and other such materials which shall not normally be used along with earth for formation of bund.

NOTE:

- i. 40% deduction for voids shall be adopted for compact and proper stacking but such percentage of deduction shall be: increased for loose (or) improper stacks.
- ii. The blasted rock material, stacked, measured and paid for shall become the property of the department.
- iii. I. S. Code No. 1200 (Part 1) I 9G9 method of measurement of buildings and Civil Engineering of work, Part I "Earthwork" may be referred as and when necessary.

### **5. Employment of Technical Assistant:**

For more than one work: One technical assistant be employed by the contractor for more than one work situated within one kilo meter, provided that monetary limit prescribed for the nature of Technical staff to be employed is adhered to be one and the same contractor..

**Other Engineering qualification:**

The contractors who possess a degree in mechanical or chemical engineering may also have to appoint technical assistants as in the case of registered contractors with degree in electrical engineering, when they are entrusted with civil works by the department.

1. Painting with two coats of best white paint (or any other coloured approved by the Corporation Engineer) over a priming of red lead to all flushing tanks, brackets, clumps used for fixing pipes and all other connections.

2. The rates shall all included dismantling, making holes on walls, on slabs and restoring the structure to the original conditions after the completion of the work.
3. The contractor should employ sufficient number of qualified licensed plumber with necessary experience and skill in the to the satisfaction of the Corporation Engineer concerned for execution of water supply arid sanitary items of work.
4. The water for the works shall be as for as practicable from earthing vegetable or organic matter and from salts or substance likely to interfere with the setting of mortar prove harmful to the work.
5. All items of work shall be- done in accordance with relevant clauses of TNBP and addenda volume to the TNBP as from time to time
6. The contractor shall be responsible for the safe custody of the departmental materials once they are handed over to the Contractor at the departmental stores. The cost of any material the custody of the Contractor lost, stolen, destroyed or damaged or if rendered unfit for the work will be recover from the Contractor at the issue rate.
7. For testing the concrete and aggregate the Contractor procure the following equipments and make them available.
8. Steel mould for making 1 5 cm cubes of concrete (The mould be in two halves for easy removal).
9. Slum cone for testing consistency (Slum test) the cone will be 30cm height with top and bottom diameters of 10 cm and 50 cm in length. In addition a steel rod I 5cm dia and 50cm in length and with tamping and rounded is to be procured.
10. For finding finess modules sand and coarse aggregate a hand operated sieve apparatus may be procured along with weighing machine for weighing the aggregate and sand.
11. In the case of any breach of the terms of the contract, the contract will be closed at the risk and costs of the Contractor in addition to the forfeitures of the EMD and Security Deposit.
12. The testing is to be done at the Contractor's cost for all building materials and also for concrete cubes.
13. The work shall be executed and measured as per metric dimension given in the schedule of quantities 6 drawing etc., (F.P. Units where indicated are for guidance only).
14. Unless otherwise specified P.I' the rates quoted by the Contractor shall be for works at all levels of the buildings.
15. Rates for every item of works to be done under this contract shall be for all lifts and leads, heights, depths, length and 'widths except when specifically mentioned in the item, otherwise nothing extra will be paid on this account.
16. The work shall be carried out as per drawings and designs supplied by the Department and as directed by Engineer-in- Charge.
17. The rate for all item in which use of cement is involved is inclusive of charges for curing.
18. The Contractor has to make his own arrangements for procuring water for construction purpose construction and curing should 1)- done with water free from injurious amounts of deleterious materials, potable water are generally considered, satisfactory for curing and fixing concrete and masonry. However the water tube used should be periodically tested at Contractors cost for its suitability for using in the construction work and got approved from Department Engineers.

19. Electricity: The contractor should make his own arrangements for obtaining electricity for all types of his use like lighting welding pumping and mosaic and marble polishing etc.,
20. Any damage to work resulting from rains or from any other cause until these work is taken over by the Department after completion will be made good by the contractor at his own cost:

**Price adjustment clause is applicable.**

Price adjustment will apply only when the fluctuation of rates for critical construction materials namely Cement & Steel exceeds by 3% compared to the estimate rates (RBI Index Price). Price adjustment shall be made for both increase and decrease in the cost of materials and shall be calculated on the departmental cost of the work once in a quarter.

Price Adjustment shall be calculated once in a quarter for both increase & decrease in cost of cement and steel as per Index number of whole sale prices in India for cement under table 39 and for steel under table 40 of RBI Bulletin released by the Department of Economics Analysis and Policy, RBI and the quarter reckoned with reference to the quarter in which the date of agreement falls.

This price adjustment shall be calculated in respect of cement and steel based on the department rate adopted in the estimate.

The price adjustment shall also apply for the materials viz. Bitumen & POL, on pass through basis whenever the Indian Oil Corporation revises their prices.

The difference in cost payable to the contractor under this clause will be paid along with the final bill payable to the contractor.

The work is progressing as per the mile stones fixed on physical terms.

The quantum of cement, steel required for use on work during each quarter given below in physical terms

Quarter	Quantity of Cement	Quantity of Steel
1st Quarter	..... metric tone	..... metric tone
2nd Quarter	..... metric tone	..... metric tone
3rd Quarter	..... metric tone	..... metric tone
4th Quarter	..... metric tone	..... metric tone

Further, If the contractor does a certain excess quantum of work in the second quarter itself, which is expected to be done in the third quarter as per mile stone fixed shall be eligible for price adjustment. Similarly, if the contractor does a certain quantum of work in the third quarter, which should have been done in the second quarter itself, as for mile stone fixed, is not eligible for price adjustment.

This clause shall be applicable for the period from the date of agreement upto the end of agreement period. The agreement period shall include the "actual period" for which the work was "suspended officially" and the extension of time permitted for any of the valid reasons such as, war, natural calamities like, flood, earth quake, other risks arising out of acts of God during the agreement period, work delayed due to the land acquisition process, change in design, change in scope of work etc. in writing by the Tender Inviting for the work.

The Corporation Engineers concerned are empowered to arriving at the price variation and also for making payments / recoveries, under this clause.

The formula (e) for adjustment of prices are:

**(i) Adjustment for cement component**

Price adjustment for increase or decrease in the cost of cement procured by the contractor

shall be paid in accordance with the following formula.

$$V_c = 0.85 \times P_c \times R \times (C_i - C_o) / C_o$$

$V_c$  = Increase or decrease in the cost of cement for the work done during the quarter under consideration.

$P_c$  = Percentage of cement used on the work during the period (total quantum of cement shall be calculated based on the provisions allowable as per standard data for each items involved in the work and the percentage of cement used during the period shall be assessed based on the milestone fixed)

$C_o$  = Index number of whole sale prices in India for cement under table 39 or Reserve Bank of India Bulletin released by the department of Economics Analysis & Policy, Reserve Bank of India for the Quarter in which the agreement has been signed.

$C_i$  = Index number of whole sale prices in India for cement under table 39 of RBI Bulletin released by the Department of Economics Analysis and Policy, RBI for the Quarter under reference in which the measurements recorded in the M-Book to which the particular Bill payment is related.

**(ii) Adjustment for steel component**

Price adjustment for increase or decrease in the cost of steel procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_s \times R \times (S_i - S_o) / S_o$$

$V_s$  = Increase or decrease in the cost of steel for the work done during the quarter under consideration.

$P_s$  = Percentage of steel used on the work during the period (total quantum of steel shall be calculated based on the provisions allowable as per structural design calculations approved for each steel members / slab involved in the work and the percentage of steel used during the period shall be assessed based on the milestones fixed)

$S_o$  = Index number of whole sale prices in India for steel under table 39 of Reserve Bank of India Bulletin released by the Department of Economics Analysis and Policy, RBI for the Quarter under reference in which the agreement has been signed.

$S_i$  = Index number of whole sale prices in India for steel under table 39 of RBI Bulletin released by the Department of Economics Analysis and Policy, RBI for the Quarter under reference in which the measurement recorded in the M-Book to which the particular Bill payment is related.

**(iii) Adjustment of POL in respect of Machineries use**

$$V_f = 0.85 \times P_f \times R \times (F_i - F_o) / F_o$$

$V_f$  = Increase or decrease in the cost of POL for the work done during the quarter under consideration.

$P_f$  = The weightage of fuel component on the hire charge of machineries shall be taken as 15% of the total hire charge.

$F_o$  = Cost of POL on the date of agreement

$F_i$  = Cost of POL as per the revision ordered by Indian Oil Corporation

$R$  = Higher charge of the machinery involved for each item of work.

**(iv) Adjustment of POL In Respect Of Conveyance**

$$V_f = (F_i - F_o / F_o) \times (1/4.50) \times (1 / 5.66)$$

$V_f$  = The increase / decrease in cost of fuel due to the revision in cost of fuel (diesel) for the co-efficient 1.60 under column.5 for Sl. No.2 of the conveyance table approved in Schedule of Rates.

$F_i$  = Cost of fuel on the date of agreement,

$F_o$  = Cost fuel as per revision ordered by Indian Oil Corporation.

4.50 = Average kilometer per litre,

5.66 = The load that can be carried by a lorry.

For the works eligible for cost escalation, Tender excess shall not be entertained except in rare cases of non-input related difficulties.

Bonus as an incentive for advance completion of work not less than 10% of agreement period will be considered and 1% on the value of actual quantities of works executed at tendered rates will be paid to the contractor.

Liquidated damages will be imposed on the contractor for the lapses / short fall in achieving the rate of progress as per existing schedule. The liquidated damages for the whole of the work are will be filled up at the time of concluding agreement.

**Amount per day**

For Mile Stone 1	= Rs.	per day
For Mile Stone 2	= Rs.	per day
For Mile Stone 3	= Rs.	per day
For Mile Stone 4	= Rs.	per day

**RATE OF PROGRESS**

Total Period of Completion: 24 (Twenty four) Months From the date of  
Entering into agreement including rainy season Work programmed  
achieving Milestones.

**Name of Work :**

**4 Mile Stones**

1 <sup>st</sup> Mile Stone	:	20 %	}	of work should be Completed in all respects
2 <sup>nd</sup> Mile Stone	:	50 %		
3 <sup>rd</sup> Mile Stone	:	85 %		
4 <sup>TH</sup> Mile Stone	:	100%`		

**TENDER SCHEDULE**

**Name of work:**

Construction of new busstand at solar in Erode City  
Municipal Corporation

	Probable Quantity	Description of work	Rates in figures	Rates in words	Unit	Amount
1.00	1771.00	Earthwork excavation for foundation in all soils and sub soils to full depth as may be directed except in hard rock requiring blasting inclusive of shoring shuttering, bailing out water wherever necessary refilling the foundation with excavated earth other than sandy soil in layers of not more than 15 cm thick layers well rammed and depositing the surplus earth within compound in place shown by the departmental officers with an initial lead of 10 metre and initial lift of 2 metre and clearing and leveling the site etc., complete complying with standard specification and as directed by			cum	

		the departmental officers.Foundation & Sump/ Septic Tank				
<b>1.01</b>	<b>7667.00</b>	Normal Soil			<b>cum</b>	
<b>2.00</b>	<b>7894.00</b>	MR-&-DMR Earth work excavating and depositing on bank with initial lead of 10 m & initial lift of 2m in medium rock and dense medium rock requiring blasting and Stocking - complete complying with standard specification and as directed by the departmental officers.			<b>cum</b>	
<b>3.00</b>	<b>2406.00</b>	Hard rock measured in solid including blasting and stacking - complete complying with standard specification and as directed by the departmental officers - TWAD item 20(a)			<b>cum</b>	
<b>4.00</b>	<b>1270.00</b>	Earthwork excavation for foundation in all soils and sub soils to full depth as may be directed except in hard rock requiring blasting inclusive of shoring shuttering, bailing out water wherever necessary refilling the foundation with excavated earth other than sandy soil in layers of not more than 15 cm thick layers well rammed and depositing the surplus earth within compound in place shown by the departmental officers with an initial lead of 10 metre and initial lift of 2 metre and clearing and leveling the site etc., complete complying with standard specification and as directed by the departmental officers.			<b>cum</b>	
<b>5.00</b>	<b>17967.00</b>	Removal and Conveyance of Excavated Excess Earth away from the site to 1 K.M including loading and transportation charges etc, complete as per standard specification. For 1M3			<b>cum</b>	
<b>6.00</b>	<b>4345.00</b>	Supplying and filling in foundation and basement with filling M.sand in layers of not more than 15cm.thick well rammed watered and compacted etc., complete complying with standard			<b>cum</b>	



		specification.				
<b>7.00</b>	<b>2799.00</b>	Plain Cement Concrete 1:4:8 (one cement four M Sand and eight coarse aggregates) using 40mm size ISS HBG metal including cost and conveyance of all materials to site and including for the mixing, laying and labour charges and all incidental charges such as water providing etc., complete as per standard specification			<b>cum</b>	
<b>8.00</b>	<b>1512.00</b>	Providing dowel bars of 20mm dia mild steel hooked at top including drilling holes of 32mm in hard rock to a depth of 1.00m and including dowel bars of 20mm dia such a way that 1.00m is inside hard rock 0.40m above and bend up for 0.40m length hard rock level and will be embeded to the foundation footing and filling the gab of dowel holes with cement mortar 1:1 mix including cost of dowel bars handling charges fabrication charges including labour for fixing in position and bending to shape etc., complete			<b>Nos</b>	
<b>9.00</b>		Providing form work for centering, shuttering etc., for all RCC works including strutting upto 3.29m high in all floors using mild steel shutters of size 90cmx60cm of BG 10 stiffened with mild steel angles of size 25mmx 25mmx3mm laid over silver oak (Country wood) Joists of size 10cmx6.5cm spaced at about 90cm c/c and supported by casurina props of 10cm to 13cm dia. (spaced at 75cm c/c) etc., complete complying with standard specification and as directed by the departmental officers. (The centering will be removed after specified period of concrete without damaging the concrete)				
<b>9.01</b>	<b>10475.00</b>	Footing and Plinth Beam			<b>sqm</b>	
<b>9.02</b>	<b>1676.00</b>	Shear Wall			<b>sqm</b>	
<b>9.03</b>	<b>2970.00</b>	Stormwater Drain			<b>sqm</b>	
<b>9.04</b>	<b>6242.00</b>	Columns			<b>sqm</b>	
<b>9.05</b>	<b>31327.00</b>	Beams & Flat surfaces			<b>sqm</b>	
<b>10.00</b>		Providing and laying in position Standardised Concrete Mix M-20 Grade in accordance with IS				

		456 - 2000 using 20mm and down graded hard broken granite stone jelly for all RCC items of works with minimum cement content of 325Kg/ cum and maximum water cement ratio of 0.55 including admixture (Plasticiser / super plasticiser) in recommended proportions as per IS 9103 to accelerate, related setting of concrete, improve workability without impairing strength and durability with about (5.0cum), 7730Kg of 20mm machine crushed stone jelly and with about (3.3 cum), 5156kg of 10 - 12mm machine crushed stone jelly and with about (4.79cum) 7670 kg of sand, but excluding cost of reinforcement grill and fabricating charges centering and shuttering but				
10.01		including laying, vibrating with mechanical vibrators, finishing, curing, etc and providing fixtures like fan clamps in the RCC floor / roof slabs wherever necessary without claiming extra cost etc., complete complying with standard specification and as directed by the departmental officers - The Coarse and Fine aggregates to be used should comply with the requirements of IS standards. (No separate payment will be made by the Department for the excess usage of materials)				
10.02	466.00	Storm water Drain			cum	
11.00		Providing and laying in position Standardised Concrete Mix M-30 Grade in accordance with IS 456 - 2000 using 20mm and down graded hard broken granite stone jelly for all RCC items of works with minimum cement content of 400Kg/ cum and maximum water cement ratio of 0.55 including admixture (Plasticiser / super plasticiser) in recommended proportions as per IS 9103 to accelerate, related setting of concrete, improve workability without impairing strength and durability with about (5.0cum), 7730Kg of				

		20mm machine crushed stone jelly and with about (3.3 cum), 5156kg of 10 - 12mm machine crushed stone jelly and with about (4.79cum) 7670 kg of M.Sand, but excluding cost of reinforcement grill and fabricating charges centering and shuttering but				
<b>11.01</b>		including laying, vibrating with mechanical vibrators, finishing, curing, etc and providing fixtures like fan clamps in the RCC floor / roof slabs wherever necessary without claiming extra cost etc., complete complying with standard specification and as directed by the departmental officers - The Coarse and Fine aggregates to be used should comply with the requirements of IS standards. (No separate payment will be made by the Department for the excess usage of materials)				
<b>11.02</b>	<b>7796.00</b>	Foundation & Basement			<b>cum</b>	
<b>11.03</b>	<b>2601.00</b>	Ground Floor			<b>cum</b>	
<b>11.04</b>	<b>1521.00</b>	First Floor			<b>cum</b>	
<b>11.05</b>	<b>612.00</b>	Terrace Floor			<b>cum</b>	
<b>12.00</b>	<b>1347.00</b>	Supplying, fabricating and placing in position of Steel reinforcement using MS (or) RTS rods for all RCC item of works including cost of steel and binding wire in all floors etc., complete complying with standard specification and as directed by the departmental officers.			<b>MT</b>	
<b>13.00</b>	<b>7012.00</b>	Refilling basement with excavated earth in layers of not more than 15cm thick well rammed, watered and consolidated etc., complete complying with standard specification and as directed by the departmental officers.			<b>cum</b>	
<b>14.00</b>	<b>8250.00</b>	Supplying and filling in foundation and basement with Well Gravel in layers of not more than 15cm thick well rammed watered and compacted etc., complete complying with standard specification.			<b>cum</b>	

<b>15.00</b>		Brick work in CM 1:5 (one cement & five m.sand ) use FLY ASH BRICK of Size 230mmx110mmx70mm Virtudly the Brick shall be sound compact and uniform in shape froce from visible creacks worppge flone an organic matter. the brick shall be solid with froge on ine of its bearing side class designation no less then 35/kgsm an average ampressine strength in including finishing, curing, etc., complete complying with standard specification - 100CFT				
<b>15.01</b>	<b>1731.00</b>	<b>Ground Floor</b>			<b>cum</b>	
<b>15.02</b>	<b>999.00</b>	<b>First Floor</b>			<b>cum</b>	
<b>16.00</b>		Brick Partition Walls using FLY ASH BRICK of Size 230mmx110mmx70mm in C.M 1:3 using hoop iron reinforcement,if found necessary standard specification including finishing, curing,etc., complete complying with standard specification - 10 sqm				
<b>16.01</b>	<b>23.00</b>	Ground Floor			<b>cum</b>	
<b>16.02</b>	<b>27.00</b>	First Floor			<b>cum</b>	
<b>17.00</b>	<b>390.00</b>	Damp proof Course with Cement Mortar 1:4 (One cement & four M.Sand) 12mm thick of the following mixed with water proofing compound of approved quality confirming to ISS @ 2% by weight of cement used as complete complying with standard specification and as directed by the department officers.			<b>sqm</b>	
<b>18.00</b>	<b>34508.00</b>	Special ceiling plastering and finishing the exposed surface of RCC items of work such as slab, beam, sunshade, facia, canopy slab, staircase waist slab, landing slab etc., with cement mortar 1:3 (One cement and three M.Sand) 10mm thick including hacking the surfaces and providing cement mortar nosing, beading for sunshade, staircase, step, landing slab etc., including neat finishing and curing etc., complete complying with standard specification and as directed by the departmental officers.			<b>sqm</b>	

<b>19.00</b>	<b>24272.00</b>	Plastering with cement mortar (1:5) 12mm ,thick in all floors including cost and conveyance of all materilas to site and labour charges etc,complete as per standard specifications (S.I.306)			<b>sqm</b>	
<b>20.00</b>	<b>55971.00</b>	Painting two coats with ready mixed Plastic Emulsion Paint approved quality and colour over a priming coat, including thorough scrapping, clean removal of dirt, etc complete and including necessary plaster of paris, putty, wherever required etc, complete as per standard specification. - 10 sq.m			<b>sqm</b>	
<b>21.00</b>	<b>58555.00</b>	Providing two coats of damp proof putty over the wall surface to levelling the undulation in the walls of approved make. The rate including cost of putty, sand paper and labour charges for smoothening the surface etc., complete.			<b>sqm</b>	
<b>22.00</b>	<b>671.00</b>	Weathering course using best quality of broken brick jelly of 20mm gauge in pure slacked lime (no sand to be added) over roof slab the proportion of brick jelly to lime being 32:12.5 Cft. by volume and laid over the RCC roof slab in a single layer and consolidated to the required design and finished thickness by beating the concrete with wooden beater to the size required slope of approved pattern and keeping the surface constantly wet by sprinkling lime jaggery water etc., complete complying with standard specification and as directed by the departmental officers.			<b>cum</b>	
<b>23.00</b>	<b>6701.00</b>	Finishing the top of roof with one course of pressed tiles of size 23×23×2cm of approved quality laid in cement mortar 1:3 (One cement and three M.Sand) 12mm thick mixed with 2% water proofing compound (confirming to Indian standard specification) by weight of cement used and pointed with the same mortar including mixing of red oxide etc., complete complying with standard specification and as directed by the departmental			<b>sqm</b>	

		officers.				
<b>24.00</b>	<b>786.00</b>	Paving the floor with anti skid Ceramic tiles of approved quality and colour of size 305 x 305 x 6mm for flooring in all floors over a base layer of cement mortar 1:3 (one cement and three m.sand) 20mm thick and pointing with white cement using 0.30kg/m <sup>2</sup> of white cement including adding suitable colour pigments to suit the colour of tiles finishing perfectly and curing as directed by the Departmental officers including cost of tiles, all materials and incidental charges, transportation charges and labour charges for laying tiles etc., complete complying with standard specification and as directed by the Departmental officers . (The tiles should be got approved by the Departmental officers before use on works).			<b>sqm</b>	
<b>25.00</b>	<b>3477.00</b>	Dadoing the walls with colour glazed tiles of size 300mmx 200mmx 6mm of approved quality set in cement mortar 1:2 mix (one cement & two m.sand) 10mm thick and pointing with same coloured cement using 0.40kg/m <sup>2</sup> including finishing the joints neatly finish in the surface etc.,complete complying with standard specifications. (The tiles used on the works should be got approved by Executive Engineer before use on the workental officers . (The tiles should be got approved by the Departmental officers before use on works).			<b>sqm</b>	
<b>26.00</b>	<b>4259.00</b>	Paving the floor with New vitrified (like Marbonite or equivalent) tiles of approved quality and colour of size 610 x 610mm of 8 to 10mm thickness for flooring in all floors over a base layer of cement mortar 1:3 (one cement and three m.sand) 20mm thick and pointing with white cement using 0.30kg/m <sup>2</sup> of white cement including adding suitable colour pigments to suit the colour of tiles finishing perfectly and curing as directed			<b>sqm</b>	

		by the Departmental officers including cost of tiles, all materials and incidental charges, transportation charges and labour charges for laying tiles etc., complete complying with standard specification and as directed by the Departmental officers. (The tiles should be got approved by the Departmental officers before use on works).				
<b>27.00</b>	<b>7884.00</b>	Paving the floor with fully polished Rajasthan Kotta stone of size 610mm X 610mm and 20mm thick (average) and base layer of cement mortar 1:3 (One cement and three m.sand), 20mm thick and applying cement slurry & pointed with white cement and colour pigments to the colour of stones and polished neatly etc., complete complying with standard specification and as directed by the Departmental officers. (The Kotta stone slab should be got approved by the Executive Engineer before use on works)			<b>sqm</b>	
<b>28.00</b>	<b>6263.00</b>	Supplying and laying in flooring with fully polished colour Granite stone of 20mm thick (average) of 4' X 2' in size laid over base layer of cementmortar 1:3 (one cement and three m-sand) - 20 mm thick and applying cement slurry & pointed with white cement and colour pigments to the colour of stones and polished neatly as directed by the departmental officers			<b>sqm</b>	
<b>29.00</b>	<b>670.00</b>	Providing and fixing SS Hand Rail made out of SS 304 grade 50.80mm dia stainless steel tube of 1.60mm thick will be provided with tubular supports made of SS304 grade stainless steel tubes of 25.4mm dia welded to the railing. The supports will be grouted and provided with a 3.00mm thick circular base plate of SS 304 grade stainless steel as per the details shown in the drawing and as directed. The rate shall include for grouting with concrete in to necessary supporting arrangements of			<b>sqm</b>	

		handrail in floor, welding the base cup of the post onto slab reinforcement, polishing, buffing and protecting the handrail surface etc., complete as directed by the departmental officers etc.,				
<b>30.00</b>	<b>1105.00</b>	Supply and fixing of Toughened Glass Door: Made with 12mm thick Toughened glass with Geze Patch fittings and Geze floor springs TS 500 NV and including 1800 X 2400mm double shutter including all labor charges, cost and conveyance of materials to the site, etc. complete as per standard specification			<b>sqm</b>	
<b>31.00</b>	<b>2080.00</b>	Supplying and erecting pull and push type rolling shutter with I.S.I. make of approved size and section using 18 gauge G.I.sheet with manually operated type. The Shutter shall be painted with one coat of red oxide primer and the rate is inclusive of hood covers, transportation charges etc, complete as per standard specification.			<b>sqm</b>	
<b>32.00</b>	<b>140.00</b>	UPVC WindowSpecification: Supplying and fixing UPVC (Un-Plasticized Polyvinyl Chloride) Windows of casement type (open) from the profile the size of outer frame 60mm x 58mm and shutter profile are reinforcement with GI/1mm 125GSMand 100% corrosion free, the profiles are multi chambered sections with wall thick of 2mm. The EPDM rubber (black colour) covered with over all the edges of frame and shutter the shutter will be provided with Espag multi power point locks and also it operates as handle. The corners and joints should be welded and cleaned. Radiations free pin headed plain or brown colour glass 4mm thick should be provided to the shutter and it should not allow leakage of water even at most ranging storms and should have key lockable action, security			<b>sqm</b>	



		protective hinges, strong locking systems and as per size for arresting noise and energy loss. The connecting mechanism between sash and outer frame that enables opening of the window. The window should be fixed to the wall with 100% packing with screws and silicon packing all round the frames. The window should be got approved from the Executive Engineer before use on work				
<b>33.00</b>	<b>100.00</b>	UPVC Ventilator Specification: Supplying and fixing UPVC (Un-Plasticized Polyvinyl Chloride) Louvered Ventilators of from the profile the size of outer frame 60mm x 58mm and shutter profile size of 60 x 78mm both profiles are reinforced with GI/1mm 125GSM and 100% corrosion free, the profile are multi chambered sections with wall thick of 2mm. The EPDM rubber (black colour) covered with all over the edges of frame and shutter. The corners and joints should be welded and cleaned. Radiations pin headed glass 4mm thick should be provided in the louvers. The window should be fixed to the wall with 100% packing with screws and silicon packing all round the frames. The ventilator should be got approved from the Executive Engineer before use on work			<b>sqm</b>	
<b>34.00</b>	<b>3400.00</b>	Supply and fixing of M.S Grills with Doors and Windows with one coat of Red oxide with Primer including all costs such as welding, grinding and fabrication charges, cost and conveyance of all materials to site etc, complete as per standard specification.			<b>KG</b>	
<b>35.00</b>	<b>284.00</b>	FRP door Shutter with FRP door frames made out of FRP sheets of 3mm thick of over all size 65mm x 50mm with rebate suitably reinforced using MS Angle / Flats, cost of holdfasts and solid core FRP shutter Panel of 5mm thick ad hollow core frames of 3mm wall			<b>sqm</b>	

		thickness for styles and rails etc., of size specified by Engineers.				
<b>36.00</b>	<b>140.00</b>	Painting two coats with Ready Mixed Enamel Paint over the new iron works of approved quality and colour without priming coat including the cost all materials etc.,complete, in all floors.			<b>sqm</b>	
<b>37.00</b>	<b>1654.00</b>	Providing of Granular Sub base using Grade I materials of table 400 -1 of Morth with minimum CBR 30 spreading in uniform layers with motor grader on prepared surface, mix in by palce method at OMC and compacting with Vibratory Roller to achieve the desired density including all labourcharges etc, complete as per technical specification and as directed by the departmental officers. Morth - Rev V No. 111,112,401,900			<b>cum</b>	
<b>38.00</b>	<b>1654.00</b>	Providing and laying, spreading and compacting graded stone aggregate to Wet mix macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant carriage to mixed material by tipper to site laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achive the desired density complete as per clasue 406 of MORTH specifications.			<b>cum</b>	
<b>39.00</b>	<b>174.00</b>	Providing & fixing PVC RAIN WATER DOWNFALL PIPE of the following dia with necessary T.W.Clamps Plugs, Shoes,Bemds, other clamps, screws nails etc.,complete complying with standard specification. The rate is inclusive of cost of removable iron gratings of appropriate size. The size of Teak Wood plugs used is 150X25mm in front & 200x75mm in rear (wall side) with a depth of 110mm. The pipe is to be fixed by means of "U" clamps at the centre of pipes			<b>Rm</b>	

		to be fixed.110mm dia PVC Pipe [4 Kg/SqCm]				
<b>40.00</b>	<b>106.00</b>	Supplying and fixing in position best quality approved make white glazed earthenware wash hand basin of size 550 X 400 mm with a pair of cast iron brackets, including cost of 15mm diameter brass chromium plated pillar tape,32 mm diameter C.P. Waste union, 32 mm diameter P.V.C. waste pipe with rubber plug and chain, 15mm diameter G.M.wheel valve, 15mm dia brass nipple, 15mm dia nylon connections etc., including fixing the wash hand basin in the wall in position with a pair of C.I. brackets with teak wood plugs and screws and giving necessary water supply connection and painting the brackets with two coats of paint over a priming coat of anticorrosive paint including testing for leakage etc., complete complying with standard specifications			<b>Nos</b>	
<b>41.00</b>	<b>9.00</b>	Supplying and fixing in position Indian water closet of size 580 X 440mm, white glazed earthen ware of approved quality with 'P' trap or 'S' trap confirming to IS:2556 - Part XII with sand cushion and forming flooring around the closet using 40mm broken brick jelly in lime concrete 1:2:5 ( one part of lime, two parts of M. Sand and five parts of brick jelly) 100mm thick and finishing the top to required slope and including giving necessary connection to cast iron soil pipes/ PVC pipes by dismantling brick masonry, reinforced cement concrete roof/floor slab and making good the disturbed portion to original condition without leakage etc., complete complying with standard specifications and as directed by the departmental officers.			<b>Nos</b>	
<b>42.00</b>	<b>50.00</b>	Supplying and fixing in position White Glazed European Water Closet of best quality and approved make with 100mm 'P'			<b>Nos</b>	

		os 'S" trap with Double flapped rigit P.V.C. seat cover with C.P. brass hinges with 12.5 litres PVC Low Level Flushing Tank with all internal fittings etc., complete complying with standard spoecifications,labor inclusive of fixing lowlevel flushing tank.				
<b>43.00</b>	<b>35.00</b>	S/F in position of Indian Make White/Colour glazed earthen ware lipped mouth Flat Back Urinal of best approved quality with G.I.Pipe connection to suitable length,32mm bell mouthed P.V.C connection ,15mm dia G.M.Wheel valve,fixing the urinal to the wall in position with necessary T.W.plugs ,clamps,screws, shellac etc.,including dismantling masonry if necessary and redoing the same to original condition ,fixing the 15mm dia. G.I.pipe connection and wheel valve ,painting the pipe with two coats of approved paint over one coat of primer and checked without any leakage complete, complying with standard specifications. - White Colour			<b>Nos</b>	
<b>44.00</b>	<b>52.00</b>	Supplying laying and jointing the glazed S W pipes of the following sizes of approved quality with spigot and socket ends in dry condition with spun yarn and cement joints required depth for tranches including petty masonry,shoring and strutting wherever found necessary, and laying the pipeline in the alignment at the specified gradient and testing with necessary tools and plant etc. and levelling the ground complete complying with standard specifications.			<b>Rm</b>	
<b>45.00</b>		Internal Water Supply - P.V.C. Pipes (6Kg/SqCm) Supplying laying and jointing P.V.C pipes (6Kg/SqCm) of approved quality and best variety conforming to I.S.S & with I.S.I mark, of the following sizes including cutting , Fixing to PVC specials using Adhesive but excluding cost of such specials and fixing to wall				

		with necessary teak - Wood Plugs,PVC Clamps and screws,making holes on the wall or drilling holes in roof and making good the dismantled portions to original condition with necessary brick work and plastering wherever necessary with necessary scaffolding charges.				
<b>45.01</b>	<b>98.00</b>	a) 20mm dia pipe in toilet inner concield			<b>Rm</b>	
<b>45.02</b>	<b>579.00</b>	b) 25mm dia pipe in toilet inner concield			<b>Rm</b>	
<b>45.03</b>	<b>145.00</b>	c) 32 mm dia water line from pump room to water tank			<b>Rm</b>	
<b>46.00</b>	<b>100.00</b>	Supplying and fixing in position indian make bewelled edge mirror of approved quality and brand of size 600 X 450mm with necessary plastic back, PVC frame with bottom stand of approved colour with brass screws,rawal plugs etc., complete complying with standard specifications.			<b>Nos</b>	
<b>47.00</b>	<b>100.00</b>	Supplying and fixing best approved quality Brass C.P / Al anodised Towel rail 600mm. long and 20mm Diameter with brackets of same material including cost of Teak-Wood plugs and C.P.Screws etc., complete complying with standard specifications			<b>Nos</b>	
<b>48.00</b>	<b>100.00</b>	Supplying and fixing best approved quality C.P.Soap Tray of size 150mm X 100mm including cost of Teak Woodplugs, brass screws complete complying with standard specifications.			<b>Nos</b>	
<b>49.00</b>	<b>60.00</b>	Supply and fixing of PVC. Nahini / Floor Trap with stainless Steel Gratings - 100 mm x 75 mm including all charges etc, complete as per standard specification.			<b>Nos</b>	
<b>50.00</b>		Supplying laying and jointing G.I. Pipes of approved quality and best varity of B Class pipe of the following sizes including fixing G.I specials but excluding cost of such specials cutting threading of pipes and fixing to wall with necessary teak wood plugs, clamps and screws				

		masking holes on the wall or drilling holes in roof and making good the dismantled portions to original conditions with necessary brick work and concrete and plastering where ever necessary with necessary scaffolding charges. The pipes are to be painted with two coats of good variety and best approved quality of synthetic enamel paint over a priming coat of red-oxide primer etc., complete.				
<b>50.01</b>	<b>36.00</b>	a) 20 mm dia			<b>Rm</b>	
<b>50.02</b>	<b>62.00</b>	b) 25 mm dia			<b>Rm</b>	
<b>51.00</b>		Supplying and fixing in position first quality and approved variety of Gun Metal Gate Valve (Heavy type ) with I.S.I.mark of the following sizes including cost of Shellac , thread etc.,including labour for cutting and threading of G.I.Pipes etc.,complete complying with standard specifications for both internal and external water Supply arrangements.				
<b>51.01</b>	<b>24.00</b>	a) 20mm dia			<b>Rm</b>	
<b>51.02</b>	<b>16.00</b>	b) 25mm dia			<b>Rm</b>	
<b>51.03</b>	<b>12.00</b>	c) 32mm dia			<b>Rm</b>	
<b>52.00</b>	<b>167.00</b>	Suppling and fixing in position 15mm.diameter brass / C.P screw down tap / pillar tap / swan neck tap (heavy duty) of approved make conforming to I.S.specifications and quality including cost of shellac, thread etc.complying with standard specifications and including cutting and threading wherever necessary			<b>Nos</b>	
<b>53.00</b>		Supplying and fixing in position of the following PVC specials best approved quality conforming to ISS and providing leak proof joints with PVC adhesive etc., including fixing to walls with necessary teak wood plugs screws etc., and giving connections to the PVC pipe dismantling the brick masonry RCC floor or roof slab and redoing the disturbed portion to original conditions etc., complete complying with standard specification.(The PVC specials				

		should be got approved from the Executive Engineer before use on works).				
<b>53.01</b>		GI Elbow				
<b>53.02</b>	<b>18.00</b>	a) 20mm dia elbow			<b>Nos</b>	
<b>53.03</b>	<b>21.00</b>	b) 25mm dia elbow			<b>Nos</b>	
<b>53.04</b>	<b>12.00</b>	c) 32mm dia elbow			<b>Nos</b>	
<b>53.05</b>		GI Tee				
<b>53.06</b>	<b>12.00</b>	a) 20mm dia tee			<b>Nos</b>	
<b>53.07</b>	<b>12.00</b>	b) 25mm dia tee			<b>Nos</b>	
<b>53.08</b>	<b>8.00</b>	c) 32mm dia tee			<b>Nos</b>	
<b>53.09</b>		GI Coupling				
<b>53.10</b>	<b>12.00</b>	a) 20mm dia coupling			<b>Nos</b>	
<b>53.11</b>	<b>12.00</b>	b) 25mm dia coupling			<b>Nos</b>	
<b>53.12</b>	<b>6.00</b>	c) 32mm dia coupling			<b>Nos</b>	
<b>53.13</b>		GI Bend				
<b>53.14</b>	<b>16.00</b>	a) 20mm dia bend			<b>Nos</b>	
<b>53.15</b>	<b>12.00</b>	b) 25mm dia bend			<b>Nos</b>	
<b>53.16</b>	<b>6.00</b>	c) 32mm dia bend			<b>Nos</b>	
<b>53.17</b>		GI Reducer				
<b>53.18</b>	<b>8.00</b>	a) 20mm dia			<b>Nos</b>	
<b>53.19</b>	<b>8.00</b>	b) 25mm dia			<b>Nos</b>	
<b>53.20</b>	<b>3.00</b>	c) 32mm dia			<b>Nos</b>	
<b>53.21</b>		GI Reducer Elbow				
<b>53.22</b>	<b>10.00</b>	a) (20x15mm)			<b>Nos</b>	
<b>53.23</b>	<b>10.00</b>	b) (25x20mm)			<b>Nos</b>	
<b>53.24</b>		GI Reducer Tee				
<b>53.25</b>	<b>5.00</b>	a) (20x15mm)			<b>Nos</b>	
<b>53.26</b>	<b>5.00</b>	b) (25x20mm)			<b>Nos</b>	
<b>54.00</b>		Supplying and fixing in position G.I union and flanges of heavy type of approved quality and good variety, of Various sizes, including necessary cutting and threading of G.I.Pipes for jointing the union and providing two coats of painting with good variety and approved quality of synthetic enamel paint over a coat of priming coat in case of pipe line above Ground level and coat of tar in case of pipe line below Ground level for both internal and external Water supply arrangements.				
<b>54.01</b>	<b>18.00</b>	a) 20mm dia GI Union			<b>Nos</b>	
<b>54.02</b>	<b>22.00</b>	b) 25mm dia GI Union			<b>Nos</b>	
<b>55.00</b>		Supplying and fixing in position P.V.C. specials such as plain bend, door bend, plain tee, door tee, offsets, Y-junction, plain or with door of various sizes best quality confirming to I.S.S and providing leakproof joints including fixing to wall and giving connection to the P.V.C, soil				

		stacks, dismantling the brick masonry or R.C.C. floor or Roof slab and redoing the dismantled portion to original condition etc., complete complying with standard specifications.				
<b>55.01</b>		PVC Plain Elbow				
<b>55.02</b>	<b>46.00</b>	a) 110mm dia PVC plain elbow			<b>Nos</b>	
<b>55.03</b>	<b>38.00</b>	b) 90mm dia PVC plain elbow			<b>Nos</b>	
<b>55.04</b>		PVC Door Elbow				
<b>55.05</b>	<b>46.00</b>	a) 110mm dia PVC door elbow			<b>Nos</b>	
<b>55.06</b>	<b>38.00</b>	b) 90mm dia PVC door elbow			<b>Nos</b>	
<b>55.07</b>		PVC Plain Tee				
<b>55.08</b>	<b>12.00</b>	a) 110mm dia PVC Plain tee			<b>Nos</b>	
<b>55.09</b>	<b>12.00</b>	b) 90mm dia PVC Plain tee			<b>Nos</b>	
<b>55.10</b>		PVC Door Tee				
<b>55.11</b>	<b>12.00</b>	a) 110mm dia PVC Door tee			<b>Nos</b>	
<b>55.12</b>	<b>12.00</b>	b) 90mm dia PVC Door tee			<b>Nos</b>	
<b>56.00</b>		S & Fixing in position PVC Y junction with door Plain of with door of various sizes of best approved quality confirming to ISS and providing leak proof joints with CM1:2 (one cement, two M.Sand) spun yarn etc., to wall and giving connection to the PVC soil stacks, dismantling the brick masonry or R.C.C. floor or Roof slab and redoing the dismantled portion to original condition including painting the PVC specials two coats with best approved quality anti-corrosive paint etc., complete complying with standard specifications				
<b>56.01</b>	<b>10.00</b>	a) 110mm dia PVC Y with Door			<b>Nos</b>	
<b>56.02</b>	<b>10.00</b>	b) 90mm dia PVC Y with Door			<b>Nos</b>	
<b>57.00</b>		Supplying and fixing in position best quality P.V.C soil/ waste pipes (6KSC) of various sizes having ISI mark and providing leakproof joints including fixing to the wall with P.V.C/ M.S clamps etc., and making connection to all sanitary fittings, dismantling masonry/R.C.C. works wherever necessary and making good the dismantled portion to the original condition, complying with standard specifications.				
<b>57.01</b>		a) PVC Soil pipeline 110mm dia				
<b>57.02</b>	<b>140.00</b>	In Toilet inner concealed			<b>Rm</b>	
<b>57.03</b>	<b>120.00</b>	In Outer Open line			<b>Rm</b>	
<b>57.04</b>		b) PVC Baseline pipe 90mm dia				



<b>57.05</b>	<b>120.00</b>	In Toilet inner concealed			<b>Rm</b>	
<b>57.06</b>	<b>120.00</b>	In Outer Open line			<b>Rm</b>	
<b>57.07</b>	<b>80.00</b>	c) PVC Wasteline pipe 50mm dia - inner concealed - for wash basin & urinals			<b>Rm</b>	
<b>58.00</b>	<b>2000.00</b>	Supply and delivery of HDPE pipes for laying of main lines from water source to site as per standard specification as directed by Engineer in-charge			<b>Rm</b>	
<b>59.00</b>	<b>2000.00</b>	Lowering HDPE pipes and specials to trench and laying to proper grade and alignment and as directed by the TWAD Officers			<b>Rm</b>	
<b>60.00</b>	<b>16.00</b>	Supplying and fixing P.V.C. ventilating shaft of 100mm dia and 3m height of best approved quality and as per standard specifications.			<b>Nos</b>	
<b>61.00</b>		Supplying and fixing in position C.I.Manhole covers (light or heavy duty) of various sizes of best approved quality and as per standard specifications etc.,complete.				
<b>61.01</b>	<b>32.00</b>	C.I.Manhole covers			<b>Nos</b>	
<b>62.00</b>	<b>1503.00</b>	Wiring with 2 x 1.5 sq.mm. (22 / 0.3) PVC insulated single core unsheathed copper conductor of 1100V grade in suitable PVC rigid pipe concealed in wall and ceiling with PVC accessories in flush with wall with 150mm x 100mm x 113mm TW switch box with 3mm thick hylem sheet cover for 5A 3 pin non inter locking wall socket with 5A flush type switch with continuous earth wire connection of 14 SWG TC wire and making good of the concealed portion with suitable colour for concealed PVC plug point (SD - 38)			<b>Rm</b>	
<b>63.00</b>	<b>80.00</b>	Wiring with 3 x 1.5 sq.mm. (22 / 0.3) PVC insulated single core unsheathed copper conductor cable of 1100V grade on suitable heavy gauge PVC conduit pipe on wall and ceiling with PVC accessories with MS switch box and 5A FT switch (two way) with painting of suitable colour with continuous earth wire connection of 14 SWG TC wire for open staircase light point (SD 27)			<b>Rm</b>	

<b>64.00</b>	<b>466.00</b>	Wiring with 2 x 1.5 sq.mm. (22 / 0.3 ) PVC insulated single core unsheathed copper conductor cable of 1100V grade in suitable heavy gauge PVC conduit pipe on wall and ceiling with PVC accessories with 150mm x 100mm x 75mm MS switch box for 5A 3 pin non interlocking flush type CS plug wth painting of suitable colour with continuous earth wire connection of 14 SWG TC wire for open plug point (SD 38)			<b>Rm</b>	
<b>65.00</b>	<b>466.00</b>	Wiring with 2 x 4 sq.mm. (56 / 0.3) PVC insulated single core unsheathed copper conductor cable of 1100V grade in suitable PVC rigid pipe concealed in wall and ceiling with PVC accessories in flush with wall with 150mm x 100mm x 113mm TW switch box with 3mm thick hylem sheet for 15A 3 pin non inter locking wall socket with 15A flush type switch with continuous earth wire connection of 14 SWG TC wire and making good of the concealed portion with suitable colour for concealed power plug point (SD 40)			<b>Rm</b>	
<b>66.00</b>	<b>22.00</b>	Supply and fixing of 20A DP plug and socket in sheet enclosure with 32A DP MCB in flush with wall with earth connection (For AC Plug) (SD 140)			<b>Nos</b>	
<b>67.00</b>	<b>4729.00</b>	Supply and run of 2 of 1.5 sq.mm. (22 / 0.3) PVC insulated single core unsheathed copper conductor of 1100V grade in suitable heavy gauge PVC conduit pipe concealed in wall and ceiling with continuous earth wire connection of 14 SWG TC wire and making good of the concealed portion with suitable colour (SD 55)			<b>Rm</b>	
<b>68.00</b>	<b>4729.00</b>	Supply and run of 2 of 4 sq.mm. (56 / 0.3) PVC insulated single core unsheathed copper conductor of 1100V grade in suitable heavy gauge PVC conduit pipe concealed in wall and ceiling with continuous earth wire connection by 14 SWG TC			<b>Rm</b>	

		wire and making good of the concealed portion with suitable colour (SD 57)				
<b>69.00</b>	<b>180.00</b>	Supply and run of 3 of 4 sq.mm. (56 / 0.3) PVC insulated single core unsheathed copper conductor of 1100V grade in suitable heavy gauge PVC conduit pipe concealed in wall and ceiling with continuous earth wire connection by 14 SWG TC wire and making good of the concealed portion with suitable colour (SD 48)			<b>Rm</b>	
<b>70.00</b>	<b>34.00</b>	Supply and fixing of 4way SP DB of 16A / way with 16A DP switch with metal clad of 500V (side handle) with fuse and neutral on suitable angle iron frame work with trunking box MS cable entry box with earth connection (SD 148)			<b>Nos</b>	
<b>71.00</b>	<b>24.00</b>	Supply and fixing of 8 way SP DB of 16A / way with 16A DP switch with metal clad of 500V with fuse and neutral (side handle) on suitable TW board with PWD earthing (SD 151)			<b>Nos</b>	
<b>72.00</b>	<b>360.00</b>	Supply and laying of 2 x 6 sq.mm PVC LTUG aluminium armoured cable in a trench to be excavated at a depth of 0.75 metre putting 0.15 metre layer of M.Sand and covering the cable completely with bricks and sand and refilling the earth to make good (SD 197)			<b>Rm</b>	
<b>73.00</b>	<b>360.00</b>	Supply and laying of 2 x 6 sq.mm PVC LTUG aluminium armoured cable in a trench to be excavated at a depth of 0.75 metre putting 0.15 metre layer of sand and covering the cable completely with bricks and sand and refilling the earth to make good (Same as per SD 197), except for 3-1/2 x 70 sq.mm. PVC LTUG aluminium armoured cable (SD 207)			<b>Rm</b>	
<b>74.00</b>	<b>48.00</b>	Earthing as per the ISI specification with an earth electrode of 2.10 metre Class 'B' GI pipe of dia not less than 40mm with copper earth plate of size 125mm x 50mm x 6mm with necessary funneling arrangements with necessary			<b>Nos</b>	

		masonry work and with 38mm RCC cover slab for the brick masonry (SD 233)				
<b>75.00</b>	<b>466.00</b>	Supply and fixing of fancy glass shade and 40W bulb for BH point (SD 79)			<b>Nos</b>	
<b>76.00</b>	<b>60.00</b>	Supply and fixing of WT bulk head fitting with guard suitable for 11W CFL lamp with CFL (SD 83)			<b>Nos</b>	
<b>77.00</b>	<b>40.00</b>	18W 4 Feet LED Fitting with LED (Electrical Data - 15 (a))			<b>Nos</b>	
<b>78.00</b>	<b>203.00</b>	Supply and fixing of 1200mm (48") sweep AC ceiling fan complete with stepped electronic 300W regulator with 1 metre down rod with fan clamp with side plates and cross arm of size 450mm (18") (SD 106)			<b>Nos</b>	
<b>79.00</b>	<b>87.00</b>	Supply and fixing of 300mm (12") sweep (light duty) AC exhaust fan complete with necessary wall opening and making good of the wall (SD 114)			<b>Nos</b>	
<b>80.00</b>	<b>87.00</b>	Supply and fixing of louvers shutters arrangements for 300mm (12") sweep (light duty) AC exhaust fan			<b>Nos</b>	
<b>81.00</b>	<b>80.00</b>	Supply and fixing of 65mm (2-1/2") GI pipe (Class 'B') of 6 metre length with 300mm x 300mm x 6mm MS base plate duly welded at the bottom with concreting with construction of masonry pedestal with suitable MS box to house 5A control switch 16A fuse unit (500V) etc with suitable angle iron frame work with door and with lock and key arrangements and with supply and fixing of 4'40W twin street light fluorescent fitting with copper chokes and condenser with fluorescent tubes with 1 metre of 32mm dia GI pipe (Class 'B') complete with necessary clamps on the above post with PVC unsheathed leads with painting of suitable colour (SD 101)			<b>Nos</b>	
<b>82.00</b>	<b>1.00</b>	Provision of EB Panel Board with all Accessories			<b>Nos</b>	
<b>83.00</b>	<b>134.00</b>	Provision of EB individual meter for shops			<b>Nos</b>	
<b>84.00</b>	<b>2.00</b>	PASSENGER LIFTS (G+3), SS 304 Grade with 1m/sec. speed			<b>Nos</b>	

		with ARD 8 Persons Passenger Lift Car Size (1300 x 1100) - Gearless Lift with Machine Room				
<b>85.00</b>	<b>4.00</b>	Minimast (12 Metre) with 6 Nos. 150W LED Fitting (ER - Pg 49)			<b>Nos</b>	
<b>86.00</b>	<b>2.00</b>	Highmast (16 Metre) with 8 Nos. 150W LED Fitting (ER - Pg 49)			<b>Nos</b>	
<b>87.00</b>	<b>4.00</b>	Supplying and erecting in position of following liters capacity Industrial Model Reverse Osmosis Water-cum- Purifier to deliver Potable Water with World Health Organisation (WHO) Standards with following accessories. (a) MS Skid - 1 No. (b) Media 11054 No. Vessel with 20 nb Multiport Valve (with Media Pubble and Fine Sand and Activated Carbon Filling) set (c) Feed Pump 0.50 HP – 1 No. (d) Vertical Pump 2-9, 2.00 HP / Single Phase – 1 No. (e) Membrane 40 x 40 filmtech (or) equilaents / Osmonic (USA) - 1 No. and Membrane Pressure Vessel 40 x 40 -1 No. & Pressure Gauge - 2 Nos. (f) Flow Meter - 1 No. 20" Filter with Housing - 1 No., Low Pressure Switch - 1 No., Level Switch - 1 No. & Necessary CPVC Pipes and Fittings. The system shall be provide with			<b>Nos</b>	
<b>87.01</b>		Two Panel Control System with necessary Stainless Valves and Fittings and Float Control etc. The rate should be inclusive of all civil works, wherever necessary to install the System in position and intact - 1000 litres				
<b>88.00</b>	<b>2.00</b>	Supply and fixing of Generators with auto main failure (AMF Panel) - 250 KVA including all charges, cost and conveyance of all materials to site, etc. complete as per standard specification (ER - page 44)			<b>Nos</b>	
<b>89.00</b>		Tensile Roof: Design, fabrication and installation of simple vault tensile fabric work and steel structures using Belgian make tensile polyester fabric, steel frames by ISO standard acclaimed CE certified installer with structural stability vetting				

		from Anna Universit, Chennai having using FLUOMAX coated architectural membrane having tensile strength not less than 4300 N/50mm/4200N/40mm (warp/weft) and tear strength not less than 600N/500 N (Warp/Weft) of make SIOEN belgium or equivalent, cables, complete perimeter attachment system and all normally associated components with machies for fabrication using swiss make Zund cutting machine and belgian make architecural membrane on 20 KW forstrom high frequency welding machine with				
<b>89.01</b>		SEAMLESS welds 50mm weld width X 1400 mm - single stroke all PVC joints shall be formed to a tolerance of +1mm, -1mm and shall be assembled to ensure that seems are always single laid and attaining seamless finish by that a cut edge does not face uphill and membrance used to have a double				
<b>89.02</b>	<b>12335.00</b>	lacquering made out of highly concentrated FLUOMAX PVDF on both side, double PVC coating and to be weldable without grinding to make sure the fabric has less environmental impact the fabricator has to deliver evidence of REACH conformity as per the European norms the fabric to have color light fastness not less than >6 note in accordance with the German standard DIN 54004, DIN EN ISO 105 B02 and have 15 years manufacturer warranty all fabric supplied and installed shall be in accordance with this specification and shall be guaranteed against water leakage, faulty materials and mild steel structure supplied are made of high quality pure steel HR Coil and the tubes to conform IS923/IS1239/IS1161 and to be procured from TATA/JINDAL/APL or equivalent			<b>sqm</b>	
<b>90.00</b>	<b>5002.50</b>	Fabricating supplying and fixing of Polycarbonate Sheet with the			<b>Sqm</b>	

		following specification. The materials should be of PPGI tile profile with a red colour or any other approved design 0.47 mm thick 24 guage having width 1050 mm. The sheet should be G.I.base pre painted hot dipped galvanized iron sheet and to be fixed with shelf tapping screws,plastic washer.The washer and screws to be fixed by using minute power machine drilled with out damaging the sheets paint coating to be regular modified polyster coat with zinc coating of Z 120 GSM paint thickness the				
<b>90.01</b>		finish should be terra cotta finish like malabar mangalore tiles finish optional matt finish. The sheet to be fixed with making suitable corrugated,cutting the sheet in to the required ssize and making ornamental designs as per the site condition and as directed by the departmental officers.				
<b>91.00</b>	<b>1.00</b>	Supply, erection, testing and commissioning of Fire Fighting Application Horizontal Centrifugal Type Pump Rated for 2280 LPM at 70 metres head with Electrical Motor of 60 HP of 415 volt 3 phase connection complete with base plate and accessories. (Make: Kirloskar or Equivalent). The rate inclusive of necessary vibration, bad mounting etc., as per standard method as directed by the Deparmental Officers			<b>Nos</b>	
<b>92.00</b>	<b>1.00</b>	Supply, installation, testing and commissioning of Diesel Engine Driven Main Fire Pump suitable for automatic operation and consisting of following and complete in all respects as required. a. End suction, top discharge centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg. / sq. cm at highest and farthest outlet at specified flow of 2280 LPM at 70m head conforming to IS 1520. b. 68 BHP, 1500 RPM			<b>nos</b>	

		water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete. Auto starting mechanism, 12 volts / 24 volts electric starting equipment like self motor, dyanamo, solenoid switches etc.				
92.01		c. 110 litres capacity diesel tank mounted over stand fabricated using 25mm x 25mm x 6mm size MS angle, providing with level indicator, inlet port, outlet port, drain port and diesel return line port and fuel pre-filter, after filter etc. (Make: Kirloskar / Equivalent). d. Exhaust system having flexible metallic muffler, 100mm dia MS heavy pipe extended upto 1m, outside pump house duly insulated with 50mm thick glass wool with 1mm thick aluminium sheet cladding, residential silencer with necessary MS support arrangements from wall or ceiling as per site condition.e. Dash board consisting the instruments like temperature gauge, galvano type DC Ammeter, lubricant oil pressure gauge, ignition switch, emergency stop and all other protection equipment as per				
92.02		specification, stop seleneid for auto stop in the event of fault with audio indications, painted with post office red colour etc., as required. f. 12 V / 24 V storage battery, maintenance free tape, 180 AH rating, MS fabricated common base plate, coupling guard, foundation bolts etc., as required. g. Positioning the diesel engine driven fire pump over cement concrete foundation using suitable size anti-vibration mounting arrangement. All works carried out as per standard methods and as instructed by the manufacturer and as directed by the Departmental Officers. (Make: Kirloskar / Equivalent)				
93.00	1.00	Supply, erection, testing and commissioning Mono Block type Fire Fighting Pressurisation Pump of 180 LPM 110 metres			Nos	



		head at 10 HP with suitable base frame including necessary vibration bad mounting etc., including conveying, fixing and incidental charges., etc., complete as per standard specification and as directed by the Departmental Officers. (Make: Kirloskar / Equivalent)				
<b>94.00</b>	<b>1.00</b>	Supplying, installation, testing and commissioning of Fire Fighting Electrical Control Panel of cubical construction, floor mounted type fabricated using CRCA sheet, compartmentalised with hinged lockable door dust and vermin proof, cable alley, inter connection having switch gears and accessories mounting and internal wiring, earth terminals, numberings, necessary metering protections and indications complete in all respect suitable for operation on 415volt, 3 phase, 50 Hz AC supply with enclosure protection class IP 54 and mounted with the followings. A. Common Panel in Fire Pump House (i). Incomer a. 1 No. 600A TP & N SDFU with HRC fuses b. 1 set of 600A, 4 bar aluminium bus bar, 415 V, 50 HZ AC supply c. 1 No. (0-500A)			<b>Nos</b>	
<b>94.01</b>		digital ammeter with selector switch & CTs d. 1 No. (0-500V) digital voltmeter with selector switch and control fuses e. 3 Nos. phase indication lamp LED type with toggle switches with control fuses (ii). Outgoing a. Main Fire Pump 400 A TPN SDFU with HRC fuses with suitable HP fully automatic starter / delta starter with over load protection, digital ammeter with built-in selector switch and suitable CTs, current sensing type single phasing preventer complete with all accessories and internal wiring required for automatic operation, selector switch for auto / manual / OFF operation 1 No.				
<b>95.00</b>		Generators with auto main failure (AMF Panel) - 250 KVA				
<b>95.01</b>	<b>60.00</b>	3 core 95 sq.mm. armoured			<b>m</b>	

		aluminium cable				
<b>95.02</b>	<b>45.00</b>	3 core 10 sq.mm. armoured aluminium cable			<b>m</b>	
<b>95.03</b>	<b>45.00</b>	10 core 2.5 sq.mm. armoured aluminium cable			<b>m</b>	
<b>96.00</b>	<b>510.00</b>	Supply and laying of 2 core 1.5 sq.mm. armoured copper cable for control wiring to the Terrace Pump Motor with runs of 14 SWG TC wire for earthing, providing in wall with suitable size GI clamps, screws, wooden plug, end termination by using suitable size cable glands, copper sockets and etc., as directed by the Departmental Officers.			<b>m</b>	
<b>97.00</b>	<b>1.00</b>	Earthing arrangements with GI Earth Plate including charcoal and salt with necessary excavation in all soils and to full depth as may be required and masonry work, re-filling the sides of foundation with excavated earth as per the standard specification and as directed by the Departmental Officers.			<b>Nos</b>	
<b>98.00</b>	<b>40.00</b>	Supply,installing Cable tray with necessary angle iron suspension supports, anchor fasteners etc. complete. Maximum height of suspension shall not exceed 100 mm x 50mm x 1.6mm. Size of the tray shall be suitable for laying the above mentioned cables.			<b>Nos</b>	
<b>99.00</b>		Supply, erection, testing and commissioning of following MS „C” Class Heavy Duty Pipe as per IS 1239 to withstand a developing pressure of 10 kg. / sq.cm including necessary fittings like MS flange of table „E”, elbows, reducers, gaskets, bolt, nuts with washers & joints as per standard method of arc welding, including one coat metal primer and two coat Post Office Red painting including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary, etc., complete as per standard specification and as directed by the Departmental Officers.				

		Make: JINDAL / EQUIVALENT.				
<b>99.01</b>	<b>340.00</b>	150mm nominal dia			<b>m</b>	
<b>99.02</b>	<b>205.00</b>	100mm nominal dia			<b>m</b>	
<b>99.03</b>	<b>165.00</b>	80mm nominal dia			<b>m</b>	
<b>99.04</b>	<b>95.00</b>	65mm nominal dia			<b>m</b>	
<b>99.05</b>	<b>325.00</b>	50mm nominal dia			<b>m</b>	
<b>99.06</b>	<b>300.00</b>	40mm nominal dia			<b>m</b>	
<b>99.07</b>	<b>300.00</b>	32 mm nominal dia			<b>m</b>	
<b>99.08</b>	<b>60.00</b>	25mm nominal dia			<b>m</b>	
<b>100.00</b>	<b>320.00</b>	Wrapping and Coating Anti-Corrosive Treatment for under ground MS pipe having one coat of anti-corrosive metal primer, one layer of asphalt tar tape wound over the MS pipe as per standard methods as per standard specification as directed by the Departmental Officers 150mm			<b>m</b>	
<b>101.00</b>		Supply, erection, testing and commissioning of cast iron body and bronze internal non-rising spindle sluice valve of sizes at required places to control the flow of water including necessary MS flange of table „E“, gaskets, bolts & nuts including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary, etc., complete as per standard specification and as directed by the Departmental Officers. Make: NORMEX / KARTAR / EQUIVALENT				
<b>101.01</b>	<b>9.00</b>	150 NB			<b>Nos</b>	
<b>101.02</b>	<b>12.00</b>	100 NB			<b>Nos</b>	
<b>101.03</b>	<b>1.00</b>	80 NB			<b>Nos</b>	
<b>102.00</b>	<b>20.00</b>	Supply, erection, testing and commissioning of Gun Metal Gate Valve of size 50mm dia size including necessary MS flange of table „E“, gaskets, bolts & nuts etc., installed at pump house delivery line for the purpose of priming water to suction line including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary, etc., complete as per standard specification and as directed by			<b>Nos</b>	

		the Departmental Officers. Make: LEADER / EQUIVALENT.				
<b>103.00</b>	<b>20.00</b>	Supply, erection, testing and commissioning of Gun Metal Ball Valve of size 25mm dia size including necessary Fittings and as directed by the Departmental Officers. Make: LEADER / EQUIVALENT.			<b>Nos</b>	
<b>104.00</b>		Supply, erection, testing and commissioning of Cast iron body and Gun metal or stainless steel internal Nonreturn valve of following sizes to control one way flow of water to be installed pump room at delivery line and near overhead tank at terrace level near to jockey pump and motor including necessary MS flange of table „E“, gaskets, bolts & nuts, etc. as per IS 5312 including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary, etc., complete as per standard specification and as directed by the Departmental Officers				
<b>104.01</b>	<b>10.00</b>	150 NB			<b>Nos</b>	
<b>104.02</b>	<b>1.00</b>	80 NB			<b>Nos</b>	
<b>105.00</b>		Supply, erection, testing and commissioning of following sizes of Heavy Duty Foot Valve including all accesories, such as, MS flange of table „E“, gaskets, bolts & nuts, etc., installed at end of 150 / 200mm dia suction pipe line at sump including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary, etc., complete and as per standard specification and as directed by the Departmental Officers. Make: NORMEX / KARTAR / EQUIVALENT				
<b>105.01</b>	<b>5.00</b>	150 mm dia			<b>Nos</b>	
<b>105.02</b>	<b>1.00</b>	100 mm dia			<b>Nos</b>	
<b>106.00</b>	<b>6.00</b>	Supply, erection, testing and commissioning of suitable Pressure Switch of reputed make line Indfoss or Donfoss including necessary valves,			<b>Nos</b>	

		couplings, etc., connected with electrical main control panel and setup at proper differential so as to auto start and auto stop the electrical motor, jockey motor including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary, etc., completed as per standard specification and as directed by the Departmental Officers. Make: DONFOSS / INDFOSS / ISI MAKE / EQUIVALENT.				
<b>107.00</b>	<b>2.00</b>	Supply, erection, testing and commissioning of Pressure Gauge with 0 to 14 kg. range of reputed make with necessary valve, milling thread MS coupling fixed at delivery pipe line in pump house to read the developing pressure including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary, etc., complete as per standard specification and as directed by the Departmental Officers. Make: H-GURU / ISI MAKE / EQUIVALENT			<b>Nos</b>	
<b>108.00</b>	<b>875.00</b>	Providing, fixing pipe supports from columns / wall or suspenders from roof slab to suit various dia of pipes made out of GI / MS adjustable rods threaded for a sufficient length to adjust the height of support along with clamping arrangement for holding pipes of anchor fastening, arrangement design of hanger and should confirm with specification.100mm			<b>m</b>	
<b>109.00</b>	<b>1.00</b>	Supply and providing 1000 litres capacity Priming Tank made up of PVC. Make: SINTEX / EQUIVALENT			<b>Nos</b>	
<b>110.00</b>	<b>9.00</b>	Supply, erection, testing and commissioning of Air Release Valve of 20mm dia, so as to release airlock in 100mm dia MS pipe at top most wet riser, including conveyance, all			<b>Nos</b>	

		incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary, etc., complete as per standard specification and as directed by the Departmental Officers. Make: KARTAR / EQUIVALENT				
<b>111.00</b>	<b>12.00</b>	Supply and fixing of Fire fighting application oblique type stainless steel Hydrant Valve of size 63mm dia with oblique type instantaneous coupling with rotating wheel to open and close the valve including MS flange of table "E", bolts & nuts with washer as per IS 5290 at ring main around the building and wet riser inside the building including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary etc complete as per standard specification and as directed by the Departmental Officers. Make: OMEX / KARTAR / LIFE GUARD / SAFE GUARD / EQUIVALENT.			<b>Nos</b>	
<b>112.00</b>	<b>12.00</b>	Supply, and fixing in position of Fire Fighting Application Hose of 63mm dia of 15 metres length binded by copper wire with 63mm dia stainless steel male and female instantaneous fire fighting special coupling as per IS 901 as directed by the Departmental Officers. Near every hydrant points including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary etc complete as per standard specification and as directed by the Departmental Officers. Make: OMEX / KARTAR/ LIFE GUARD / SAFE GUARD / EQUIVALENT.			<b>Nos</b>	
<b>113.00</b>	<b>12.00</b>	Supply, installation of Fire Fighting Application 180 degree swinging type, hose reel drum with 20mm dia braided thermoplastic hose of 30 metres			<b>Nos</b>	

		long, so as to extend to necessary distance by self rolling spindle wheel including necessary 20mm dia ball valve and open and close spray nozzle, warm clip, etc., as per the standard pattern of any reputed make at every floor nearer to hydrant valve, including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary., etc., complete as per standard specification and as directed by the Departmental Officers. Make: OMEX / KARTAR / LIFE GUARD / SAFE GUARD / EQUIVALENT				
<b>114.00</b>	<b>6.00</b>	Supply, installation of Fire Fighting Application 180 degree swinging type, hose reel drum with 20mm dia braided thermoplastic hose of 30 metres long, so as to extend to necessary distance by self rolling spindle wheel including necessary 20mm dia ball valve and open and close spray nozzle, warm clip, etc., as per the standard pattern of any reputed make at every floor nearer to hydrant valve, including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary., etc., complete as per standard specification and as directed by the Departmental Officers. Make: OMEX / KARTAR / LIFE GUARD / SAFE GUARD / EQUIVALENT			<b>Nos</b>	
<b>115.00</b>	<b>12.00</b>	Supply of Fire Fighting Application MS Hose Box to keep two number of hoses and 1 No. of branch pipe with nozzle having proper glass window type double door with universe open key, painted inside white and outside Post Office Red. Near every hydrant point including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled			<b>Nos</b>	

		portions to its original condition wherever found necessary, etc., complete as per standard specification and as directed by the Departmental Officers. Make: OMEX / KARTAR / LIFE GUARD / SAFE GUARD / EQUIVALENT.				
<b>116.00</b>	<b>6.00</b>	Supply of Fire Fighting Application MS Cabinet Hose Box to keep two number of hoses and 1 No. of branch pipe with nozzle having proper glass window type double door with universe open key, painted inside white and outside Post Office Red. Near every hydrant point including conveyance, all incidental charges, necessary scaffolding and re-doing the dismantled portions to its original condition wherever found necessary, etc., complete as per standard specification and as directed by the Departmental Officers. Make: OMEX / KARTAR / LIFE GUARD / SAFE GUARD / EQUIVALENT.			<b>Nos</b>	
<b>117.00</b>	<b>1.00</b>	Supply, erection, testing and commissioning of fire fighting application monoblock motor pumpset of 900 LPM at 40 metres head to develop 3.5 kg/sq.cm at the highest and farthest hydrant point to make 30 m water jet at the time of fire fighting emergency circumstances, coupled with 11 KW / 15 HP rated three phase 414 volts, 50 Hz, 2880 rpm electrical motor the pump with cast iron body, bronze impeller, rope gland packaging, suction size of 80 mm dia. delivery size of 65 mm dia., including the cost of foundation concrete anti vibration mounting, rain safety hood and etc. complete as directed by the Departmental Officers (Kirloskar make KDS 1555+ or Equivalent)			<b>Nos</b>	
<b>118.00</b>	<b>1.00</b>	Supply, erection, testing and commissioning of fire fighting application monoblock motor pumpset of 900 LPM at 40 metres head to develop 3.5 kg/sq.cm at the highest and			<b>Nos</b>	



		farthest hydrant point to make 30 m water jet at the time of fire fighting emergency circumstances, coupled with 11 KW / 15 HP rated three phase 414 volts, 50 Hz, 2880 rpm electrical motor the pump with cast iron body, bronze impeller, rope gland packaging, suction size of 80 mm dia. delivery size of 65 mm dia., including the cost of foundation concrete anti vibration mounting, rain safety hood and etc. complete as directed by the Departmental Officers (Kirloskar make KDS 1555+ or Equivalent)				
<b>119.00</b>	<b>1.00</b>	Supply, erection, testing and commissioning of Fire Fighting Electrical Control Panel of 15 HP, 415 V, 50 Hz Rating Wall Mounted Type fabricated using CRCA sheet, hinged lockable door, dust and vermin proof with following provisions: a. 63 Amps, 4 Pole MCB - Incomer, 6 Amps, 2 Pole MCB for Control Circuit - 1 set b. R, Y, B Phase Indication Lamp, Volt Meter (0 - 500 V), Ammeter (0 - 50 A), Volt Meter Selector Switch- 1 set c. 32 Amps Power Contactor with 230 V Coil, 14 - 23 Amps Over Load Relay - 1 set d. Single Phase Preventer - 1 No. e. Indication Lamp for Motor ON / OFF / TRIP - 1 set f. AUTO / MANUAL Selector Switch, ON / OFF Push Button - 1 set g.			<b>Nos</b>	
<b>119.01</b>		Add On Block, Terminal Block, Power Wiring, Control Wiring, Connectors, Cable Lugs, Slotted Cable Cover The above panel mounted on wall using anchor fasteners bolts, plugs, incoming and outgoing cable connection and all works carried out as per standard methods and as directed by the Departmental Officers.				
<b>120.00</b>	<b>50.00</b>	Supply and laying of 4 core 10 sq.mm. armoured copper cable for power wiring to the Terrace Pump Motor with runs of 14 SWG TC wire for earthing, providing in wall with suitable size GI clamps, screws, wooden			<b>m</b>	

		plug, end termination by using suitable size cable glands, copper sockets and etc., as directed by the Departmental Officers.				
<b>121.00</b>	<b>330.00</b>	Supply and fixing nominal bore quartzed bulb type sprinkler bulb 68 Deg C fast response pendent type including GI collar for each sprinkler bulb, mounted in MS pipe line using suitable size MS threaded coupling, thread, shellac etc., as per standard methods and including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary, etc., complete as per standard specification and as directed by the Departmental Officers. Make: OMEX / KARTAR / LIFE GUARD / SAFE GUARD / EQUIVALENT.			<b>Nos</b>	
<b>122.00</b>	<b>220.00</b>	Supply, erection, testing and commissioning of FM / UL approved Metallic stainless steel (SS 304) braided Flexible drop pipes of 25mm Dia with cross bar assembly support suitable for grid ceiling, reducing fitting, special shoulder Nipple, reducing nipple, T bar bracket, bracket clip assembly. Flexible length shall be as below 1500mm			<b>Nos</b>	
<b>123.00</b>	<b>220.00</b>	Supply, erection, testing and commissioning of Rosette Plate ,MS Sheet,Dia 6-7Inch			<b>Nos</b>	
<b>124.00</b>	<b>1.00</b>	Supply, installation, testing and commissioning of Micro Processor based conventional 48 Zone Fire Alarm Control Panel having the rating of 24 volt DC power supply, consisting 230 / 24 volt SMPS unit, 2 Nos. of 12 volt 7 AH standby batteries, suitably mounted on wall using fixing accessories like screws, plug, clamps and etc., as per standard methods and as directed by the Departmental Officers			<b>Nos</b>	
<b>125.00</b>	<b>220.00</b>	Supply, installation, testing and commissioning of Conventional Smoke Detector suitably			<b>Nos</b>	

		mounted on ceiling with MS junction box / false ceiling using fixing accessories like screws, plug, clamps, etc., as per standard methods and as directed by the Departmental Officers. (Make: Apollo / Equivalent)				
<b>126.00</b>	<b>80.00</b>	Supply, installation, testing and commissioning of Conventional Heat Detector suitably mounted on ceiling with MS junction box / false ceiling using fixing accessories like screws, plug, clamps, etc., as per standard methods and as directed by the Departmental Officers. (Make: Apollo / Equivalent)			<b>Nos</b>	
<b>127.00</b>	<b>15.00</b>	Supply, installation, testing and commissioning of Manual Call Point (MCP) providing on wall using fixing accessories like screws, plug, clamps and etc., as per standard methods and as directed by the Departmental Officers. (Make: Ravel / Equivalent)			<b>Nos</b>	
<b>128.00</b>	<b>25.00</b>	Supply, installation, testing and commissioning of Electronic Hooter / Sounder providing on wall using fixing accessories like screws, plug, clamps and etc., as per standard methods and as directed by the Departmental Officers (Make: Ravel / Equivalent)			<b>Nos</b>	
<b>129.00</b>	<b>35.00</b>	Supply and fixing of stored pressure ABC (Mono Ammonium Phosphate) Powder Type Fire Extinguisher of 6 kg. capacity as per IS:15683 with pressure gauge, discharge hose & control nozzle, wall mounting bracket, safety clip etc., including conveyance, all incidental charges, necessary scaffolding and re-doing the dismantled portions to its original condition wherever found necessary etc, complete as per standard specification and as directed by the Departmental Officers. Make: EXCELLENT / SAFETY FIRST / EQUIVALENT			<b>Nos</b>	
<b>130.00</b>	<b>15.00</b>	Supply and fixing of Carbon-di-Oxide Gas Type 2Kg Capacity Fire Extinguishers as per			<b>Nos</b>	

		IS:15683 with , discharge hose & control nozzle, wall mounting bracket, safety clip etc., including conveyance, all incidental charges, neccessary scaffolding and re-doing the dismantled portions to its original condition wherever found neccessary etc, complete as per standard specification and as directed by the Departmental Officers. Make: EXCELLENT / SAFETY FIRST / EQUIVALENT				
<b>131.00</b>	<b>25.00</b>	Supplying, installing, testing and commissioning of 6W Wall Mount type speakers			<b>Nos</b>	
<b>132.00</b>	<b>1.00</b>	Supplying, installing, testing and commissioning of solid state Amplifier of 250W RMS out put in rack, including necessary control wires, jacks etc. complete.			<b>Nos</b>	
<b>133.00</b>	<b>1.00</b>	Supplying, installing, testing and commissioning of Hand Held Mic with Frequency response-40-16000 Hz,Secsitivity - 1,8 mv/Pa,Connector XLR-3 including all Charges			<b>Nos</b>	
<b>134.00</b>	<b>35.00</b>	Supply & Installation of in position the sign board of "EXIT " with arraow to be placed at walking pathways by fixing on walls to direct occupants to outside the buliding in an emergency. The Exit sign board will be autoglow photoluminiscent type which will glow at dark.(Single Side indication)			<b>Nos</b>	
<b>135.00</b>	<b>6.00</b>	Supply & Installation of Fire Escape Route Plan Laminated Board Auto Glow Print to be placed at each floor by fixing on walls to direct occupants to outside the buliding in an emergency. The Fire Escape Route Plan will be autoglow photoluminiscent type which will glow at dark.(Single Side indication)			<b>Nos</b>	
<b>136.00</b>	<b>60.00</b>	Supply and Installation of IP based Surveillance camera at the Following specification 2.0 MP CMOS Network Bullet Camera 1 /2.8" Progressive Scan, Upto 2.0 Megapixel, 2.8mm/4mm/6mm Fixed Lens,			<b>Nos</b>	

		Upto 80 Meters IR Range, Dual Stream, Digital WDR, 3D DNR, PoE Support, IP 67, Mobile Monitoring, Video Bit Rate : 32 Kbps to 8 Mbps, NAS (NFS, SMB/CIFS), Motion Detection, Alarms for Video Detection, Network Disconnection, IP Address Conflict, TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, RTCP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, Bonjour, ONVIF (Profile S, Profile G), PSIA, CGI, ISAPI, 1x 10/100 Mbps RJ 45, -30°C to 60°C, 12V DC, Maximum 5Watts Power Consumption etc complete .,				
<b>137.00</b>	<b>6.00</b>	Supply and Installation and Fixing of 8 Channel NVR ( Network Video Recorder ) With 1 Sata H.265+/H.265/H.264/H.264+ Video Formats, Third Party Network, Upto 8MP, Incoming Bandwidth 80 Mbps, Outgoing Bandwidth 80 Mbps, TCP/IP, DHCP, DNS, DDNS, NTP, SADP, SMTP, NFS, iSCSI, UPnP, HTTPS, Upto 6TB, 2xUSB2.0, 12V DC, 18 Watts Power Consumption, -10°C to 55°C, 1U Chassis Recording Resolution - 8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF, Network Video Input -32 Channel, Audio Output- 1 ch, RCA(Linear,1K Ω), Max. Capacity -Upto 10TB capacity for each Hard disk, Video			<b>Nos</b>	
<b>137.01</b>		output-HDMI Video Output upto 4K(3840*2160),VGA Output, Live View/Playback Resolution - 8 MP/6 MP/5 MP/4 MP/3 P/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF etc complete				
<b>138.00</b>	<b>6.00</b>	Supply and Installation of 4TB Surveillance Hard Disc of approved Make - at the following Specification 1) Camera supported- Up to 64, 2)Load/unload Cycles- 3,00,000,3)Cache (MB) - 64,			<b>Nos</b>	

		4)Mean Time between Failures (MTBF) (hours)-1M, 5)Max sustained data rate,OD read(MB/s)-190, 6)Voltage tolerance(5V)-5%,7) Voltage tolerance(12V) -10% , 8)Start-up power (A)-2, 9)Operating mode,typical(W)-5.5, 10) Idling average(W)-3.2, 11) Standby mode(W) - 0.25/0.25 and 12) Storage capacity -30 days etc Complete				
<b>139.00</b>		Supply and Installation and Fixing of 4, 8 Port Fully PoE Switch (Power Over Ethernet Switch) Ethernet Ports One (1) 10/100/1000 Base-T Port One (1) 1000 Base-X Port Eight (8) 10/100 Base-T Ports (PoE Power Supply) PoE Features • Protocol: IEEE802.af, IEEE802.3at, Ports 1 to 8 • Consumption: Up to 30 W per Port • Total PoE Budget <sup>1</sup> : 196 W Switching Capacity 7.6 Gbps Packet Forwarding Rate 4.17 Mbps Packet Buffer Memory 1 MB MAC Table Size 8K Flow Control Enable by default Power Requirements 53 VDC Power Adapter (included) Operating Temperature -30 °C to 65 °C (-22 °F to 149 °F) Application Humidity 10% to 90% Lightning Protection Common Mode: 2 KV Differential Mode: 1 KV Dimensions (W x D x H) 150.0 mm x 100.0 mm x 42.0 mm				
<b>139.01</b>	<b>6.00</b>	HIKVISION POE 4+2 Port Gigabite 2 year Warrenty			<b>Nos</b>	
<b>139.02</b>	<b>6.00</b>	HIKVISION POE 8+2 Port Gigabite 2 year Warrenty			<b>Nos</b>	
<b>140.00</b>	<b>300.00</b>	Supply and Fixing Cat6 - Patch Card including cost and Conveyance, Labour Charges For Cable laying etc., complete			<b>m</b>	
<b>141.00</b>	<b>120.00</b>	Supply and run of 2 of 1.5 sq.mm. (22 / 0.3) PVC insulated single core unsheathed copper conductor of 1100V grade on 7/20 GI bearer wire for service connection mains			<b>m</b>	
<b>142.00</b>	<b>120.00</b>	5 Amps 3 Pin & 2 Pin Combined Flush Type Wall Socket only			<b>Nos</b>	
<b>143.00</b>	<b>60.00</b>	Charges for Camera Device Configuration, Instalation & Positioning etc complete .,			<b>Nos</b>	

<b>144.00</b>	<b>6.00</b>	Charges for Rack Fixing & Alignment etc complete .,			<b>Nos</b>	
<b>145.00</b>	<b>60.00</b>	DCM box			<b>Nos</b>	
<b>146.00</b>	<b>1.00</b>	GST 12%			<b>No</b>	