TENDER DOCUMENT

TENDER No.: DLI/ENGG/PI-588(1)/001

FOR

CONSTRUCTION OF METROLOGY (STANDARD) BLOCK
AT
NPL COMPLEX
DR. K.S. KRISHNAN ROAD, NEW DELHI

FOR

NATIONAL PHYSICAL LABORATORY
(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)

VOLUME – IIA

NOTICE INVITING TENDER
&
ADDITIONAL CONDITIONS OF CONTRACT

EXECUTING AGENCY

ENGINEERING PROJECTS (INDIA) LIMITED
(A GOVT. OF INDIA ENTERPRISE)
Core-3, Scope Complex, 7, Institutional Area,
Lodhi Road, New Delhi-110003
TEL NO: 011-24361666, 24366226 FAX NO. 011- 24363426
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ENGINEERING PROJECTS (INDIA) LTD.
(A. Govt. of India Enterprise)

NOTICE INVITING TENDER

Tender for Construction of Metrology (Standard) Block at NPL, DELHI.

DLI/ENGG/PI-588(1)/001         Date : 20.10.2008

1.0 Engineering Projects (India) Ltd. invites the sealed percentage rate tender on behalf of National Physical Laboratory, Delhi from eligible firms / contractors for the following work.

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Name of work</th>
<th>Estimated cost</th>
<th>Period of Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Construction of Metrology (Standard) Block at NPL, DELHI</td>
<td>Rs. 29,23,81,618/-</td>
<td>15 Months (Fifteen months)</td>
</tr>
</tbody>
</table>

The brief scope of work included in this tender shall include (but not limited to) Civil, Structural, Plumbing, Internal Electrical, Architectural, Fire detection, Fire Alarm and Fire Protection works for construction of Metrology (Standard) Block & Utility Block including development and landscaping works.

The detailed scope of work is given in the tender document.

Time schedule of tender activities.

i) Date & Time of sale of Tender Documents  From 20.10.2008 to 29.10.2008 11.00 AM to 04.00 PM

ii) Last Date & Time of Submission of Tenders  10.11.2008 by 02.00 PM

iii) Date & Time of Opening Envelope-1  10.11.2008 at 02.30 PM

Contractors who fulfill the following eligibility criteria shall be eligible to apply. The Joint Ventures are not accepted.

a) Experience of having successfully completed works during the last 7 years ending 30-09-2008.
i) Three similar completed works each costing not less than the amount equal to 40% of estimated cost put to tender.

OR

ii) Two similar completed works each costing not less than the amount equal to 60% of estimated cost put to tender.

OR

iii) One similar completed work in single contract of aggregate cost not less than the amount equal to 80% of estimated cost.

AND

iv) One completed work of any nature (either part of (i) or a separate one) costing not less than the amount equal to 40% of the estimated cost put to tender with some Central/State Government Organisation / Central Autonomous Body / Central Public Sector Undertaking.

The “similar works” shall mean Civil and associated works of buildings not less than two storey and similar structures other than residential complexes.

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of receipt of applications for tenders.

The cost of free issue of materials shall not be included in the completion cost of works.

b) Should have average annual financial turnover on civil / electrical construction works should be at least 30% of the estimated cost during the immediate last three consecutive financial years. This should be duly audited by a Chartered Accountant. Year in which no turn over is shown would also be considered for working out the average.

c) Should not have incurred any loss in more than two years during the immediate last five consecutive financial years, ending 31.03.2008, duly certified by the chartered Accountant.

d) Should have a solvency of 40% of estimated cost issued by his bankers. The certificate should have been issued after 01.10.2007.

e) Should have valid PAN (Permanent Account Number) of Income Tax.

f) Time for carrying out works shall be 15 (Fifteen) months.
g) Documents as mentioned above (CI 1.0 (a) to 1.0 (e) duly attested by Gazetted Officer not below the rank of Executive Engineer or equivalent of Notary Public) fulfilling the eligibility criteria shall be furnished to EPI.

2.0 Tender documents comprising of the following are available on the website of EPI: www.engineeringprojects.com

i) Notice Inviting Tender (NIT)
ii) General Conditions of Contract (GCC available under tab titled Tenders) - Vol.I
iii) Addendum to INSTRUCTIONS TO TENDERERS
iv) Additional Conditions of Contract.- (Vol.IIA)
v) Technical Specification – (Vol.IIB)
vi) Price Bid – (Vol.III)
vii) Tender Drawings

3.0 a) The complete Tenders documents are available on the website and the same can be downloaded by the intending bidders directly from EPI website. The tender fees of Rs.25,000.00 (Rupees twenty five thousand only) (Non-Refundable) by Crossed Demand Draft favouring “Engineering Projects (India) Ltd.”, payable at Delhi shall be submitted by the bidder along with their bid in Envelope-1. Relevant experience certificates and other documents as mentioned above Cl 1.0 (a) to 1.0 (e) duly attested by Gazetted Officer not below the rank of Executive Engineer or equivalent or Notary Public fulfilling the qualifying criteria shall be enclosed in Envelope-1. Completion Certificates from clients shall be in the name of the Company who is submitting the tender. The Contractor has to produce original documents for verification at the time of opening of tender or as and when demanded. The Tender of any tenderer shall be rejected if on detailed scrutiny, documents submitted along with the tender are found to be unsatisfactory. The decision of EPI in this regard shall be final and binding on the tenderer.

b) Alternatively Tenders documents can also be obtained from the Addl. General Manager (Engg. Division) Engineering Projects (India) Ltd., Core-3, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi – 110003 from 11.00 AM to 04.00 PM on all working days (Monday to Friday) except Public Holidays, on submission of request letter alongwith copies of relevant experience certificates and other documents as mentioned above (Cl 1.0 (a) to 1.0 (e) duly attested by Gazetted Officer not below the rank of Executive Engineer or equivalent of Notary Public) fulfilling the qualifying criteria. Tender document shall be issued to eligible prima-facie eligibility bidders on payment of Rs. 25,000/- (Rupees Twenty Five Thousand only) (Non-Refundable) by Crossed Demand Draft favouring “Engineering Projects (India) Ltd.”, payable at Delhi. Issuance of Tender Documents to any tenderer shall, however, not construe that the tenderer is considered qualified for the tender work and the same may be rejected if on detailed scrutiny, the documents submitted alongwith the tender are found to be unsatisfactory.
4.0 All Tenders shall be accompanied by Earnest Money Deposit (EMD) of Rs. 39.25 Lakhs. This can be either in the form of Crossed Demand Draft or Pay Order of any Nationalized Bank / Scheduled Bank for the full amount of EMD payable favouring, “Engineering Projects (India) Ltd.”, payable at Delhi or in the form of Bank Guarantee of any Nationalized Bank / Scheduled Banks, in accordance with the prescribed proforma, favouring “Engineering Projects (India) Ltd., Delhi”. The EMD shall be valid for minimum period of 150 days (One Hundred Fifty Days) from the last day of submission of Tender. Tenders submitted without EMD or with inadequate amount of EMD shall be rejected.

5.0 The Terms & Conditions contained in this NIT and tender documents shall be applicable.

6.0 EPI reserves the right to accept any tender or reject any or all tenders or annul this tendering process without assigning any reason and liability whatsoever and to re-invite tender at its sole discretion. The corrigendum, extension, cancellation of this NIT, if any, shall be given on the EPI’s website www.engineeringprojects.com only. The intending tenderers are requested to visit the EPI’s website regularly for this purpose.

The tender documents shall be issued by and submitted to:

Addl. General Manager

ENGINEERING PROJECTS (INDIA) LTD.
Core-3, Scope Complex,
7 Institutional Area, Lodhi Road,
New Delhi – 110003

TEL. NO. 011-24361666 Ext. 2331
FAX NO. 011-24363426
ADDENDUM TO “INSTRUCTIONS TO TENDERER”

1.0 MODE OF SUBMISSION

(a) The Envelope-1 shall also contain the documents meeting the eligibility criteria mentioned in “Notice Inviting Tender” Clause No. 1.0 (a) to (g) in addition to Clause No.1.0 (i) to (vi) given in Page No.(1) of “INSTRUCTIONS TO TENDERERS”.

(b) The tenderer who shall download the tender documents directly from EPI’s website they have to submit tender fees of Rs.25,000.00 (Rupees twenty five thousand only) (Non-Refundable) by Crossed Demand Draft favouring “Engineering Projects (India) Ltd.”, payable at Delhi along with their bid in Envelope-1.

2.0 CLAUSE NO.1.1 OF INSTRUCTIONS TO TENDERERS. as given in Page (2) of INSTRUCTIONS TO TENDERERS stands amended as below:

First the Envelope-1 of the tenderer shall be opened. Tenderers who unconditionally accept the tender conditions, deposit the required Earnest Money, who meets the eligibility criteria mentioned in clause no. 1.0 (a) to (g) of NIT, deposit the tender fees as defined above in Clause 1.0(b) and whose Techno-Commercial Bid along with PQ Documents is found suitable shall be considered for the opening of their Price Bid and Envelope-2 of such tenderers shall only be opened. The Tenders not accompanied by requisite Earnest Money and / or not conveying un-conditional acceptance of tender conditions and / or not meeting the eligibility criteria or whose Techno-Commercial Bid and PQ Documents are not found acceptable, shall be rejected and such tenderer shall not be allowed to attend Price Bid opening i.e. opening of Envelope-2.

All other provisions of “Instructions to Tenderer” shall remain unchanged.
2.0 ADDITIONAL CONDITIONS OF CONTRACT (ACC)

1.0 The following Additional Conditions of Contract shall be read in conjunction with General Conditions of Contract. If there are any provisions in these Additional Conditions of Contract, which are at variance with the provisions of General Conditions of Contract, the provisions in these Additional Conditions of Contract shall take precedence.

2.0 INTRODUCTION

The National Physical Laboratory, New Delhi, is a Constituent Laboratory of Council of Scientific & Industrial Research (CSIR), New Delhi. In order to create a world class measurement facility, the construction of Metrology (Standard) Block at National Physical Laboratory, New Delhi is proposed.

The new Building will have modern laboratories, seating space, meeting / seminar rooms, customer area and utility block. The total built up area is envisaged to be 14430 Sqm (Appox.) for laboratories and for utility building including site development work.

3.0 SCOPE OF WORK INCLUDED IN THE CONTRACT

The brief scope of work included in this tender shall include (but not limited to) Civil, Structural, Plumbing, Electrical, Development works, Fire detection, Fire Alarm and Fire Fighting etc. for construction of Metrology (Standard) Block.

Apart from above any other services not covered above but required as per direction of EPI are deemed to be included in the scope of work. The work is to be carried out as per bill of quantities and tender conditions.

4.0 QUALIFICATION OF TENDERERS

To be eligible for this tender the bidders should fulfill the requirements for eligibility as mentioned in the Notice Inviting Tender (NIT) and should submit detailed data and credentials set out in Cl 19.0 of ITT (Vol-I) & NIT (Vol. II A) of the Tender. The Tenderers are required to fulfill all the eligibility criteria as stipulated in NIT and elsewhere in the Tender documents. The price bid of tenderers who fulfill the eligibility criteria as per evaluation of EPI shall only be opened. The decision of EPI in this regard shall be final & binding on the tenderers.

5.0 DISQUALIFICATION

The tenderers may note that they are liable to be disqualified and not considered for the opening of Price Bid if;

a) Representation in the forms, statements and attachments submitted in the pre-qualification document are proved to be incorrect, false and misleading.

b) They have record of poor performance during the past 10 years such as abandoning the work, rescinding of contract for which the reasons are attributable to the non-performance of the contractor, inordinate delay in completion, consistent history of litigation / arbitration awarded against the contractor or any of its constituents or financial failures due to bankruptcy etc. in their on going / past projects.
c) They have submitted incompletely filled in formats without attaching certified supporting documents and credentials to establish their eligibility to participate in the Tender.

d) If the tenderers attempt to influence any member of the Tender scrutiny committee.

EPI reserves its right to take appropriate action including disqualification of tenderer(s) as may be deemed fit and proper by EPI at any time without giving any notice to the contractor in this regard. The decision of EPI in the matter of disqualification shall be final and binding on the Tenderers.

6.0 The set of tender documents shall contain tender drawings one set of hard copy. The original hard copy of tender drawings shall be returned along with the tender documents duly signed and stamped by the tenderer & shall form part of agreement.

7.0 SPECIFICATIONS

7.1 The work in general shall be carried out as per latest CPWD specifications New Delhi for Civil Works, Internal Electrical works and Fire fighting (updated with correction slips issued upto last date of submission of tender) and latest CPWD specification New Delhi for electrical works (updated with correction slips issued up to last date of submission of tender) unless otherwise specified in the nomenclature of the individual item or in the particular specifications of concerned items of works.

7.2 For items not covered under latest CPWD specification, for (Civil Works) / latest CPWD specification for Electrical Works, Fire fighting works and in particular specification or nomenclature of the individual item as above, the work shall be done as per latest relevant BIS codes of practice.

7.3 In case specification are not covered under para 7.1 & 7.2 above the work shall be carried out as per the provisions of technical specification given in Vol. IIB

7.4 In case of non availability of any specification in the above paras or any overlapping provisions, non-clarity on any issue, applicability of particular provision out of above, shall be decided by Engineer-in-Charge whose decision shall be final & binding on the contractor.

8.0 Thermo Mechanically Treated bars conforming to IS:1786, Fe 500 grade as required, from approved manufacturers viz SAIL/RINL/TISCO shall be used. In case of non availability of steel of these makes, TMT bars of other manufacturers as per IS1786, Fe 500 grade as required, may be allowed to be used with the prior approval of Engineer-in-charge. In case TMT bars from manufacturer other than SAIL/RINL/TISCO is allowed to be used, a deduction of Rs. 2 (two) per Kg shall be made from the bills of the contractor. The other provisions of clause 45.2 of G.C.C. remains unchanged

9.0 The Portland Pozzolona Cement (PPC) as per IS:1489-1991 or ordinary Portland Cement (OPC) as per IS:8112 shall be used on the works. The other provisions of clause 45.1 of GCC remains unchanged
10.0 Clause No. 72.4.1 of GCC stands modified as under:

Within 10 (Ten) days of date of Letter of Intent, the contractor shall submit a Time and Progress Chart (CPM/PERT/Quantified Bar Chart) and get it approved by the Engineer-in-Charge. The Chart shall be prepared in direct relation to the time stated in the contract documents for completion of items / scope of the works. It shall indicate the forecast (milestones) of the dates of commencement and completion of various items trades, sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the contract documents, to ensure good progress during the execution of the work. The physical report including photographs shall be submitted by the contractor on the prescribed format & the intervals (not later than a month) as decided by the Engineer-in-Charge. The compensation for delay as per clause 72.1 (revised as per ACC) shall be leviable at intermediate stages also, in case the required progress is not achieved to meet the time deadlines of the completion period and / or milestones of time and progress chart provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the tendered value of work.

In case entire work is completed within the total time period of completion or extended period of completion allowed, the compensation for delay due to not achieving progress at intermediates stage, if any, shall be refunded without any interest charges.

11.0 ARBITRATION:

11.1 Clause no. 76.1 alongwith note

Deleted - There shall be no Arbitration Clause for this Contract except between Central Public Sector Undertakings inter se / Government of India Departments / Ministries as mentioned in the Clause No. 76.2 below:-

11.2 Clause no.76.2 ARBITRATION BETWEEN CENTRAL PUBLIC SECTOR ENTERPRISES INTER SE / GOVERNMENT OF INDIA DEPARTMENTS / MINISTRIES

i) In the event of any dispute or difference relating to the interpretation and application of the provisions of the contract, such dispute or difference shall be referred by either party to the arbitration as per the instructions (Office Memorandum / Circulars) issued by Govt. of India from time to time with regard to arbitration between one Government Department and another one Government Department and a Public Sector Enterprise and Public Sector Enterprise inter se.

ii) Subject to any amendment that may be carried out by the Government of India from time to time, the procedure to be followed in the arbitration shall be as is contained in D.O. No. DPE/4/(10)/2001-PMA-GL-I dated 22.01.2004 of Department of Public Enterprises, Ministry of Heavy Industries and Public Enterprises, Govt. of India or any modification issued in this regard.
12.0 Clause No.76.3, stands modified as under:

**JURISDICTION:**

The courts in Delhi/ New Delhi alone will have jurisdiction to deal with matters arising from the contract, to the exclusion of all other courts.

13.0 The clause No.72.1 of GCC shall be replaced as under:

The Contractor shall ensure adequate progress during the execution of work according to the detailed Bar Chart / PERT chart so that the activities are completed in the period allowed in the completion schedule as given at Clause No.14.0 of Additional Conditions of Contract (ACC).

However, the Contractor shall also maintain monthly progress strictly in accordance with bar chart and / or detailed time schedule that will be worked out on the basis of completion schedule for various stages mentioned at Clause No.14.0 of ACC. If the Contractor fails to maintain the above progress or to complete the work and clear the site on or before the contract or extended date of completion, he shall without prejudice to any other right or remedy of the EPI on account of such breach, pay as agreed compensation and not as penalty at the rate of half percent (1/2%) per every week of delay of the value of the work shown above if there is delay for a particular stage or the entire value of contract if the whole of the work is delayed.

The total amount of compensation payable by the Contractor for delay in stage-wise completion or completion of the whole work shall not exceed 10% of the total contract value as awarded.

13.1 Priority of works: If during the course of execution of work EPI / Client fixes priority of execution of work, the contractor has to deploy resources and plan the work accordingly and nothing extra shall be payable to the contractor on this account.

13.2 The fronts for work shall be released in progressive manner. The sequence of execution for Standard Block shall be as follows:

a) From Grid 10A to Grid 33

b) The work at Grid 10 to Grid 1 shall be taken up after completion of first floor slab for the grids mentioned above at (a), necessary dowels etc. shall be also provided.

c) For Utility Block the work shall commence after completion of 1st floor slab from Grid 10A to Grid 33 of Standard Block.

For carrying out the works in phases mentioned above, the rate shall be inclusive of carrying out the works in the above sequence.

Tenderer is deemed to have included in his rates for carrying out the works as per the sequence of execution mentioned above. Nothing extra shall be paid on this account.
### 14.0 COMPLETION SCHEDULE (REFER CLAUSE 13.0)

<table>
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<tr>
<th>S. No.</th>
<th>Period from the date of Start</th>
<th>Cumulative value as a percentage of total value of work to be completed, till the end of period specified under column no. 2</th>
<th>Standard Block Description of work to be completed during the period specified under column no. 2 from Grid 104 to Grid 33</th>
<th>Standard Block from Grid 104 to Grid 1 and Utility Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>From the date of start up to the end of 2(^{nd}) month</td>
<td>10%</td>
<td>Complete foundation, plinth level and structure up to GF level of Std.Block</td>
<td>Complete foundation, plinth level and structure up to GF level of Std.Block</td>
</tr>
<tr>
<td>2</td>
<td>From the start of 3(^{th}) month upto the end of 4(^{th}) month</td>
<td>25%</td>
<td>Structure upto 1(^{st}) floor level and flooring, plastering internal service of Electrical &amp; Plumbing work upto 1(^{st}) floor level</td>
<td>Structure upto 1(^{st}) floor level and flooring, plastering internal service of Electrical &amp; Plumbing work upto 1(^{st}) floor level</td>
</tr>
<tr>
<td>3</td>
<td>From the start of 5(^{th}) month upto the end of 6(^{th}) month</td>
<td>33%</td>
<td>Completion of all structural work and flooring, plastering, internal services electrical &amp; plumbing work upto 2(^{nd}) floor level</td>
<td>Completion of all structural work and flooring, plastering, internal services electrical &amp; plumbing work upto 2(^{nd}) floor level</td>
</tr>
<tr>
<td>4</td>
<td>From the start of 7(^{th}) month to end of 8(^{th}) month</td>
<td>50%</td>
<td>Completion of all works flooring, plastering, internal services electrical &amp; plumbing work upto 3(^{rd}) floor level.</td>
<td>Completion of all structural work and flooring, plastering, internal services electrical &amp; plumbing work upto 2(^{nd}) floor level</td>
</tr>
<tr>
<td>5</td>
<td>From the start of 9(^{th}) month to end of 10(^{th}) month</td>
<td>65%</td>
<td>Completion of door / window frames, shutters, false ceiling and fixtures &amp; fittings upto 1(^{st}) floor level.</td>
<td>Completion of all works flooring, plastering, internal services electrical &amp; plumbing work upto 3(^{rd}) floor level.</td>
</tr>
<tr>
<td>6</td>
<td>From the start of 11(^{th}) month to end of 12(^{th}) month</td>
<td>80%</td>
<td>Completion of door / window frames, shutter, false ceiling and fixtures &amp; fittings upto 2(^{nd}) floor level.</td>
<td>Completion of door / window frames, shutters, false ceiling and fixtures &amp; fittings upto 1(^{st}) floor level.</td>
</tr>
<tr>
<td>S. No.</td>
<td>Period from the date of Start</td>
<td>Cumulative value as a percentage of total value of work to be completed, till the end of period specified under column no. 2</td>
<td>Standard Block Description of work to be completed during the period specified under column no. 2 from Grid 104 to Grid 33</td>
<td>Standard Block from Grid 104 to Grid 1 and Utility Block</td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>From the start of 13th month to end of 14th month</td>
<td>100%</td>
<td>Complete of all works including testing and commissioning and handing over.</td>
<td>Completion of door / window frames , shutter, false ceiling and fixtures &amp; fittings upto 2nd floor level.</td>
</tr>
<tr>
<td></td>
<td>From the start of 14th month to end of 15th month</td>
<td></td>
<td></td>
<td>Complete of all works including testing and commissioning and handing over.</td>
</tr>
</tbody>
</table>
NOTE:

In case of mismatch in financial and physical progress as at col. No. 3, 4 & 5 above at any milestone stage, the financial progress shall be considered for levy of compensation of delay, if any, under clause: 10.0 of ACC.

15.0 PRICE VARIATION CLAUSE

If the prices of materials and/or wages of labour required for execution of the work increase the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied, subject to the condition that that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 72.4.3 of the GCC without any action under clause 72.0 of the GCC. However, for the work done during the justified period extended as above, the compensation as detailed below will be limited to prices/wages prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions:-

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

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

   (a) Gross value of work done upto this quarter : (A)
   (b) Gross Value of work done upto the last quarter : (B)
   (c) Gross value of work done since previous quarter (A-B) : (C)
   (d) Full assessed value of Secured Advance fresh paid in this quarter : (D)
   (e) Full assessed value of Secured Advance recovered in this quarter : (E)
   (f) Full assessed value of Secured Advance for which escalation is payable in this quarter (D-E): (F)
   (g) Advance payment made during this quarter: (G)
   (h) Advance payment recovered during this quarter: (H)
   (i) Advance payment for which escalation is payable in this quarter (G-H) (I)
   (j) Extra Items/deviated quantities of items paid as per Clause 69.1 (iv) of the GCC based on prevailing market rates during this quarter: (J)

Then, \[ M = C + F + I-J \]
\[ N = 0.85 \times M \]

Cost of work for which escalation is applicable : \( W = N \)

(iii) Components of cement, steel, materials, labour, P.O.L., etc. for the purpose of this clause.
As percentage of total value of work

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement</td>
<td>14.5%</td>
</tr>
<tr>
<td>Steel</td>
<td>19.5%</td>
</tr>
<tr>
<td>Materials</td>
<td>36.0%</td>
</tr>
<tr>
<td>Labour</td>
<td>25.0%</td>
</tr>
<tr>
<td>POL</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

(iv) The compensation for escalation for cement, steel, materials and P.O.L. shall be worked as per the formula given below:

(a) Adjustment for component of 'Cement'

\[ V_c = W x \frac{X_c \times (C_I - C_{I_0})}{100 \times C_{I_0}} \]

\( V_c \) = Variation in cement cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

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

\( X_c \) = Component of cement expressed as percent of total value of work.

\( C_I \) = All India Wholesale Price Index for cement for the period under consideration as published by the Economic Advisor to Govt. of India, Ministry of Industry & Commerce.

(In respect of the justified period extended under the provisions of clause 72.4.3 of the GCC without any action under clause 72.0 of the GCC, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)

\( C_{I_0} \) = All India Wholesale Price Index for cement as published by the Economic Advisor to Govt. of India, Ministry of Industry & Commerce as valid on the last stipulated date of receipt of tenders including extensions, if any.

(b) Adjustment for component of 'Steel'

\[ V_s = W x \frac{X_s \times (S_I - S_{I_0})}{100 \times S_{I_0}} \]

\( V_s \) = Variation in steel cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

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

\( X_s \) = Component of steel expressed in percent to the total value of work.

\( S_I \) = All India Wholesale Price Index for steel (bars & rods) for the period under consideration as published by Economic Advisor to the Government of India, Ministry of Industry & Commerce. However, the Price Index shall be minimum of the following:

(i) Index for the month when the last consignment of steel reinforcement for the work is procured or

(ii) Index for the month in which half of the stipulated contract period is over
(iii) Index for the period under consideration

For the justified period extended under the provisions of clause 72.4.3 of the GCC, without any action under clause 72.0 of the GCC the same principle as for the period within stipulated period of completion, will apply.

\[
SI_o = \text{All India Wholesale Price Index for steel (bar & rods) published by the Economic Advisor to Govt. of India, Ministry of Industry & Commerce as valid on the last stipulated date of receipt of tender including extension, if any.}
\]

(c) Adjustment for civil component (except cement and steel) / electrical component of construction 'Materials'.

\[
V_m = W \times \frac{X_m}{100} \times \frac{MI - MI_o}{MI_o}
\]

\[
V_m = \text{Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.}
\]

\[
W = \text{Cost of Work done worked out as indicated in sub-para (ii) of this Clause.}
\]

\[
X_m = \text{Component of 'materials' expressed as percent of the total value of work.}
\]

\[
MI = \text{All India Wholesale Price Index for civil component/electrical component* of construction material as worked out on the basis of All India Wholesale Price Index for Individual Commodities/Group Items for the period under consideration as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weightages to the Individual Commodities/Group Items. (In respect of the justified period extended under the provisions of clause 72.4.3 of the GCC without any action under clause 72.0 of the GCC, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)}
\]

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

*Note: relevant component only will be applicable.

(d) Adjustment for component of 'POL'

\[
V_F = W \times \frac{Z}{100} \times \frac{F_l - F_{l_o}}{F_{l_o}}
\]

\[
V_F = \text{Variation in cost of Fuel, Oil & Lubricant i.e. increase or decrease in the amount in rupees to be paid or recovered.}
\]

\[
W = \text{Cost of Work done worked out as indicated in sub-para (ii) of this Clause.}
\]

\[
Z = \text{Component of Fuel, Oil & Lubricant expressed as percent of the total value of work.}
\]
Fl  =  All India Wholesale Price Index for Fuel, Oil & Lubricant for the period under consideration as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce, New Delhi. (In respect of the justified period extended under the provisions of clause 72.4.3 of the GCC without any action under clause 72.0, of the GCC the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)

FIo  =  All India Wholesale Price Index for Fuel, Oil & Lubricant valid on the last stipulated date of receipt of tender including extension, if any.

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

(a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bills paid during the three calendar months of the said quarter. The first such payment shall be made at the end of three months after the month (excluding) in which the tender was accepted and thereafter at three months' interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.

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

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

\[ V_L = \frac{W \times Y}{100} x \frac{L_I - L_{Io}}{L_{Io}} \]

\( V_L \) : Variation in labour cost i.e. amount of increase or decrease in rupees to be paid or recovered.

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

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

\( L_I \) : Minimum wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration. (In respect of the justified period extended under the provisions of clause 72.4.3 of the GCC without any action under clause 72.0, of the GCC the minimum wage prevailing on the last date of quarter previous to the quarter pertaining to stipulated date of Completion or the minimum wage prevailing on the last date of the quarter previous to the one under consideration, whichever is less, shall be considered.)

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

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

(a) The minimum wage of an unskilled male mazdoor mentioned in sub-para (vi) above shall be the higher of the wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.
(b) The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials and/or P.O.L is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters;

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

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

16.0 PLANT & MACHINERY

All plant & machinery required for execution of work shall have to be arranged by the contractor at his own cost. However, the Contractor has to deploy following minimum plant & machinery at site immediately after award of work:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Description</th>
<th>Minimum numbers required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Digital theodolite &amp; auto level</td>
<td>One</td>
</tr>
<tr>
<td>2.</td>
<td>Leveling Instruments</td>
<td>One</td>
</tr>
<tr>
<td>3.</td>
<td>Vibrators (Petrol / Electrical)</td>
<td>Eight</td>
</tr>
<tr>
<td>4.</td>
<td>Needles of Vibrator</td>
<td>Twenty</td>
</tr>
<tr>
<td>5.</td>
<td>Batching Plant minimum 30m³ / hr capacity</td>
<td>One</td>
</tr>
<tr>
<td>6.</td>
<td>Concrete Mixers</td>
<td>Two</td>
</tr>
<tr>
<td>7.</td>
<td>DG Set (63 KVA &amp; 125 KVA)</td>
<td>One each</td>
</tr>
<tr>
<td>8.</td>
<td>Transit mixer</td>
<td>Three</td>
</tr>
<tr>
<td>9.</td>
<td>Builder hoist / Tower crane as required</td>
<td>Four</td>
</tr>
<tr>
<td>10.</td>
<td>Concrete Pump of min 30 cum / hr capacity</td>
<td>One</td>
</tr>
</tbody>
</table>

Note:

a) Any other equipment for site test as outlined in CPWD/ BIS specification and as directed by the Engineer-in-Charge.

b) The quantities of equipments indicated are tentative and can be increased as per the requirement of work OR as per the direction of Engineer-in-Charge. The above equipment list is indicative and not complete. The contractor has to deploy all the required equipment to complete all the works within stipulated specifications & time period as per contract documents.

c) The contractor will not be allowed to take out equipments from the site without the written permission of Engineer-in-Charge.
17.0 The final bill will be submitted by the contractor within 90 days from the date of acceptance of completion of work accompanied by the following documents:

a) Completion certificate issued by the Engineer-in-Charge specifying the handing over of the work including list of inventories (fittings & fixtures).
b) Computerized stage wise payment schedule.
c) No claim certificate by the contractor.
d) No claim certificate from the sub-agencies / vendors engaged by the contractor.
e) ‘As built’ drawings.
f) Periodical services and measurement books.
g) Drawings for layout of underground cables and details showing location of sluice valves, electric cable joints etc.
h) All operation and maintenance manuals.
i) All statutory approvals from various state / central govt. local bodies, if required for completion & handing over of the work as included in scope of Contractor.
j) Manufacture’s guarantee of various machines / equipments installed as part of works.

18.0 CONCRETING

18.1 The concreting shall be from Batching Plant installed at site. The contractor may opt to use Ready Mixed Concrete of repute after obtaining prior written approval from the Engineer-in-charge.

18.2 Batching plant of minimum capacity of 30 cum per hour with a least count of 0.5 kg., drum type 4 load cells, computer compatible print out for each batch only shall be allowed.

18.3 The Concreting shall be placed by concrete pumps of minimum 30 cum / hour capacity at specified locations. Concreting by crane and buckets will be allowed in rare case with the prior approval of Engineer-in-charge.

18.4 The contractor shall provide construction joints only at the specified positions and as per BIS codes and the concreting for columns shall be floor to beam height in one lifts, and in case the concreting is to be done in two lifts the minimum height of first lift of columns shall be 2.4 meters.

18.5 The stone aggregate and sand of required zone shall be from the quarries as approved by Engineer-in-Charge. The samples of the materials shall be got approved along with the mix design.

18.6 Plasticizers of the required specification and make shall only be permitted as per approved mix design. The cost of plasticisers / additives is deemed to be included in the rates of concrete & nothing extra shall be payable on this account.

18.7 Ready mix concrete brought from outside sources or produced at site shall have minimum quantity of cement as specified in BIS specifications and as per approved design mix.

18.8 The Contractor shall provide all cut outs in RCC work in Co-ordination with other agencies and as per instructions of Engineer-in-Charge and nothing extra shall be payable. In case the same is not provided by the Contractor the same shall be got done at their risk & cost.
19.0 **BRICK WORK**

19.1 The bricks should be minimum class designation 75 conforming to IS 1077: 1992.

19.2 The brick work for all external walls should be done from outside. The rigid scaffolding of MS pipe and the supports shall be sound and strong, with horizontal MS pipes. The contractor shall be responsible for providing and maintaining sufficiently strong scaffolding so as to withstand all loads likely to come upon it. Due care shall be taken by the contractor to ensure the execution of brick masonry walls in plumbs from outside. The Contractor shall arrange sufficient quantity of scaffolding for this purpose so as to complete the project within stipulated time.

19.3 All brick works shall be with the bricks of specified grade & source as approved by Engineer-in-Charge and no efflorescence due to salt peter shall be allowed. The contractor shall have to give proper treatment in any such case and nothing extra shall be payable and the rates quoted shall be all inclusive.

20.0 **CENTERING & SHUTTERING**

20.1 Centering & shuttering works for columns shall be made out of laminated shuttering plywood of minimum 12 mm thickness as per BIS, with angle iron frame. The centering, shuttering and staging system shall be got approved from the Engineer-in-Charge.

20.2 The shuttering used for beam shall be of laminated shuttering plywood as per BIS. The support system shall be integrated with the slab. For slabs in case ply wood shutters is not used, welded steel plates will be allowed to be placed in uniform pattern. The thickness of plates and pattern to be got approved from the Engineer-in-Charge.

20.3 All joints in the shuttering i.e. plate to plate etc. shall have to be sealed with adhesive / foam, to ensure water tightness of the form work.

20.4 All shuttering work for Architect features shall be with fiber glass moulds and the rate quoted by the contractor in the schedule of rate shall be inclusive of same.

20.5 All shuttering joints in the slab, beams and lintels etc. shall be treated with tape of required width to make it water tight and the rates quoted for centering shuttering work shall be all inclusive and nothing extra whatsoever shall be payable over and above the quoted price.

20.6 The shuttering shall be tightened by using runners, tie rods and bracings. No Ghughoo / welded system shall be allowed. Support shall be adequate and proper.

21.0 **GENERAL**

21.1 Flooring works shall be executed as per the approved drawings / design & specifications. The pattern shown in the tender drawings, if any, can be modified as per the site requirements by Engineer-in-Charge within the proportions of the flooring materials to be provided and nothing extra whatsoever shall be payable over and above the rate quoted.

21.2 The water proofing for the terraces, underground tanks / toilet floor etc. shall be got executed only through the authorized applicators of the manufacturers and the guarantee for the same shall be in the name of EPI / owner for a period of ten years after the expiry of defect period liability on the prescribed format given in the GCC.
21.3 The tenderer shall engage specialized agency having adequate technical capability & experience of having executed Fire Fighting & Fire Alarm works. The specialized agency for the work shall be got approved by Engineer-in-charge well before actual commencement of the respective items of work.

21.4 Plumbing & Sanitary work to be executed by licensed plumber and the plumbing scheme / drawing to be got approved from statutory authorities through the appointed licensed plumber without any extra cost. The agency shall have to submit the valid license of plumbers before starting the work.

21.5 SCI pipes for sanitary and GI pipes for water supply if fixed in RCC members like columns, beams etc. shall be fixed with scrub plugs.

21.6 The contractor shall be responsible for all protection of sanitary, water supply, electrical fittings & fixture against pilferage, breakage during period of installation until the completion of work and handed over to EPI.

21.7 Welding wherever required in the work like in grill, railing etc shall be done in full length of the contact area and grinding shall be done properly to get an even surface. SFRC covers for manholes etc, if provided, shall have name of owner / client and year of manufacturer as engraved.

21.8 The electrical works shall be executed only through licensed electrician and the agency shall have to submit the valid license of electricians before starting the work.

21.9 It will be the sole responsibility of contractor to obtain all statutory approvals/compliance required for construction / implementation of the project including Forest clearance and completion clearance from the all relevant statutory bodies for plumbing, sewerage, sanitary and PHE work, fire, department for fire protection, fire fighting, fire fighting installation, electrical works, pollution control authorities etc. and for all other services as included in the scope of contract etc. from the concerned department as required within the stipulated time frame, only statutory charges shall be borne by the owner.

Liaison work on behalf of EPI / owner with the local bodies will also have to be done by the contractor. Nothing extra shall be payable to contractor on this account.

21.10 The contractor shall erect MS sheet fencing along the periphery of the site as per drawing of EPI with proper colour as directed by the Engineer-in-Charge and name / logo, safety slogan etc. written at appropriate places within ten days of issue of LOI. The contractor shall be responsible for daily cleaning of this fencing with water etc. to keep the fencing in neat & clean condition at all times. The damaged fencing should be replaced immediately by the contractor. The cost of MS sheet fencing, its maintenance etc. is deemed to be included in the quoted rates. The contractor shall engage sufficient number of security guards at his cost to ensure controlled entry to site and not to allow unauthorised personnel at site.

21.11 The tenderers shall make necessary safety arrangements at site including as mentioned in GCC and indemnify EPI against any consequence of accident at site.

21.12 The contractor shall have to execute the work in pace and in such a way to facilitate agencies engaged simultaneously for execution of other works required for completion of the Building. No claim shall be entertained due to work being executed in the above circumstances.
21.13 Unless otherwise specified in the schedule of quantities, the rates tendered by the Contractor shall be all inclusive and shall apply to all heights, floors including Terrace, leads and depths and nothing extra shall be payable on this account.

21.14 On completion of work, the tenderer shall submit at no extra payment four prints of “as built” drawings to Engineer-in-charge.

22.0 MOBILIZATION ADVANCE :-

22.1 Mobilization Advance maximum upto 10% of the Contract Value shall be paid to the contractor as per clause 8.0 of General Conditions of Contract.

22.2 Contractor shall instruct his banker’s to send the Bank Guarantee (BG’s), in duly approved format directly to EPI under registered post AD.

22.3 EPI is awarding this Contract on behalf of National Physical Laboratory. In case M/s. EPI cease to be an agency for the project, the right and responsibility etc. of EPI in the Contract shall get transferred to National Physical Laboratory or their nominated agency shall operate this Contract.

23.0 FACILITIES

The sub-clause 28.3 of the clause no. 28 of General Conditions of Contract (GCC) for Furnished Office Accommodation & Mobility and Communication to be Provided by Contractor to EPI shall be replaced and read as under:-

The contractor shall make his rates in Bill of Quantities sufficiently comprehensive to cover the cost of the facilities as per details shown below and the contractor shall not be entitled for any extra payment for the same.

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. OFFICE WITH FACILITIES – The contractor is to provide office with following facilities till defect liability period.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (i) PORTA CABIN OFFICE ACCOMODATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furnished office with one conference room at one or more locations as per direction of Engineer-in-Charge with basis amenities like Toilets, Drinking water arrangement, lights, other facilities for winter and summer season etc. for EPI Engineer &amp; Staff &amp; maintenance of it till Defect Liability Period</td>
<td>Sq. ft.</td>
<td>1500</td>
</tr>
<tr>
<td>(ii) FURNITURE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office tables</td>
<td>Nos.</td>
<td>5</td>
</tr>
<tr>
<td>Office Chairs</td>
<td>Nos.</td>
<td>10</td>
</tr>
<tr>
<td>Executive Table &amp; Chair</td>
<td>Nos.</td>
<td>5</td>
</tr>
<tr>
<td>Steel Almirah</td>
<td>Nos.</td>
<td>3</td>
</tr>
<tr>
<td>File Cabinet</td>
<td>Nos.</td>
<td>3</td>
</tr>
</tbody>
</table>
### B) OFFICE EQUIPMENT

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Fax Machine</td>
<td>No. 1</td>
</tr>
<tr>
<td>b) Computer (Pentium-IV, Office Edition) with minimum 40 GB HDD along with UPS &amp; Operator (In case computer operator is not provided by the contractor, recovery of Rs. 8000/- per month shall be made form the Contractor’s bill in this regard) and latest Version of Software’s like MS Project, Windows, MS Office etc.</td>
<td>No. 1</td>
</tr>
<tr>
<td>c) Laser Printer or any other Printer of equivalent amount A3 size</td>
<td>No. 1</td>
</tr>
<tr>
<td>d) Internet Facilities</td>
<td>No. 1</td>
</tr>
<tr>
<td>e) Refrigerator (165 Ltrs) or any other gadget of equivalent cost as decided by EPI</td>
<td>Nos. 1</td>
</tr>
<tr>
<td>f) Aqua Guard (Drinking water) or any other gadget of equivalent cost as decided by EPI</td>
<td>Nos. 1</td>
</tr>
<tr>
<td>g) Air Conditioner with cooling &amp; heating (1.5 ton capacity)</td>
<td>Nos. 2</td>
</tr>
<tr>
<td>h) Photocopy machine (CANON NP 3050 or equivalent model) or any other gadget of equivalent cost as decided by EPI</td>
<td>No. 1</td>
</tr>
<tr>
<td>i) Digital Camera</td>
<td>No. 1</td>
</tr>
</tbody>
</table>

Running & maintenance of the equipments mentioned above are to be done by the contractor at his own cost. As per actual

### C) CONSUMABLES

All consumables like Stationary, ink etc. shall be provided by Tenderer till end of defect liability period. (Stationary items are inclusive of visiting cards, rubber stamps, letter pads, photocopies papers & other items of daily office use). Amount shall be restricted to Rs. 5000/- per month

### D). CONVEYANCE AND OTHER FACILITIES

Vehicle (Brand New) Four wheel drive Scorpio DX vehicle or equivalent with Driver and accessories valuing Rs. 30,000/- each vehicle. Monthly running shall be restricted to 3000 Kms each.

### E). TELEPHONE WITH STD FACILITIES AND INSTRUMENTS

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Office Telephone (Fixed Line)</td>
<td>No. 1</td>
</tr>
<tr>
<td>b) Mobile Phone</td>
<td>Nos. 3</td>
</tr>
</tbody>
</table>

Monthly operational expenditure on account of all telephones shall be restricted to Rs. 4000 per month. The cost of each Mobile Phone instrument shall be restricted to Rs. 6,000/-.

Office Boy Cum-Cook on full time basis for EPI | Nos. 2   |
The vehicle shall be brand new and shall be provided with driver on full time basis. Consumables like diesel/petrol/oil lubricants and spare parts etc. shall be provided by the Tenderer at their cost. The vehicles shall be maintained in good working condition. In case of breakdown, replacement of vehicle shall be provided by Tenderer. In case a vehicle is not required registration, transportation etc. shall be borne by the Tenderer. In case a vehicle is not required by EPI, a recovery of Rs. 30,000/- per month per vehicle shall be made from the Tenderer for this purpose till the end of defect liability period.

In case Driver, POL, maintenance of any vehicle is not required by EPI for any vehicle, a recovery of Rs. 20,000.00 per month per vehicle shall be made from the Tenderer for this purpose till the end of defect liability period.

The above gadgets facilities should be brand new and of reputed make and all facilities shall be provided and maintained properly (including payment of water & electricity bills etc. for office accommodation only) by the Tenderer at Project site or at any other office related with execution of this project till completion of wok, handing over, defect liability period in all respect at his own cost. The Tenderer shall also make stand-by arrangement for water & electricity to ensure uninterrupted supply. The equipment/items shall be the property of Tenderer at the end of contract. The Tenderer shall be responsible for watch and ward of site office and other facilities etc. In case of theft/damage of any equipment/items, the Tenderer shall immediately replace the same within a maximum period of two days.

The Tenderer shall provide ‘Sign Board(s)’ as per design approved by EPI and/or Client.

In case the above facilities are not provided by the Tenderer within 10 (ten) days of award of work or replacement is not provided within the specified period, EPI shall arrange the same at the risk and cost of the PARTY and make the recoveries from the bills of the Tenderer for the same. The decision of EPI shall be final and binding on the Tenderer in this regard.
MEMORANDUM OF GCC
(ENCLOSURE TO FORM OF TENDER)

REF. : Tender for Construction of Metrology (Standard) Block at NPL, DELHI.

NIT No. : DLI/ENGG/PI-588(1)/001

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Description</th>
<th>Cl. No. Values / Description to be applicable for relevant clause(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Name of work</td>
<td>Construction of Metrology (Standard) Block at NPL, DELHI.</td>
</tr>
<tr>
<td>ii)</td>
<td>Owner/Client / Employer</td>
<td>National Physical Laboratory (Council of Scientific &amp; Industrial Research)</td>
</tr>
<tr>
<td>iii)</td>
<td>Type of Tender</td>
<td>Percentage Rate</td>
</tr>
<tr>
<td>iv)</td>
<td>Earnest Money Deposit</td>
<td>NIT Rs.39.25 Lakhs (Rupees Thirty Nine Lakhs &amp; Twenty Five Thousand only).</td>
</tr>
<tr>
<td>v)</td>
<td>Estimated Cost</td>
<td>NIT Rs.29,23,81,618/-</td>
</tr>
<tr>
<td>vi)</td>
<td>Time for completion of work</td>
<td>NIT Total work to be completed in 15 Months (Fifteen months) in accordance with the time schedule of completion of work in the tender documents.</td>
</tr>
<tr>
<td>vii)</td>
<td>Mobilization Advance</td>
<td>8.0 10 % (Ten Percent) of Contract Value.</td>
</tr>
<tr>
<td>viii)</td>
<td>Interest Rate on Mobilization Advance</td>
<td>8.0 Interest free</td>
</tr>
<tr>
<td>ix)</td>
<td>Number of Installments for recovery of Mobilisation Advance</td>
<td>8.0 9 (Nine) Equal</td>
</tr>
<tr>
<td>xi)</td>
<td>Validity of Tender</td>
<td>4.0 120 (One Hundred Twenty) Days</td>
</tr>
<tr>
<td>xii)</td>
<td>Security Deposit cum Performance Guarantee</td>
<td>9.0 5.00% (Five percent only) of contact value within 10 days from the date of issue of telegram / letter / telex / FAX of Intent of acceptance of tender.</td>
</tr>
<tr>
<td>xiii)</td>
<td>Retention Money</td>
<td>10.0</td>
</tr>
<tr>
<td>xiv)</td>
<td>Time allowed for starting the work</td>
<td>43.0</td>
</tr>
<tr>
<td>xv)</td>
<td>Defect Liability Period</td>
<td>74.0</td>
</tr>
<tr>
<td>xvi)</td>
<td>Percentage of contractor’s profit &amp; overheads on variations inclusive VAT &amp; CESS etc.</td>
<td>15%</td>
</tr>
</tbody>
</table>

**SIGNATURE OF TENDERER**

**NAME (CAPITAL LETTERS):**

**OCCUPATION:**

**ADDRESS:**

**SEAL OF TENDERER**