

# PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (GOVERNMENT OF PUDUCHERRY UNDERTAKING)

# CONSTRUCTION OF 220 DWELLING UNITS FOR ECONOMICALLY WEAKER SECTIONS (EWS) CONSISTING OF 6 BLOCKS (GROUND + 4 FLOORS) AT CHINNAYAPURAM, PUDUCHERRY

# NOTICE INVITING TENDER

(THROUGH e-TENDER MODE)

# <u>FORM – 6</u>

Certified that this NIT contains 237 **(Two Thirty Seven)** items serially numbered from 1 to 237

This NIT contains 105 pages and approved for an amount of ₹16,03,38,111/-(Rupees Sixteen crores three lakhs thirty eight thousand one hundred and eleven only)

# **NOTICE INVITING TENDER**

Tender for the work of	:	Construction of 220 dwelling units for Economically Weaker Sections (EWS) consisting of 6 blocks (Ground + 4 floors) at Chinnayapuram, Puducherry.
Approximate cost put to Tender	:	₹ 16,03,38,111/-
Earnest Money Deposit (to be returned after receiving PG)	:	₹ 26,03,400/-
Date of Tender	:	14.10.2020
This tender contains	:	105 pages
Time allowed for the work	:	18 months including monsoon period

# CHIEF EXECUTIVE OFFICER PUDUCHERRY SMART CITY

DEVELOPMENT LIMITED PUDUCHERRY

#### PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (GOVERNMENT OF PUDUCHERRY UNDERTAKING)

# **NOTICE INVITING TENDER for e-Tendering**

1. Percentage / Item rate tenders are invited on behalf of the Puducherry Smart City Development Limited from eligible contractors firms for the work of "Construction of 220 dwelling units for Economically Weaker Sections (EWS) consisting of 6 blocks (Ground + 4 floors) at Chinnayapuram, Puducherry." through e-Tender in online.

1.1 The work is estimated to  $\cot t$  16,03,38,111/- This estimate, however, is given merely as a rough guide. Tenders are invited from eligible contractors as per para 1.2.1. The enlistment of the contractors should be valid on the last date of submission of tenders. In case the last date of submission of tender is extended, the enlistment of contractor should be valid on the original date of submission of tenders.

**1.2** Tender can be downloaded from e-Tender website <u>www.pudutenders.gov,in</u> by the eligible contractors/firms those are registered in the PWD, Puducherry. Contractors other than those registered in PWD. Puducherry should produce definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority of having satisfactorily completed similar works of magnitude specified below during the last *7 years* ending previous day of last date of submission of tenders. For the purpose of this clause "Similar works" means RCC framed structures.

# 1.2.1 Conditions for contractors eligibility

Three similar completed works costing not less than 40% of the estimated cost put to tender

(OR)

Two similar completed works costing not less than 60% of the estimated cost put to tender

(OR)

One similar completed work costing not less than 80% of the estimated cost put to tender

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 submission of tenders.

# **1.2.2** To become eligible for issue of tender, the tenderers shall have to furnish an affidavit as under:

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Puducherry Smart City Development Limited, then I/we shall be debarred for tendering in Puducherry Smart City Development Limited in future forever. Also, if such a violation comes to the notice of Puducherry Smart City Development Limited before date of start of work, the Chief Executive Officer shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee. **1.2.3** All the tenderers including Puducherry PWD contractors as per provisions of clause 1.2.1 above, it will be mandatory to upload the work experience certificate(s) and the affidavit as per the provisions of clause. Particulars of completed works for fulfilling the eligibility criteria duly authenticated / certified by an officer not below the rank of Executive Engineer or equivalent in Government Organisation be furnished separately for each completed work.

**1.2.4.** But for such tenders, registered contractors of PWD in Puducherry are eligible to submit the tenders without submission of work experience certificate and affidavit. Therefore, PWD registered contractors shall upload two separate letters for experience certificate and affidavit that these documents are not required to be submitted by them. Uploading of these two letters is mandatory otherwise system will not clear mandatory fields.

2. Agreement shall be drawn with the successful tenderers on prescribed Puducherry Smart City Development Limited Form No. 7/8. Tenderer shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.

**3.** The time allowed for carrying out the work will be **18 months (including monsoon period)** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents.

# 4.(i) The site for the work is available.

OR

The site for the work shall be made available in parts as per execution of work.

(ii) The architectural and structural drawing for the work is available

#### OR

The architectural and structural drawings shall be made available in phased manner, as perrequirement of the same as per approved programme of completion submitted by the contractor after award of work.

**5**. The tender document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website <u>www.pudutenders.gov.in</u> at free of cost.

6. After submission of the tender the contractor can re-submit revised tender any number of times but before last time and date of submission of tender as notified.

7. While submitting the revised tender, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of tender as notified.

8. When tenders are invited in three stage system and if it is desired to submit revised financial tender then it shall be mandatory to submit revised financial tender. If not submitted then the tender submitted earlier shall become invalid.

9. Tenders shall be accompanied with Earnest money of ₹ 26,03,400/- through DIRECT DEBIT / NEFT / RTGS mode only through online in favour of the Chief Executive Officer, Puducherry Smart City Development Limited, Puducherry for which necessary challan will be available in the website.

In such case minimum 50% of EMD or ₹20.00 Lakhs whichever is less will have to be deposited in shape prescribed above and balance amount of earnest money can be accepted in the form of Bank Guarantee issued by the scheduled bank having validity for 6 months or more from the last date of receipt of tenders which is to be scanned and uploaded by the intending tenderers and the successful tenderer shall extended the validity of such bank guarantee for the period of completion plus 12 months maintenance period.

The physical EMD of the scanned copy of EMD uploaded shall be deposited by the lowest tenderer within a week after opening of financial tender failing which the tender shall be rejected.

The following undertaking in this regard shall also be uploaded by the intending tenderers:-"The Physical EMD shall be deposited by CHIEF EXECUTIVE OFFICER calling the tender in case I/we become the lowest tenderer within a week of the opening of financial tender otherwise PUDUCHERRY SMART CITY DEVELOPMENT LIMITED may reject the tender."

Interested contractor who wish to participate in the tender has also to make following payments within the period of tender submission:

e-tender processing fee - ₹ 1500 + GST @ 5% (non-refundable) shall be payable using payment e-gateway of ICICI Bank through internet banking or RGTS/NEFT facility drawn in favour of the Chief Executive Officer, Puducherry Smart City Development Limited, Puducherry.

Copy of Enlistment Order and certificate of work experience and other documents as specified in the press notice including GST registration certificate shall be scanned and uploaded to the e-Tendering website within the period of tender submission. However, certified copy of all the scanned and uploaded documents as specified in press notice shall have to be submitted by the lowest tenderer only along with physical EMD of the scanned copy of EMD uploaded within a week physically in the office of tender opening authority.

Online tender documents submitted by intending tenderers shall be opened only of those tenderers, who has deposited e-Tender Processing Fee and Earnest Money Deposit through the payment gateway provided on e-tender portal <u>https://pudutenders.gov.in</u> and other documents scanned and uploaded are found in order.

# The tender submitted shall be opened at 11.00 am on 14.10.2020.

- **10**. The tender submitted shall become invalid and e-tender processing fee shall not be refunded if:
- (i) The tenderer is found ineligible.
- (ii) The tenderer does not upload all the documents (including GST registration) as stipulated in the tender document including the undertaking about deposition of physical EMD of the scanned copy of EMD uploaded.
- (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of tender and hard copies as submitted *physically by the lowest tenderer* in the office of tender opening authority.

(iv) The lowest tenderer does not deposit physical EMD within a week of opening of tender.

11. The contractor whose tender is accepted will be required to **furnish performance guarantee of** 5% (Five Percent) of the tender amount within the period specified in Schedule F. This guarantee shall be in the form of Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/ Term Deposit receipt/ Pay order of any Scheduled Bank or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. The earnest money deposited alongwith tender shall be returned after receiving the aforesaid performance guarantee.

- (a) On evaluation of tender and if the tender is found that the overall amount quoted is below 15.00% and more than below 15.00% the contractor shall be asked to pay an additional performance guarantee amounting to 50% of the difference between the quoted amount and estimate cost put to tender. Failure to furnish the additional performance guarantee over and above the normal performance guarantee of 5% within the specified period from the date of receipt of acceptance letter, shall entitle cancellation of award and forefeiture of EMD furnished.
- (b) This period can be further extended at the written request of the contractor by the Chief Executive Officer for a maximum period ranging from 1 to 15 days with late fee @ 0.1% per day, of performance guarantee amount.

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

**12.** The description of the work is as follows:

"Construction of 220 dwelling units for Economically Weaker Sections (EWS) consisting of 6 blocks (Ground + 4 floors) at Chinnayapuram, Puducherry." Intending Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The tenderers shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

**13**. The competent authority on behalf of the Puducherry Smart City Development Limited (PSCDL) does not bind himself to accept the lowest or any other tender and reserves to himself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderers shall be summarily rejected.

**14.** Canvassing whether directly or indirectly, in connection with tenderers is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.

**15.** The competent authority on behalf of the Puducherry Smart City Development Limited (PSCDL)reserves to himself the right of accepting the whole or any part of the tender and the tenderers shall be bound to perform the same at the rate quoted.

16. The contractor shall not be permitted to tender for works in the Puducherry Smart City Development Limited responsible for award and execution of contracts, in which his near relative is posted as an officer in any capacity. He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives as an officer in any capacity in the Puducherry Smart City Development Limited (PSCDL), Union Territory of Puducherry. Any breach of this condition by the contractor would render him liable to be removed.

17. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.

18. The tender for the works shall remain open for acceptance for a period of thirty/ forty five/ sixty/ ninety (30/45/60/90) days from the date of opening of tenders in case of single tender system /Ninety(90) days from the date of opening of technical bid in case bids are invited on 2 bid/envelop system/ One hundred twenty(120) days from the date of opening of technical bid incase bids are invited on 3 bid/envelope system for specialized work (strike out as the case may be). If any tenderers withdraw his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the Puducherry Smart City Develpoment Limited, then the Puducherry Smart City Develpoment Limited shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the tenderers shall not be allowed to participate in the rebidding process of the work.

**19.** This notice inviting Tender shall form a part of the contract document. The successful tenderers/contractor, on acceptance of his tender by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-

- (a) The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming part of the tender as uploaded at the time of invitation of tender and the rates quoted online at the time of submission of tender and acceptance thereof together with any correspondence leading thereto.
- (b) Standard PSCDL Form 7/8 or other Standard PSCDL Form as applicable.

Signature of Chief Executive Officer PSCDL

# PUDUCHERRY SAMRT CITY DEVELOPMENT LIMITED (Government of Puducherry Udertaking)

# **Station: Puducherry**

**Region: Puducherry** 

Percentage Rate Tender / Item Rate Tender & Contract for Works

(A) Tender for the work of:-

Construction of 220 dwelling units for Economically Weaker Sections (EWS) consisting of 6 blocks (Ground + 4 floors) at Chinnayapuram, Puducherry.

(i) To be submitted/uploaded by 04.00 PM on 28.09.2020 to 04.00 PM on 13.10.2020 / upload at www.pudutenders.gov,in

(ii) To be opened in presence of tenderers who may be present at **11:00 AM on 14.10.2020** in the office of Puducherry Smart City Development Limited.

Issued to:	*	
Signature of officer issuing the documents		*

Designation

Date of Issue:

\* Not Applicable for e-tendering

#### **TENDER**

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

I/We hereby tender for the execution of the work specified for the CEO, Puducherry Smart City Development Limited (PSCDL) within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for thirty/ forty five/ sixty/ ninety (30/45/60/90) days from the due date of its opening in case of single bid system / Ninety(90) days from the date of opening of technical bid in case tenders are invited on 2 bid/envelope system/ One hundred twenty(120) days from the date of opening of technical bid in case bids are invited on 3 bid/envelope system for specialised work (strike out as the case may be) and not to make any modification in its terms and conditions.

A sum of ₹ 26,03,400/- is hereby forwarded in cash (upto ₹ 10,000/-) through DIRECT DEBIT / NEFT / RTGS mode through online as earnest money.

This tender is accompanied with earnest money deposited through <u>DIRECT DEBIT / NEFT / RTGS</u> mode through online in favour of the Chief Executive Officer, Puducherry Smart City <u>Development Limited</u> /bank\_guarantee issued by a scheduled bank is scanned and uploaded (strike out as the case may be). If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said on behalf of the CEO, Puducherry Smart City Development Limited (PSCDL) or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/ We agree that on behalf of the CEO, Puducherry Smart City Development Limited (PSCDL) or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

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

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

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

Dated

Witness:

Address:

Occupation:

Signature of Contractor Postal Address

# ACCEPTANCE

Th	e above te	nder (	(as mo	odifie	d by y	ou a	s provide	ed in	the l	etters men	tione	d he	ereund	er)
is	accepted	by	me	for	and	on	behalf	of	the	PSCDL	for	a	sum	of
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#### PUDUCHERRY SMART CITY DEVELOPMENT LIMITED

#### **GENERAL RULES & DIRECTIONS:**

- 1. All work proposed for execution by contract will be notified in a form of invitation to tender pasted in public places and signed by the officer inviting tender or by publication in News papers or posted on website as the case may be. This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit and Performance guarantee to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours.
- 2. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.
- **3.** Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm.

# APPLICABLE FOR ITEM RATE TENDER ONLY

4. Any person who submits a tender shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes. The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paisa and considering more than fifty paisa as rupee one. In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors may be asked to submit sealed revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may

be, but the revised quoted rate of each item of schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.

If the revised tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors received in revised offer is again found to be equal, then the lowest tender, among such contractors, shall be decided by draw of lots in the presence of Chief Executive Officer and the lowest contractors those who have quoted equal amount of their tenders.

In case all the lowest contractors those who have same tendered amount (as a result of their quoted rate of individual items), refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each lowest contractors.

Contractor, whose earnest money is forfeited because of non-submission of revised offer, or quoting higher revised rate(s) of any item(s) than their respective original rate quoted already at the time of submission of his tender shall not be allowed to participate in the retendering process of the work.

# APPLICABLE FOR PERCENTAGE RATE TENDER ONLY

**4.A.** In case of Percentage Rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as invalid if-

1. The contractor does not quote percentage above/below on the total amount of tender or any section/sub head of the tender.

2. The percentage above/below is not quoted in figures & words both on the total amount of tender or any section/sub head of the tender.

3. The percentage quoted above/below is different in figures & words on the total amount of tender or any section/sub head of the tender.

Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes. 4B. In case the lowest tendered amount (estimated cost ± amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/ below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.

In case any of such contractor refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited.

If the revised tendered amount of two more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be decided by draw of lots in the presence Chief Executive Officer, PSCDL and the lowest contractors those have quoted equal amount of their tenders. In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each contractor. Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.

5. The officer inviting tender or his duly authorized assistant, will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money shall thereupon be given to the contractor who shall thereupon for the purpose of identification sign copies of the specifications and other documents mentioned in Rule-1. In the event of a tender being rejected, the earnest money shall thereupon be returned to the contractor remitting the same, without any interest.

6. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.

7. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgement or payment to the officer inviting tender and the contractor shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized Cashier.

8. The memorandum of work tendered for and the schedule of materials to be supplied by the department and their issue-rates, shall be filled and completed in the office of the officer inviting tender before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his tender.

**9.** The tenderers shall sign a declaration under the officials Secret Act 1923, for maintaining secrecy of the tender documents drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them.

**9A.** Use of correcting fluid, anywhere in tender document is not permitted. Such tender is liable for rejection.

#### **APPLICABLE FOR ITEM RATE TENDER ONLY**

10. In the case of Item Rate Tenders, only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally, but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the contractor has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.

# APPLICABLE FOR PERCENTAGE RATE TENDER ONLY

**10 A.** In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy.

11. In the case of any tender where unit rate of any item/items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.

#### **APPLICABLE FOR ITEM RATE TENDER ONLY**

12. All rates shall be quoted on the tender form. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word 'Rs.' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs. 2.15 P' and in case of words, the word, 'Rupees' should precede and the word 'Paise' should be written at the end. Unless the rate is in whole rupees and followed by the word 'only' it should invariably be upto two decimal places. While quoting the rate in schedule of quantities, the word 'only' should be written in the next line.

#### APPLICABLE FOR PERCENTAGE RATE TENDER ONLY

**12 A**. In Percentage Rate Tender, the tenderer shall quote percentage below/above (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word 'Rs.' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs. 2.15P and in case of words, the word 'Rupees' should precede and the word 'Paisa' should be written at the end.

**13.(i)** The contractor whose tender is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the tender amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10000/-) or Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/ Pay order of any Scheduled Bank of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. The earnest money deposited alongwith tender shall be returned after receiving the aforesaid performance guarantee.

(a) On evaluation of tender and if the tender is found that the overall amount quoted is 15% below and more than 15% below the contractor shall be asked to pay an additional performance guarantee amounting to 50% of the difference between the quoted amount and estimate cost put to tender. Failure to furnish the additional performance guarantee over and above the normal performance guarantee of 5% within the specified period from the date of receipt of acceptance letter, shall entitle cancellation of award and forefeiture of EMD furnished. (b) This period can be further extended at the written request of the contractor by the Engineer-in-charge for a maximum period ranging from 1 to 15 days with late fee @ 0.1% per day, of performance guarantee amount.

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

(ii) The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 2.5% of the tendered value of the work. The Security deposit will be collected by deductions from the running bills as well as final bill of the contractor at the rates mentioned above. The Security amount will also be accepted in cash or in the shape of Government Securities. Fixed Deposit Receipt of a Scheduled Bank or State Bank of India will also be accepted for this purpose provided confirmatory advice is enclosed.

14. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated in writing to the Engineer-in-Charge.

**15**. This work is covered under Puducherry Goods and Service Tax Act, 2017 and Central Goods and Service Tax Act 2017, hence the contractors are requested to quote the rates including the effect of GST. Additional/Separate claim for GST will not be entertained on any account after the award of work. The payment is also liable for TDS as per provision of GST Act and Rules.

**16**. The contractor shall give a list of both gazetted and non-gazetted Puducherry Smart City Development Limited employees related to him.

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

**18**. The contractor shall submit list of works which are in hand (progress) in the following form:-

Name of Work	Name & particulars of divn. Where work is being executed	Value of work	Position of works in progress	Remarks
(1)	(2)	(3)	(4)	(5)

**19.** The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and Chief Executive Officer, PSCDL may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

20. The contractor/firm must obtain necessary prior permit from <u>*Pondicherry Ground*</u> <u>*Water Authority*</u>, for the water requirement of the proposed construction/road works which will be meet out either from tube well or transportation through tanker lorries before commencement of the construction work.

**21**. Inviting guidelines prescribed by the Central Vigilance Commission "<u>No post tender</u> <u>negotiation</u>" shall be conducted with the tenderers. The tenderers are expected to quote their rates with permissible limit of variation.

**22**. The contractor must study the plans appended with the tender and quote the rate accordingly.

For any clarification the contractors are free to contact the Engineer In-Charge of Puducherry Smart City Development Limited.

# **PROFORMA OF SCHEDULES**

# **SCHEDULE "A"**

Schedule of quantities

# **SCHEDULE "B"**

Schedule of materials to be issued to the contractor

S.No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
1	2	3	4	5
		Contractor	's own arrangement	

# **SCHEDULE "C"**

Tools and plants to be hired to the contractor

Sl.No.	Description	Hire charges per day	Place of issue
1	2	3	4
	-NIL-	-	-

# SCHEDULE "D"

Extra schedule for specific requirement/document for the work. if any - NIL

# SCHEDULE "E"

**Reference to General Conditions of contract**: General Conditions of Contract for Puducherry Smart City Development Limited, Puducherry.

Name of Work:	Construction of 220 dwelling units for Economically Weaker Sections (EWS) consisting of 6 blocks (Ground + 4 floors) at Chinnayapuram, Puducherry.	
Estimated cost of work:	₹ 16,03,38,111/-	
(i) Earnest money	₹ 26,03,400/- (to be returned after receiving performance guarantee)	
(ii) (a) Performance Guarantee	5% of tendered value.	
(b) Additional Performance	50% of difference in cost between the quoted	
Guarantee (in case of tender which	amount and estimate cost put to tender	
is 15.00% below and more than 15.00% below)		
(iii) Security Deposit	2.5% of tendered value	
	(or)	
	2.5% of tendered value plus 50% of PG for	
	contracts involving maintenance of the building,	
	roads, bridges and services/other works after	
	construction of same building, roads, bridges and services /other works.	
	SERVICES / OTHER WORKS.	

# SCHEDULE "F"

# **GENERAL RULES & DIRECTIONS**

Officer inviting tender	Chief executive officer
	Puducherry smart city development limited,
	Puducherry
Definitions:	
2(v) Engineer-in-Charge	General Manager, PSCDL
2(viii) Accepting Authority	The Chief Executive Officer, Pudhcherry Smart
	City Development Limited, Puducherry.
2(x) Percentage on cost of materials	15%
and Labour to cover all overheads and	
profits.	
2(xi) Standard Schedule of Rates	Puducherry Schedule of Rates for the year
	2018-19 (Revised) and Market rate applicable to
	Puducherry region inclusive of GST as applicable
2(xii) Department	Puducherry Smart City Development Limited
9(ii) Standard contract Form	GCC 2014 (PSCDL Form 7/8) as available in the
	website https://pondicherrysmartcity.in/

Clause 1	Time allowed for submission of			
(i)	Performance Guarantee from the date of	15 (Fifteen) days		
	issue of letter of acceptance			
( <b></b> )	Maximum allowable extension with late fee			
(ii)	@ 0.1% per day of performance Guarantee	15 (Fifteen) days		
	amount beyond the period provided in (i)			
	above			
Clause 2	Authority for fixing compensation under			
	clause 2	PSCDL		
Clause 2A	Incentive for early completion of work	Deleted		
Clause 5	Number of days from the date of issue of			
	letter of acceptance for reckoning date of 15 (Fifteen) days			
	start			

Mile stone(s) as per table given below:

Sl. No.	Description of Milestone(Physical)	Time allowed in days (from date of start)	Amount to be with-held in case of non achievement of milestone
1.			
2.			
3.			
4.			

Time allowed for execution of work **18 M**onths (including monsoon period)

(**O**r)

Sl. No.	Financial Progress	Time allowed in days (from date of start)	Amount to be with-held in case of non achievement of milestone
1.	$1/8^{\text{th}}$ (of the whole	$1/4^{\text{th}}$ (of the whole work)	In the event of not achieving
	work)		the necessary progress as assessed from the running
2.	$3/8^{\text{th}}$ (of the whole	1/2 (of the whole work)	payments,1% of the tendered
	work)		value of work will be withheld
3.	$3/4^{\text{th}}$ (of the whole	$3/4^{\text{th}}$ (of the whole work)	automatically for failure of each milestone .without any
	work)		notice to the contractor.
4.	Full	Full	

# Authority to decide:

- i. Extension of time : Chief Executive Officer, PSCDL
- ii. Rescheduling of mile stone : Chief Executive Officer, PSCDL
- iii. Shifting of date of start incase of delay in handing over of site: Chief Executive Officer, PSCDL

Clause 6 (or) 6A	Measurement of work done (or)Computerised Measurement Book	<mark>6A</mark>
Clause 7	Gross work to be done together with net payment /adjustment of advances for material collected, if any since the last such payment for being eligible to interim payment	Rs. 89 Lakhs

# Clause 10A

# List of testing equipment to be provided by the contractor at site lab:

- 1. Steel tapes -3 m
- 2. Vernier calipers
- 3. Micrometer screw 25 mm gauge
- 4. A good quality plumb bob
- 5. Spriti level, minimum 30cm long with 3 bubbles for horizontal vertical
- 6. Wire gauge (Circular type) disc
- 7. Foot rule
- 8. Long nylon thread
- 9. Rebound hammer for testing concrete
- 10. Dynaminc penetrometer
- 11. Magnifying glass
- 12. Screw driver 30cm long
- 13. Ball pin hammer, 100gm
- 14. Plastic bags for taking samples
- 15. Moisture meter for timber
- 16. Earth resistance tests (For Electrical Divisions)
- 17. Meggar (For Electrical Divisions)

Clause 10B(ii)	: Mobilisation Advance	Applicable
Clause 10C	: Not Applicable	
	Component of labour expressed as percent of value of work	
Clause 10CA	: Applicable	

S.N.	Materials covered Under this clause	Nearest Materials (other than cement, reinforcement bars, the structural steel and POL) for which All India Wholesale Price Index to be followed	corresponding period of all the materials covered
1.	Cement		Asper PSR 2018-19
2.	Steel		(Revised) applicable to
3.	Bitumen		Puducherry Region

- » Includes Cement component used in RMC brought at site from outside approved RMC plants, if any.
- » Base price and its corresponding period of all the materials covered under Clause10
  CA is to be mentioned at the time of approval of NIT. In case of recall of tenders, the base price may be modified by adopting latest base price and its corresponding period.

Clause 10CC : Applicable / Not Applicable

Clause 10CC	Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column	12 months
Schedule of component of other materials, Labour etc.for	Component of civil (except materials covered Under Clause 10 CA) /Electrical construction Value of work	Xm 40 %
price escalation.	Component of Labour Expressed as percent of total value of work	Y 25%

Note: Xm ......% should be equal to (100) – (materials covered under clause 10 CA i.e. Cement, Steel, POL and other material specified in clause 10 CA + Component of Labour)

Clause 11	Specifications to be	C.P.W.D. specifications 2009, MOST,
	followed for execution of work	MORTH, IRC & CPHEEO specifications and
	WOIK	manuals (with correction slips and subsequent
		publications)
Clause 12	Type of work	Original work

\*\*\* To be filled by NIT approving authority either Project and original work or Maintenance works including works of upgradation, aesthetic, special repair, addition/alteration in buildings.

The items related to road work like upgradation/improvement of footpath & central verge, improvement of carriage way by patch repair or annual/periodical repairs of road surface and A/R & M/O works pertaining to road shall be treated as maintenance work.

New road construction works and the strengthening of road surface shall be considered as original works.

Clause 12.2	Deviation Limit beyond which clauses			
&	12.2 & 12.3 shall apply for building	30%		
12.3	work			
	(Super Structure)			
12.5 (i)	Deviation Limit beyond which clauses			
	12.2 & 12.3 shall apply for foundation	100%		
	work (except items mentioned in earth			
	work subhead in PSR and			
	related items)			
(ii)	Deviation Limit for items mentioned in			
	earth work subhead of	100%		
	PSR and related items			
Clause 16	Competent Authority for deciding	The Chief Executive Officer,		
	reduced rates Puducherry Smart City			
		Development Limited,		
		Puducherry.		

# Clause 18

#### List of mandatory machinery, tools & plants to be deployed by the contractor at site:

- 1. Excavators various sizes
- 2. Equipment for hoisting & lifting
- 3. Concrete batching plant
- 4. Concrete Pump
- 5. Concrete transit mixer
- 6. Concrete mixer diesel/electrical
- 7. Necole/Table vibrator (Petrol/Electrical)
- 8. Bar bending machine
- 9. Bar cutting machine
- 10. Drilling machine
- 11. Cube testing machine
- 12. M.S. Pipe
- 13. Steel Shuttering/Scaffolding
- 14. Road Roller
- 15. Bitumen Paver
- 16. Tripper/Tracks
- 17. Pump (Diesel/Electrical)
- 18. Diesel generator

#### Clause 25

# **Constitution of Dispute Redressal Committee (DRC)**

1.	Chairman	: Chief Executive Officer, PSCDL
2.	Member	: Joint Chief Executive Officer, PSCDL
3.	Member	: Chief Technical Officer, PSCDL
<mark>4.</mark>	Member	: General Manager (Project)
5.	Member	: General Manager (Planning & Procurement)

#### Clause 36(i)

#### **Requirement of Technical Representative(s) and recovery Rate**

Sl. No.	Minimum Qualification of Technical Representative	Discipline		Designation (Principal Technical/ Technical representative)	Minimum Experience	Number	contractor i of not provision 36(i)	shall be com the in the event fulfilling of clause
1.	Care days to	D				Z	Figures	Words
1.	Graduate Engineer	Civil /	Structural	Principal Technical	10	1	₹ 30,000/-	Rupees Thirty
		C	Stru	Representative	years		PM	Thousand per month
2	Graduate							Rupees
	Engineer			Technical	5		₹ 25,000/-	Twenty
			ral	Representative	Years	1	PM	five
		il/	Structural	Representative	1 curs		I IVI	Thousand
		Civil/	Str					per month
3	Graduate			Project/Site	2	2	₹ 15,000/-	
	Engineer	al		Engineer and	years		PM	Rupees
		ctura		Project		(or)		Fifteen
	(or)	true		Planning /				Thousand
		Civil / Structural		Billing	5			per month
	Diploma	Civ		Engineer	Years	2	₹ 15,000/-	
	Engineer						PM	

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

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

Clause	42	Schedule/statementfor determining theoretical	Puducherry Schedule of	
(i) (a)		quantity	Rates 2018-19 (Revised)	
		of cement & bitumen on the basis of	printed by P.W.D.	
		Puducherry		
		Variations permissible on theoretical quantities		
(ii)				
		Cement:		
(a)		For works with estimated cost put	3% plus/minus	
	to tender not more than Rs.5lakh			
	For works with estimated cost put to tender		2% plus/minus	
	more than Rs.5 lakh			
		Bitumen:	2.5% plus & only & NIL on	
(b)		All works	minus side	
	Steel Reinforcement and structural steel; 2% pl		2% plus/minus	
(c)		sections for each diameter, section and category		
	All other materials		NIL	
(d)				

# RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

Sl. No.	Description of item	Rates in figures and words at which recovery shall be made from the contractor		
		Excess beyond permissible variation	Less use beyond permissible variation	
1.	Cement			
2	Steel reinforcement			
3	Structural sections	-	-	
4	Bitumen issued free			
5	Bitumen issued at stipulated			
	fixed price			

# **GENERAL CONDITIONS**

(1) The work shall in general be carried out in accordance with CPWD specifications for works 2009 with correction slips and issued from time to time. Revised CPWD Specification 2009 for cement mortar, cement concrete & RCC.

(2) However if the said specifications differ from those given in the description of any particular item in the schedule of quantities and specifications stipulated herein, the latter shall prevail.

(3) If the detailed description of any particular item in the schedule of quantities and specifications finally accepted by the department differs from the particular specifications given hereunder, the former shall prevail to the extent applicable.

(4) If the particular specification given hereunder differs from I.S. code provisions, in any respect, the former shall prevail.

(5) Wherever any reference to any Indian standard specification occurs in the documents relating to this contract the same should be inclusive of all amendments issued thereto or revision thereof if any, upto the date of receipt of tenders.

(6) Conditions involving any financial implications other than those covered in the schedule of quantities will not be entertained and such tenders are also liable to be rejected.

(7) When working near existing structures, care shall be taken to avoid any damage to such structures, any such damage caused intentionally or unintentionally shall be restored to original and or acceptable condition and to the satisfaction of the Engineer-in-charge.

(8) The contractor shall given to the Municipality, Police and other authorities all notices etc., that may be required to be given as per law and obtain all requisite licenses for temporary obstructions, enclosures and pay all fees, taxes and charges which may be leviable on account of the operations during the execution of the contract. No extra claim of the contractor will be entertained by the department on this account.

(9) Other agencies doing works related to this project may also simultaneously execute the works and the contractor shall co-ordinate and co-operate with them as found to be necessary at no extra cost.

(10) Any cement slurry or lime mortar or any combination thereof or water proofing material required for continuation from old work is demand to have been in built in the relevant items themselves and nothing extra shall be paid for the same.

(11) The rate for all items of the work shall be considered as inclusive of pumping out or bailing out water if required for which no extra payment will be made. This will include water encountered from any source as rains, flood, and subsoil water table being high due to any other cause whatsoever.

(12) The Contractor shall be required to establish complete field testing laboratory and arrange all the relevant codes and Standards. The list of such testing equipments. Codes and standards shall be specified in the tender documents. The contractor shall also arrange for more equipments, Codes and Standards. If they are needed during the execution of the work. The contractor shall also provide the minimum staff, as specified, for quality assurance. He shall also provide for a temporary shed, of the specified size and specifications at the allotted space at site for housing the testing laboratory.

#### **CONDITIONS FOR ISSUE OF MATERIALS**

The materials shall be issued to the contractor at the place of delivery as mentioned in schedule 'B'. If these are delivered at any other site, the difference due to cartage will be adjusted accordingly. The contractor shall have to cart at his cost the materials to the site of work as soon as these are issued. The materials shall be issued between the working hours and as per rules prevails in the stockyard of the materials as framed from time to time.

The contractor shall bear all incidental charges for cartage, storage and safe custody of materials. No reimbursement of the expenses will be made by the department.

The contractor shall construct suitable godown at the site of work for storing the materials safe against damage of sun, rain, dampness, fire, theft etc. he shall also employ necessary watch and ward establishment for the purpose.

Cement bags shall be stored in separate godown with pucca floor weatherproof roofs and walls. Each godown shall be provided with a single door with two locks. The keys of one lock shall remain with the Puducherry Smart City Development Limited Engineer-in-charge of the work and that of the other lock with authorized agent of the contractor at the site of work so that the cement is removed from the godown accordingly to the daily requirements with the knowledge of both the parties.

The cement shall be stacked on proper floors consisting of two layers of dry bricks laid on well-consolidated earth at a level of at least 0.3 meters above ground level. These stocks shall be in row of 2 and 10 high with a minimum of 0.6 meter clear space around. The bags would be placed horizontally continuous in each line as shown in the sketch of C.P.W.D. specification 2009.

The day today receipts and issue accounts of cement shall be maintained by the Engineer-in-charge and signed daily by the contractor or his authorized agent.

# MATERIALS OBTAINED FROM DISMANTLEMENT

I. The contractors, in course of their work, should understand that all materials (e.g. stone and the other materials) obtained in the work of dismantling, excavation etc. will be considered Puducherry Smart City Development Limited property and issued to the contractor (if they require the same for their own use) at rates approved by Government. If these materials are not required by them, they will dispose of to the best advantage of Government.

# DELAY IN OBTAINING MATERIALS BY THE PUDUCHERRY SMART CITY DEVELOPMENT LIMITED

II. Owing to difficulty in obtaining certain materials in the open market, the Puducherry Smart City Development Limited have undertaken to supply materials specified in schedule 'B' of the tender forms at rates stated therein. There may be delay in obtaining the materials by the Puducherry Smart City Development Limited and the contractor is, therefore required to keep himself in touch with the day to day position regarding the supply of materials from the Engineer-in-charge and to so adjust the progress of their work that their labour may not remain idle nor may there be any other claim due to so arising from delay in obtaining the materials. It should be clearly understood that no claim whatsoever shall be entertained by the Puducherry Smart City Development Limited on account of delay in supplying materials.

III. M.S. or deformed bars shall be issued in lengths as available in stores. M.S. or deformed bars shall be issued in straights or in coils as available and nothing extra shall be payable for straightening the bars. The bars issued in available lengths shall be cut to the required lengths and nothing extra shall be payable for the same.

IV. The contractor shall have to deposit the approved paints of required color and shade as per actual requirements of the work to be done with the Engineer-in-charge at his PSCDL at the site of work.

The contractor shall be responsible for the water proofness of the roof for one full monsoon season after the date of completion. He shall rectify the defect noticed after due intimation in writing is given by the Engineer-in-charge failing which, Engineer-in-charge shall get the defects repaired at the contractor's risk and cost.

# WATER SUPPLY AND SANITARY WORK

V. The contractor shall engage licensed plumber for the work and get the materials tested by the Puducherry Smart City Development Limited authorities whenever required at their own cost. The work shall be carried out according to the Public Works Department Bye-laws and the contractor shall produce necessary certificate from Public Works Department authorities after completion of work.

VI. The contractor shall have to deposit water proofing compound as per the actual requirements for the water proofing job with the Engineer-in-charge at the site of work.

The water proofing compound will be issued to the contractor from time to time according to his requirements for the work in the same manner as the issue of the materials stipulated to be issued departmentally.

# **INCONVENIENCE TO PUBLIC**

VII. The contractor shall not deposit materials on any site, which will seriously inconvenience the public. The Engineer-in-charge may require the contractor to remove any materials, which are considered by him to be a danger or inconvenience to the public or cause them to be removed at the contractor's cost.

VIII. Any damage to work resulting from rains or from any other cause until the work is taken over by the Department after completion will be made good by the contractor at his own cost.

IX. The contractor shall deposit royalty and obtain necessary permit for supply of sand, HBG metal, red earth, etc. from local authorities.

X. The contractor shall get himself acquainted with the nature and extent of the work and satisfy himself about the availability of quarry and of kiln for collection and conveyance of materials required for the construction. The contractor's quoted rate should take into account all these factors and will not be allowed for extra lead for collection and conveyance of materials for any reason whatsoever.

XI. The contractor will be permitted to set up labour camp only before a week from the commencement of work and not exceeding fifteen days after the completion of the work.

XII. The contractor shall conform to the provision of any government acts which relate to works and to the regulations and bye-laws of any local authorities. The contractors shall give all notices required by the said acts or laws etc., pay all fees payable to such authorities and allow for these contingencies in his tendered rates including fees for encroachments, costs of restoration etc., and all other fees payable to the local authorities.

XIII. Where surplus earth of a suitable quality exists at the site of work, the contractor shall be allowed to use same free of cost making mud mortar for masonry and for laying mud terracing over the roof. The Engineer-in-charge shall be the final authority to decide whether the earth obtained from excavation is surplus or not.

The surplus earth excavated which is beyond the requirement of Puducherry Smart City Development Limited, may be allowed by the Engineer-in-charge to be disposed of by the contractor on his own or to sell the surplus earth to private parties at his discretion, but nothing extra will be paid for carriage or disposal of the surplus earth, if the same is not required for Puducherry Smart City Development Limited works.

The debris should be removed from the site on day to day basis without affecting the public in general.

The mixing of concrete should be done at a separate site avoiding stacking of material at road side.

Wherever fine sand has been mentioned in the schedule of quantities, it should be conforming to the grading Zone-IV or Zone-V as mentioned in the C.P.W.D. specifications.

XIV. Concrete will be mixed with mixers either operated by hand or mechanical.

XV. The contractor shall not employ women and men below the age of 18 on the work of painting with products lead, in any form wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:

- a) White lead sulphate or lead, of products containing these pigments shall not be in painting operation except in the form of paste or of paint ready for use.
- b) Measure shall be taken in order to prevent danger arising from application of paint in the form of spray.
- c) Measure shall be taken wherever practicable against danger arising from dust caused by dry rubbing down and scraping.
- d) Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

- e) Overalls shall be worn by working painters during whole of the working period.
- f) Suitable arrangements shall be made to prevent clothing put off during working hours being soiled by painting materials.
- g) Cases of lead poisoning and suspected lead poisoning shall be subsequently verified by a medical team appointed by the competent authority.
- h) The Puducherry Smart City Development Limited may require when necessary medical examination of workers.
- i) Instructions with regard to the special hygienic precautions to be taken in the painting trade shall be distributed to working painter.
- j) The standard section weights referred to as standard table of 5.4 in the CPWD specification 2009 be considered for conversion of length of various size of steel bars into weights are as under:-

Nominal size mm	Cross sectional area Sq.mm.	Mass per metre run Kg.
6	28.3	0.222
8	50.3	0.395
10	78.6	0.617
12	113.1	0.888
16	201.2	1.58
20	314.3	2.47
25	491.1	3.85
28	615.8	4.83
32	804.6	6.31
36	1018.3	7.99
40	1257.2	9.86

Issue of steel diameter above 10mm will be regulated on sectional weights basis, weight being calculated with the help of the above tables. However, for bars TMT steel up to and including 10mm the following procedure shall be adopted. The average sectional weights for each diameter shall be arrived at from samples from each lot of steel received at site. The actual weight of steel issued shall be modified to take into account the variations between the actual and the standard co-efficients given above and the contractor's account will be debited by the cost of this modified quantity only. The discretion of the Engineer-in-charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for this purpose.

# SPECIAL CONDITIONS APPLICABLE FOR ROAD WORKS/BRIDGE WORKS

# (1) **Construction Equipment:**

- **1.1** The methodology and equipment to be used on the project shall be furnished by the Contractor to the Engineer well in advance of commencement of work and approval of the Engineer obtained prior to its adoption and use.
- **1.2** The Contractor shall give a trial run of the equipment for establishing its capability to achieve the laid down specification and tolerance to the satisfaction of the Engineer before commencement of work, if so desired by the Engineer.
- **1.3** All equipment provided shall be proven efficiency and shall be operated and maintained at all times in a manner acceptable to the Engineer.
- **1.4** No equipment or personnel will be removed from site without permission of the Engineer.

# (2) Work Program and Methodology of Construction:

The Contractor shall furnish his program of construction for execution of the work within the stipulated time schedule together with methodology of construction each item of work and obtain the approval of the engineer prior to actual commencement of work.

#### (3) Revised Programme of Work in case of Slippage:

In case of slippage from the approved work programme at any stage, the Contractor shall furnish revised programme to make up the slippage within the stipulated time schedule and obtain the approval of the Engineer to the revised programme.

#### (4) Action in case of Disproportionate Progress:

In case of extremely poor progress of the work or any item at any stage of work which in the opinion or the Engineer cannot be made good by the Contractor considering his available resources, the Engineer will get it accelerated to make up the lost time through any other agency and recover the additional cost incurred, if any, in getting the work done from the Contractor after informing him in writing about the action envisaged by him.

#### (5) Setting out:

Setting out the work as spelt out in clause 109 of Ministry's Specifications for Road and Bridge Works 5<sup>th</sup> Revision will be carried out by the Contractor.

#### (6) **Public Utilities:**

Action respect of public utilities will be taken by the contractor as envisaged in Clause 110 of Ministry's Specifications for Road and Bridge Works 5<sup>th</sup> Revision.

# (7) Arrangement for traffic during construction :

Action for arrangement for traffic during construction will be taken by the contractor as envisaged in the contract documents and spelt out in clause 112 of Ministry's Specifications for Road and Bridge Works 5<sup>th</sup> Revision.

### (8) **Quality Control :**

The onus of achieving quality of work will be on the contractor who will take action as stipulated in the Ministry's for Road and Bridge Works 5<sup>th</sup> Revision.

# (9) Ministry's specification for Road and Bridge Works (5<sup>th</sup> Revision):

Ministry's specification for Road and Bridge Works 5<sup>th</sup> Revision will form part of the contract documents and the contractor will be legally bound to the various stipulations made therein unless and otherwise specifically relaxed or waived wholly or partly through a special clause in the contract document.

#### (10) Documentation:

The Contractor will prepare drawing (s) of the work as constructed and will supply original with three copies to the Engineer who will verify and certify these drawings. Final as constructed drawing(s) shall then be prepared by the Contractor and supplied in triplicate along with a micro film of the same to the Engineer for record and reference purposes.

(11) The contractor shall make his own arrangement to provide the bitumen required for the work from approved public sector, refineries such as IOC, BP, HPL, etc. and produce the paid voucher to the Engineer-in-charge. The materials so procured shall be got tested before use.

(12) The use of rubber modified bitumen shall be as per the guide lines of "IRC SP 53-99"

(13) The Contractor shall use "Hydrostatic paver with sensor control" for this work.

(14) The Pile shall be terminated at a depth as per the direction of Engineer-in-charge.

(15)The defect liability period is Three Years where scope of work involves provision of structural layer i.e. strengthening where the total thickness of bituminous layer is 30 mm and above.

(16) The payment for the quantity of Road Work such as Bituminous Macadam (BM/DBM), Bituminous Concrete / Semi Dense Bituminous Concrete, Wearing Course shall be made based on the physical measurement of finished work in position in cum. or sqm. at a specified thickness or based on level measurements, whichever is less.

### ADDITIONAL CONDITIONS

**1.** The rate for all items of works shall unless clearly specified otherwise include cost of all labour, materials and others inputs involved in the execution of item.

**2(a)** For the purpose of recording measurements and preparing running account bill the abbreviated nomenclature enclosed with the standard form shall be adopted .The abbreviated nomenclature shall be taken to cover all the materials and operations as per the complete nomenclature of the relevant items in the agreement and other relevant specifications.

(b) In case of extra and substituted items of work for which abbreviated nomenclature is not provided in the agreements, the full nomenclature of items shall be reproduced in the measurement books and bill forms for running account bills.

**3.** For all doors and windows whether factory made or otherwise, cleats and rubber buffers 30mm dia. shall be provided as directed by the Engineer-in-charge and the rate for the shutter item shall include the cost of providing such wooden cleats and buffers.

**4.** For those doors where hydraulic door closer is provided only wooden cleats need not be provided and no reduction in rate shall be made for the same.

5. The particle board shutter shall be provided, with teak wood lipping (beading) at the edge to which hinges are fixed, without any extra cost.

**6.** For works where items of aluminium doors, windows etc., are specified, the grade of anodic coating to be provided in accordance with table I of IS: 1868-1968 together with reference to IS: 5523-1969.

7. Where hydrated lime is available, this can be used on the works and the places where hydrated lime is not available, lime concrete will be prepared by the traditional method of slaking the lime preparing the lime putty etc.

**8.** (a) Tendered rates are inclusive of all taxes and levies payable under the respective status. However pursuant to the constitution (46<sup>th</sup> Amendment) Act 1982, if any further tax or levy is imposed by the statute after the date of receipt of tenders and the contractor thereupon necessarily and properly pays such taxes/levies, the contractors shall be reimbursed the amount so paid provided such payment, if, any, is not, in the opinion of the Engineer-in-Charge (whose decision shall be final and binding) attributable to delay in execution of work within the control of the contractor.

(b) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of **PSCDL** and further shall furnish such other information/document as the Engineer-in-Charge may require.

(c) The contractor shall within a period of 30 days of imposition of any further tax or levy pursuant to the Constitution (46<sup>th</sup> Amendment) Act, 1982 give a written notice thereof to the Engineer-in-Charge pursuant to this condition, together with all necessary information relating therein.

**9.** Stipulated materials shall be issued for use at site of work for all the items where such materials are required. For factory made products like precast cement tiles, precast hollow concrete blocks, precast foam concrete blocks, precast RCC pipes etc., stipulated materials shall not be issued by the **PSCDL**.

**10.** While execution of the work, the contractor shall organise his work in such a way that the normal functioning of the premises is not disturbed.

11. Any damage done to the existing structure while dismantling execution of the work shall be made good by the contractor at claim shall be made good by the contractor at his own cost and no extra claim shall be entertained on this account.

**12.** The contractor must see the site before participating the tender and his viability for executing the work.

**13.** The item of Anti-termite treatment shall be executed through a specialized firm.

**14.** Rates should be quoted for the items specified in the NIT and shall not be compared with the analysis of rates.

15. Rates for all items should be quoted based on the availability of construction

materials in accordance to BIS/CPWD specifications.

**16.** Rates should also be quoted inclusive of testing charges of all construction materials both at laboratory and in the field. No payment will be made for material testing.

**17.** The contractor should arrange for shifting of construction materials / concrete etc., near to the work site at his own cost. No extra rate shall be considered forshifting of materials etc.

**18**. For construction of Buildings /drains/canals/channels/bridges and culverts etc., rates should be quoted inclusive of de-watering and pumping out any type of water encountered during execution. No separate claim/ cost (like Extra/Substituted/Deviated items) will be admitted towards the dewatering etc. or any form of claim at any stage during the execution of work. No extra claim will be admitted for working under foul condition encountered during execution.

**19.** The Contractors themselves have to identify the place of disposal of un-serviceable materials like debris, waste mud, etc arises in the site. No extra lead and lift shall be considered for such disposal.

**20.** The Contractor must do their own arrangements at their own cost for signage/barricading etc. for the safety of Public during construction in the construction site of building/road/drain/canal/bridge/culverts etc. No separate claim will be admitted in this regard.

**21**. The contractor should not discontinue/suspend/slowdown the work on the grounds of non-payment of work bills, as the contractor in terms of Clause 7 of agreement is eligible for interest for the belated payment. If the contractor fails to continue the work in letter and spirit of agreement and other accepted terms and conditions, on the grounds of non-payment of work bills, the contract will be terminated. In the event of non-payment of work bills, the

contract as per Clause-I of the Conditions of Contract and accrued Security Deposit will be forfeited

**22.** The contractor shall make his own arrangements to provide the steel required for the work from SAIL / IISCO / TISCON / VIZAG / JSW STEEL PLANT and produce the paid voucher to the Engineer-in-Charge. The materials so procured shall be got tested before use.

**23**. The contractor shall procure 43 grade OPC cement having ISI mark from reputed firms having annual turn over of not less than one million MT and stores it in the site godown as per the guidelines specified in the CPWD specification 2009 under double lock system. The paid voucher of the cement procured shall be produced to the Engineer-in-Charge. The cement procured shall be got tested before use.

**24.** The contractor shall make his own arrangements to provide the bitumen required for the work from approved public sector, refineries such as IOC, BP, HPL etc., and produce the paid voucher to the Engineer-in-Charge. The materials so procured shall be got tested before use.

**25**. Necessary test certificates should be produced from the approved laboratory for the quality of materials.

26. Defective materials will be rejected and the same have to be reparably by the contractor at his own cost.

**27.** Original purchase vouchers should be produced at the time of receipt of materials and at the time of verification by the Engineer-in-Charge. The name of contractor, name of work and agreement number should be clearly noted in the original vouchers.

**28.** The test specimens shall be provided at free of cost by the contractor.

**29.** The test for cement has to be conducted for every 1000 bags or part. The test for steel has to be conducted for every consignment of 20 tonne or part thereof for each size/dia.

**30.** Payment for the item of laying Semi Dense Bituminous Concrete shall be made after conducting the density / compaction measurement test and also the surface roughness measured with Bump Integrator, by the Highways Research Station, Chennai and ensuring that

(a). In respect of density /compaction, the test result conforms to the density prescribed in the mix design and,

(b). In respect of surface roughness measured with Bump Integrator the result shall conform to the values prescribed in Table -3 of IRC - SP-16-2004.

## ADDITIONAL CONDITIONS II

### ADOPTION OF PSR ABBREVIATED NOMENCLATURE

The Puducherry Schedule of Rates Abbreviated Nomenclature for buildings and road works shall be adopted in recording of measurements and preparations of running account bills, etc., wherever applicable as per CPWD Works Manual 2014.

### PARTICULAR SPECIFICATIONS

1. The work executed shall be measured as per metric dimensions given in the schedule of quantities. The FPS units wherever indicated in the drawings are for guidance only.

2. Unless otherwise specified, all the rates quoted by the contractor shall be for items of work at all levels and heights of the building.

3. The work shall be executed as per the C.P.W.D. specifications 2009(with correction slips and subsequent publications). In case of discrepancies between the specifications of a particular item as indicated in the C.P.W.D. specifications mentioned above and as indicated in the nomenclature of the item the latter shall prevail.

4. All stone aggregate, sand etc., shall be obtained only from approved quarries.All the materials shall be got approved by the Engineer-in-Charge before they are actually procured and used at site.

5. The grading of sand to be used for mortars and concrete shall be determined at the site of work by the Engineer-in-Charge and sand conforming to these gradings only shall be used on the work.

6. Necessary washing, screening, etc., of metal and sand shall be done at site as per requirements of the Engineer-in-Charge.

7. Bricks shall have crushing strength of class designation.

8. The work of water supply and internal sanitary installations and drainage shall be carried out as per bye-laws of the local Municipal body.

9. All manufactured materials used in the work shall have ISI/BIS mark. In case of materials for which no manufacturer has been licensed to manufacture the materials with ISI

marking, the materials shall conform to the provisions of C.P.W.D./MORTH/IRC/CPHEEO specifications or the ISI code (in the absence of C.P.W.D. specifications or other specification mentioned above for any particular material). In the case of all materials, tests shall be conducted to ensure that they conform to the specifications of codes mentioned above.

10. All materials, which are to be tested before use on the work should be procured at least 2 months before use on the work so that enough time is available for testing them before they are actually used.

11. The cost of samples and all other incidental charges such as packing, transportation to the laboratory etc., shall be borne by the contractor.

12. The architectural drawings Nos. based on which the work is to be executed are available with the Engineer-in-Charge and can be inspected by the prospective tenderers up to the date of submission of tenders at his office during working hours.

Use and testing of all the manufactured materials used in the work shall be regulated as per specifications 2009.

13. Before receiving final payment for the work, contractor shall give an undertaking to the effect that at his own cost he will rectify the defects in walls, roof like leakage, cracks etc. Which may come to light during the first monsoon after the completion of work and for this purpose part of the security deposit which may be deemed reasonable by the Engineer-in-Charge shall be retained till the first monsoon is over as security against the contractor's failure to act upon the undertaking. This undertaking and consequent retention of part of the security deposit shall not invalidate the contract.

The timber to be used on the work shall be of first class wood of species mentioned in the particular item. The timber shall be kiln seasoned as per B.I.S. 1141 - 1973 and shall be treated with non-leach able type preservative by vacuum pressure method as per B.I.S. 401 - 1982.

#### FACTORY MADE PANELLED SHUTTERS FOR DOORS

14. The shutters shall be fabricated generally as per I.S. 1003 (Part I) – 1997 and as per Architect's drawings. The timber to be used shall be of first class wood of species mentioned in the particular item which shall be kiln seasoned and preservative treated. The panels shall be as specified in the item number. Samples of shutters shall be got tested as per I. S. 1003 (Part I) – 1997. The rate quoted for the item shall include the element of cost of shutter to be sent for testing and no claim on this account shall be entertained at a later date.

15. Pressed clay tiles to be used on the work shall conform to I. S. 2690 (Part I) - 1975. However, the water absorption of the tiles when tested by the method described in the Appendix 'A' of the said I. S. 2690 (Part I) 1975 shall not exceed 18% (Eighteen percent.).

16. Shahabad stone slabs, marble slabs etc. on treads and risers of steps and shelves shall be in single pieces.

## **P.V.C. PIPES INTERNAL WORK AND EXTERNAL WORK**

17. The specification in respect of laying and jointing rigid P.V.C. threaded pipes both internal and external shall be as per C.P.W.D. specifications. The rigid P.V.C. threaded pipes shall confirm to relevant ASTM standard and shall be ORIPLAST or equivalent.

18. Wherever RCC walls, fins and facial are monolithic the portion of RCC are to be measured as per the sketch attached in Page No.

19. The top surface of the RCC roof slab shall be screeded to be uniform when the concrete is green, so as to have a proper bond with the roof treatment. Nothing extra shall be paid on this account.

20. For aluminium doors, fixed glazing, fixed windows, sliding windows, louvered type ventilators and partitions etc. all aluminium sections shall be to the required size, thickness and weight as shown in the relevant Architect's Drawings.

21. The weight of stays given in C.P.W.D. specifications 2009 shall be for cast brass stays only.

The weight of the	mild steel and anodi	ized aluminium stavs	shall be as follows: -

Casement stays (Straight peg type)	Mild steel with tolerance of plus or minus %	Anodized aluminium with tolerances of plus or minus %
(a) 300 mm long	0.13 Kg/each	0.06 Kg/each
(b) 250 mm long	0.10 Kg/each	0.05 Kg/each
(c) 200 mm long	- The casement window fasteners	0.04 Kg/each 0.155 kg/each

## <u>Form of Earnest Money Deposit</u> <u>Bank Guarantee Bond</u>

WHEREAS, contractor...... (Name of contractor) (hereinafter called "the contractor")

has submitted his tender dated ...... (date) for the construction of ...... (name of work) (hereinafter called "the Tender")

**SEALED** with the Common Seal of the said Bank this ...... day of ...... 20.... 20.... THE CONDITIONS of this obligation are:

(1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;

(2) If the contractor having been notified of the acceptance of his tender by the Chief Executive Officer, PSCDL.

(a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required;

OR

(b) fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor,

We undertake to pay to the Chief Executive Officer, PSCDL either up to the above amount or part thereof upon receipt of his first written demand, without the Engineer-in-Charge having to substantiates his demand, provided that in his demand the Engineer-in-Charge will note that the amount claimed by his is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date\* ...... after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by the Chief Executive Officer, PSCDL 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.

DATE.....

SIGNATURE OF THE BANK

SEAL

WITNESS.....

(SIGNATURE, NAME & ADDRESS)

\*Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender.

#### Form of Performance Security (Guarantee) Bank Guarantee Bond

1. We, ..... (hereinafter referred to as "the Bank") hereby undertake to pay to the Puducherry Smart City Development Limited an amount not exceeding Rs. ..... (Rupees...... Only) on demand by the Puducherry Smart City Development Limited.

agreement.

to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the Puducherry Smart City Development Limited stating that the amount claimed as required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under restricted this guarantee shall be to an amount not exceeding Rs.....

(Rupees .....only)

3. We, the said bank further undertake to pay the Puducherry Smart City Development Limited any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We, ..... (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Puducherry Smart City Development Limited under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Chief Executive Officer on behalf of the Puducherry Smart City Development Limited certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. We, ..... (indicate the name of the Bank) further agree with

the Puducherry Smart City Development Limited that the Puducherry Smart City Development Limited shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Puducherry Smart City Development Limited gainst the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the Puducherry Smart City Development Limited or any indulgence by the Puducherry Smart City Development Limited to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. We, ...... (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Puducherry Smart City Development Limited in writing.

8. This guarantee shall be valid up to .....unless extended on demand by the Puducherry Smart City Development Limited.

Dated the ......day of .....for......for......(indicate the name of the Bank)

### **Declaration to be submitted by the Contractor:**

I have carefully read all the pages, conditions of this Tender Document and inspected the site before quoting the rates for this tender and accordingly quoted the rates to suit the site condition.

CONTRACTOR

#### NAME OF WORK: CONSTRUCTION OF 220 DWELLING UNITS FOR ECONOMICALLY WEAKER SECTIONS (EWS) CONSISTING OF 6 BLOCKS (GROUND + 4 FLOORS) AT CHINNAYAPURAM, PUDUCHERRY

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
1	2.8.1	Earthwork in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed , within a lead of 50m - all kinds of soil		Cum			
2	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth: consolidating each deposited layer by ramming and watering lead upto 50m and lift upto 1.5m.	3180.00	Cum			
3	2.26.1	Extra for every additional lift of 1.5m or part there of in excavation / banking excavated or stacked materials - all kinds of soil.	888.00	Cum			
4	NPSR	Supplying and filling in plinth with M sand under floorsincluding, watering, ramming consolidating and dressing complete	457.00	Cum			
5	4.1.2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering All work upto plinth level 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size)	424.00	Cum			
6	4.1.3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - all work upto plith level - 1:2:4 (1 cement : 2coarse sand : 4 graded stone aggregate 20 mm nominal size) -	15.00	Cum			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
7	4.1.8	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - all work upto plith level - 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	105.00	Cum			
8	5.8	Reinforced cement concrete work in vertical and horizontal fins individually or forming box louvers , facias and eaves boards upto floor five level excluding the cost of centering , shuttering , finishing and reinforcement , with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	33.00	Cum			
9	5.9.1	Centring and shuttering including strutting, propping etc.and removal of form for:Foundations , footings, bases of columns,etc. for mass concrete.	1298.00	Sqm			
10	5.9.2	Centering and shuttering including strutting , propping etc and removal of form for - Walls (any thickness ) including attached pilasters , butteresses , plinth and string courses etc.	1010.00	Sqm			
11	5.9.3	Centring and shuttering including strutting, propping etc. and removal of form for : suspended floors, roofs, landings , balconies and access platform	7122.00	Sqm			
12	5.9.5	Centring and shuttering including strutting, propping etc. and removal of form for: lintels, beams, plinth beams, girders, bressumers and cantilevers Using steel sheet with M.S.frames	6690.00	Sqm			
13	5.9.6	Centring and shuttering including strutting, propping etc. and removal of form for: columns, pillars, piers, abutments, posts and struts.	7620.00	Sqm			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
14	5.9.7	Centring and shuttering including strutting, propping etc. and removal of form for: Stairs (excluding landings) except spiral - staircases		Sqm			
15	5.9.19	Centring and shuttering including strutting, propping etc. and removal of form for: Weather shade, Chajjas, corbels etc.,including edges.		Sqm			
16	5.16	Providing , hoisting and fixing upto floor five level precast reinforced cement concrete in shelves including setting in cement mortar 1:3 (1 cement : 3 coarse sand) , cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement , with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size)		Cum			
17	5.18.1	Providing precast cement concrete jali 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6mm nominal size) reinforced with 1.6 mm dia mild steel wire including centering and shuttering, roughening cleaning , fixing and finishing in cement mortar 1:3 (1 cement : 3 fine sand) etc. complete excluding plastering of the jambs, sills and soffits - 50mm thick		Sqm			
18	5.22.6	Steel reinforcement for R.C.C.work including straightening , cutting , bending, placing in position and binding all complete upto plinth level - Thermo -Mechanically treated bars (TISCON / VIZAG / IISCO / SAIL / JSW) Fe - 415 or more	94000.00	Kg			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
19	5.22A.6	Steel reinforcement for R.C.C.work including straightening , cutting , bending , placing in position and binding all complete above plinth level - Thermo - Mechanically Treated bars (TISCON / VIZAG / IISCO / SAIL / JSW) Fe - 415 or more		Kg			
20	5.22.10	Providing and placing M30 grade cover block for RCC work all levels	201000.00	No			
21	5.33.1	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS : 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability. Note:- Cement content considered in this item is @330 kg / cum. Excess or less cement used as per design mix is payable or recoverable All work upto plinth level		Cum			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
22	5.33.2	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying butexcluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS : 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability. Note:- Cement content considered in this item is @330 kg / cum. Excess or less cement used as per design mix is payable or recoverable separately All work above plinth level upto floor V level.		Cum			
23	5.34.1	Extra for providing richer mixes at all floor levels - Note:- Excess / less cement over the specified cement content used is payable / recoverable separately - Providing M-30 grade concrete instead of M-25 grade BMC / RMC. (Note:- cement content considered in M-30 is @ 340 kg /cum)	3383.00	Cum			
24	5.38	Extra for R.C.C / B.M.C / R.M.C work above floor V level for each four floors or part thereof	537.00	Cum			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
25	5.44.1	Providing and fixing of expansion joint system related with floor location as per drawings . The joints system will be of extruded aluminium base members , self aligning / self centering arrangement and support plates etc. as per ASTM B221-02. The system shall be such that it provides floor to floor / floor to wall expansion control system for various vertical location in load application areas that accommodates multi directional seismic movement with out stress to it's components. System shall consist of metal profiles with a unioversal aluminium base member designed to accommdate various project conditions and finish floor treatments. The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members by utilizing manufacturer's pre- engineered self - centering arrangement that freely rotates / moves in all directions. The self - centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminium extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. Provision of Moisture Barrier	145.00	Metre			
26	6.5	Extra for brick work / AAC block masonry /Tile brick masonry in super structure above floor V level , for each four floors or part thereof by mechanical means	571.00	Cum			
27	6.38	Providing and laying autoclaved aerated cement blocks masonry with 100mm thick AAC blocks in super structure above plinth level upto floor five level in cement mortar 1:4 (1 cement: 4 coarse sand) The rate includes providing and placing in position 2 Nos. 6 mm dia M.S. bars at every third course of masonry work.		Cum			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
28	NPSR	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 3.5 in foundation and plinth in - cement mortar 1:4 (1 cement : 4 coarse sand)	72.00	Cum			
29	NPSR	Brick work with common burnt clay F.P.S (non modular) bricks of class designation 3.5 in superstructure above plinth level upto floor five level in all shapes and sizes in - cement mortar 1:6 (1 cement : 6 coarse sand)		Cum			
30	9.1.2V	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately) -Vengai wood.	26.00	Cum			
31	9.21.1	Providing and fixing ISI marked flush door shutters conforming to IS:2202 (Part 1) non-decorative type, core of block board construction with frame of 1 st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters 35 mm thick including ISI marked stainless steel butt hinges with necessary screws		Sqm			
32	9.48.1	Providing and fixing M.S.grills of required pattern in frames of windows etc with M.S.flats, square or round bars etc. including priming coat with approved steel primer all complete - Fixed to steel windows by welding		Kg			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
33	9.53	Providing 40x5 mm flat iron hold fast 40cm long including fixing to frame with 10mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size)	4060.00	Each			
34	9.96.1	Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade with nuts and screws etc.complete:- 300 x 16 mm	895.00	Each			
35	9.97.1	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade with necessary screws etc.complete : - 300 x 10 mm	680.00	Each			
36	9.97.2	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade with necessary screws etc.complete : -250x10mm	230.00	Each			
37	9.97.4	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade with necessary screws etc.complete : - 150x10mm	230.00	Each			
38	9.100.1	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade with necessary screws etc.complete :-125mm	1790.00	Each			

		Description of Work		Unit	Rate		
SI. No.	Code		Qty		In Figure	In word	Amount
39	9.117.2	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance +_1mm), with wall thickness 2.0 mm (+-0.2mm), corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S.tube of size 19 x 19 mm and 1mm (+-0.1mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification - Extruded section profile size 42 x 50 mm		metre			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
40	9.118.1	Providing and fixing to existing door frames - 24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59 x 24 mm and wall thickness 2 mm (+- 0.2 mm) with inbuilt edging on both sides . The styles and rails mitred and joint at the corners by means of M.S. galvanised / plastic brackets of size 75 x 220 mm having wall thickness 1.0 mm and stainless steel screws . The styles of the shutter reinforced by inserting galvanised M.S.tube of size 20x20 mm and 1mm (+- 0.1mm) wall thickness . The lock rail made up of 'H' section , a uPVC hollow ection of size 100 x 24 mm and 2 mm (+ 0.2 mm) wall thickness , fixed to the shutter styles by means of plastic / galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multichambered single panel of size not less than 620 mm, having overall thickness . They panels filled vertcally and tie bar at two places by inserting horizontally 6 mm galvanised M.S.rod and fastened with nuts and washers , complete as per manufacturer's specification (For W.C. and bathroom door shutter)		Sqm			
41	9.165.1A	Providing and fixing of 65mm Godrej Navtal lock of 6 levers etc complete	240.00	each			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
42	10.11.1	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators , side /top/centre hung, with beading and all members such as F7D,F4B,K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings , complete all as per approved design, (sectional weight of only steel members shall be measured for payment) - Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C.1:3:6 (1 cement :3 coarse sand : 6 graded stone aggregate 20mm nominal size)		Kg			
43	10.17	Providing and fixing M.S. fan clamp type I or II of 16mm dia M.S. bar bent to shape with hooked ends in R.C.C.slabs or beams during laying , including painting the exposed portion of loop, all as per standard design complete		Each			
44	10.25.2	Steel work welded in built up sections / framed work , including cutting,hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required - in gratings, frames, guard bar, ladder, railings, brackets,gates and similar works		Kg			
45	11.3.1	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc .complete - 40mm thick with 20mm nominal size stone aggregate		Sqm			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
46	11.6.1	Cement plaster skirting upto 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand) , finished with a floating coat of neat cement - 18mm thick	1360.00	Sqm			
47	12.15.1	Painting top of roofs with bitumen of approved quality @ 17kg per 10 sq.m impregnated with a coat of coarse sand at 60cudm per 10 sq.m including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete - with residual type petroleum bitumen of grade VG-10	1570.00	Sqm			
48	12.20	Providing and laying pressed clay tiles (as per approved pattern 18mm nominal thickness of approved size) on roofs jointed with cement mortar 1:4 (1 cement : 4 coarse sand) mixed with 2% integral water proofing compound , laid over a bed of 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and finished neat complete	1680.00	Sqm			
49	12.20L	Lime concrete terracing on roofs of required thickness laid to fall with 25mm nominal size brick aggregate and 50% lime mortar 1:2 (1 lime putty : 2 surkhi) rammed and finished with gur and belgiri treatment complete including rounding of junctions with Parapet wall complete	248.00	Cum			
50	12.41.2	Providing and fixing on wall face unplasticised rigid PVC rain water pipes conforming to IS: 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion -110mm	670.00	Metre			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
51	12.42.1.2	Providing and fixing on wall face unplasticised - PVC moulded fittings / accessories for unplasticised rigid PVC rain water pipes conforming to IS:13592 Type A, including jointing with seal ring conforming to IS:5382, leaving 10mm gap for thermal expansion - Coupler - 110mm		Each			
52	12.42.5.2	Providing and fixing on wall face unplasticised - PVC moulded fittings / accessories for unplasticised rigid PVC rain water pipes conforming to IS:13592 Type A, including jointing with seal ring conforming to IS:5382, leaving 10mm gap for thermal expansion - bend 87.5 degree - 110 mm bend		Each			
53	12.43.1	Providing and fixing unplasticised - PVC pipe clips of approved design to unplasticised- PVC rain water pipes by means of 50x50x50mm hard wood plugs, screwed with M.S. screws of required length, including cutting brickwork and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc., complete 75mm		Each			
54	12.43.2	Providing and fixing unplasticised - PVC pipe clips of approved design to unplasticised- PVC rain water pipes by means of 50x50x50mm hard wood plugs,screwed with M.S. screws of required length, including cutting brickwork and fixing in cement mortar 1:4 (1 cement :4 coarse sand) and making good the wall etc., complete - 110mm		Each			
55	12.44	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15cm diameter and weighing not less than 440 grams		Each			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
56	13.1.1	12mm cement plaster of mix -1:4 (1 cement : 4 fine sand)	34460.00	Sqm			
57	13.7.1	12mm cement plaster finished with a floating coat of neat cement of mix - 1:3 (1 cement :3 fine sand)		Sqm			
58	13.7.2	12mm cement plaster finished with a floating coat of neat cement of mix - 1:4 (1 cement :4 fine sand)	2270.00	Sqm			
59	13.8.2	15 mm cement plaster on rough side of single or halfbrick wall finished with a floating coat of neat cement of mix - 1:4 (1 cement : 4 fine sand)		Sqm			
60	13.9.2	Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement - 20mm cement plaster		Sqm			
61	13.16.1	6mm cement plaster of mix 1:3 (1 cement : 3 fine sand).	7880.00	Sqm			
62	13.22	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof		Sqm			
63	13.29.1	18mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand)- Flush Band.	34580.00	Cm. per metre			
64	13.37.1	White washing with lime to give on even shade - New work (three or more coats).	7240.00	Sqm			
65	13.48.1	Finishing walls with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacture's specification -Two or more coats applied on walls @ 1.25 ltr / 10 sqm over and including one coat of special primer applied @0.75 ltr / 10 sqm		sqm			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
66	13.48.3	Painting steel work with deluxe multisurface paint to give an even shade. Two or more coat applied @ 0.90 ltr / 10 sqm over an under coat of primer applied @ 0.80 ltr / 10 sqm of approved brand and manufacture	950.00	sqm			
67	13.50.1	Applying priming coat - with ready mixed pink pink or grey primer of approved brand and manufacture on wood work (hard and soft wood)	2890.00	Sqm			
68	13.61.1	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade - Two or more coats on new work	4570.00	Sqm			
69	NPSR	Providing and fixing in position C.I.Rectangular cover 455x610mm with frame (low duty)	73.00	No			
70	15.2.2	Demolishing nominal concrete 1:4:8 or leaner mix (including equivalent design mix)	44.00	Cum			
71	15.7.4	Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead - in cement mortar	68.00	Cum			
72	16.1	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth	395.00	Sqm			
73	NPSR	Brick edging laid lengthwise with halfbrick depth including excavation , refilling and disposal of surplus earth lead upto 50 metre - with FPS brick of class designation 3.5	1320.00	Sqm			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
74	16.96	Supplying fixing and commisioning of Suguna / Texmo / Sharp 2 HP monoblock pumpset slow speed single phase motor. The rate include the cost of	11.00	Each			
75	17.10.2.3	Providing and fixing Stainless steel AISI 304 (18/8) kitchen sink as per IS 13983 with C.I.brackets and stainless steel plug 40mm , including painting of fittings and brackets, cutting and making good the walls wherever required - kitchen sink without drain board -	220.00	Each			
76	17.13.2	Providing and fixing white vitreous china water closet squatting pan (Indian type) - Orissa pattern W.C.pan of size 580x440mm	220.00	Each			
77	17.28.2.2	Providing and fixing PVC waste pipe for sink or wash basin including PVC waste fittings complete - Flexible pipe - 40mm dia	220.00	Each			
78	17.73.2	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour 600mm long towel rail with total length of 645mm, width 78mm and effective height of 88 mm weighing not less than 190 gms.	220.00	Each			
79	18.9.11	Providing and fixing ASTM pipes including all ASTM plain& brass threaded fittings i/c fixing the pipe with clamps at 1.00m spacing . This includes jointing of pipes & fitting with one step ASTM solvent cement and testing of joints complete (Internal work exposed on wall ) - 20mm nominal outer dia pipes	528.00	Metre			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
80	18.9.12	Providing and fixing ASTM pipes including all ASTM plain& brass threaded fittings i/c fixing the pipe with clamps at 1.00m spacing. This includes jointing of pipes & fitting with one step ASTM solvent cement and testing of joints complete (Internal work exposed on wall) - 25mm nominal outer dia pipes	1150.00	Metre			
81	18.9.13	Providing and fixing ASTM pipes including all ASTM plain& brass threaded fittings i/c fixing the pipe with clamps at 1.00m spacing . This includes jointing of pipes & fitting with one step ASTM solvent cement and testing of joints complete (Internal work exposed on wall) - 32mm nominal outer dia pipes	374.00	Metre			
82	18.9.14	Providing and fixing ASTM pipes including all ASTM plain& brass threaded fittings i/c fixing the pipe with clamps at 1.00m spacing. This includes jointing of pipes & fitting with one step ASTM solvent cement and testing of joints complete (Internal work exposed on wall) - 40mm nominal outer dia pipes		Metre			
83	18.9.15	Providing and fixing ASTM pipes including all ASTM plain& brass threaded fittings i/c fixing the pipe with clamps at 1.00m spacing. This includes jointing of pipes & fitting with one step ASTM solvent cement and testing of joints complete (Internal work exposed on wall) - 50mm nominal outer dia pipes	150.00	Metre			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
84	18.9.21	Providing and fixing ASTM pipes including all ASTM plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing . This includes jointing of pipes & fitting with one step ASTM solvent cement and the cost of cutting chases and making good the same including testing of joints complete (Concealed work including cutting chases and making good the walls etc.) - 20 mm nominal outer dia pipes		Metre			
85	18.9.32	Providing and fixing ASTM pipes including all ASTM plain & brass threaded fittings this included jointing of pipes & fittings with one step ASTM solvent cement , trenching refilling & testing of joints complete (External work) - 25 mm nominal outer dia pipes		Metre			
86	18.12.3	Providing and fixing G.I.pipes complete with G.I.fittings including trenching and refilling etc External work -25mm dia nominal		Metre			
87	18.13.1	Making connection of G.I.distribution branch with G.I.main of following sizes by and fixing tee,including cutting and threading the pipe etc.complete - 25 to 40mm nominal bore		Each			
88	18.17.4	Providing and fixing gun metal gate valve with C.I.wheel of approved quality (Screwed end) 50 mm nominal bore		Each			
89	18.18.2	Providing and fixing ball valve (brass) of approved quality , high or low pressure , with plastic floats complete - 20mm nominal bore		Each			
90	18.18.3	Providing and fixing ball valve (brass) of approved quality , high or low pressure , with plastic floats complete - 25mm nominal bore		Each			

		Code Description of Work				Rate	
SI. No.	Code		Qty	Unit	In Figure	In word	Amount
91	18.19.1.1	Providing and fixing gun metal non -return valve of approved quality (screwed end) - 25 mm nominal bore - horizontal	11.00	Each			
92	18.22.1	Providing and fixing C.P.brass shower rose with 15 or 20 mm inlet - 100 mm diametre	220.00	Each			
93	18.33.1	Constructing masonry chamber 60x60x75 cm inside , in brick work in cement mortar 1.4 (1 cement : 4 coarse sand) for sluice valve, with C.I.surface box 100 mm top diametre, 160mm bottom diametre and 180mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation , foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and in side plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick , finished with a floating coat of neat cement complete as per standard design - with common burnt clay F.P.S (non modular) bricks of class designation 3.5		Each			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
94	18.37.1	Constructing masonry chamber 60x45x50 cm inside with 75 class designation brick work in cement mortor 1:4 (1 cement : 4 coarse sand) for water meter complete with Cl double flap surface box 400x200x200 mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement 2 coarse sand,4 graded aggregate 20 mm nominal size) necessary excavation foudation conrete 1:5:10 (1 cement, 5 fine sand,10 graded stone aggregate) 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cemnt : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design - with common burnt clay F.P.S. (non modular) bricks of class designation 3.5		Each			
95	18.41.3	Providing and filling sand of grading zone V or coarser grade, all -round the G.I.pipes in external work - 25mm diametre pipe	100.00	Metre			
96	18.48A	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI: 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet outlet and overflow pipes but without fittings and the base support for tank - Circular Tank	74250.00	Litre			
97	18.49.1	Providing and fixing CP brass bib cock of approved quality conforming to IS 8931 - 15mm nominal bore	220.00	Each			
98	18.51.1	Providing and fixing CP brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms - 15mm nominal bore	220.00	Each			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
99	18.54.3	Providing and fixing PTMT bib cock of approved quality and colour - 15mm nominal bore,165 mm long , weighing not less than 110gms	220.00	Each			
100	18.62.3	Providing and fixing PTMT Ball cock of approved quality colour and make complete with Epoxy coatd aliminium rod with L.P / H.P.H.D.plastic ball - 25 mm nominal bore, 152 mm long, weighing not less than 440 gms	11.00	Each			
101	18.65	Providing and fixing PTMT soap dish holder having length of 138 mm, breadth 102 mm, height of 75 mm with concealed fitting arrangements weighing not less than 106 grams.	220.00	Each			
102	Non PSR	Providing and fixing ball valve (brass) of approved quality , high or low pressure , with plastic float complete - 32 mm nominal bore	44.00	Each			
103	19.4.2.2	Providing and fixing square mouth SW gully trap grade 'A' complete with CI grating brick masonry chamber with water tight CI cover with frame of 300x300mm size (inside) the weight of cover to be not less than 4.50 Kg and frame to be not less than 2.70 Kg as per standard design 150x100mm size P type - with sewer		Each			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
104	19.30.1.1	Constructing brick masonry chamber for underground CI inspection chamber and bends with 75 class designation bricks in cement mortar 1:4 (1 cement: 4 coarse sand) CI cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) R.C.C top slab with 1:2:4 mix (1 cement :2 coarse sand:4 graded stone aggregate 20 mm nominal size) foundation concrete 1:5:10 (1 cement: 5 fine sand: 10 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished smooth with a floating coat of neat cement on walls and bed concrete extra complete as per standard design - inside dimensions 455x610 mm and 45 cm deen	81.00	Each			
105	19.33.1	Providing and fixing on wall /column face unplasticed - PVC soil and waste pipes (type B) conforming to IS:13592-1992 including jointing with seal ring conformation to IS: 5382 leaving 10mm gap for thermal expansion - single socketed pipes 110mm diameter.	880.00	Metre			
106	19.33.1A	Providing and fixing on wall face / column face unplasticised - PVC moulded fittings/accessories for unplasticisd - PVC soil and waste pipes conforming to IS:14735-1999 including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion - Single tee with door - 110x110x110mm	880.00	Each			

SI. No.	Code	Description of Work	Qty l		Rate		
				Unit	In Figure	In word	Amount
107	19.33.1D	Providing and fixing on wall face /column face unplasticised - PVC moulded fittings/ accessories for unplasticisd - PVC soil and waste pipes conforming to IS:14735-1999 including jointing with seal ring conforming to IS : 5382 leaving 10mm gap for thermal expansion - bend with door 110mm	220.00	Each			
108	19.33.1E	Providing and fixing on wall face/column face unplasticised - PVC moulded fittings/accessories for unplasticisd - PVC soil and waste pipes conforming to IS:14735-1999 including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion - heel rest bend 110mm.	44.00	Each			
109	19.33.2	Providing and fixing on wall / column face unplasticised - PVC soil and waste pipes (type B) conforming to IS :13592 - 1992 including jointing with seal ring conforming to IS : 5382 leaving 10mm gap for thermal expansion - Single socketed pipes 75mm diameter	1826.00	Metre			
110	19.33.2A	Providing and fixing on wall/column face unplasticisd - PVC moulded fittings /accessories for unplasticisd - PVC soil and waste pipes conforming to IS:14735 - 1999 including jointing with seal ring conforming to IS: 5382 leaving 10mm gap for thermal expansion - Single tee with door - 75x75x75mm	1760.00	Each			

SI. No.	Code	Description of Work	Qty	Unit	Rate		
					In Figure	In word	Amount
111	19.33.2E	Providing and fixing on wall face / column face unplasticised - PVC moulded fittings / accessories for unplasticisd - PVC soil and waste pippes conforming to IS :14735 - 1999 including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion - heel rest bend 75 mm.	44.00	Each			
112	19.33.2F	Providing and fixing on wall face / column face unplasticised - PVC moulded fittings /accessories for unplasticised PVC soil and waste pipes conforming to IS:4985 including of jointing with seal ring conforming to IS: 5382 leaving 10mm gap for thermal expansion - bend with door 50 mm.	220.00	Each			
113	Non PSR	Providing, fixing, testing and commissioning of PVC multi inlet floor trap / p trap of self cleansing design moulded or fabricated, if not available in size mentioned below, with or without vent arm jointing with solvent cement followed by application of leak proof adhesive like FRP paste including encasing all round fixing the floor trap in cement concrete 1:2:4 ratio of size 300 x 300 mm x 250 mm height (approx) and making good the floors. 110mm dia inlet 75mm dia out let - Floor Trap	660.00	Each			
114	31.6A	Providing and fixing water meter and stop cock in 25mm G.I pipe line including cutting and threading the pipe, making long screws, bolts, nuts, rubber insertions and testing the water meter etc. complete.	1.00	Each			

SI. No.	Code	Description of Work	Qty	Unit	Rate		
					In Figure	In word	Amount
115	31.48.11A	Providing and fixing C.I. swing type single door Foot valve conforming to IS 4038 and ISI marked, with bolts, nuts, rubber insertion etc.,complete - 50mm dia.		Each			
116	31.139.1C	Providing and fixing in position union (UNIQUE/R Brand/HB Brand / UI Brand) conforming to IS 1239 part II and ISI marked, including labour charges for jointing,jointing materials etc,complete- 25 mm dia.	22.00	No.			
117	31.152.1L	Providing and fixing mild steel bracket including bolts, nuts, rubber insertion, labour charges etc, complete-100 x 50mm dia	45.00	No.			
118	Non PSR	Supply and grouting of SS rungs made of 20 mm dia SS pipe 150 mm wide for UG sump, to be fixed as per the detailed drawing		Each			
119	31.161.1D	Providing, laying and jointing UPVC pipes (Finolex jain / Supreme / Truebore / (0.6Mpa)conforming to IS specification 4985 and ISI marked including transportation to the site , lowering to the trenches, laying to proper grade and testing of joints with required equipment,including cost of solvent specials such as bends, tees, pieces, couplers, reducer, endcaps etc., complete all as per IS and CPWD specification 75mm dia.	50.00	Metre			
120	31.161.1F	Providing, laying and jointing UPVC pipes (Finolex/Jain) (0.6 Mpa) conforming to specification 4985 and ISI transportation to the site, lowering to the trenches, laying to proper grade and alignment, testing of joints with required testing equipment, including cost of solvent cement, excluding UPVC specials such		Metre			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
121	31.161.1H	Providing, laying and jointing pipes (Finolex/Jain) (0.6 Mpa) conforming to specification 4985 and ISI marked transportation to the site, lowering to the laying to proper grade and alignment, testing of joints with required testing equipment, including cost of solvent cement, excluding UPVC specials such as bends, tees, threaded pieces, couplers,	100.00	Metre			
122	31.166.11	Providing and fixing in position UPVC moulded plain coupler (Finolex/Jain)(0.6 Mpa) conforming to IS 7834 part II and ISI marked,including labour charges for jointing, jointing materials etc,	200.00	No.			
123	31.166.1K	Providing and fixing in position UPVC moulded plain coupler (Finolex/Jain)(0.4 Mpa) conforming to IS 7834 part II and ISI marked, including labour charges for jointing, jointing materials etc.complete - 160mm dia	50.00	No.			
124	31.168.1M	Providing and fixing in position UPVC moulded elbow (Finolex/Jain) (0.6 Mpa) conforming to IS 7834 part II and ISI marked,including labour	100.00	No.			
125	31.168.10	Providing and fixing in position UPVC moulded elbow (Finolex/Jain)(0.4 Mpa)conforming to IS 7834 part II and ISI marked,including labour charges for jointing, jointing materials	50.00	No			
126	31.178.1D	Providing and fixing in position UPVC fabricated bend (Finolex/Jain) (0.6 Mpa) conforming to IS 7834 part II and ISI marked,including labour	100.00	No.			
127	31.178.1F	Providing and fixing in position UPVC fabricated bend (Finolex/Jain)(0.6 Mpa) conforming to IS 7834 part II and ISI marked,including labour charges for jointing, jointing materials etc,complete 160 mm dia	50.00	No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
	INTERNAL EL	ECTRIFICATION WORKS					
128	1.10.1	Wiring for light point/fan point/exhaust fan point/call bell point with 1.5 sqmm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit, with modular switch,modular plate,suitable GI box and earthing the point with 1.5 Sq. mm FRLS PVC insulated copper conductor single core cable etc.as required.Group - (B)		Point			
129	1.10.2	Supplying and fixing two module stepped type electronic fan requlator on the existing modular plate switch box including connections but excluding modular plate etc as required		Point			
130	1.25	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit , 2 way modular switch, modular plate , suitable GI box and earthing the point with 1.5sq.mm FRLS PVC insulated copper conductor single core cable etc.as required.		Nos			
131	1.11	Supplying and fixing suitable size GI box with modular plate and cover in front of surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	110.00	point			
132	NPSR	Supplying and fixing suitable size GI box with modular plate and cover in front of surface or in recess, including providing and fixing 6/16 A modular socket outlet and 6/16 A modular switch, connections etc. as required.	1540.00	Nos			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
133	NPSR	Supplying and fixing metal box of following sizes (nominal per size) on surface or inrecess with suitable size of phenolic laminated sheet cover in front including painting etc.as required - 150 mm x 150 mm x 60 mm deep		Nos			
134	1.22.4	Wiring for circuit / submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor , single core cable in surface / recessed medium class PVC conduit as required - 2 X 2.5 sq.mm + 1 x 2.5 sq.mm earth		Nos			
135	1.14.2	Wiring for circuit / submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor , single core cable in surface / recessed medium class PVC conduit as required - 2X 4 sq.mm + 1 x 4 sq.mm earth wire		Metre			
136	1.14.3	Wiring for circuit / submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor , single core cable in surface / recessed medium class PVC conduit as required - 2 X 6 sq.mm + 1 x 6 sq.mm earth wire		Metre			
137	1.14.4	Supplying and laying of following size of PVC conduit in roof slab alongwith the accessories Make:Avonplast / Vijaya:- 25mm dia		Metre			
138	1.1.2.2	Supplying and laying of following size of PVC conduit in roof slab alongwith the accessories Make:Avonplast / Vijaya:- 25mm dia		Metre			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
	PART - B - DI	STRIBUTION BOARDS					
139	2.5.1	Supplying and fixing of following ways surface / recess mounting, vertical type, 415 V, TPN MCB distribuition board of sherrt steel, dust protected, duly powder painted, inlusive of 200 A tinned copper bus bar, common netural link, earth bar, din bar for mounting MCB'S (but without MCB,S (but without MCB's and incomer) as required. (note : Vertical type MCB TPDB is normally usd where 3 phase utlets are required) - 4 way (4 + 12), double door	11.00	No.			
140	2.3.2	Supplying and fixing following way, single pole and neutral, sheet steel, MCB disribution board, 240 V, on surface / recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required (But without MCB / RCCB / Isolator)- 8 way, double door		Nos			
141	2.3.3	Supplying and fixing following way, single pole and neutral, sheet steel, MCB disribution board, 240 V, on surface / recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required (But without MCB / RCCB / Isolator)- 12 way, double door	11.00	No.			
142	2.10.1	Supplying and fixing 5 A to 32 A rating , 240/415 V, 10 kA, "C" curve , miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections , testing and commissioning etc .as requiredSingle Pole	1364.00	No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
143	2.10.3	Supplying and fixing 5 A to 32 A rating , 240/415 V, 10 kA, "C" curve , miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections , testing and commissioning etc .as required Double Pole	11.00	No.			
144	NPSR	Supplying and fixing 40 amps to 63 amps rating,Triple pole, 415 volts,'c' series,miniature circuit breaker suitable for lighting and other loads of following poles in the existing MCB DB complete with connections,testing and commissioning etc. as required. Make:Siemens/ABB/L&T Hager	33.00	No.			
145	NPSR	Supplying and fixing 40 amps to 63 amps rating , 415 volts, 10kA 'c' curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required Four Pole	22.00	No.			
146	NPSR	Supplying and fixing 100 amps rating , 415 volts, 10kA 'c' curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required Four Pole	2.00	No.			
147	2.14.1	Supplying and fixing following rating , four pole ,(three phase and neutral), 415 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections , testing and commissioning etc.as required - 25 A	11.00	No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
148	2.14.2	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.40A	220.00	No.			
	PART - C - LL	IMINAIRES AND FIXTURES (ONLY COMMON AREA	4)				
149	NPSR	Supply and fixing of surface mounting, batten type 20W LED tube light (Four feet) luminiare with effecient driver (efficiency shall be more than 90%) & required minimum of 1600 lumens output, comprising of high quality diffuser technology complete with efficient & constant current output driver suitable for operation on 230V, single phase, 50Hz AC supply, efficient heat sink, effective thermal management and with colour temperature shall be >5000K. The LED with suitable control gear and power factor >0.9. and necessary fixing accessories as required. Make: Philips - Smart light BN021C LED20S PSC CW GR52 or similar Wipro or equivalent.	407.00	No.			
150	NPSR	Supply and installation of 1 x 18w Wall Mounted decorative fittings (Available in Textured grey, textured brown, antique silver& sunflower green colours) Make: Philips	11.00	No.			
	PART - D- LT	CABLING					
151	NPSR	Supply of 4 x 25sqmm armoured aluminium XLPE U.G cable- 1.1 KV grade.	165.00	Metre			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
152	9.1.34	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required - 4 X25 sq.mm (28 mm)	22.00	Set			
	PART - E- EAI	RTHING SYSTEM					
153	5.2	Earthing with G.I. earth pipe 4.5 meter long, 40 mm dia including accessories , and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal / coke and salt as required	48.00	Set.			
154	NPSR	Supply and laying of earthing and cable gland earthing using 10 SWG copper wire.	374.00	Metre			
	EXTERNAL E	LECTRIFICATION WORKS					
	PART - A HT						
155	NPSR	Supply of 11KV 3Cx185 Sq.mm HT XLPE Aluminium armoured ug cable, without any cable joint. all complete as per specifications, drawings and / or as required by the PED.	50.00	Metre			
156	NPSR	Supply and providing of 11KV indoor type heat shrinkable end termination suitable for 3Cx185 Sq.mm HT XLPE aluminium ug cable. All complete as per specifications, drawing and/or as required by PED.	4.00	No.			
157	8.1.2	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11kV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc.as required - above 120 sq.mm and upto 400 sq.mm	50.00	Metre			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
	PART - B - LT	CABLING					
158	NPSR	Supply of 3 1/2 x 300sqmm armoured aluminium XLPE U.G cable- 1.1 KV grade.	90.00	Metre			
159	NPSR	Supply of 3 1/2 x 240sqmm armoured aluminium XLPE U.G cable- 1.1 KV grade.	1380.00	Metre			
160	NPSR	Supply of 4 x6 sqmm armoured aluminium XLPE U.G cable- 1.1 KV grade.	165.00	Metre			
161	NPSR	Supply of 4 x4 sqmm armoured aluminium XLPE U.G cable- 1.1 KV grade.	424.00	Metre			
162	NPSR	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 4 X 4 sq. mm	48.00	Set			
163	NPSR	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 4 X 6 sq. mm	4.00	Set			
164	9.1.29	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required - 31/2 X240 sq.mm (62 mm)	24.00	Set			
165	9.1.30	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required - 31/2 X300 sq.mm (70 mm)	8.00	Set			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
166	7.1.4	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size direct in ground including excavation , sand cushioning, protective covering and refilling the trench etc.as required - above 185 sq.mm and upto 400 sq.mm		Metre			
167	7.2.4	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation , sand cushioning , protective covering and refilling the trench etc. as required - above 185 sq.mm and upto 400 sq.mm	980.00	Metre			
168	7.1.1	Laying of one number PVC insulated and PVC sheathed XLPE power cable of 1.1 kV grade of following size direct in ground including excavation , sand ushioning, protective covering and refilling the trench etc.as required - Upto 35 sq.mm		Metre			
	PART - C -HT						

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
169	NPSR	Supply, testing and commissioning of 630A, 11KV, 25KA, Motorised and SCADA ready load break switch attachement to the existing Ring main switchgear unit at existing 11KV PED RMS Yard, Type SF6 insulated and motorized construction all complete as required by PED. The item including all transformer protections and necessary safety accessories, The plinth shall be constructed by civil contractor based on the load calculations given by the electrical contractor etc. All complete as per specifications, drawing and/or as required by PED.	2.00	Set			
170	NPSR	Supply and erection of 2.1 Mtr. height 50mm diameter GI Poles around the HT switchgear/Transformer yard and laid with 25x25mm welded mesh with 2 coats of Alminum paint on it. The pole to pole gap will be maintained as 2.25Mts max. (1/5th of the Pole will be embedded in the ground). The item including required civil works and kerb wall etc.	100.00	Sq.mts			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
	PART - D -TF	RANSFORMER					
171	NPSR	Supply, Unloading & handling, erection , testing and commissioning of 11KV/433V, 500 KVA of outdoor type, oil filled , copper wound, natural cooled (ONAN) type energy efficient transformer with the following specifications etc. energy efficient Transformer (IS:1180) with off load tap changer.The transformer cooling shall be of with oil and natural air. The items including necessary fixing accessories with all complete as required by PED. Rated Voltage HV Windings - 11 KV LV Windings - 11 KV V Windings - 433 V No load voltage ratio - 11 KV/ 433 V Rated Frequency - 50 Hz Winding Connections HV Windings - DELTA LV Windings - STAR Vector Group - Dyn 11 Terminal arangement Primary - 11KV Cable box Secondary - 433V Cable box. Temperature Rise by resistance - 90 Degree C Ambient Temperature - 50 Degree C Core lamination material - Cold Rolled Grain Oriented Core Type of cooling -Oil Natural Air Natural (ONAN) Type of winding insulation - DPC of class A insulation Losses No load losses and Load losses - as per energy efficiency requirements/standards. No load current (% of rated current) : Less than 1.5% Tap Changes: Type - OFF circuit Range - +5% to -15% in steps of 1.25% Note: The handling from the truck and placing on the plinth is included in the scope. The plinth shall be constructed by civil contractor based on the load calculations given by the electrical contractor. Suitable stopper fabricated out of MS angles shall be fixed to arrest the movement of the transformer.	2.00	Set			

					Rate		
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
	PART - E - PA	ANEL					
172	NPSR	Supply, installation, testing and commissioning of out door type (IP 65) LT Feeder Pillar fabricated with 14G CRCA sheet steel and powder coated, aluminium busbars, provision for incoming and outgoing cable terminations, the incoming and outgoing switchgears are as per the followings. The items including necessary control wiring, safety features, lock & key / sealing arrangements, minor civil works and providing necessary, support structure/frames with painting as required for erection. All complete with necessary fixing accessories etc. All complete as required by PED standards & specifications. 4 Way LT Feeder Pillar Incoming: 400A TPN MCCB - 1 no. Outgoing: 200A TPN FUSE - 4 nos.	4.00	Set			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
173	NPSR	Supply, installation, testing and commissioning of 415V metering panel board fabricated with 14G CRCA sheet steel, powder coated with siemens gray (RAL7032 IS-5) after seven tank process, complete with aluminium bus bars (the clearence shall not less than 25 mm for phase-phase and 19mm for phase- neutral/earth), 3.15mm sheet steel or 40x40x6mm MS angle for load bearing members, lifting hooks, MS base frame of 75mm height incomers and outgoing switchgear as below. The item including cost of supply and fixing of 3-phase energy meters, necessary sealing arrangements, 25x3mm GI earthing throughout the bottom length, 6 sq.mm FRLS copper wire inter connections for compartment earthing, complete copper control wiring with crimping type ferrules, copper lugs, proper engravation sheet to be fixed on each outgoing etc. Also the cost inclusive of minor civil works and providing necessary, support structure/frames with painting as required for erection. All complete as per specifications, drawing and/or as required by CEA/PED. The contractor shall submit general arrangement & control wiring drawings and get approval from site Engineer/Consultant before commence the fabrication works. Note:panels costing should be as per sld & with respect to PED standards Metering Panel Incomer : 200A TPN FSU : 1 no. Outgoings : 20 Sets each comprising of: a) 40A DP Fuse cut outs with neutral link. b) Single phase Energy meter as per PED requirement. c) 40A DP MCB (C - curve 10KA) 1 Sets each comprising of: a) 63A TPN Fuse cut outs with neutral link. b) Dummy chamber for Fixing three phase energy Energy meter as per PED requirement. c) 63A FP MCB (C - curve 10KA)	11.00	Set			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
174	NPSR	COMMON PANEL Incomer 200A, TPN, FSU - 1 Nos Phase indication lamps(R,Y,B) - 1 set. CT ratio 200/5A,CL:1.0 tape insulated bar primary type with suitable sorting links - 1 Set. Metering:Multifunction meters cl:1.0 measured with following parameters: V,A,F,PF,KW,KWH & Phase sequence 1 Set. Busbar: 200A, TPN, 36KA, for 1 sec Aluminium bus bar Phase: current density not more than 0.8A/sq.mm Neutral: half of the phase current (0.5 x phase) Earth: 25x3mm copper flat throught the panel length Outgoing: 100A, TPN, FSU - 2 Nos 63A, TPN, FSU - 2 Nos		Set			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
175	NPSR	EXTERNAL LIGHTING PANEL Incomer 63A, TPN, FSU - 1 Nos Phase indication lamps(R,Y,B) - 1 set. CT ratio 63/5A,CL:1.0 tape insulated bar primary type with suitable sorting links - 1 Set. Metering: Multifunction meters cl:1.0 measured with following parameters: V,A,F,PF,KW,KWH & Phase sequence 1 Set. Busbar: 63A, TPN, 36KA, for 1 sec Aluminium bus bar Phase: current density not more than 0.8A/sq.mm Neutral: half of the phase current (0.5 x phase) Earth: 25x3mm copper flat throught the panel length <b>Outgoing:</b> 32A, TPN, MCB - 2 Nos Timer switch (daily)/ digital time switches daily programme with standby battery (3years) 2 channel . Make:L&T-Hagger/Legrand-Lexic - 2 Nos		Set			
	PART - F - TR						
176	14.4	Excavation for cable trenches in soft soil , depth upto 1.2 m including dressing of sides lift upto 1.5m , including getting out the excavated soil , refilling with sand and good soil after laying of cable / pipe etc. in layers of 20cm , ramming, watering and disposal of surplus excavated soil as directed , within a lead of 50 meters (750mm (d) x 750mm(w))	200.00	cum			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
177	NPSR	Providing earthen cable trenches, including necessary excavation, supply and placing in position of sand, bricks / PCC protective slabs, cable markers and backfilling in compacted layers, all complete as per specifications, drawings and /or as directed by the Engineer. 450 mm wide x 600 mm deep for LT cables	40.00	Metre			
178	NPSR	Supply and installation of inspection chamber of 750mm x 750mm x 750mm depth (clear internal dimensions) with 230mm thick Brick cable chamber with 50mm thick RCC removable slab cover as required.	15.00	Nos			
179	NPSR	Supply and installation of inspection chamber of 600mm x 600mm x 600mm depth (clear internal dimensions) with 230mm thick Brick cable chamber with 50mm thick RCC removable slab cover as required.	18.00	Nos			
180	19.6.2	Providing and laying non pressure NP2 class (light duty) RCC pipes with collars jointedwith stiff mixture of cement mortar in the proportion of 1:2 (1cement : 2 fine sand) including testing of joints etc, complete -150 mm dia RCC pipe	80.00	Metre			
181	19.6.4	Providing and laying non pressure NP2 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1cement : 2 fine sand) including testing of joints etc, complete - 300 mm dia RCC pipe.	20.00	Metre			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
182	31.160.1K	Providing, laying and jointing UPVC pipes(Finolex / jain / Supreme / Truebore / Nandi) (1 Mpa)conforming to IS specification 4985 and ISI marked including transportation to the site , lowering to the trenches, laying to proper grade and alignment, testing of joints with required testing equipment,including cost of solvent cement,excluding UPVC specials such as bends,tees, threaded pieces ,couplers, reducer, endcaps etc.,complete all as per IS and CPWD specification 160mm dia.		Metre			
183	31.160.1G	Providing, laying and jointing UPVC pipes(Finolex / jain / Supreme / Truebore / Nandi) (1 Mpa)conforming to IS specification 4985 and ISI marked including transportation to the site , lowering to the trenches, laying to proper grade and alignment, testing of joints with required testing equipment,including cost of solvent cement,excluding UPVC specials such as bends, tees, threaded pieces, couplers, reducer, endcaps etc.,complete all as per IS and CPWD specification 75mm dia.		Metre			
	EARTHING SY						
184	5.4	Earthing with G.I.earth plate 600 mm x 600 mm x 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc.but without charcoal / coke and salt as required		Set.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
185	5.6	Earthing with copper earth plate 600 mm x 600 mm x 3 mm per thick including accessories , and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal / coke and salt as required	4.00	Set.			
186	NPSR	Supply and laying of 25 X 6 mm GI flat as body earthing and neutral earthing laying with necessary insulators and fixing accessories etc. all complete as per specifications, drawings and / or as directed by PED.	725.00	Metre			
187	NPSR	Supply and laying of 40 X 6 mm GI flat as body earthing and neutral earthing laying with necessary insulators and fixing accessories etc. all complete as per specifications, drawings and / or as directed by PED.	76.00	Metre			
	PART - H-SA	FETY ACCESSORIES					
188	NPSR	Supply and providing the following safty items as per the requirements of satutory authorities: Fire Bucket with sand(4 buckets and one sand)	1.00	Set			
189	NPSR	Supply and providing the following safty items as per the requirements of satutory authorities: Supply and fixing of 11KV danger board as per standard with all fixing accessories etc.	2.00	No.			
190	NPSR	Supply and providing the following safty items as per the requirements of satutory authorities: Supply of 11KV Rubber gloves.	1.00	Set			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
191	NPSR	Supply and providing the following safty items as per the requirements of satutory authorities: Supply of 1.1KV Rubber gloves.	1.00	Set			
192	NPSR	Supply of Rubber mats.	12.00	Metre			
193	NPSR	Supply and fixing of shock treatment/First Aid treatment chart in Tamil, English and Hindi. All complete with necessary fixing accessories etc.		No.			
194	NPSR	LV Danger board stickers	2.00	No.			
195	NPSR	First aid box	12.00	No.			
196	NPSR	Dry type fire extinguisher -4.5 Kg for electrical room	13.00	No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
	PROVISION O	F LIFT					
197	NPSR	Supply, delivery, installation and commissioning of johnson lift for 4 persons (272 kg) passenger lift with the following specification - Including 1 Year O & M Number of floors - 5 (Ground + 4 Upper floors) 1) Battery Operated Emergency Light And Alarm Bell 2) Call Register Signal And Vf Door Operator 3) Landing Push Button In Landing Door Frames 4) Automatic Rescue Device 5) Stainless Steel Button With S.S. Cover 6) Full Car Operating Panel 7) Digital Position Indicator 7 Segment Display In Car And Landings 8) False Ceiling In Car 9) Infra Red Door Screen 10) Scaffolding 11) 3 Way Intercom / Press And Speak Phone 12) Free Service For One Year 13) Pit Ladder 14) Ss Handrail On Rear Side 15) Minor Builders Work	11.00	Each			
	BITUMINOUS						
198	3.3	Excavation for road way in soil by Mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 metres (average lead 50 metres) including trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections.	750.00	cum			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
199	3.18	Constrcution of sub grade and earthern shoulders with approved materials obtained from borrowpits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300-2.	450.00	cum			
200	4.2.3	Construction of granular sub-base by providing coarse graded meterial, spreading in uniform layer with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with vibratory roller to achieve the desired density, complete as per clause 401 of MoRTH specification, 4th Revision - For grading III material.	610.00	cum			
201	4.12A	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of 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 achieve the desired density - Using vibratory roller. (As per MoRTH	375.00	cum			
202	5.1	Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means. (As per MoRTH specification, 4th Revision)	1500.00	sqm			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
203	5.10A	Providing, laying and rolling of open graded premix surfacing of 20mm thickness composed of 13.2mm to 5.6mm aggregates either using penetration grade bitumen or cut-back or emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades - Mechanical method using penetration grade bitumen and HMP of appropriate capacity not less than 40 to 60 tonne/hour. (As per as per clause 511 ofMoRTH specification, 4th Revision)		Sqm			
204	5.12B	Providing and laying of premix sand seal coat with HMP of appropriate capacity not less than 40 to 60 tonne/hour using crushed stone chipping 6.7 mm size and penetration bitumen of suitable grade - Type B (As per as per clause 513 of MoRTH specification, 4th Revision)	1500.00	Sqm			
	INTERLOCKIN	IG PAVER BLOCK					
205	16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M- 30 grade made by block making machine with strong vibratory compaction and of approved size and design / shape laid in required colour and pattern over and including 50mm thick compacted bed of course sand , filling the joints with coarse sand etc. all complete	1550.00	sqm			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
	HORTICULTU	RE					
206	11.2A	Grassing with 'Doob' grass including watering and maintenance of the lawn for 30 days or more tlii the grass forms a thick lawn free from weeds and fit for moving including supplying good earth if needed-in rows 15cm apart in either direction.		sqm			
207	11.6	Maintenance of lawns with fine grassing for the first year including watering, etc.,	1370.00	sqm			
	STREET LIGH	Т					
	PART - A-						
208	NPSR	Fabrication, supply and installation of tubular street lighting pole of following length fabricated out of MS pipes of various diameters and swaged as per standards. A junction box incorporating 16A 4-way terminal, 6A MCB and other accessories shall be fixed to the pole for loop in & loop out of cable. XLPE cable connection to the lighting fixture at top, 8 SWG copper coil earthing, set of 50mm GI pipe of required length shall be provided at the bottom of the pole for cable entry to the junction box with the following type outreach curved bracket. The bottom of the pole will have a base plate of size 350 x 350 x 10mm MS plate welded to the pole. The base plate shall be fixed on 600 x 600 x 1500 mm deep pedestal in cement concrete 1:2:4, with approved hardware etc., as per directed by the Engineer-in-charge.(rate inclusive of civil works) 9 meter with single outreach curved bracket		No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
209	NPSR	Fabrication, supply and installation of tubular street lighting pole of following length fabricated out of MS pipes of various diameters and swaged as per standards. A junction box incorporating 16A 4-way terminal, 6A MCB and other accessories shall be fixed to the pole for loop in & loop out of cable. XLPE cable connection to the lighting fixture at top, 8 SWG copper coil earthing, set of 50mm GI pipe of required length shall be provided at the bottom of the pole for cable entry to the junction box with the following type outreach curved bracket. The bottom of the pole will have a base plate of size 350 x 350 x 10mm MS plate welded to the pole. The base plate shall be fixed on 600 x 600 x 1500 mm deep pedestal in cement concrete 1:2:4, with approved hardware etc., as per directed by the Engineer-incharge.(rate inclusive of civil works) 9 meter with double outreach curved bracket	22.00	No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
210	NPSR	Fabrication, supply and installation of tubular street lighting pole of following length fabricated out of MS pipes of various diameters and swaged as per standards. A junction box incorporating 16A 4-way terminal, 6A MCB and other accessories shall be fixed to the pole for loop in & loop out of cable. XLPE cable connection to the lighting fixture at top, 8 SWG copper coil earthing, set of 50mm GI pipe of required length shall be provided at the bottom of the pole for cable entry to the junction box with the following type outreach curved bracket. The bottom of the pole will have a base plate of size 350 x 350 x 10mm MS plate welded to the pole. The base plate shall be fixed on 600 x 600 x 1500 mm deep pedestal in cement concrete 1:2:4, with approved hardware etc., as per directed by the Engineer-in-charge.(rate inclusive of civil works) 48W LED Street Light Fitting (Philips / Havells )	48.00	No.			
211	NPSR	Supply, install, test and commission of booster pump Terrace Pump located at terrace level, Capacity: 450 LPM at 35 Mtr. with pressure of 3.5kg / sq.cm at the top most hydrant, complete Head, Horizontal Centrifugal pump with Bronze Impeller, SS Shaft, Mechanical Seal, coupled to 7.5HP, 2900 RPM, TEFC, Squirrel Cage Induction Motor complete withM.S. Base Frame, anti vibration pad, foundation bolts, pressure gauge with drain valve, and all other necessary fixing accessories.	6.00	No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
212	NPSR	Supply, erection, testing and commissioning of 'C' class M.S heavy for downcomer system as per IS : 1239 for pipes with welable fittings, valves necessary, all structural supports and accessories. The quoted rate shall be includes one coat of primer and two coat enamel paint of approved colour and also chasing / chipping walls making bore hole in walls / floor and making them good with filler material and finished in cement mortar etc., complete in all respect 100mm NB	290.00	Metre			
213	NPSR	Supply, erection, testing and commissioning of 'C' class M.S heavy for downcomer system as per IS : 1239 for pipes with welable fittings, valves necessary, all structural supports and accessories.The quoted rate shall be includes one coat of primer and two coat enamel paint of approved colour and also chasing / chipping walls making bore hole in walls / floor and making them good with filler material and finished in cement mortar etc., complete in all respect 80mm NB		Metre			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
214	NPSR	Supply, erection, testing and commissioning of 'C' class M.S heavy for downcomer system as per IS : 1239 for pipes with welable fittings, valves necessary, all structural supports and accessories. The quoted rate shall be includes one coat of primer and two coat enamel paint of approved colour and also chasing / chipping walls making bore hole in walls / floor and making them good with filler material and finished in cement mortar etc., complete in all respect 25mm NB	74.00	Metre			
215	NPSR	Supply, erection, testing and commissioning of `FIRE HOSE CABINET' (FHC) in size of 750mm x 900 mm x 250 mm.hinged door shutter and frame and fabricated out of 14 SWG sheet steel, fitted with 4mm thick toughned glass with rubber beeding in the front including finishing with powder coat painting complete. The rate shall be inclusive of stand for mounting, all fasteners etc, and cabinet shall be powder coated finish of red colour both inside and outside.	55.00	No.			
216	NPSR	Single headed hydrant valve as per IS 5290, made of Gun metal with 63 mm dia instantaneous outlet of 80 mm dia fanged inelt ,Blank caps , chain and hand wheels etc complete.	55.00	No.			
217	NPSR	15 M long, 63mm dia RRL hose with instantaneous couplings and Hoses shall be stored inside the hose cabinet.	55.00	No.			
218	NPSR	1 no. Gun short branch pipe with nozzle.	55.00	No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
219	NPSR	Fire Hose Reel Drum (as per ISI) wall mounted, swinging type 18 SWG MS sheet, fitted with 19 mm dia x 36 M long, high pressure hose with 5 mm outlet nozzle with shut off valve (IS: 884- 1969)	55.00	No.			
220	NPSR	One no 25mm dia ball valve	55.00	No.			
221	NPSR	Supply, fixing, testing and commissioning of Fire Brigade Inlet (Pumping in Breech) connection, having Gunmetal body with 1 Nos. 63 mm size Gunmetal Male Instantaneous inlets (with NRV), and 100 mm size flanged outlet, suitable for connection to Dry Riser piping. Fire Brigade inlet body shall be provided with drain valve. Fire Brigade Inlet connection shall be ISI approved.		set			
222	NPSR	Supply, erection, testing and commissioning of slim seal type butterfly valves with shperoidal graphite iron disc (SG iron), with nitrile rubber seal and tested to PN 16 including a set of suitable GI flanges, as per BS 10 Table - 1, bolts, nuts GI washers, neoprene rubber gaskets etc., complete 100 mm NB	12.00	No.			
223	NPSR	Supply, erection, testing and commissioning of Dual Plate Non-return valves with CI body &upto 125NB PN 16 including a set of suitable MS flanges, as per BS 10 Table - 1, bolts, nuts GI washers, neoprene rubber gaskets etc., complete. 100 mm NB		No.			
224	NPSR	Supply, erection testing & commissioning of pot strainer / Y Strainer with CI body tested to PN 16 including a set of suitable GI flanges Rate shall include for rubber insertion, bolts, nuts MS flanges. 100 mm NB	6.00	No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
225	NPSR	Supply, erection, testing and commissioning of 25mm dia Air release valve. The rate shall be inclusive of accessories. 25mm dia air release valve	11.00	No.			
226	NPSR	Supply, installation, testing and commissioning of TERRACE FIRE PUMP PANEL withType-2 Co-ordination DOL starters for the booster pump and complete with auto/ manual switch, timers, rotary switches, indication lamps, enclosure being vermin & dust proof (IP65), necessary alarms, push buttons, etc. The panel shall also be provided with industrial hooter for alarm and necessary suitable relays shall be provided - 450 LPM pump	6.00	No.			
227	NPSR	Supply, installation, testing and commissioning of 5000 litre sintex tank for fire fighting system wih inlet, outlet and drain provision.	6.00	No.			
	FIRST AID FI	RE EXTINGUISHERS					
228	NPSR	Supply,erection & testing of approved make ABC type extinguisher with fixing hangers, hose, brackets, screws to required size etc., complete as per IS standard and wall mounted type. fire extinguisher shall have ISI approved. 4.0 kg	44.00	No.			
229	NPSR	Supply,erection & testing of approved make carbon - di - oxide type cylindrical shape fire extinguisher with fixing hangers, hose,brackets, screws to required size etc., complete as per IS standard and wall mounted type. fire extinguisher shall have ISI approved. Co2 fire extinguisher 4.5 kg	11.00	No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
230	NPSR	Supply, erection in position approved make fire bucket of 24 gauge galvanised steel sheet, standard 9 litre capacity & of round bottom shape painted white inside & red outside & black on the bottom done with letters " FIRE" in black and goldwith wall mounting bracket & screws.	11.00	No.			
231	NPSR	Providing installing anfd fixing in posation the signages as mentioned below with necessary drills, screws etc., complete. (GF TO 4RD FLOOR) Fire Exit - Name Board - Size 8" x 8"	55.00	No.			
232	NPSR	Providing installing anfd fixing in posation the signages as mentioned below with necessary drills, screws etc., complete. (GF TO 4RD FLOOR) Fire Hyderant Location - Name Board - Size 8" x 8"	55.00	No.			
233	NPSR	Providing installing anfd fixing in posation the signages as mentioned below with necessary drills, screws etc., complete. (GF TO 4RD FLOOR) Fire Brigade Inlet Location - Name Board - Size 8" x 8"	6.00	No.			
234	NPSR	Providing installing anfd fixing in posation the signages as mentioned below with necessary drills, screws etc., complete. (GF TO 4RD FLOOR) In Case of Fire Use Staircase - Name Board - Size 8" x8"	55.00	No.			

						Rate	
SI. No.	Code	Description of Work	Qty	Unit	In Figure	In word	Amount
235		Providing installing anfd fixing in posation the signages as mentioned below with necessary drills, screws etc., complete. (GF TO 4RD FLOOR) Extinguisher - Name Plate - Size 8" x 8"		No.			



## **CHINNAYAPURAM HOUSING SITE**



